Divine Revelation, Human Reason and Science

The role of knowledge, method of reasoning, reasoning and revelation, and instances of harmony between revelation and reason.

Authors(s): Ayatullah Jawadi Amuli

> Translator(s): Shahyar Sa'adat

Table of Contents

Divine Revelation, Human Reason and Science	3
Knowledge and Action	
Eternal life as a Fruit of Knowledge and Action	3
The Leading Role of Knowledge	
Theoretical and Practical Knowledge	
Method of Reasoning in Speculative and Practical Sciences	4
Reason and Revelation, Conjecture and Certainty	6
Characteristics of Wahy Qat'i	7
Non-contradiction between Wahy Qat'i and Aql Qat'i	7
Priority of Wahy Qat'i and `Aql Qat`i over Wahiy Zanni and `Aql Za	nni 9
True Reason is the same as Revelation	
Instances of Harmony and Mutual Support between Revelation	and
Reason	11
First Example	12
Second Example	12
Third Example	13
Fourth Example	13
Fifth Example	18
Sixth Example	20
Revelation and Resurrection of the Human Sciences	21
First Example	23
Second Example	24
Third Example	25
Fourth Example	
Sciences and the Guiding Role of Revelation:	26
First Example	
Second Example	26
Third Example	
Fourth Example	28
Endnotes	29

Divine Revelation, Human Reason and Science

Knowledge and Action

Man is a thinking creature whose action is guided by his thought. It is neither possible to deprive him of thought nor to suspend his faculty of action and turn him into an inert, inactive object. It is also impossible to ignore the relationship which exists between human action and thought.

Therefore, human existence is a mixture of knowledge and action, in which action is based on and guided by knowledge. That is, besides the fact that man is an active and aware 'being, his knowledge and awareness demarcate the outlines of his activity, and his work benefits from his vision. His knowledge finds concrete expression in his activity and his activity stimulates his knowledge.

This is a vital fact of human life. If knowledge does not manifest itself in action and action is not guided by knowledge, and if there is no fusion between the two, life, which is the result of a fusion and harmony between them, will cease to exist. In other words, a "living" being is an active intelligence in which the leadership of knowledge and the obedience of action are fully realized.¹

Eternal life as a Fruit of Knowledge and Action

Since the life of man is directly dependent on his thought and action, and the quality of his thought and action directly affects the quality of his life, the deeper his knowledge, the wiser his action, the stronger the ties between his thought and activity, and more rational and fruitful his life would be.

This is because the significance of life is as much as the significance of its constituent factors and their value is the same as the value of life. Therefore, the best life, which is the eternal life, is the result of the best knowledge and the most profitable action and effort, and existence of an unbreakable fusion and coordination between such knowledge and effort

The Leading Role of Knowledge

Since the highest aim of Divine Revelation is revival of humanity ² the three principles mentioned above (that is the principle of knowledge, the principle of action, and the principle of leadership of knowledge over action and subservience of action to knowledge have occupied a prominent position in the teachings of the prophets (saws).

This so because, with their realization life comes into existence, and these principles are abandoned, human life would deteriorate. This is clearly stated in the Qur'an, so that sometimes it praises "certain knowledge" and encourages "firm action", exhorting human beings to strengthen the bond between knowledge and action.

At other times, it denounces ignorance, idleness and disunion between knowledge actions.³ The Qur'an thus attempts to provide grounds for correct action and accurate knowledge and a harmonious relation between the two which is the basis of the "rational life" of individual and society.

Thereby it seeks to safeguard humanity from falling into the abyss of ignorance, inertness and death, and to vitalize it. Furthermore, in order to make it easier for humanity to traverse this path and reach its sacred end, the

prophets, as perfect human beings who had attained to "rational life" on the basis of the three principles mentioned, accepted the responsibility of guiding humanity towards realization of this ultimate goal.

Theoretical and Practical Knowledge

The relationship between knowledge and action in the human being is such that all its actions are based on its knowledge, dictated by, it, and follow its leadership. However, not all of man's knowledge directly affects his actions. In fact, some of man's knowledge has a purely speculative and theoretical aspect, having no direct or clear cut influence over his activities. Whereas other aspects of his knowledge directly affect his actions and provide the plan and framework for them.

Thus, the domain of human knowledge is wider in scope than, that of human action. In other words, knowledge is something unlimited, while action is something limited. That is why knowledge enjoys a stature completely denied to and out of reach of action. The reason for this is that some of the things known by the mind transcend the `, arena of human life, and the human being plays no role in their realization.

On the contrary, the human being owes its existence to some of these realities and is an "effect" of which they are the "cause". Other things known to man, however, fall within the domain of his life, and their realization depends on his will and efforts, so that if man did not exist these things would also not exist.

It is, at this point that division of knowledge into "theoretical" or speculative" science and "practical" science (*al-hikmah al-nazariyyah* and *al-hikmah al-`amaliyyah*) is established, and the influence and limits of human knowledge in each of these areas are studied. Furthermore, it is here that the role of Divine Revelation in each of these fields can be examined.

Such analysis would clearly show to what extent man is capable of attaining knowledge of reality, and clarify the' new approaches suggested by Divine Revelation with respect to the human Sciences. We shall know then what is to be done if there arises any incongruity between human discoveries and the Revelation, what authority to consult in such cases and which of them to consider prior to the 'other.

Basically, is it possible for any difference to occur between definitive and certain human knowledge and Divine Revelation, or not? And supposing that such incongruity is possible, can it be over come? Each one of these issues could be studied separately.

Method of Reasoning in Speculative and Practical Sciences

The axis around which the discussions of the speculative sciences revolve, and the rational basis of arguments involved in these branches of, human knowledge, are completely and fundamentally distinct from those of the practical sciences. The very axis of study in the speculative sciences is something whose reality .transcends the domain of human` will and science and whose realization or non-realization is not affected by man's being.

This is true whether the subject under discussion is the general principle of being and non-being, or that of the being or non being of a finite object; the first class of questions belongs to the domain of philosophy, and the

second class of questions belongs to the domain of mathematical and experimental sciences.

The foundations of the reasoning in the speculative sciences, especially philosophy and metaphysics, are self-evident axioms, whose validity is beyond doubt. All complicated theoretical statements must refer to that series of self-evident axioms, so that their complexity is resolved and their validity or invalidity can be determined.

In order to do this, we are forced to discover the series of self-evident truths and their interrelationships so as to reach complex propositions, and then to analyze the complex propositions with utmost care by referring them to basic, self-evident truths.

In other words, both the axiomatic material through synthesis of which, or through reduction to which, complex propositions are solved; must be self-evident and certain, and the method of synthesis or analysis and the reasoning process must be self-evident and certain.

This is, necessary, because if, either the axiomatic material or the reasoning methods have the slightest uncertainty about them, the conclusions attained would be uncertain, and the theoretical problem under consideration would retain its peculiar complexity ambiguity even though a partial aspect of it may be clarified.

Thus one cannot rely on conjecture, analogy, imagination or fantasy and the like, either in regard to the axiomatic material or in regard to the method of reasoning. The only thing that can be relied upon is pure reason. Discussion about the primary axiomatic material and the method of inference is the task of philosophy and logic.

However, as said above, the axis of the study of the practical sciences is situated within the realm of human existence and these sciences depend on human initiative and will for their existence. Things such as justice and injustice, humility and pride, contentment and greed etc., are examples of problems that practical philosophy (*al-hikmah al-amaliyyah*) is concerned with, and all of them are of the `do' and `don't' variety.

The method of reasoning for reaching conclusions is based on self-evident moral values and criteria. In other words, those things whose "evilness" and "badness" (*fujur*) are indubitably ate certainly perceived by the mind, serve as the reference points and foundations upon which all inference regarding the `don'ts' is based,' whereas all those things the "goodness" and "desirability" (*taqwa*) of which are indubitably clear to the human mind serve as the foundation on which all judgements regarding the `do's' are based.⁴

All the complex and difficult problems of practical philosophy are solved through reference to primary and self-evident goods and evils We reach solutions to our problems either through synthesizing these primary value with one another, or by analyzing the complex problems, reducing them to a series of simple and self-evident values.

In any case, there is no alternative to reference to these primary and selfevident values; either in the form of synthesis or in the form of analysis and reduction:' If there is an imperfection in any of the two that is either in the basic, underlying axiomatic material or the method of inference, or in other words, if the "goodness" and "badness" of a thing is not self-evident, or if the method of inference is not absolutely reliable the conclusions reached would lack certainty as a result, that particular problem of practical philosophy which we are dealing with would retain its former complexity and ambiguity, even if some aspects of the problem may resolved.

We must conclude, then, that neither in the axiomatic material used for our arguments nor in the form of reasoning used, is there any room for conjecture, fancy, personal prejudices, desires, likes and dislikes. The only things which can be relied upon are pure reason and healthy instinct. Passion and desire should influence neither the material of our arguments nor the method of reasoning.

Description and definition of -the primary 'evils', and `goods" and the form of reasoning-whether in the form of synthesis or analysis-are amongst the duties of ethics (`ilm al-'akhlaq) and practical philosophy (al-hikmah al-`amaliyyah).

Reason and Revelation, Conjecture and Certainty

Revelation consists of witnessing all those truths and realities the knowledge of which is necessary for man's rational existence through `direct experience' (al-`ilm al-huduri), as well as attainment of complete understanding and comprehension of them after revelation (al-nuzul) through `acquired knowledge' (al-`ilm al-husuli), which is absorbed in the form of perceptible signs and comprehensible concepts.

Since the source (al-mabda' al-fa`ili) of such Revelation is a creator who has absolute knowledge of the totality of existence, and is free from any trace of ignorance, forgetfulness or neglect, and since the carrier of the Revelation is the knowing and truthful angel (Gabriel), and since its receiver (al-mabda' al-qabili) is the infallible consciousness of the Prophet (saws), consequently, if the message can be verified as being Divinely revealed, it can be also said to correspond to absolute truth.

In other words, it is impossible for something to be indubitable Divine Revelation and still admit the possibility of even the smallest amount of error. The issue of the infallibility and reliability of Revelation is arrived at by the rational mind through the process of either analysis or synthesis, the basis of both of which are the self-evident, primary `propositions.

However, if there is any doubt about something being Divine Revelation, it means that there can be no certainty 'about its infallibility either. In other words, since the necessary correspondence between Divine Revelation and reality depends upon its immunity from mistake, ignorance, and forgetfulness even as the reliability of philosophic reason depends on its purity from any contamination by conjecture, surmise and prejudice.

It can be relied upon only when its being Divine Revelation has been proved beyond doubt. If there is uncertainty about its being Divine Revelation it cannot be the source and foundation of "speculative philosophy", whose realm lies outside the domain of 'do's' and 'don'ts'. Moreover, purely rational statements, if they are not self-evident, or

incapable of being reduced to basic self-evident truths, shall be devoid of authority and acceptability in theological matters.

Accordingly, `conjectural revelation' (*al-wahy al-zanni*), as well as rational statements based on conjecture and surmise are outside the scope of our discussion. Their sole worth lies in problems of "practical philosophy" and in issues relating to `do's' and `don'ts' as "conjectural evidence" (*dalil zanni*) That is, it is subject to limitation and restriction if more definite evidence is found.

In a case where conjectural revelation has a general applicability and is found to be contrary to a certain rational evidence, the general application of "conjectural revelation" be it based on verses of the Qur'an or on the prophetic traditions or on traditions traced to the Imams, must be abandoned because "conjectural evidence" (dalil zanni) can never be maintained when "definitive evidence" (dalil gat'i) is available.

If, on the one hand, we have a *dalil naqli* (a statement handed down by tradition) whose authenticity of source, is as certain as that of the Qur'an, but whose literal purport is not precise and clear but is based on interpretation and conjecture and which, moreover, has a general applicability, and if on the other hand, we have indubiterational reasons to the contrary, its general applicability is superceded by the *dalil qat`i*, even though the *dalil naqli's* authenticity of source, may be certain.

Characteristics of Wahy Qat'i

"Wahy qat'ti" refers to Revelation that has been proven beyond doubt to have originated from one of the Ma'sumun (the Prophet and Imams) and which is clear and precise in its content and purport and which allows of no ambiguity, or multiplicity of interpretation to contrary. Moreover, the statement must have been issued with the purpose of expressing true judgement, not for the purpose of dissimulation, (al-taqiyyah).

If something definitely possesses the three characteristics just mentioned, it can be said to be "wahy qat'i". And if the entire three or any one, of the above characteristics cannot conclusively be shown to belong', to it, then its being a revelation is conjectural (zanni) rather than definitive (qat`i).

In other words, if the claim that one of the *Ma`sumun* made certain statement cannot be proven beyond doubt, or if the content of the statement is not perfectly clear and unambiguous, or if it cannot be categorically proven that it was issued for the sake of announcing a *hukm* (command), such a statement cannot be judged to be *wahy qat`i*, rather it must be considered to be "wahy ghayr qat`i", that is "uncertain" or "conjectural revelation".

Non-contradiction between Wahy Qat'i and Aql Qat'i

It would be impossible for *wahy qat'i* (definitive Revelation) and `aql qat`i (correct reason) to contradict each other, and if, hypothetically, such a conflict were to arise, it would be impossible to resolve. That is, as it is not possible for two definitive rational statements to contradict, each other or for two statements definitely based on Revelation to contradict each other; it is also impossible for two statements, one of which is based on *wahy qat'i*

(definitive Revelation) and another on `aql qat'i (definitive or correct reason), to contradict each other.

Moreover, if such a contradiction between two definitive rational statements or two definitive revealed statements, or two statements one of which is based on reason and another on Revelation, were it to arise, it would be impossible to resolve. Any such hypothetical conflict would imply that each of these definitive statements is self-contradictory.

This is so because the foundation of all categorical' and definitive logical propositions is the law of contradiction, which says that "nothing can be both A and not A" and, when applied to propositions, that "no proposition can be both false and true". It means that nothing with all its characteristics such as subject and predicate, potentiality and actuality, generality and particularity, time and place and relations, be existent and non-existent.

Whenever a proposition is said to be definitive it means that on the basis of this eternal and irrefutable law, it is impossible for it to contradict with another definitive proposition.

Since `aql qat`i (definitive reason) affirms the necessity and infallibility of wahy qat`i (definitive Divine Revelation) and the wahy qat'i affirms the authority (hujjiyyah) of `aql qat'i, presents its message in .the form of ratiocinated statements, calls upon all rational human beings to join the intellectual struggle on the side of righteousness and truth, and all its teachings meet the criteria of `aql qat'i, it follows that wahy qat'i and `aql qat'i cannot contradict each other.

Since such a contradiction would, in essence, be self-contradiction. Moreover, if such a contradiction were, hypothetically speaking, to occur, it would be incurable, because preferring one to the other would bring about the collapse of both. This is so because both of them are based on one principle, namely, the law of contradiction, and if any one of them is moved off this base, it means that its foundation is destroyed. When the foundation is destroyed the other edifice would also collapse.

Moreover, since all definitive propositions in the field of acquired knowledge (al-`ulum al-husuli) are based on the law of contradiction, there would be no solution to any contradiction, whether between two definitive propositions of Revelation (wahy qat'i), or between two definitive rational statements (`aql qat`i), or between two propositions each of which is drawn from wahy qat'i and `aql qat`i.

Now, as far as Divine Revelation is concerned, its reality is that of direct apprehension of the truth and "knowledge through presence" (al-`ilm al-huduri) and does not rely on acquired knowledge. (al-`ilm al husuli). It, therefore, has no need of affirmation by reference to the law of contradiction. In other words, Divine Revelation is, its own justification arid

contradiction. In other words, Divine Revelation is, its own justification and requires no extraneous justification.

However, it is something experienced only by the Ma'sumun (as), and is a shrine closed to all others. It, therefore, transcends the limits of our present discussion. What is referred to here as "wahy qat'i", then, is that which has been passed down to us in the form of acquired knowledge (al-ilm al-husuli) and the authenticity of which is judged through the triple criteria of

"definitive origin", "definitive interpretation", and "intended definitive issuance of Divine command."

Priority of Wahy Qat'i and `Aql Qat`i over Wahiy Zanni and `Aql Zanni

As has been already said, in any conflict between `aql qati wahy zanni, that is, between "definitive reason" and "conjectural, revelation", priority and preference always lies with `aql qat`i. In general, in any conflict between wahy qat`i and wahy zanni, and between `aql qat'i' and `aql zanni, priority and preference always lies with the qat`i over the zanni.

That is, the definitive is always preferred to the conjectural. This so because conjectural propositions owe their validity to the definitive propositions, while the definitive propositions have inherent validity and priority and authority, and serve as the principle on which the validity of the conjectural propositions depends.

We can say, therefore, that conjectural propositions are on a different plane than that of the definitive propositions. On the basis of this difference of planes, they cannot contradict with the definitive propositions, because contradiction is possible only when propositions are on the same plane.

It should be kept in mind, however, that definitive rational propositions are rarely found outside the field of metaphysics and mathematics, because their realization in the natural sciences such as biology and medicine is extremely improbable, while their attainment in the humanities and the social sciences such as law, sociology, psychology, etc., is most difficult.

If we carefully consider the meaning of "certainty" (yaqin) and preconditions necessary for its attainment as they have been enumerated in Ibn Sin'a Shifa' in the section on logic we shall realize that in many fields of humanities and the social sciences, attainment of a hundred percent certainty, if not impossible, is at least very difficult even in such fields as astronomy.

The problems of which appear at first glance to have definite answers, yet many of these answers lose their unchallengeable certainty when examined through the eyes of such a profound and brilliant logician and philosopher as Ibn Sina.

It is neither possible, therefore, to use a series of experimental laws, laboratory hypotheses and such, to produce certainty, and then to delude oneself into attacking Divine Revelation and its products and finally try to establish the superiority of reason (`aql) over tradition (naql) nor is it possible to depreciate tradition by relying on conjectural rational evidence (dalil zanni `aqli) and then to judge Revelation while standing on such shaky grounds considering it opposed to reason and science.

This, according to Ibn Sina, is caused either- by failure 'to understand what "certainty" is, or by an inability to judge fairly. Because it is a manifestation of weak thinking to ignore "definitive evidence" and the limitations it puts on the application of any ruling, based on a superficial and literal interpretation of quoted evidence.

Similarly, to rely on superficial and literal meanings in fields other than practical philosophy, such as the experimental sciences, which are outside

the realm of `do's' and `don'ts' and giving them precedence over the accumulated knowledge and experience of man, seems rather unreasonable.

Much the same charge can be leveled against those who, relying on certain conjectural pieces of evidence and inconclusive experiments, abandon the literal meaning of quoted evidence in the field of practical philosophy, mistake hypothetical and theoretical postulates for self-evident axioms, and confuse imitation with research, and surmise with certainty.

All this is caused by careless reasoning and inept synthesis between conflicting views, arising probably out of a refusal to completely obey the teachings and instructions which have been conveyed through Divine Revelation.

Accordingly, if in any problem of one of the fields of practical philosophy, such as ethics, jurisprudence, or law, any conflict arises between a ruling based on "conjectural experimental evidence" (dalil tajrubi zanni) (the kind of evidence which relies on hypothesis rather than on self-evident truths) and a ruling based on "conjectural jurisprudential evidence" (dalil fiqhi zanni), we cannot abandon the jurisprudential ruling and give preference to the "conjectural experimental evidence" (dalil tajrubi zanni) over the "jurisprudential evidence" (dalil fiqhi) which, in fact, is the same as conjectural revelation (wahy zanni).

In the case of the branches of the natural sciences, such as biology and physics, if any conflict arises between "conjectural experimental evidence" and "literal quoted evidence" (dalil lafzi naqli), one cannot give preference to the "literal quoted evidence", because the issues in hand are not in the realm of moral obligations and duties and do not fall into the category of 'do's' and 'don'ts'.

In all such cases, therefore, preference belongs to the "conjectural experimental evidence". It is clear, therefore, that conflict between reason and Revelation is readily solvable in the field of natural sciences that is, either it does not arise, or, if it does, it is superficial and easily solvable.

True Reason is the same as Revelation

What is important is the conflict between reason and Revelation in metaphysics and -cosmology, that is, in regard to Divine *Unity* (*tawhid*), prophethood (*al-nubuwah*), resurrection (*al-ma`ad*) and other general conceptions which are related to these three principles. However, as has already been mentioned, there is no possibility of any conflict arising between "definitive Revelation" and "definitive reason", and if, hypothetically, such a conflict were to arise, it would be insolvable.

As said before, this insolvability is caused by the fact preference of one over the other would require the destruction of the common base which is the law of contradiction, and the destruction. The common base would automatically mean the collapse of both which are superstructures. Because, the foundation on which belief in the truth of Revelation and the necessity of obeying its command is based, is definitive reason.

Relying on axiomatic propositions, `aql qat'i rules that the existence of Divine Revelation and prophethood is necessary, and that it may be received only through miraculous means. Miracle is essentially different from other occult "sciences" such as magic, witchcraft, astrology, and palmistry.

Miracle is the sign of the Divine mission and prophethood of one who performs it.

In any case, miracles and other things like it are irrefutable evidence when it comes to the question of Divine Revelation and prophethood and when they are confirmed and proved by `aql qat`i. If moreover, all these speculative matters are resolved by `aql qat'i with the final result that Revelation and prophethood are proved.

To invalidate the judgement of `aql qat`i on account of a dalil lafzi (superficial or literal evidence), which is, of course, a piece of "conjectural revelation" rather than "definitive Revelation", would mean giving priority to "conjectural evidence" over "definitive evidence" and its certain conclusions. The final consequence of such a process would be the collapse of all those metaphysical beliefs which were affirmed and proved through `aql qat`i.

In the impossible condition when a *wahy qat`i* be opposed toa *dalil `aqli qat`i* (definitive rational evidence), if we attempt to give preference to *wahy qat'i* over the "definitive rational evidence", this would necessitate invalidation of `aql qat`i. Consequently, invalidation of the *dalil `aqli qat`i* means nothing less than total collapse of the metaphysical foundations, belief in the validity of which forms the basis on which *wahy* itself is proved (this point should be noted carefully).

To put it in another way, attempting to invalidate definitive rational evidence by the means of definitive Revelation is like attempting to deny the existence of a ladder after one has climbed it rung by rung and is now standing on its top most rung.

If there was no ladder with its hierarchy of rungs, climbing to such a height would have been impossible. In the same way, if definitive rational evidence had no validity, how could the necessity of Revelation and the authority (hujjiyyah) of its message is confirmed?

Instances of Harmony and Mutual Support between Revelation and Reason

Just as the necessity of Revelation and prophethood is proved by `aql qat'i, and the integrity and reliability of its message is confirmed by rational arguments and evidence, the legitimacy and validity of reason and of the conclusions made by `aql qat`i are confirmed and strengthened by wahy (Divine Revelation).

Therefore, the whole of the Qur'an is full of invitation to thought and reason. It commands the faithful to seek certainty, knowledge and clarity. It warns the Muslims to stay away from ignorance and not to rely on conjecture, surmise, imagination, probability, irrational doubt, and all unscientific and prejudiced views and positions.

The Qur'an presents the heights of revealed truth in the form of logical arguments so as to demolish the arguments of those who deny the Truth and to dissipate the conjectures of idolaters and materialists by presenting definitive arguments which demonstrate their inherent weakness and irrationality.

For this reason the Qur'an is presented as "light", that is something in which there is not a trace of uncertainty, doubt, ambiguity, or complexity-all of which are forms of darkness and have no place in Truth, which is absolute light.

Therefore great emphasis is laid by the Divine Revelation that man must always make an effort to attain certain knowledge and should not accept or reject anything without research and investigation. The following are a few examples of the harmony and mutual support that exist between Revelation and reason.

First Example

The sixth Imam, Ja`far ibn Muhammad al-Sadiq (as), has been quoted as saying that in two verses of the Qur'an God has commanded His creatures not to talk about something of which they are ignorant, and not to deny the validity of something which they do not understand.⁵ The first verse is:

"....Hath not the covenant of the Scripture been taken on their behalf that they should say concerning Allah nothing but the truth"? (7:169)

The second verse is:

"Nay, but they denied that the knowledge where of they could not compass, and whereof the interpretation hath not yet come unto them" (10:39)

The purport of the first verse is that any speech, affirmation or acceptance of anything on theological matters must be based off` and certain knowledge. The purport of the second verse is *that*` denial of validity of something must always be based on reason knowledge.

Therefore, if man is to live a rational existence, all his affirmations and negations must be based on faultless reasoning and certain knowledge. Such statements as these are clear witnesses of categorical backing of reason and rational certitude by Divine Revelation.

Second Example

The seventh Imam, Musa ibn Ja'far al-Kazim (as) has been as saying that God has given good tidings to the wise and the intelligent. He went on to mention some of the verses of the Qur'an that invite the faithful to reason and rationality. Then he said:

God has two proofs against mankind the "apparent proof" and the "hidden one". The "apparent proof" consists of the messengers, the prophets, `and the imams (as), while the "hidden proof" is reason.

In this statement, `aql qat'i is given the same weight as Divine Revelation and is considered to be equally reliable.

Third Example

The eight Imam, "Ali ibn Musa al-Rida (as), in response to a question by Ibn al-Sikkit as to what is the proof (hujjah) of God against people of every age, is reported to have said ⁷

Through the use of one's intellect one can recognize the true preacher of God and affirm him, (just as) one can recognize the man who falsely claims to preach for God, and deny him.

The purport of the statement mentioned above is that reason is the source of definitive proof needed for final affirmation or denial of any proposition and it is the criterion against which all propositions and views must be gauged. Upon hearing this answer, Ibn al-Sikkit said

By God, that is the only complete answer.

Reason is the criterion for judging what is true and what is false, what must be affirmed and what must be denied. Furthermore, the fact that ibn al-Sikkit's statement was made in front of an infallible Imam, and he, with his silence, affirmed it, is another proof of the ultimate and absolute authority of reason.

Fourth Example

Arguing with the idolators of the Hijaz of those days and with the non-monotheists throughout history, the Holy Qur'an tells them Your statements should either be backed by definitive rational evidence, or be confirmed by Divine Revelation.

A statement which is neither proved by certain reason nor backed by quotations from sources known to have been: Divinely revealed, lacks all validity, and any claim that is not backed by one of these two sources of definitive evidence is merely baseless talk, which cannot serve as basis for any metaphysical or religious beliefs.

"And they say, `Had the All-Merciful so willed, we would not have worshipped them'. They have no knowledge whatsoever of that; they are only conjecturing. Or did we give them a Book aforetime to which they hold? Nay, but they say, `We found our fathers following -a religion, and we are guided by their footprints.'" (43:20-22)

The polytheists accepted God as the Creator of the universe and as the Lord of totality of existence. However, they also believed that every region of this vast universe has its own god, who is independent in his province, and the responsibility for seeing to the welfare of his subjects rests directly on his shoulders. This is the case; although all these various and

independent gods are under the authority of the "god of gods", who is the Lord of the -universe.

Since these people were polytheistic with regard to the Lordship (rububiyyah) of God, they were also polytheistic when it came to worship (`ibadah) and obedience (ita'ah). As a result of this belief, they denied revelation and prophethood. In principle besides, they believed the attainment of such a high station to be impossible for any human being.

Their denial of the principles of prophethood and revelation based on their belief that God did not have any direct jurisdiction over human societies and, therefore would not set any course for them to follow or give them any commands. The argument of their thinkers was' stated in the above-mentioned verse put in the form of an "exceptional syllogism".

The argument went like this If God had wanted us not to worship the idols we would not have worshipped them, and since we do worship them it follows that God is not opposed to our worshipping them.

Because, if this were the wish of God, we would have had no choice but to do things the way He wanted them done, since His will is superior to ours. It follows, then, that worship of God is not necessary and one should only worship the idols. The same kind of fallacious reasoning is mentioned in Surat al-'An `am:

The idolaters will say, 'Had God willed, we would not have ascribed [unto Him] partners, neither our fathers, nor would we have forbidden aught. Thus did those who were before them cry lies [to God's messengers] until they tasted of our might. Say: 'Have you any knowledge that you can bring forth for us? You follow only surmise, thereby

conjecturing.' Say: 'To God belongs the argument conclusive; for had He willed, He would have guided you all.' (6:148-149)

In Surat al Nahl we read:

"And the idolaters say: 'Had God willed, we would not have worshipped anything beside Him, neither we nor our fathers, nor would we have forbidden aught without [command from] Him.' So did those before them argue. Are the messengers charged with aught save the delivery of the manifest Message?" (16:35)

These groundless arguments of" the polytheists were put forward sometimes to deny the Unity of God, and at other times used to deny the reality of Revelation and the mission of the prophets of God. Their line of reasoning about the prophets went like this If such a thing as prophethood did exist and had there been messengers from God, it would follow that the polytheists did not have any authority to forbid certain things in the name of law.

And since whey have forbidden certain things and passed laws regarding them, it follows that no such things, either Revelation or prophethood, exist.

In short, their argument, both in proving polytheism and denying the Unity of God, or in proving the validity of independence and autonomy in religious matters and denying the reality of Divine Revelation and prophethood, was like this `If God had wished to direct our vital affairs Himself, and had He, by sending prophets and Messengers and formulation of Divine laws, wanted to guide our individual and social lives, we shouldn't have ever become polytheists and worshipped the idols, just as we would never have banned or prohibited anything in the name of law.

However, since we do worship idols and do prohibit certain things in the name of law, it is clear that God did not want us to be monotheists, and He did not wish to send us any prophets, Books or Revelation. It follows, therefore, that polytheism is the correct and the righteous path, and that there is no such thing as Revelation and Prophethood.'

This was the essence of what the thinkers amongst the polytheists set forth as justification of their beliefs. What their followers said was: `Since our ancestors, generation after generation, have been worshipping and honouring these idols, we shall remain loyal to their customs, beliefs and traditions inherited from them.'

Since the Holy Qur'an is the Book of truth, its call is always for rational investigation. The recommendation it makes to humanity is that every individual should - either investigate himself or follow someone who does. Such an imitation is tantamount to investigation.

The Qur'an does not permit blind imitation, because it considers the views of those who are not men of research and investigation as worthless. Thus, the fact that the ancestors of a certain individual held a certain set of beliefs or worshipped in a particular manner, does not justify imitation. Such following would be nothing but blind imitation.

Then the Qur'an goes on to make a critique of the arguments set forth by the thinkers amongst the idolaters. In a number of places in its critique it states that an acceptable opinion is one which is either founded on reason and knowledge or is based on Divine Revelation.

A position which is backed neither by definitive Revelation nor by definitive reason is groundless and should not be trusted:

"....They have no knowledge whatsoever of that. They do but guess." (43:20)

That is, their statement is not based on certain knowledge and is founded on nothing except surmise and conjecture: They have not made a 'scientific investigation into this matter

"Or have we given them any Scripture before (this Qur'an) so that' holding fast thereto?" (43:21)

That is, the argument set forth by them is not backed by, Revelation either, because they have not been given a Divine *Book* which polytheism and idolatry are justified and recommended and the Unity of the Creator is

denied. This restriction of valid reasons to those based either on `aql qat`i or on wahy qat'i can also be found in of verses of the Qur'an. One such example is in Surat al-'Ahqaf:

"Say (unto them, O Muhammad]: `Have you thought on all that you invoke beside God? Show me what they have created of the earth. Or have they a partnership in the heavens? Bring me a Book before this, or some vestige of' knowledge (in support of what you say), if you are truthful.' "(46:4)

In other words, the worship of the idols could be justified only when they have independently created something in this world or have, had a hand in the creation of the heavens. Moreover, since such a thing has been neither affirmed neither by Divine Revelation nor proven by reason, it must follow that idolatry is nothing more than a deviation and a delusion. Much the same purport can be seen in Surat *al-Fatir*, a verse of which reads:

"Say: `Have you considered your associates to whom you pray beside God? Show me what they created of the earth; or have they any partnership in the heavens?' Or have we given them a Book, so that they act on clear proof therefrom? Nay, the evildoers promise one another naught but delusion." (35:40)

In this verse, polytheism and worship of idols is considered to be an intellectual and cultural fraud based on empty promises, because it is backed neither by rational evidence nor is based on Revelation.

Since worthiness of worship is based on creating or being a partner in the act of creation, and since the idols have no role whatsoever in either of these, there is no rational evidence for their worship. On the other hand, there is no evidence that Divine Revelation affirms them either. Since polytheism or idolatry is backed neither by definitive reason nor by definitive Revelation, it must have its origins in nothing except surmise, conjecture, fancy, and self-centered desire (hawa).

Because, if an opinion is not based on science and knowledge, it is conjectural if it is not in harmony with the guidance of Revelation, it must have originated from selfish interests and desires. Accordingly, the Holy Qur'an considers all deviated and misguided schools of thought 'opposed to monotheism (*al-tawhid*) as creatures of fancy and conjecture, which rely for their existence on the selfish desires of their followers:

"....They follow only surmise, and what their selves desire. And now the guidance has come to them from their Lord.... They have no knowledge thereof they follow only surmise, and surmise can never take the place of truth." (53:23, 28)

And:

"....They follow only a conjecture, and they do but guess." (10:66)
And:

"....they have no knowledge whatsoever of (all) that; they do but guess." (45:24)

Moreover, the Holy Qur'an instructs humanity not to adopt beliefs, in general, beliefs the truth and the validity of which is not absolutely certain

"[O man] follow not that whereof thou hast no knowledge. Lo, the hearing and the sight and heart-all of those shall be questioned of." (17:36)

Invalidity of the Syllogism Used by the Polytheists

At the end of this section it would be useful to briefly point out the reason for the falsity of the exceptional syllogism used by the polytheists and quoted in *Surat al-`An`am*, *Surat al Nahl*, and *Surat al-Zuhkruf* of the Qur'an. The reason for the falsity of the exceptional syllogism in question is that it does not distinguish between God's creative will (*al-'iradah al-takwiniyyah*), and His legislative will (*al 'iradah al-tashri'iyyah*).

The "creative will" of God is irresistible, to it belongs the law of causality which determines processes and phenomena. His "legislative will" consists of commands, instructions and advices, which although obligatory do not compel or determine human behaviour. Therefore, the will of God which man has no choice but to obey is *al-`iradah al-takwiniyyah*, while *al-'iradah al-tashri'iyyah* of God is related to human action by virtue of the human being's freedom and free will.

The whole cosmic system was created by God through His "creative will" and is governed by Him on the basis of His *qada*` (Divine Destiny) and *qadar* (Providence), irrespective of whether someone is a polytheist or not. Schools of thought and points of view have no bearing on this aspect of the Divine will and are irrelevant to its function.

However, the legislative will of God ordains *al-tawhid* as the right faith for the human being. Here man has a choice; he can obey or `rebel. He can either follow the instruction and the guidance given to him by God or he can ignore it and worship the idols. In both of these cases, however, his action is not incompatible with the will of God.

That is why it is not possible to say that if it were Divine will that men should worship the One God and abstain from idolatry, men would not have practised polytheism and would not have forbidden things in the name of law. In short, the major and the minor premises do not mutually necessitate each other in this exceptional syllogism.

With the absence of mutual necessity between the minor and the major premises, the syllogism does not lead to the fallacious conclusion drawn from it. This *is* why the Holy Qur'an has considered polytheism to be a product of ignorance and has mentioned it as something unjustifiable by either science or reason.

"....But if they strive to make thee associate with Me something of which thou hast no knowledge, then obey them not" (29:8)

And:

"But `if they [the parents; obedience to whom is emphasized by the Qur'an] strive with thee to make thee ascribe unto Me as partner that of which thou host no knowledge, then obey them not" (31:15)

The reason for the fact that the Qur'an considers polytheism and 'similar other schools of thought merely to be by-products of ignorance and as being scientifically unjustifiable, is that they cling to things which have no objective existence; what is non-existent is devoid of reality and has no place in knowledge and science. This idea is expressed in *Surat Yunus* in the following manner:

".... Would you inform Allah of (something) that He knoweth not in the heavens or in the earth?" (10:18)

What God, the All-knowing, does not know must surely be non-existent. Then in Surat *al-Mu'min* the Qur'an quotes a prophet as asking the idolaters:

"....and [shall I[ascribe unto Him as partners that whereof I have no knowledge?" (40:42)

Polytheism, in this verse, is alluded to as a pretension to know what is basically non-existent.

Fifth Example

The Holy Qur'an recognizes no other standard for either imitation or reason than definitive reason and definitive Revelation, and considers legitimate only that which is either proved by definitive reason or definitive Revelation. Following and imitation or leadership and guidance that are based on neither of these two, are considered by the Qur'an to be nothing but empty and fruitless opposition to truth, the end result of which is following the devil into deviation, misguidance and deception.

The Qur'an encharges the human being to investigate and reason about his actions. He should either investigate the matter himself, or, if he is not able to do this must follow those who carry out research and investigation in a particular field. Such an imitation is itself a form of investigation because it is a judgement of definitive reason that if a man is, unable to investigate, something which requires action on his part, he must follow the judgement of those who do investigate such matters.

If he, does not follow the judgement of those investigators, but his own inclinations, or Imitates the views of non-investigators, his judgement would be of no value; because it is neither, directly or indirectly supported by research and investigation.

Moreover, a judgement not based on investigation lacks firm foundations, and is shaky. Because of this shakiness, such judgements, in the vocabulary of the Qur'an, are referred to as "rumours" in Surat *al-'A`raf*:

"....Those who spread rumours in the city" (33:60)

As far as leaders in matters of belief and opinion are concerts their leadership must be based either on scientific and rational investigation or on Divine Revelation. The fact that these two are mention side by side is another indication of their mutual supportive role and harmonious relationship. The Qur'an stresses the necessity for investigation and wholesome imitation in these wards:

"And among mankind there is such a one who disputes concerning God without knowledge, and follows every rebellious Satan." (22:3)

It stresses investigation and inquiry as being necessary for opinion leaders:

"And among mankind there is such a one who disputes concerning God without knowledge or guidance or an illuminating Book, turning

away in pride to lead astray (men) from the way of God; for him is degradation in this world, and on the Day of Resurrection We shall let him taste the chastisement of fire." (22:8-9)

In dealing with the question of imitation, the Holy Qur'an considers blind imitation to be following the lead of the devil. Since this kind of blind following has no foundations, it changes according to the circumstances of the moment, following one devil today, and another devil tomorrow. Therefore, the 4lind imitator is the follower of numerous devils.

This is. Why the Qur'an says, "Disputes without knowledge, and follows every rebellions devil." As to intellectual and ideological leadership, the Qur'anic viewpoint is that if leadership is not based on certain acquired knowledge, or logical and definitive reasoning, or valid mystical experience of the `arif, or on self-purification and sincere and devout action performed for the sake of God, or on Divine Revelation.

Its investigation and inquiry is false and deceptive, bringing for the opinion leaders disrepute in this world and burning fire in the next one. This is why it says, "....without knowledge or guidance or an illuminating Book." By "knowledge" it is apparently referring to definitive rational evidence, and by "guidance" it means the direct perception of the truth available to the

purified soul of an `arif which is attained as the result of great effort and which leads to reception of Divine guidance.⁸ This is what is implied in yet another verse:

"As for those who strive in Us, We surety guide them to Our paths; and God is with the good-doers." (29:69)

The phrase, "an illuminating Book", refers to Revelation and prophethood. Thus, if intellectual leadership is not in agreement with rational evidence, or correct mystical insight, or the Holy Qur'an, it would be nothing more than a futile and misleading exercise. It is here that the coherence and unity of Revelation and definitive reason becomes evident.

If the only source of acquisition of knowledge were Revelation, the Holy Qur'an would not have set forth numerous sources and ways, and would not have mentioned "knowledge" and "guidance" alongside the "illuminating Book".

Moreover, this also calls attention to the. fact that the proof of the necessity of Revelation, its distinction from other sources which are not Divinely revealed, and its comprehensiveness in coverage of reality, can not be attested by Revelation itself, since that would be begging the question. That the proof of these things has been left to definitive reason, implies the validity of the authority of reason.

In short, by paying close attention to the verses of *Surat al Hajj*, *Surat Luqman* (verse 20) and certain other Qur'anic Surahs, the independent authority of reason and the validity of definitive rational evidence become clearly evident and the mutual supportive and harmonious relationship between reason and Revelation becomes fully established.

Sixth Example

The Holy Qur'an considers rational evidence and definitive knowledge to be evidence of the truth of Divine Revelation. It says that correct rational reasoning invariably affirms the authentic validity of Revelation and that definitive knowledge leads to acceptance of Divine Revelation.

"Those who have been given knowledge see that what has been Revealed to thee from thy Lord is the Truth, and guides to the path of the All-mighty, the All Laudable" (34:6)

What this verse means is that all those who are knowledgeable about Divine matters and who make judgements based on definitive evidence believe in the authenticity and validity of Revelation and the` Qur'an. They believe that the Qur'an guides men to the path leading toy God, to whom belongs all power and praise.

This interpretation implies that denial of Revelation is caused by a lack of definitive knowledge. In other words, it is ignorance which causes one to deny the validity and the legitimacy of the Qur'an. This is also the case in the problems practical philosophy (*al-hikmah al-`amaliyyah*); it is rational and systematic knowledge that determines the ethical values and it is

ignorance that denies absolute moral standards and criteria explaining them on false and hollow foundations:

"Then went he forth before his people in his pomp, Those who were desirous of the life of the world said: `Ah, would that we possessed the like of that Koran has been given. Surely he is a man of mighty fortune.'but those who, had been given knowledge said: `Woe unto you, the reward of God is better, for him who believes and works righteousness; and none shall receive it except the steadfast.'" (28:79-80)

Thus, the standard by which a system of values is determined and arrived at is through reason and certain knowledge; just as real knowledge is only arrived at through definitive evidence. That learning which does not take into consideration Divine truths and fails to discover the real system of values, is imperfect and unreliable. Such learning is considered to have little value by the Qur'an.

"So turn thou [O Muhammad] from him whom turns away from Our Remembrance and desires only the life of the world. That is their sum of knowledge ..." (53:29-30)

Revelation and Resurrection of the Human Sciences

Although Revelation and reason are complementary and not contradictory in the sense that demonstrative reason is relatively sufficient, or even perfect, for the perception and the understanding of realities. Divine Revelation is necessary and more complete than demonstrative reason for perfect and definitive understanding, of the totality of existence.

Therefore, what is' discovered by demonstrative reason is supported and confirmed by Revelation, and what is inaccessible to reason is revealed to it by Revelation. Revelation stimulates reason and, guides it so that it can discover things through investigation and inference. What reason is potentially capable of knowing becomes actualized for it through the guidance and inspiration of Divine Revelation.

What reason perceives but dimly is made clear and precise for it by Revelation. In short, 'Revelation completes reason and compensates for its shortcomings and weaknesses. Amir al-Mu'minin 'Ali (as), has spoken of the role of prophets in relation to thought and culture in the following terms:

To stimulate and active the dormant deposits of reason and to reveal it to the manifestations of his Omnipotence. ¹⁰

It is therefore, in the light of Revelation that reason realizes its complete role and function, grows under its nourishment, and obtains far reaching vision. This is because Revelation is the Word of God, Who encompasses the entire universe, and His Word is as universal as His knowledge.

Thus when God speaks of any part of the universe, He so describes it that its relationship with the totality of existence, is also described, and it is also made clear that the totality of existence, too, has a direct link with its Ultimate Source, so that one can clearly comprehend the relationship of a part with the First Cause.

In the same way, when God speaks of something, He does not limit His description to its matter and form, its genus, differentia or species, its history, or its various material transformations; His description of objects is not a circular and tautological definition. In other words, His descriptions are not confined to a single plane, the place of the physical world.

This is to remind that some of the experimental sciences merely deal with description of the past history and present state of a particular material phenomenon, its possible future transformations in time space, its constitution, movement and other such characteristics. All such descriptions and observations are confined to a single plane.

In other words, their investigation is confined to the inner mechanics of a closed system. For example, in biology, medicine, geology, astronomy and other branches of the experimental sciences, and also some of the social sciences, discussion is limited to describing the past, the present, and the predictable future of a phenomenon and is confined to the closed system of "internal structure" of an object, without any reference being made to its relationship with the rest of the universe.

For instance, when certain mineral deposits are studied in geology and a discussion is made about the professes by which the deposits are formed underground, the various stages in the history of their development their present state, and their future course of change, nothing is said about the "efficient cause" that created such deposits.

Nor is it ever asked whether this cause is itself a phenomenon caused by some other phenomenon, which relates by a series of causes and effects to a Source which is the Necessary Being (wajib al-wujud), whose Existence is the same as its Essence, which is completely self-sufficient and can fulfill the needs of all other things, which are incomplete.

Nothing is said about the *purpose* of the existence of this phenomenon, whether the purpose is itself another phenomenon with yet another purpose, whether the chain of such purposes must end with an aim which is the Necessary which is infinitely perfect and whose perfection and purpose of being are not separate from Its Essence, which is the Ultimate Purpose of all those things that have a purpose. In short, nothing is said about the ultimate end of a thing and no attempt is made to place it in a universal perspective of purpose (telic and teleological perspectives).

The experimental sciences and some of the human sciences concern themselves with only the internal structure of phenomena, leaving the question of their ultimate purpose and efficient cause to the field of metaphysics.

Therefore, all things are viewed in isolation and separation from their ultimate origin and end (*al-mabda' wa al-ma`ad*). Obviously, even though all researches carried out in these fields of study enrich our knowledge about

the internal structure of the object being studied; they tell us nothing about its origin and purpose.

Limiting the study of natural phenomena to their internal structure and ignoring the ultimate origin and purpose of things, result in deficient description and interpretation of these phenomena. This is the cause of innumerable difficulties and shortcomings in our understanding of the nature of reality, whose unfortunate signs and consequences can be observed in today's world of reason without Revelation and knowledge without vision.

Revelation, however, considers all things to be 'signs' (*ayat*) pointing to the ultimate origin of the world besides describing the internal structure of an object, its history; present state and future course of development, it also discusses its place in a perspective of origination and ultimate end that is, it makes a vertical movement that cuts across the horizontal physical plane.

Thus the systems of "efficient cause" (al-illah al-fa`iliyyah) and "final cause" (al-`illah'al gha'iyyah) act as two wings attached to the body of the experimental science (study of internal structure) helping it to break out of a static earth bound state and enabling it to fly in the infinite skies of the Divine world outlook. It encourages it to rise to ever higher altitudes and guides it on the best course of ascent. For example, the following Qur'anic verse alludes to all the three aspects of the natural phenomena mentioned above:

....Our Lord is He who gave unto everything its nature, then guided it aright. (20:50)

That is, our Lord has given everything its inner structure, equipped it with its means of attaining perfection, and then guided it towards its real goal.

The same sort of approach towards the phenomena of this world can be seen throughout the Qur'an. In this manner the two wings of origination (al`illah al-fa`iliyyah) and ultimate purpose (al-`illah algha'iyyah) are revived and rejuvenated in all the research being earned out about these phenomena.

In this way, the Holy Qur'an turns knowledge into reason, reason into wisdom, and mental conceptions into verities. This is the fashion in which the Qur'an coordinates the findings of theoretical reason with the effort of practical reason, and objectifies what were intellectual and subjective conceptions.

Finally, it is by these means that the Qur'an turns a specialist into a man of religion, a scientific researcher into a practical investigator, a scientific "authority" into a devotee of the Truth, a technical inventor into a committed believer, an industrial entrepreneur into a man of faith, thus transforming raw mind into a seasoned intellect.

Below are given few examples of the blossoming of sciences in the light of Divine Revelation.

First Example

Explaining the creation of the heavens and their stability without reliance on any visible columns and the orderly system of the moon the Qur'an says: اللَّهُ الَّذِي رَفَعَ السَّمَاوَاتِ بِغَيْرِ عَمَدٍ تَرَوْنَهَا ثُمُّ اسْتَوَىٰ عَلَى الْعَرْشِ وَسَخَّرَ الشَّمْسَ وَالْقَمَرَ كُلُّ يَجْرِي لِأَجَلِ مُسَمَّى يُدَبِّرُ الْأَمْرَ يُفَصِّلُ الْآيَاتِ لَعَلَّكُم بِلِقَاءِ رَبِّكُمْ تُوقِنُونَ

"God is He who raised up the heavens without visible supports then mounted the Throne. He subjected the sun and the moon each one running to a term stated. He directs the affair; He distinguishes the signs; haply you will have faith in the encounter with your Lord." (13:2)

In this verse, besides describing the inner structure of the heavens and the planets, the system of efficient causes and the system of final cause is also pointed to. In other words, both monotheism and the Day of Resurrection (*al-tawhid* and *al-ma'ad*) are spoken of.

Second Example

In explaining the genesis of the earth and the emergence of the mountains, and the way various trees and fruits grow and mature deriving nourishment from the same substances by their roots; it says,

وَهُوَ الَّذِي مَدَّ الْأَرْضَ وَجَعَلَ فِيهَا رَوَاسِيَ وَأَنْهَارًا وَمِن كُلِّ الثَّمَرَاتِ جَعَلَ فِيهَا زَوْجَيْنِ النَّيْنِ يُغْشِي اللَّيْلَ النَّهَارَ إِنَّ فِي ذَٰلِكَ لَآيَاتٍ لِّقَوْمٍ يَتَفَكَّرُونَ وَفِي الْأَرْضِ قِطَعٌ مُّتَجَاوِرَاتُ وَجَنَّاتُ مِّنْ أَعْنَابٍ وَزَرْعٌ وَنَخِيلٌ صِنْوَانٌ وَغَيْرُ صِنْوَانٍ يُسْقَىٰ بِمَاءٍ وَاحِدٍ وَنُفَضِّلُ بَعْضَهَا عَلَىٰ وَجَنَّاتُ مِّنْ أَعْنَابٍ وَزَرْعٌ وَنَخِيلٌ صِنْوَانٌ وَغَيْرُ صِنْوَانٍ يُسْقَىٰ بِمَاءٍ وَاحِدٍ وَنُفَضِّلُ بَعْضَهَا عَلَىٰ وَجَنَّاتُ مِّنْ أَعْنَابٍ لَقُومٍ يَعْقِلُونَ وَإِن تَعْجَبْ فَعَجَبٌ قَوْهُمُ أَإِذَا كُنَّا بَعْضَ فِي الْأَكْلِ إِنَّ فِي ذَٰلِكَ لَآيَاتٍ لِّقُومٍ يَعْقِلُونَ وَإِن تَعْجَبْ فَعَجَبٌ قَوْهُمُ أَإِذَا كُنَّا ... تُرَابًا أَإِنَّا لَفِي خَلْقٍ جَدِيدٍ

"It is He who spread out the earth and set therein firm mountains and ricers; and of every fruit he placed therein two Pairs. He covereth the night with the day. Surely, in that are signs for people who reflect. And in the earth are neighbouring tracts, vineyards and fields sown, and palms in pairs, and palms single, which are watered with one water. And some of them We prefer in produce above others. Surely in that are signs for a people who understand. If thou wouldst wonder, surely wonderful is their saying, 'What, when we are dust, shall we indeed then be raised up again in new creation?'" (13:3-5)

Thus we see that, in this chapter, the Qur'an not only describes the inner structure of the earth, mountains and rivers, the world of vegetation, etc., but it also mentions them in a perspective of efficient cause and of final cause. That is, both unity of creation (*al-tawhid*) and the ultimate end (*al ma`ad*) are fully taken into account.

The way; however, that the causal perspective is described in the first and the second verses is not the same. In the first verse the chain of causation is described moving from unity to multiplicity it was the One God who stretched out the earth and caused the mountains to emerge and the rivers to flow etc.

But in the second verse the description moves from multiplicity to unity; here we have an earth which is divided into many adjacent tracts and in each tract there is a particular garden in which grow trees bearing particular fruits; the gardens and the tracts resemble one another and the trees derive nourishment from one vital fluid: water.

This movement from multiplicity to unity in nature guides the intelligent observer towards the realization of the One Source. After this, the Qur'an describes resurrection and the problem of re-creation after death.

Third Example

Describing the coming into being of cattle, the way that they should be taken care of, the way that domesticated animals are to be used, and the beauty of scenes of the herds going to pasture and returning from it, and other problems relating to domesticated animals and related, matters, it says:

"....And the cattle He created them for you; in them is warmth, and uses various, and of them you eat, and there is beauty in them for you, when you bring them home to rest and when you take, them out to pasture and they bear your loads for you unto a land you could not reach save with great trouble to yourselves. Surely, your Lord is All-clement, all compassionate. And horses, and mules, and asses (He has created) for you to ride; and as an adornment; and He creates what you know not." (16:5-8)

In the verse just mentioned, besides describing the inner structure of the emergence and development of herds, their system of efficient cause (which is the same as *al-tawhid*) is also pointed out. Then after these verses, the Holy Qur'an refers to the system of final cause of all these things:

"Your God is One God. But as for those who believe not in the Hereafter their hearts deny, and they have waxed proud." (16:22)

Fourth Example

Explaining the appearance of clouds, their concentration, the dropping of rain from their midst, their formation in the sky, so that they resemble heavenly mountains, the pouring of hail from the way lightning strikes, other problems in regard to the order of night day, and describing the genesis of various animals, the Qur'an says:

أَ لَمْ تَرَ أَنَّ اللَّهَ يُزْجِي سَحَابًا ثُمَّ يُؤَلِّفُ بَيْنَهُ ثُمَّ يَجْعَلُهُ وَكَامًا فَتَرَى الْوَدْقَ يَخْرُجُ مِنْ خِلَالِهِ وَيُعْنَدُ لَنِ مِنَ السَّمَاءِ مِن جِبَالٍ فِيهَا مِن بَرَدٍ فَيُصِيبُ بِهِ مَن يَشَاءُ وَيَصْرِفُهُ عَن مَّن يَشَاءُ يَكَادُ سَنَا بَرْقِهِ يَذْهَبُ بِالْأَبْصَارِ يُقَلِّبُ اللَّهُ اللَّيْلَ وَالنَّهَارَ إِنَّ فِي ذَٰلِكَ لَعِبْرَةً لِّأُولِي الْأَبْصَارِ وَاللَّهُ سَنَا بَرْقِهِ يَذْهَبُ بِالْأَبْصَارِ يُقَلِّبُ اللَّهُ اللَّيْلَ وَالنَّهَارَ إِنَّ فِي ذَٰلِكَ لَعِبْرَةً لِّأُولِي الْأَبْصَارِ وَاللَّهُ خَلَقَ كُلَّ دَابَةٍ مِّن مَّا عَلَىٰ رِجْلَيْنِ وَمِنْهُم مَّن عَلَىٰ بَطْنِهِ وَمِنْهُم مَّن يَمْشِي عَلَىٰ رِجْلَيْنِ وَمِنْهُم مَّن عَلَىٰ عَلَىٰ اللَّهُ مَا يَشَاءُ إِنَّ اللَّهَ عَلَىٰ كُلِّ شَيْءٍ قَدِيرٌ لَّقَدْ أَنزَلْنَا آيَاتٍ عَلَىٰ مُرْبِعِ عَلَىٰ أَرْبُعٍ يَخْلُقُ اللَّهُ مَا يَشَاءُ إِلَىٰ صِرَاطٍ مُّسْتَقِيمٍ وَاللَّهُ مَا يَشَاءُ إِلَىٰ صِرَاطٍ مُّسْتَقِيمٍ وَاللَّهُ مَا يَشَاءُ إِلَىٰ صِرَاطٍ مُّسْتَقِيمٍ وَاللَّهُ مَا يَشَاءُ إِلَىٰ صِرَاطٍ مُّسْتَقِيمٍ

"Hast thou not seen how God drives the clouds, then composes them,; then makes them layers, and thou seest the rain come forth from between them? He sends down from the Heaven Mountains (of clouds) wherein is hail, and He smites therewith whom He will, and turns it aside from whom He will; well nigh the gleam of His lightning snatches away the sight. God turns about the day and the night; surely in that is a lesson for those who have eyes.

God has created every animal of water, and some of them go upon their bellies and some of them go upon two feet, and some of them go upon four. God creates whatever He will God is powerful over everything. Verily we have sent down revelations and explained them; God guides whomsoever He will to a straight path." (24:43-46)

Thus we see that in the verses just quoted, the causal structure and the ultimate destiny and end of all the things under consideration are described. That is, while describing the inner structure of these natural phenomena, the formation of clouds, the pouring down of rain, the, hail, the lightning, etc., it is pointed out that the chain of efficient n causes behind their emergence leads to God, who is the Creator, the Nourisher of all things.

The natural phenomena are referred to as *ayat* (signs); reference is also made to guidance towards the straight path that leads to the ultimate purpose of all life, which is nothing other than God. All the three perspectives are thus taken into account; the causal perspective, the inner structure, and the perspective of goal and purpose.

In short, in explaining the things of this world, while the Holy Qur'an gives us a brief but useful description of their inner structure, it so considers their causal background and their ultimate destiny.

In fact, the emphasis of the Qur'an is on explaining the starting point and the ending point in the vertical ascent of a thing that is, the starting point of all things in the view of the Qur'an is the One God, and their ending point is the Hereafter. The Qur'an does not consider the description and explanation of the inner structure of a thing to be by itself a full and complete explanation of that thing.

Sciences and the Guiding Role of Revelation:

In conclusion I would like to mention some examples of the flowering of human knowledge in the light of Divine Revelation,. in order to show the effect of the heavenly teachings on man's thought and knowledge.

First Example

What man gains through intellectual effort is power over the natural phenomena. His intellect, however, does not provide him with the adequate guidelines of use of this power. This is the task of Divine Revelation. It sets before man the proper goals for attainment of which human powers must be channeled. For example, it states the following as a general rule:

.... (The believers) are hard against the unbelievers and merciful among themselves.... (48:29)

With this general guidance the manner in which all the energies of the community-material and spiritual-are to be used, is indicated.

Second Example

When, through a Divine miracle, hard and cold iron was made soft and forgeable in the hands of Prophet David (A), Divine Revelation instructs him that iron must be used in making defensive weapons and not destructive ones:

"...And we made the iron supple unto him; saying: 'Make' thou long coats of mail and measure the links (thereof). And do ye righteousness, for surely I see the things you do." (34:10-11)

The important point here is that a hard metal such as iron is to be turned not into a destructive weapon, but into the best defensive tool, and that what could have been a powerful offensive weapon must be turned into the most delicate instrument of defense. In short, two aspects are taken into consideration strength of iron and its use interest of the people.

"....And we sent down iron, wherein is great might, and uses for mankind..." (57:25)

Thus, the aspect of iron which is emphasized is its usefulness to man and not its possible use in killing and destroying.

Third Example

Whenever war breaks out between two unrighteous, or, two non Muslim adversaries and there is a big demand for weapons, all those human crafts and techniques which are at the disposal and service of worldly and short-term profits are activated to make weapons and sell them.

Divine Revelation, however, clearly delineates the path that one should take in response to such events. It instructs man to put into the hands of two adversaries only defensive equipment, even though both of them may be unrighteous Muslims or unbelievers.

Hisham quotes Muhammad ibn Qays as saying "I asked Imam al Sadiq (as) If two groups of unbelievers go to war against each other, should I sell arms to them or, not? He answered Sell defensive weapons to both of them.

I asked Abu `Abd Allah (as) whether I could sell weapons to two unrighteous groups at war. He said: "Sell to both of them protective gear such as shields, greaves, and so on.¹¹

This is a humane and an Islamic command which does not allow anyone to profit from a human tragedy such as war by selling offensive and destructive weapons to warring factions, thus encouraging bloodshed and destruction, or by taking the side of one party against the other make it possible for one particular group to gain hegemony and establish its domination over others.

The duty of the man who has been liberated from bondage of greed and myriads of desires, rivalries, jealousies and corruptions, is to take an even handed approach towards warring parties and to sell defensive weapons and equipment to *both* of them. His motivation for doing so should be to help save lives and to prevent destruction and blood-shed by selling to warring parties things at protect human beings from injury and death.

Fourth Example

The model and the proper form of Islamic government was explained by Amir al-Mu'minin ''Ali (as) in a directive given 'to Malik al-Ashtar. In this order, Amir al-Mu'minin ''Ali (as) clearly delineates the nature of the commitments of his government and the way political power is to be used. He also states that the power of the government should never be used outside the boundaries set by justice and fairness:

(O Malik) do not rule (the people of Egypt) like a predatory beast who is always looking for chance to devour them. (Do not trespass the sacred boundaries of justice) because they are either your brethren in faith, or follow men of your own kind.¹²

In this political directive the flowering and perfection of the art of government, which comes under the category of "practical philosophy" and is one of the most important of human sciences, is clearly evident. Here, Imam 'Ali (as) has limited the power of the State to that which falls within the boundaries of justice and the rights of the people.

He does not allow transgression from its sacred tenets even towards the non-Muslims. This is nothing other than the perfection of the art of government in the light of Divine Revelation.

In conclusion, we should keep in mind that the mission of the Islamic Cultural Revolution is to walk on the path that has been described above, so that the social sciences, humanities, and the experimental sciences may all attain their highest pinnacle and the highest degree of flowering and development possible for them.

It is therefore necessary that, while the "inner structure" of the various specialties is studied, their "causal perspective" and their "perspective of purpose" the understanding of which brings about religious commitment and obedience-also be taken into account and entered into the university curricula so that science may flower into wisdom, and expertise, may be infused by religious commitment.

Endnotes

- 1. See `Allamah Muhammad Husayn Tabatabai's exegesis al-Mizan, v, 273
- 2. The Qur'an, 8:24.
- 3. Ibid., 2:269, 39:9 3:66, 4:157, 6:144, 6:119, 6:140, 11:46, 22:8, 24:15, 45:24, 53:28, 20:114.
 - 4. Ibid., 91:8
 - 5. Al-Kulayni, al-Kafi, "Kitab al-'ilm".

8. The well-known hadith of the Prophet (S) regarding the practical results of a forty-day sincere devotion to God is another witness to what we have hadith says:

Whoever sincerely devotes himself to God for forty days, God shall cause springs of wisdom to emanate from his heart flowing to his tongue.

- 9. See `Allamah Muhammad Husayn Tabataba'i, al-Mizan, XIV, 382 XVI, 242
- 10. Nahj al-balaghah, sermon 1.
- 11. Shaykh Muhammad ibn al-Hurr al-`Amili, Wasa il al-Shi'ah, xii, 70. وسائل الشيعة،

(نهج البلاغه، 53 (و من كتاب له (ع) كتبه للأشتر النخعي 53 Nahj al-balaghah, epistle