The Principles of Faith (′Arkān al-′Īmān) and Their Correlation with Medical and Scientific Verses (′Āyāt) in al-Qurʾān al-Karīm

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Abstract
In the Glorious Qurʾān, there are about 1153 out of a total 6236 (18.5%) ”′Āyāt” (verses) that deal with different medical/scientific themes. We believe that the rationale behind those scientific references in the Glorious Qurʾān is mainly to support the cause of faith especially in Allāh al-Mighty and in the hereafter as there is a strong correlation (> 92%) between the principles of faith and these ′Āyāt. Actually in 86% of these ′Āyāt there is one or more principle of faith in the same ′Āyah (verse) which has the scientific reference while in the remaining 14% of these ′Āyāt, a principle of faith is stated in the ′Āyah that precedes and/or that follows. These principles of “İmān” (faith) are: İmān in Allāh, the angels, the revealed books, the messengers, the hereafter, and destiny. This study demonstrated that the Qurʾān is mainly a Book of İmān and “Hidāyah” (guidance), but it is also a Book that encourages science and research.

Keywords: Qurʾān, “′Āyāt” (verses), science, medicine, “İmān” (faith).

Al-Qurʾān al-Karīm is a book of “İmān” (faith) and “Hidāyah” (guidance). It is also the way for establishing a virtuous society. Allāh says:

“Verily this Qurʾān does guide to that which is most right. And gives the glad tidings to the believers who work deeds of righteousness. That they shall have a magnificent reward.”

In the Glorious Qurʾān there are several “′Āyāt” (verses) which make reference to various medical and cosmic sciences, and praise science and research. In fact the first five ′Āyah revealed to Prophet Muhammad [PBUH] ordered him to read and learn:

“Proclaim! (or Read!) In the name of the Lord and Cherisher, who created – created man, out of a leech – like clot: Proclaim! And the Lord is most Bountiful. He who taught (the use of) the pen, taught man that which he knew not.”

Today, with the great progress in science and technology, many of the ′Āyāt which refer to science are now better understood. In the past, these ′Āyāt were vaguely understood by scholars and interpreters because of the lack of


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objective scientific methods and advanced technology, which are made available today. Nevertheless, some of these distinguished Muslim scholars “Fuqahā” inferred many scientific facts from the Glorious Qur’ān and the ‘Aḥādīth (sayings) of the Prophet Muḥammad [PBUH]. For example, ibn-Ḥazm al-Andalusi (died 456 Hijr[HI]) and al-Fakhr al-Rāzī (died 606 H) said that the shape of the earth is spherical and the sun is many times larger than the earth.7,8

Recently, some studies have been carried out to demonstrate numerous scientific aspects in the Qur’ān.2,3,9-11 Most of these works chose to deal with many of the scientific themes in the Glorious Qur’ān.

We have modestly decided to join the search for many facts which are related to medicine and science in the Qur’ān and also to infer other facts from such a great Book.12

Allāh says:

"and We have sent down to you the Book explaining all things, a guide, a mercy, and glad tidings to Muslims."

Also Allāh says:

"Nothing have We omitted from the Book."

Prophet Muḥammad [PBUH] also described al-Qur’ān as “a book of Allāh which contains news of those preceded you and those after you and it also has endless miracles....”15

Al-‘Imām al-Sayyīd said that the Qur’ān includes all knowledge and every branch of science is mentioned (directly or indirectly) in it.16 Therefore, if we employ/follow al-Qur’ān al-Karīm we may come up with many new scientific facts and start addressing themes that have no antecedents.2

As a matter of fact some of the modern scholars have inferred from the Glorious Qur’ān references to modern inventions and have solved and simplified some mysteries of nature, to quote but a few examples:

1. Water is found to be the most important element for life. Allāh says:

“We made from water every living thing.”18

2. Stages of the embryologic development of the fetus which were mentioned in the Qur’ān is found to be well correlated to modern embryology.11 Allāh says:

“Man We did create from a quintessence (of clay); Then We placed him as (a drop of) sperm in a place of rest firmly fixed; then we made the sperm into a clot of congealed blood; then of that clot we made a (fetus) lump; then we made out of that lump bones and clothed the bones with flesh; then we developed out of it another creature. So blessed be Allāh the best to create!”19

3. The ways that the mountains are laid out ensures stability of earth and is in complete agreement with geology. Allāh says:

“And He has set up on the earth, mountains standing firm, lest it should shake with you...”20

The Glorious Qur’ān includes about (1153) ‘Āyāt, which have reference to medicine/science. In an earlier paper we calculated and categorized them according to the various known cosmic fields of science: medicine (416), physics (138), biology (130), astronomy and cosmonautics (105), geography (98), Agriculture (89), mathematics and statistics (79), geology (69), seas and rivers (35), various means of transportation (28), origin of man and others (27), engineering (12), chemistry (11), language of animals and birds (8), and others are applicable and related to all sciences (18).21 (Table 1)

As the Qur’ān is basically a book of guidance and faith, we believe (Allāh knows best) that these scientific references are meant to reinforce ‘Iman in all its aspects (especially ‘Iman in Allāh, the Angels, the Divine books, the messengers, the Hereafter, and destiny).21

In this work we have attempted to show the correlation between the above principles of ‘Iman and the ‘Āyāt of the medical/scientific references.

Methods

This work was divided into two parts. Firstly, the Qur’ān was reviewed and those ‘Āyāt which have reference to various sciences were categorized according to their topics such as medicine, biology, physics, etc. In our previous study,21 those scientific references were classified either as direct (specific scientific meanings), or general or indirect (inferred).

Many of the Qur’ānic verses refer to the inner peace attained by obedience to Allāh (SWT) and thus the glad tidings that is assured to the believers both in the Hereafter and during this worldly life, constitute, in our judgment, the basis of psychology and psychiatry and therefore were included in the ‘Āyāt with a medical reference.

Second, the above ‘Āyāt were classified according to the presence of a meaning of ‘Iman with its six principles mentioned in the Glorious Qur’ān and the ‘Aḥādīth of Prophet Muḥammad [PBUH]. Allāh says:

“It is not righteousness that you turn your faces towards East or West, but it is righteousness to believe in Allāh, the last day, the angels, the divine books, and the messengers...”22

When Prophet Muḥammad [PBUH] was asked about the definition of ‘Iman? He replied: “‘Iman is to believe in Almighty Allāh; His angels, His books, His messengers, the Hereafter, and the destiny...”23

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On these bases the 'Ayāt with scientific meanings, were investigated according to the presence of one or more of these principles of 'Imān. In case of the absence of such a principle we referred to the 'Ayāh that precedes or follows for the presence of such meaning to confirm the correlation.

For the first principle of 'Imān i.e. 'Imān in Allāh we relied on the mention of the word “Allāh” or of one of His Glorious Names. Those word(s) of principle(s) of 'Imān were underlined and there may be more than one principle in the same 'Ayāh, while those words of scientific meanings are between brackets.

For example, Allāh says:

"It is He who brought you forth from the wombs of your mothers when you knew nothing; [and He gave you hearing and sight and intelligence and affections]: that you may give thanks (To Allāh)."

For 'Imān in the Hereafter, we relied on occurrence of that word or any of its equivalents, such as resurrection or the Day of Judgment. For example Allāh says:

"And among His signs is this: you see the earth humble: [But when We send down rain to it, it is stirred to life and yields increase]. Truly, He who gives life to the (dead) earth can surely give life to (men) who are dead. For He has power over all things."

For 'Imān in angels, divine books, messengers, and destiny, we followed the same procedure by quoting the occurrence of any of these words or their equivalents. Here are some examples, respectively:

"In the case of those who say "our Lord is Allāh" and further, stand straight and steadfast, the angels descend on them (from time to time): ["Fear you not nor grieve! but receive the glad tidings of the Garden (of Bliss), which ye were promised!]."

"But those who believe and work deeds of righteousness, and believe in the revelation sent down to Muhammad for it is the truth from their Lord, [He will remove from them their ills and improve their condition]."

"Whosoever follows my guidance, [will not lose his way, nor fall into misery]"

"But Whosoever turns away from my message, verily [for him is a life narrowed down], and We shall raise him up blind on the Day of Judgment."

"Say: [nothing will happen to us except what Allāh has decreed for us]: He is our protector; and on Allāh let the believers put their trust."

Also Allāh says:

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"Say: [nothing will happen to us except what Allāh has decreed for us]: He is our protector; and on Allāh let the believers put their trust."

Also Allāh says:

Table 1. Number of 'Ayāt which have one or more phrases concerning one or more science(s) with their percentages.

<table>
<thead>
<tr>
<th>No.</th>
<th>Category</th>
<th>No.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Medicine</td>
<td>416</td>
<td>31.5</td>
</tr>
<tr>
<td>2</td>
<td>Physics</td>
<td>138</td>
<td>10.5</td>
</tr>
<tr>
<td>3</td>
<td>Biology</td>
<td>130</td>
<td>9.8</td>
</tr>
<tr>
<td>4</td>
<td>Astronomy and Cosmology</td>
<td>105</td>
<td>8.0</td>
</tr>
<tr>
<td>5</td>
<td>Geography</td>
<td>98</td>
<td>7.4</td>
</tr>
<tr>
<td>6</td>
<td>Agriculture</td>
<td>89</td>
<td>6.7</td>
</tr>
<tr>
<td>7</td>
<td>Mathematics and Statistics</td>
<td>79</td>
<td>6.0</td>
</tr>
<tr>
<td>8</td>
<td>Geology</td>
<td>69</td>
<td>5.2</td>
</tr>
<tr>
<td>9</td>
<td>Learning and Research</td>
<td>9</td>
<td>4.5</td>
</tr>
<tr>
<td>10</td>
<td>Seas and Rivers</td>
<td>35</td>
<td>2.6</td>
</tr>
<tr>
<td>11</td>
<td>Transportation</td>
<td>28</td>
<td>2.0</td>
</tr>
<tr>
<td>12</td>
<td>Origin of man and others</td>
<td>27</td>
<td>2.0</td>
</tr>
<tr>
<td>13</td>
<td>All sciences</td>
<td>18</td>
<td>1.5</td>
</tr>
<tr>
<td>14</td>
<td>Engineering</td>
<td>12</td>
<td>0.9</td>
</tr>
<tr>
<td>15</td>
<td>Chemistry</td>
<td>11</td>
<td>0.8</td>
</tr>
<tr>
<td>16</td>
<td>Language of Birds and Animals</td>
<td>8</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td><strong>Total Number</strong></td>
<td>1322 *</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*The total number of 'Ayāt included in the study is 1153. However, 169 of these 'Ayāt contain reference to more than one scientific topic.

"No misfortune can happen on earth or in your souls] but is recorded in a book before we bring it into existence that is truly easy for Allāh."

As far as for the indirect meanings of 'Imān (which is included in the 'Ayāh that precedes and/or follows), here are some examples.

Regarding 'Imān in Allāh, in the Hereafter and in His angels and messengers, respectively:

["He has let free the two seas meeting together: between them is a barrier which you do not transgress]: then which of the favors of your Lord will ye deny?]

["By the sky, with its constellations], by the promised Day (of Judgment), by one that witnesses and the subject of the witness."

"So verily I call, to witness [the planets that recede, go straight or hide; and the light as it dissipates; and the dawn as it breathes away the darkness]; Verily this is the word of a most honorable Messenger."

Results

The number of 'Ayāt in the Qur'ān that have cosmic references in this study is 1153. This represents 18.5% of all of the 'Ayāt (6236). These were classified according to the scientific subjects as shown in Table 1. The six principles of 'Imān were referred to in 1064 of the these 1153 'Ayāt (92.3%)
Table 2. Number of 'Ayāt with scientific reference(s) including principles of 'Imān in the same 'Ayah or in the 'Ayah that precedes or follows with their percentage.

<table>
<thead>
<tr>
<th>The Principle of Faith ('Imān)</th>
<th>No. of 'Ayāt (Direct)</th>
<th>(%)</th>
<th>No. of 'Ayāt (Indirect)</th>
<th>(%)</th>
<th>Total No. of 'Ayāt</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>'Imān in Allah (SWT)</td>
<td>637</td>
<td>61.0</td>
<td>91</td>
<td>9.0</td>
<td>738</td>
<td>70.0</td>
</tr>
<tr>
<td>'Imān in Angels</td>
<td>21</td>
<td>1.9</td>
<td>3</td>
<td>0.2</td>
<td>24</td>
<td>2.1</td>
</tr>
<tr>
<td>'Imān in Holy Books</td>
<td>46</td>
<td>4.4</td>
<td>7</td>
<td>0.6</td>
<td>53</td>
<td>5.0</td>
</tr>
<tr>
<td>'Imān in Messengers</td>
<td>91</td>
<td>8.5</td>
<td>9</td>
<td>0.9</td>
<td>100</td>
<td>9.4</td>
</tr>
<tr>
<td>'Imān in the Hereafter</td>
<td>79</td>
<td>7.5</td>
<td>41</td>
<td>3.7</td>
<td>120</td>
<td>11.2</td>
</tr>
<tr>
<td>'Imān in Destiny</td>
<td>29</td>
<td>2.3</td>
<td>/</td>
<td>/</td>
<td>29</td>
<td>2.3</td>
</tr>
<tr>
<td>Total Number</td>
<td>913</td>
<td>(86)</td>
<td>151</td>
<td>(14)</td>
<td>1064</td>
<td>(100)</td>
</tr>
</tbody>
</table>

The highest frequency (70%) was in relation to 'Imān in Allāh (Table 2).

Belief in Allāh and in the Day of Judgment does definitely entail the belief in the other mentioned principles.

There were 151 'Ayāt with medical or scientific connotation which have no direct reference to Iman but this meaning was mentioned in the 'Ayah preceding or following (Table 2).

The individual 'Ayāt with a scientific reference and also a reference to a principle of faith or with a principle of faith mentioned in a preceding or a following verse were indexed. These indices are available from the authors on request.

Discussion

The Glorious Qur'ān is a book of guidance, and is not intended to be book of cosmic sciences. Nevertheless, there are many verses which do have some clear scientific reference. These references (Allāh knows best) are there to:

1. Stress the various principles of 'Imān (faith).

We believe that the repetition of these various aspects of faith in the course of referring to Man and the Universe is one of the main objectives for the occurrence of those scientific meanings of 'Ayāt in the Qur'ān.

We showed that there is a significant link between the scientific meanings and the principles of 'Imān, (the correlation is more than 92%). Most of this correlation (about 86%) is included in the same 'Ayāt as a direct meaning (table 2). Furthermore, the most common correlation was with the first principle of 'Imān (the faith in Almighty Allāh) (70%). This fact is well expected since Allāh described His Book as: "Here is a message for mankind: that they may take warning therefrom, and may know that He is the One God: Let men of understanding take heed."34

The second most important principle of 'Imān, i.e. the 'Imān in the Hereafter, was present in 11.2 % of these scientific 'Ayāt. Allāh says:

"And who believe in revelation sent to you, and sent before your time, and (in their hearts) have the assurance of the hereafter."35

The word "science" and its derivatives are mentioned (782) times in the Glorious Qur'ān, whereas the word (Knowledge) appeared (29) times. Interestingly, these two words are mentioned (811) times exactly, and so does the word "'Imān" (faith).36

2. To give further evidence of the "'Ijāz" (inimitability) of the Qur'ān.37 Allāh says:

"Soon will we show them Our signs in the (farthest) regions (of the earth), and in their own souls, until it become manifest to them that this is the truth. Is it not enough that your Lord does witness all things?"38

3. To make man observe, think, and acquire new knowledge. There are "perceived facts" which can immediately be acquired. Yet the means to arrive at these facts are by no means all acquired. However, there are other facts, that we do not immediately perceive, but we come to know anyway. These are called "inferred facts" i.e. acquired by inference. The point to be made here is that there is no significant difference between those two types of facts. The difference is only a question of nomenclature; one is direct and the other is indirect. Yet both remain a fact of general Faith.39

The famous Islamic thinker Muhammad Mutwali al-Sha'rawi stated: "If one finds out about the basis of any scientific or cultural progress, he will find that it depends on the empirical approach, which consist of observation, formulation of a hypothesis -verification of this hypothesis before it becomes a general truth. This is precisely what Allāh has ordered man to do:

'And how many signs in the heavens and the earth do they pass by? Yet they turn (their faces) away from them."40

Allāh blames man for evading many of the aspects of the universe. He wants man to reflect on these aspects and infer things of significance to man. As a matter of fact many of these aspects from which man had made inference were evaded by man. It becomes natural to say, then, that the Glorious Qur'ān directs attention to the scientific empirical approach."41

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This aim moves us from a stage of objective interpretation to that of scientific inference. One can infer from the 'Ayāt of the Glorious Qur'ān numerous facts which have clear scientific references in all aspects of life. This has been made possible by making use of the available means of modern technology. In doing so, we Muslims can add a lot of the scientific records for humanity - In fact we can lead humanity in this concern.

Allāh says:

“...You were the best of peoples, evolved for mankind. Enjoining what is right, forbidding what is wrong and believing in Allāh.”43

In conclusion, the Qur’ān al-Karīm is mainly a Book of 'İmān and way of life. We also think that the purpose that Allāh referred to these scientific facts is to support the cause of Islamic message and to strengthen the belief in Him and in the other principles of 'İmān, and also to stimulate thinking and research to make progress for humanity. We also recommend that this approach be taken in consideration as a useful practical outline to be followed in designing future programs in education, teaching, and research, mainly in Islamic countries.

Acknowledgments

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Footnote: The translation of the Qur’anic verses are based on “The Qur’an: English translation of the Meaning and Commentary” by Yusuf Ali.