

**“Doubt is the key to knowledge” (Persian Proverb). To what extent is this true in two areas of knowledge?**

In my Ethiopian culture doubt, especially when directed to sources of great authority, is deemed extremely disrespectful. In contrast, the Persian proverb says that “Doubt is the key to knowledge” implying that doubt is an important way of acquiring knowledge. The problem with doubt as the key to knowledge is that doubt isn't a way of knowing. Doubt is an emotion we feel that motivates us to seek knowledge. However this motivation can manifest itself differently in contrasting areas of knowledge like Mathematics and Religion.

Mathematics is an area of knowledge that is only concerned with reason. In a right-angled triangle  $a^2+b^2=c^2$  and that's it. There are no alternative answers or personal interpretations. An answer to a mathematical problem is either right or wrong. This is because the main way of knowing in math is reason and evidence is required for a mathematical statement to be true or false. When we first learned about negative numbers in math class it made no sense to me. How could a bigger number have a lower value than a smaller one? It was illogical and it contradicted all the math that I had learned before that day. I was confused and curious. At that moment I doubted my math teacher because of my previous knowledge on the matter. Either the previous mathematical information was wrong or the new information about negative numbers was wrong. But he explained the concept of a number line with a central point 0 and that they were both right. My doubt led to understanding and was the key to my knowledge.

On the other hand, doubt in mathematics can be detrimental to education. For example after I do a question from the International Baccalaureate mathematics text book I always look at the back in order to check if my answers are correct because it has answers in the back. If I do not have

the book and I am in class then I ask my mathematics teacher for the correct answer. I do this when I am uncertain of my answer to a question and my doubt allows me to gain knowledge i.e. whether my answer is wrong or right. My doubt also helps me to assess how much of the mathematical concept I have understood by marking myself. However this can be detrimental to progress because I started to become dependent on the answers in the back of the book or my mathematics teacher. Every time I do a question I feel like I have to verify my answer with an authoritative source which I have now come to understand leaves no room for exploration or the development of my own methods. My doubt caused a loss of confidence in my mathematical abilities and a dependence on authoritative sources.

Another aspect of doubt in mathematics can be found in conjectures. A conjecture is a proposition which is believed to be true but not yet proven.<sup>1</sup> Mathematicians all over the world are still struggling to prove many conjectures. One of the most famous of these is Goldbach's conjecture where every even number is the sum of two primes<sup>2</sup>. Even though the mathematicians' doubt motivated them to investigate this conjecture all the way to 100,000,000,000,000 it does not mean that the conjecture is true because it is based on inductive reasoning. The conjecture can only be absolute when there is an algebraic way of proving it and if it does not work for one number the whole conjecture will be disproved. So far doubting this conjecture has not allowed mathematicians any access to new knowledge about the validity of the conjecture. Therefore, in this case doubt alone has not allowed the gain of knowledge.

On the other hand, religion is predominantly based on faith therefore religious knowledge can only be acquired from authoritative sources. For example my English teacher claims to be a

---

<sup>1</sup> <http://www.icoachmath.com/SiteMap/Conjecture.html>

<sup>2</sup> Theory of Knowledge for the IB Diploma, Richard van de Lagemaat, page 193

devout Christian and all he needs to know about religion is written in the Bible. We have various discussions from different points of view about literature, but when it comes to religion there is only one road for him. It is irrelevant to him that science says that a human cannot die and be resurrected, hence he believes that Jesus brought Lazarus back from the dead. For a devout person like him, doubt does not play a role in acquiring religious knowledge because, like in the example above, the story about Lazarus is based on the sense perception of people who lived 2000 years ago who claimed to have seen this happen. There is no way to prove or disprove the claim. However, my history teacher is fully convinced that the source of this information, the Bible, is fully reliable and therefore does not require any other evidence to be true. For a devout person like him doubt is not the key to knowledge.

Conversely the English philosopher Antony Flew<sup>3</sup> used doubt and reason to come to the conclusion that God exists. He was a candid atheist who had originally claimed that until empirical evidence of the existence of God surfaced one had to remain an atheist. Therefore in order to satisfy his criteria he reasoned his way to his conclusion. In order to stay true to his claims he took pride in staying up to date with the latest scientific advances. However in reviewing recent technological advances his criterion for empirical knowledge to be present for the existence God was fulfilled. Therefore he used doubt as his tool to make one conclusion after another. His doubt did not produce the knowledge but it did give him the motivation to seek knowledge; it allowed him to keep his mind open and flexible to new things. Although he has not become a theist he did use logic to conclude that God does exist.

Religion can also give space for various uncertainties to arise due to language issues. For example since the Quran is written in Classical Arabic the language used somewhat differs from

---

<sup>3</sup> [http://www.bbc.co.uk/blogs/ni/2010/04/antony\\_flew\\_the\\_atheist\\_who\\_ch.html](http://www.bbc.co.uk/blogs/ni/2010/04/antony_flew_the_atheist_who_ch.html)

the current Arabic that is widely spoken. As a result many scholars disagree on how to translate certain words. The word *idrib*<sup>4</sup>, which can be found in the section of the Quran that is devoted to dealing with disobedience of a woman, is translated by most scholars to mean 'beat'. However, Laleh Bakhtiar, a female Chicago Islamic scholar<sup>5</sup>, has concluded that the word means 'to leave' or 'go away' creating much controversy within the Muslim world. She came to this conclusion after doubting that the Quran would propagate violence against women. Her doubt allowed her to explore the translation of Classical Arabic further and come up with an alternative meaning that fits with the peacefulness of Islam. The meaning of this one little word *idrib* makes a major difference in the life of a Muslim woman. If taken to mean 'beat' any man will then be authorised by Allah to impart corporal punishment on his wife, sister etc creating doubt within the minds of believers, especially women, whether or not Islam really is a religion of peace as many Muslims claim. As discussed above faith is one of the foremost ways of knowing in religion, however, any claim must be supported by evidence if it is to be credible. Therefore even though Laleh Bakhtiar's translation is not widely accepted because of gender issues within the religious institution, her doubt has allowed her to explore issues that are yet to be answered.

On the other hand, Christoph Luxenberg claims in his book *The Syro-Aramaic Reading of the Koran* that neither of these translations is correct because the Quran was not written in Classical Arabic but instead in a mixed Arabic-Syriac language. His doubt in all of the various translations of the Quran led him to undertake the research in which he suggests that the language of the Quran is closer to that used by Syrians 2000 years ago rather than Arabic. This claim has implications of the Quran being misinterpreted due to this error and that the whole religion of Islam is being practiced in the wrong manner because of misinterpretation. The book was

---

<sup>4</sup> Holy Quran, Surah 32. Verse 4

<sup>5</sup> <http://www.thestar.com/living/Religion/article/268835>

published in 2007 and so far there have not been massive conversions away from Islam<sup>6</sup> as a result however his doubt does emphasize that at the moment we do not have a way to verify any of the claims above. Classical Arabic or Arabic-Syriac?

Overall, doubt can have both negative and positive outcomes. As illustrated by the example on dependence on authoritative sources in mathematics doubt can be detrimental and cause the loss of confidence. Similarly doubting conjectures has also proven to be unfruitful. However within mathematics individual doubt can lead to the acquisition of knowledge. In religion doubt is not the key to knowledge for devout people because religious knowledge is revealed knowledge and cannot be challenged. Although, the scientist Antony Flew claims to have used doubt to conclude that God exists. Furthermore in areas like religion where we do not yet have the tools to prove it one way or the other simply doubting something by itself is a step towards acquiring knowledge because by suggesting that a certain view is not absolute it makes room for new knowledge. Thus doubt is not the key to knowledge in the sense that it produces new knowledge however it may be the key that opens the doors to knowledge and leaves it up to the doubter to delve into the unknown.

---

<sup>6</sup> [http://www.absoluteastronomy.com/topics/Christoph\\_Luxenberg](http://www.absoluteastronomy.com/topics/Christoph_Luxenberg)

## Bibliography

(n.d.). *Christoph Luxenberg: Facts, Discussion Forum*.  
[http://www.absoluteastronomy.com/topics/Christoph\\_Luxenberg](http://www.absoluteastronomy.com/topics/Christoph_Luxenberg). (Date accessed 19/12/2010)

(n.d.). *Conjecture – Math Dictionary*. <http://www.icoachmath.com/SiteMap/Conjecture.html>.  
(Date accessed 17/12/2010)

(n.d.). *Furor over a five-letter word* <http://www.thestar.com/living/Religion/article/268835>.  
(Date accessed 18/12/2010)

### Holy Quran

R. van de Lagemaat. (2005). *Theory of Knowledge for the IB Diploma*. Cambridge: Cambridge University Press.

W. Crawley. (n.d). *BBC - Will & Testament: Antony Flew: the atheist who changed his mind*.  
[http://www.bbc.co.uk/blogs/ni/2010/04/antony\\_flew\\_the\\_atheist\\_who\\_ch.html](http://www.bbc.co.uk/blogs/ni/2010/04/antony_flew_the_atheist_who_ch.html). (Date accessed 18/12/2010).