

Automatically generated virtual coversheet for candidate file:

Coursework Title

That which can be asserted without evidence, can be dismissed without evidence Christopher Hitchens Do you agree?

Word Count

1546

Supervisor Comments

Candidate Declaration

I confirm that this work is my own work and is the final version. I have acknowledged each use of the words or ideas of another person, whether written, oral or visual.

Teacher Declaration

I confirm that, to the best of my knowledge, the material submitted is the authentic work of the candidate and the word count is accurate.

“That which can be asserted without evidence, can be dismissed without evidence” (Christopher Hitchens) Do you agree?

Christopher Hitchens’ statement implies that any knowledge claim must have evidence to justify it; otherwise it cannot be considered valid and can be ‘dismissed’. He further suggests that evidence is not required for this ‘dismissal’. However, while evidence is particularly crucial in science (after all the basis of the scientific method is the collection and testing of evidence), the idea that no evidence is needed for dismissal is at odds with the scientific use of falsification to disprove a theory. In addition, Hitchens’ insistence that the scientific method can be universally applied to all areas of knowledge seems questionable when we examine religion as an area of knowledge. Although I recognise my own bias when it comes to religious beliefs, it would seem that the problems with the statement, which are highlighted by an examination of religion, may also apply to other areas of knowledge. In some cases it would seem that logical necessity demands that claims be asserted without evidence, but in many cases those claims have later been found to constitute valuable knowledge.

Science is considered a particularly reliable form of knowledge and, even though no claim can ever be experimentally proved to be correct, we can be quite confident of the correctness of theories that have failed to be falsified for hundreds of years. Observation and testing are crucial to the scientific method and it is the collection of this evidence that makes the method so trusted. In these cases it would seem that Hitchens is quite right to demand evidence for any new assertions. The model of the atom is an example of how new evidence and a falsification of a previous theory can lead to development in scientific knowledge. In 1909 Rutherford discovered that some alpha particles didn’t bounce back when fired at thin gold foil and this evidence led him to disprove the previous model of the atom. However, in 1913 Bohr used new evidence to

falsify Rutherford's model.¹ Both of these scientific claims relied on new evidence to back up the proposed models and without this evidence no change in the recognised theory would have been accepted.

However, there are some areas of science that seem to have diverged from this method. In IB physics last term our lessons digressed into the theory of the multiverse, which proposes the existence of a (possibly infinite) set of universes to explain why our universe appears to be fine-tuned to human life. Since it is not possible to collect evidence or test the theory, as the cosmologist Paul Davies stated, "more and more must be accepted on faith, and less and less is open to scientific verification".² It has been argued that the theory has developed as an extrapolation of other theories rather than being based on evidence itself. If we followed Hitchens' assertion, then it would have to be dismissed due to lack of evidence. However, many eminent scientists continue to believe that the concept of a multiverse is a valuable one that should be considered, because although the concept cannot be proved or disproved, it may have to be true because it is a logical necessity.

Indeed, history shows a number of examples of scientific theories, which were proposed at a time where technology was not able to provide evidence to support them. For example, in 1543 Copernicus suggested that the sun was the centre of the solar system.³ This went against a long-standing theory and didn't seem logical at the time because the earth appeared to be standing still. The theory was therefore disregarded because the evidence was weak. But Galileo and then Newton eventually provided more evidence, which resulted in a paradigm shift in our understanding of the nature of our universe. Therefore, perhaps really important leaps forward

¹ Hamper C & Ord K, Standard Level Physics, 2007, Heinemann, Essex, p144.

²http://www.education.ucsb.edu/webdata/instruction/hss/Alternative%20History/History_Of_The_Multiverse.pdf Assessed: 04/01/13

³ Hamper C & Ord K, Standard Level Physics, 2007, Heinemann, Essex, p417.

in science, or paradigm shifts, such as the multiverse theory, require time for evidence to be collected, rather than being dismissed out of hand. Had the scientific and religious authorities of the day not dismissed Copernicus' claim so quickly, evidence may well have been found sooner as other scientists sought to find evidence to falsify the theory. In these scenarios it seems that it is not the job of scientists to 'dismiss without evidence' but to 'falsify with evidence', so that important ideas can be allowed to develop. It would seem, therefore, that in science there is sometimes space for assertions without evidence, if the reasoning that has produced the theory seems logical or necessary.

Hitchens was a well-known atheist and, since the context of the quote was a discussion about religion, it seems important to examine this statement in the context of a belief in god. A common argument used by atheists is that absence of evidence is evidence of absence. If, for example, a friend were to tell me of the existence of an invisible talking caterpillar at the bottom of her garden, apart from concluding that she was mad, I might ask for some evidence. Of course she would be unable to provide it and instead might retaliate with the question "where's the evidence against the existence of my caterpillar?" This is an example of the 'ad ignorantium' fallacy. Of course, in this scenario, believing that there is an invisible caterpillar is totally ridiculous and rejecting my friend's claim would seem to be perfectly reasonable. This is the view that Norwood Hanson was supporting in 1967 when he wrote his essay "What I Do Not Believe". He stated, "when there is no good reason for thinking a claim to be true, that in itself is good reason for thinking the claim to be false"⁴.

If when using the phrase 'good reason' the author means 'strong evidence', then Hanson's ideas would require the rejection of the multiverse theory, because there is no evidence to support it. However, there is no reason to believe that these negative statements must be believed either, as

⁴ http://philosophynow.org/issues/78/Wheres_The_Evidence Accessed: 07/01/13

they have no more evidence to support them than the positive ones. Atheists will often claim that there is no strong evidence for the existence of god. They therefore suggest that the existence of a supernatural creator can be dismissed without evidence, because the burden of proof rests with the believer and not the non-believer. Implicit in this argument is the contention that negative statements need not be supported by evidence. Hence there seems to be not only a confusing contradiction in their argument, but a divergence from scientific method, which requires falsification with evidence. The distinction between belief in the existence of an invisible talking caterpillar and belief in the existence of a god rests on the reasonableness of the belief.

Perhaps therefore, Hitchens' evidence based knowledge represents just one model for understanding the world. Perhaps the faith that people have in religion, whether founded or not, can also be helpful in understanding the role of faith more generally. For example, I know that I am a person, through my emotions, thoughts, experiences, memories and feelings. However, I cannot ever see inside the mind of my best friend, no matter how well I think I know her. Although she may look like a person, the fact that I will never be able to experience her thoughts, feelings or memories makes it impossible for me to know for sure that she is a person who experiences life in the same way I do. Nonetheless, just because I cannot prove the existence of the people I meet everyday, I do not inherently assume that they are not people, it would be a lonely life indeed if I did. Therefore it is clear, not only in the context of religion, that a certain amount of what we know is not necessarily based on the evidence that Hitchens suggested, but based on faith. Faith can also be a justification for a knowledge claim, in the same way that evidence⁵ can and however unlikely it may seem, the role of faith also has serious importance in the developments of science. For instance, Einstein had great faith in own assertions, even though sufficient evidence was only found years later.

⁵ Alchin, N, Theory of Knowledge, 2003, Hodder Murray, London, p289.

In conclusion, it would seem that although Hitchens' evidence-based model seems to be superficially attractive, it is apparent that it cannot be applied to all areas of knowledge. While generally in science evidence is important for the development of new theories, there is a certain amount of space in this area of knowledge for a divergence from Hitchens' rigid statement and this is particularly important in the development of paradigm shifts in our understanding of the universe. While religion does not necessarily negate the need for evidence in knowledge claims, this area of knowledge shows the important role that faith can play as justification and this is also applicable in other areas of knowledge. However, the implication of such a conclusion would be to give scope for unreasonable knowledge claims. I would therefore qualify my conclusion by stating that knowledge claims must be logical or reasonable if they are to avoid being dismissed without evidence.

Bibliography

Books:

Alchin, N, Theory of Knowledge, 2003, Hodder Murray, London.

Hamper C & Ord K, Standard Level Physics, 2007, Heinemann, Essex.

Websites:

http://philosophynow.org/issues/78/Wheres_The_Evidence Accessed: 07/01/13

http://www.education.ucsb.edu/webdata/instruction/hss/Alternative%20History/History_Of_The_Multiverse.pdf Assessed: 04/01/13