

Theory of Knowledge Essay

Candidate Name: Natasha Chawla
Candidate Number: 000506-005*Evaluate the strengths and weaknesses of reason as a way of knowing.*

Reason is one of the ways in which a person can acquire knowledge based on their experience. Although seldom noticed, in solving problems and providing explanations for occurrences, rationality and logical thinking are used. Reason plays a large role in our lives as a way of knowing as it governs in the way in which we live each day due to its ability to apply itself under different circumstances. In establishing objective knowledge, reason is very useful due to its certainty and the consistency. However, there are also flaws in using reason as a way of knowing, such as the presence of fallacies and confirmation bias. Whilst reason provides a sound method of knowing, there are limitations in using it to seek truth.

One of the most prominent benefits of using reason as a way of knowing is the certainty it gives in the establishment of knowledge. This is due to the seemingly flawless nature of logical reasoning, the preservation of the truth from the premises to the conclusion and its independence from culture and perception.¹ As a result, the certainty of using reason has enabled people to utilize rationality in their everyday lives. We have used the past experience as a way to form the premises of these logical reasoning and we are also using it to predict the future with accuracy. This is referred to as 'common sense' as people are basing their future expectations on what they have seen happen. For example, we have always known of the forces of gravity operating on the earth, thus we assume that it will also be operating in the future. This illustrates that reason, based on our experience, is enabling us to make that conclusion which is obviously vital for the functions of our everyday life. Imagine waking up tomorrow floating in your room!

The rationale behind the process of reasoning are considered flawless because given the premises, the conclusion that follows, must be valid. Take this syllogism as an example:

All As are Bs,
Some Bs are Cs,
Then some As are Cs.

The logical reasoning behind this syllogism would be correct due to the law of identity, which indicates that an object can be A or non-A,² which enables concrete conclusions to be made. Thus, the process in which knowledge is established from reason provides certainty as it preserves the truth in the statement. In addition, culture, perception or emotion does not play a part in the arrival at this conclusion, which is another attribute of using reason as a way of knowing as it enables the conclusion made to be universal and able to be understood by people from different backgrounds.

Conversely, there is a weakness in this logical thinking as the premises might not reflect the truth; therefore the conclusion derived may not actually be true. The acquisition of the truth is entirely dependent on the premises involved. For inductive reasoning, this is shown by taking what has been observed and making a generalization to all things that this phenomenon affects. For example, if ten mathematics teachers can speak English well, it does not necessarily mean that all mathematics teachers can speak English well. There is an evident flaw in this

¹ Van de Lagemaat, Richard. 2005. *Theory of knowledge for the IB Diploma*. Cambridge: Cambridge University Press, p. 118.

² Ibid, p. 132

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reasoning as it is making an assumption for all mathematics teachers without consideration of other cultures and countries. Hence, this does not indicate that the conclusion that we have derived is true. Thus, in obtaining the truth, logical reasoning is not useful unless the premises are true. Take the example of this deductive reasoning:

All dogs have brown fur,
Pongo is a dog,
Therefore Pongo has brown fur.

Although the conclusion is perfectly valid from the given premises, it does not necessarily follow that all dogs have brown fur based on the knowledge we have derived from our perception of dogs. Whilst the logical reasoning is perfectly valid, the truth in the statements may not be, depending on whether the premises are correct or incorrect.

Alternatively, reason has the ability to confirm the knowledge with more than the “immediate evidence of our senses”.³ In comparison to perception and emotion, this would prove to be more certain as it is not distorted by what we perceive or feel at the time but what continues occurring. This quality of reason is utilized in the acquisition of objective knowledge, especially in sciences and mathematics where induction is commonly used. In proving a proposition is true in mathematics, the following conditions must be met by the Principle of Mathematical Induction:

Suppose P_n is a proposition which is defined for every integer $n \geq a$, $a \in \mathbb{Z}$

Now if P_a is true, and P_{k+1} is true whenever P_k is true,

Then P_n is true for all $n \geq a$.⁴

This shows the application of inductive reasoning in mathematics; however there are also specific premises that must be met. In the areas of knowledge, which are more useful and certain, like science and mathematics, reason is highly valued as it facilitates the establishment of knowledge with certainty.

Whilst reason is useful as it eliminates the personal view on the subject it should be considered that reason is largely based on the experience and observations a person has and these could be distorted by perception and culture. In relation to the dog syllogism above, if a person has only come across brown dogs, the premise for the conclusion would be true in his perspective because he would deem the premise true. Thus, in the establishment of knowledge, culture and perception through experience will influence the premises that we make, which ultimately affects the conclusion. Furthermore, we cannot justify our beliefs or reasons on the basis of experience due to its distortions by perception and emotion.

Similar to perception, the flaw in acquiring knowledge through reason is that we have the tendency to remember what supports our beliefs rather than the arguments against them, otherwise known as confirmation bias.⁵ Take gamblers for an example: a person

³ Van de Lagemaat, Richard. 2005. Theory of knowledge for the IB Diploma. Cambridge: Cambridge University Press, p.112.

⁴ Urban, P. Owen, J. Martin, D. Haese, R. Haese, S. Bruce, M. 2004. Mathematics for the international student. Adelaide: Haese & Harrison Publications, p. 220.

⁵ Van de Lagemaat, op cit, p. 122.

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who gambles is more likely to believe that they have higher chances of winning more money, perhaps based on their past experience. However, according to mathematics, the possibilities of the outcomes occurring are equal for every person theoretically. A gambler may choose to ignore the cases where people have lost their possessions and only focus on those who have won prizes. Thus, reason is not being used properly as the knowledge available to us is valued differently. Whilst logical reasoning allows us to obtain knowledge in many areas of knowledge, our beliefs restrict the possibility of the acquisition of this knowledge. One might say there is a prison of consistency in which, once we believe in something, it is difficult to change our minds and perceive the situation differently. To counteract this confirmation bias and prison of consistency, lateral thinking, explaining the occurrence through other possibilities, must be applied.⁶ However, human beings may not apply this lateral thinking in most situations as they may be oblivious to the effect of the prison of consistency on them.

Whilst logical reasoning is not doubted in its processes, fallacies, invalid methods of reasoning, can arise.⁷ The existence of these fallacies proves that despite its many advantages, there are weaknesses of using reason as a way of knowing. Whether arising from pride, ignorance or laziness, the fallacies cannot be used to obtain knowledge validly.⁸ Consider, for example, that a man with an Indian origin was asked about Hindu rituals. There is a hasty generalization about the man made as there is the assumption that he is Hindu or knows of Hindu rituals on the premise that he has an Indian descent. Furthermore, there is also the generalization that all Indians know the Hindu rituals which may not necessarily be true. Thus, a fallacy would be committed in this situation which created a conclusion that was both invalid and false. Hence, there is a limitation in using reason as a way of knowing as with insufficient or false evidences there cannot be a valid conclusion.

Another weakness in using reason as a way of knowing concerns the use of language in establishing categories in which reason is applied. The laws of thought suggest that only A or not-A exists.⁹ This is a very definite and binary view of the world. However, language can be used ambiguously in establishing knowledge through reason and this is known as equivocation.¹⁰ For example:

All banks are beside rivers.

Therefore, the bank where money transactions occur is beside a river.¹¹

Although the argument is valid owing to the conclusion fulfilling the premise, there is a misuse of the word 'bank' as in the first sentence, it refers to a slope at the side of the river while 'bank' in the second sentence is a financial establishment for money transactions. Hence, language certainly does affect the validity of an argument through the connotations of words. Language must then be used carefully in forming

⁶ Van de Lagemaat, Richard. 2005. *Theory of knowledge for the IB Diploma*. Cambridge: Cambridge University Press, p.135.

⁷ Ibid, p. 113.

⁸ Ibid, p. 131.

⁹ Ibid, p. 132.

¹⁰ Ibid, p. 126.

¹¹ Curtis, G. N. [2008] *Equivocation*. <http://www.fallacyfiles.org/equivoqu.html> [Accessed 22 August 2008]

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the premise and conclusions as it could limit the ability to use reason as a way of knowing.

Regardless of the strengths and weaknesses of using reason as a way of knowing, reason is so commonly used that without it, the establishment of knowledge we have today would have little progress. Nonetheless, it is important to consider the strengths and problems associated with using reason as a way of knowing as it enables us to understand the limitations and flaws reason may have in acquiring knowledge. In terms of its use, I think the utility and certainty that reason has, as its strengths, would outweigh the fallacies and confirmation bias that can arise from its use.

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Bibliography

Curtis, G. N. [2008] Equivocation. <http://www.fallacyfiles.org/equivoqu.html> [Accessed 22 August 2008]

Urban, P. Owen, J. Martin, D. Haese, R. Haese, S. Bruce, M. 2004. Mathematics for the international student. Adelaide: Haese & Harrison Publications.

Van de Lagemaat, Richard. 2005. Theory of knowledge for the IB Diploma. Cambridge: Cambridge University Press.