

There is no such thing as a neutral question. Evaluate this statement with reference to two areas of knowledge

The questions that we pose in our search for knowledge may not always be neutral, due to cultural paradigms and our reliance on language as a means of discovering new knowledge. These two main factors can alter the neutrality of a question because they can result in loaded questions and one-dimensional answers. For the purpose of this essay, I will define a neutral question as an unbiased (considers all aspects), non-loaded question that does not lead to illogical ignoring or over/underweighting of evidence due to some predetermined outcome such as a desire to fulfil a personal agenda. This distinction is important because it means that the flaws of language and the effects of cultural paradigms can remove a neutral question's ability to explore all perspectives and therefore can be limiting in our search for knowledge. However, there are cases where non-neutral questions may actually be beneficial or essential in our search of knowledge. The extent of this differs in contrasting areas of knowledge like History and Mathematics.

History is an area of knowledge where we study past sources and evidence to help further our understanding. However, the context of many of these issues is cultural, which can cloud historians' reason causing them to interpret the same factual events differently. For example, there are many different views as to how the Cold War started in 1947¹. The Traditionalist view² blames Soviet aggression and Communist views while the Revisionists³ blamed the West's obsession with capitalism and fear of change. It is important to note that majority of Traditionalists are British or American while Revisionists are mostly comprised of Russians. In fact, Traditionalist historians such as George Kennan⁴ have explicitly claimed to be a supporter of United States' policy of containment in *The Sources of Soviet Conduct*⁵. He asks loaded questions such as 'Why has the USSR perceived itself at perpetual war with capitalism?' This is a loaded question because it leads towards an answer that may imply that the USSR

¹ <http://www.datesandevents.org/events-timelines/03-cold-war-timeline.htm>

² http://www.johndclare.net/cold_war1_answer.htm

³ http://www.johndclare.net/cold_war1_answer.htm

⁴ <http://education-portal.com/academy/lesson/approaches-toward-the-cold-war-traditionalism-revisionism-post-revisionism.html#lesson>

⁵ <http://www.foreignaffairs.com/articles/23331/x/the-sources-of-soviet-conduct>

was the aggressor with questionable motives. It also portrays the US as victims of the Soviet hatred of capitalism. He underweights Soviet evidence and does not consider the other side of the argument. Thus, cultural paradigms have resulted in his loaded question, yielding a one-dimensional answer that eventually became the foundation for American Cold War policy. Here we can see that cultural paradigms are an inhibitive fact of neutral questions as most or all historical questions are cultural or political. However, these non-neutral questions may not necessarily hinder our search for knowledge. This is because that although these answers may only incorporate a single cultural interpretation of a historical source, many different viewpoints will arise anyway due to the global multitude of cultures. By studying all these different perspectives, we can gain a greater breadth of contextual, cultural and historical knowledge from a single source. It is important to note that for this to be possible a historian must have access to all the different cultural interpretations that are available or else our knowledge would be over-reliant on a narrow historical perspective that has been influenced by non-neutral questions from cultural paradigms.

Although Mathematics is an area of knowledge with a higher degree of reasoning and lower degree of subjectivity when compared to History, cultural paradigms are still capable of raising non-neutral questions. However, the undisputed concepts (governed by axioms) such as Pythagoras' Theorem ($a^2+b^2=c^2$) are mere equations. They are not questions. Questions in Mathematics revolve around new conjectures or possible theories, which is why they are open to manipulation by cultural paradigms. An example would be the questions posed by mathematicians during the development of string theory⁶. String theory has provided the link between mathematics and physics as it proves the co-existence of general relativity and quantum mechanics. However, this means that string theorists ask non-neutral questions such as 'How can we mathematically use string theory to prove the Big Bang?' This is non-neutral as they are adhering to the belief that string theory exists or the Big Bang actually happened. Due to their personal and cultural experience as mathematicians or atheists, they may unintentionally overweight the mathematical theories explaining the creation of the universe, whilst simultaneously underweighting other theological or philosophical theories. Although the mathematical equations they solve are objective and

⁶ <http://www.bourbaphy.fr/dijkgraaf.pdf>

unchallenged, the conceptual, non-neutral questions they pose to develop their knowledge have been affected by cultural paradigms. However, it is important to note that these non-neutral questions occurring in this instance are not detrimental to the advancement of mathematical knowledge at all. As the string theorists ask these questions, they are further expanding their one-dimensional knowledge in Mathematics. Though the discovered knowledge may not be holistic with regards towards other subjects, these neglected areas of knowledge are non-mathematical and therefore, irrelevant towards the search for *mathematical* knowledge.

We have already seen how differing cultural paradigms can alter the neutrality of questions in both History and Mathematics. Nevertheless, there also exists another factor that can cause non-neutral questions to arise: the power of language that can be utilised to alter debates and manipulate knowledge discovered to suit the asker's personal agenda. A blatant example of this is propaganda. Wartime propaganda and recruitment posters exhibited intended bias by employing language as a way of knowing to affect emotion and reason. Questions such as 'Do you love your country?' preyed on citizens' emotions and aimed to manipulate their reason in supporting the war. These questions lead them on to prioritise certain elements (such as patriotism) over others in a wider argument. Furthermore, we rely on debates on subjective matters to attempt to further our knowledge in History. Historians could utilise biased, flawed questions to prove their point, such as 'Were the Soviets the only one to hold troops in Eastern Europe?' They exploit the use of language as a way of knowing by employing linguistic devices such as rhetoric. As it was a fact that only Soviets had troops in Europe⁷, the answer forces the listener to take a particular viewpoint and look on the Soviets with fault. The wording of the question implies a synonymous claim to 'What aggressive positions did the Soviets have in Europe?', which is an obvious loaded question. Since History is centred on the debate and interpretation of sources, we can argue that non-neutral questions via linguistic devices and intended bias is ever-present as historians attempt to reinforce viewpoints and present ideas. Therefore, in this case, non-neutral questions can play a positive, even essential role in our search for knowledge. As long as historians do not allow their historical reasoning to be manipulated by language, the strength of the combination of non-

⁷ <http://www.ushmm.org/wlc/en/article.php?ModuleId=10005507>

neutral questions and hard evidence (sources) allow for the historian to validate his opinion or interpretation. However, this form of historical knowledge that is achieved cannot be considered complete knowledge, as it only represents one particular viewpoint. Yet, it is still important in the development of historical knowledge because it allows us to discover more about a particular source even it is through one opinion at a time.

As with in the case of History, mathematical debates can also be affected by language, thus resulting in non-neutral questions, albeit with slightly different effects. Mathematical debates are always centred on conjectures or proposed solutions to unanswered problems. When attempting to prove mathematical knowledge as valid, all arguments must be backed by appropriate Mathematics, which must accurately adhere to definite, fundamental axioms that are not open to discussion. However, the politics of Maths may still be subject to questioning, although the equations that govern them are not. Here, the role of non-neutral questions will once again always arise with positive effects. During peer review, mathematicians may ask non-neutral rhetorical questions such as 'Is this approach even rational?' to convey their doubt about a particular approach. In the case of Fermat's Last Theorem⁸, Andrew Wiles' initial proof was subject to such questioning by his colleague, Nick Katz, who then found a critical error. It allowed Wiles to correct his work and remove traces of remaining errors, thus validating his paper as new mathematical knowledge. These non-neutral questions can induce vigorous checking of mathematical accuracy, which is beneficial in our search for knowledge. This differs greatly from History (where the power of language and opinion alone can directly sway the outcome of a debate), as these questions lack the direct capacity to impart knowledge or fulfil agendas due to the overpowering force of reason as a way of knowing in Mathematics. However, they are able to indirectly result in a greater efficiency of validation of new mathematical knowledge.

Overall, there can never be a question that is completely neutral due to the existence of cultural paradigms and the role of language in discovering new knowledge. These culminate in obviously loaded and non-neutral questions that allow historians or

⁸ http://en.wikipedia.org/wiki/Fermat%27s_Last_Theorem

mathematicians to prove a point. Still, the level of which this occurs differs in History and Mathematics. History's subjective nature and reliance on debatable interpretation of sources means these non-neutral questions can result in one-dimensional answers, but are vital in validating and debating the interpretation of historical sources. On the other hand, this is less prevalent in Mathematics and the search for knowledge is less directly affected by the absence of neutral questions. While ideas and conjectures can be questioned or debated (and can aid the peer review and the process of validation), the underlying Mathematics must be accurate in order for us to accept this new knowledge. No amount of questioning, neutral or non-neutral, can affect the true mathematical verification of set equations and rules.

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There is a good level of analysis in this essay and it is linked well to the prescribed title. But there are weaknesses -for example the characterization of mathematics.

It starts well by setting out different ways in which questions can depart from neutrality. The discussion of history, although a little generic, nevertheless develops the idea that questions originate here against a background of cultural assumptions.

The candidate suggests that the way in which neutrality can be restored is by considering a variety of perspectives. There is a misunderstanding about the difference between mathematics and theoretical physics. While they are close disciplines which overlap significantly there are clear differences in subject matter between them which account for the alleged non neutrality of questions such as "how does Mathematics prove the Big Bang?".

Although there is some confusion with the Wiles example, the point that non-neutrality attaches to the language that is necessary both for asking questions and validating their answers is a good one.

On the whole the arguments are well structured and are evaluated well. The essay is weak on implications, which, combined with some unclear argument in places, prevents a level 5 score

Level 4 (8/10).