

Science article summary

This article explored various philosophical perspectives towards the concept of evidence. The article begins by highlighting the differences between evidence and proof and clearly states that evidence isn't proof. It says that proof is something obtained from deductive reasoning whereas evidence is accumulated and is required when no proof exists for a certain idea. Evidence doesn't create proof, but simply increases the probability of an idea being true. Evidence can never be regarded as a causal claim, and can only be a factor that influence something to happen. We can never claim to know or ascertain the cause of anything. We can also not label found evidence as the proof for a causal claim. 'The fact that there is a correlation between a factor and an outcome does not necessarily mean this factor causes the outcome'¹. Correlation does not imply cause. The third part of the article discusses the idea of evidence being a 'result of human activity'. It questions and contradicts the view of evidence being something we look for and find. Instead, it states that evidence is something that is not just gathered or collected through observations but found by organising and arranging experiments, under specific laboratory conditions using the suitable laboratory equipment. We only find evidence for something that we are unable to observe without conducting or performing experiments as we're interested in discovering things that we don't know. The article gives the example of the human body as it says 'we aren't interested in the human body that we can observe, we are interested in things going on inside the human body that require that we set up lab experiments'. To conclude, it articulates on the point that evidence is produced by us and we do not get it or obtain it out of the blue but have to search for it by isolating the factor/s we're studying. We deliberately design experiments to obtain evidence and hence it is a result of human activity.

The article has established how we produce evidence and the final section talks about the effect of our personal opinions, values and bias in the creation of evidence. It says that evidence isn't a value free idea and that we need to define and see how impartial we are to the results. It also debates and discusses evidence based medicine, and who gets to be involved in the process of making policies and patient treatments. Ideally, there should be an integration of judicious and unbiased use of current evidence, clinical expertise and patient values when making decisions about the care of patients. We need to empower our values of science by using them to guide us through agreeing on things like proper use of power etc.

¹ : http://www.bbc.co.uk/schools/gcsebitesize/science/21c_pre_2011/atmosphere/airpollutiondatarev4.shtml