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Inductive and deductive arguments in religion and natural science

Inductive and deductive reasoning are the two ways that we use to draw conclusions, and in some sense to predict the future. I will try to describe the two methods, how they are used within two subjects: religion and natural science.

Let me begin with religion, and how the two methods are used within this system of knowledge. First, let me state that religion is very individual, and I cannot therefore be right in every statement, and of course I have to generalize which will bias some parts of this essay.

Religion

Often religion is used to predict the future, to be sure of what will happen. Induction is often used within this subject; since there was an earthquake last time I did something bad, there will be one the next time too. We try to see a pattern – that is how our mind works, and we can therefore draw conclusions and in some sense predict the future.

Deductive conclusions are also drawn within this subject. For example,

God is almighty
Jesus is God
Jesus is almighty.

Then can we actually see a pattern? Can a relation be proven? I think that the human brain works in a way that makes us need a supernatural force, we need something to explain what we cannot explain otherwise. This is why religion is worldwide. Approximately 80% of the population believe that there is a god or a supernatural state. Every man has an inborn need to seek and explore the unknown space of religion, but is there really a pattern between reality and religion, or do we just imagine and try to match reality with something supernatural? And in that case, can it be proven deductive, or only inductive, and then – is it really a proof?

Well, I believe that these questions are the reason why not everybody is or is not religious. Because we cannot prove anything, it is all about personal experience. So you can say that there are neither inductive nor deductive proofs in religion, only arguments which are based on personal experience.

Science

Science is often known and defined for its use of deduction, and that inductive conclusions are not seen as laws. Let me quote what Longman's Dictionary of Contemporary English says about science: *"Knowledge about the world, especially based on experiment and testing, and on facts that can be proven"*. So according to this definitions, scientific knowledge should be based on deductive arguments and deductively formulated statements since induction leaves space for doubt and exceptions. However, there must be some laws based on inductive arguments, or can you consider them as laws then? And since all knowledge in science should be objective and a law is supposed to be true for all situations, laws cannot therefor be derived from inductive evidence.

In the childhood of science, before Newton, everybody knew that if you drop an item, it would fall to the ground. No one cared for a law - it was obvious. I believe that everyone thought of it as a law, although no one had stated it yet. Then Newton came and said that mass attracts mass, and there was a law that everybody already knew, but now it was stated.

This implies that the law came from a hypothesis that was developed by many observations, and that is the definition of inductive arguments. So, are all hypotheses based on inductive arguments? Yes, probably. Because most of the laws and hypotheses are based on problems in our everyday life, and then we must observe things first, and then add prior knowledge and the sum is hopefully a new hypothesis. We can then use that hypothesis in a deductive system to make a new law. Of course not all hypotheses are based on problems in our daily life, there are some exceptions, mainly within astrophysics and nuclear physics, but we humans always try to imagine the problem as casual for us to understand the problem.

Then, great philosophers have claimed that we actually cannot rely on what we perceive. For example Descartes, Plato and Konrad Lorenz express skepticism, and we can enter a new subject, Epistemology. Therefore, according to them we cannot make any 'true' statements about the world, no hypotheses, theories or laws.

The basic law for science is that everyone should be able to examine and prove the laws independent. This means that no personal opinion may be added to the law. And that means that everybody can share the knowledge, for the law to be a law, everyone must have the opportunity to learn and understand the reasons behind the law. This cannot be accomplished within religion.

How do religion and science produce statements then?

In religion it is quite difficult to answer, because they do not have any statements really. All 'statements' for them are personal experience and believes that cannot be proven in any sense, unless God shows himself to every person on earth.

It is much easier in science to show how the different types of gaining knowledge are used. The common pattern is that you 1) observe a process, 2) add the knowledge that you have from before, 3) through inductive reasoning try to see the pattern and 4) state a hypothesis. 5) Use deductive reasoning to 6) predict what will happen next time. 7) Try the predicted assumption in an 8) experiment, and you will get a result, either positive or negative. In this process you have used both inductive and deductive reasoning. Inductive to form hypotheses and deductive to try it out.

In science these two methods are more obvious and more natural, and it may sometimes seem strange to use those two terms when talking about religion, which may be sensible to people. It feels wrong to try to prove that God exists or not when people are willing to sacrifice their lives for his sake. But we humans work in that way that we need proofs to believe in something, through either personal experience or empirical proofs.

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