Are all a priori truths are analytic essay

In this essay I shall explore the concepts of a priori knowledge and analytic knowledge. I shall argue that Kant is mistaken when he states that some a priori truths exist which are not analytic and I shall conclude that by the very nature of how ‘ a priori’ is defined, all analytic truths are a priori and all a priori truths are analytic. What is a priori knowledge? Possibly the most common and widely accepted definition is that used by Kant in his Critique of Pure Reason. Here he states that a priori knowledge is “ knowledge absolutely independent of all experience” 1.

According to Kant’s definition, a classic example of a priori knowledge would be ‘ all horses are equines’. The definition of horse entails that is it an equine and one does not have to have met every horse that ever lived to work this out. As long as someone is aware of what the terms ‘ horse’ and ‘ equine’ entail, then they can see the truth in the statement ‘ all horses are equines’ without having to reflect on experience. Thus, the reasonableness of asserting that ‘ all horses are equines’ “ rests solely on a correct understanding of the meanings of the terms involved. 2 However, an element of experience is necessary to determine whether something could be deemed a priori knowledge – one must have experience of the terms being used and what they refer to or mean. This would seem to defy Kant’s assertion that a priori knowledge is “ absolutely independent of all experience”.

However, if that was truly the case, one would have to concede that no knowledge could be defined as a priori knowledge, as in any case of knowledge it is clear that one must have had an experience of something, be it simply the way certain terms are used and the existence of certain concepts. In order to refine this usage of ‘ a priori’, we can simply say that Kant’s definition does not refer to the origin of concepts and that once we have the concepts in mind, a priori knowledge requires no further experience. Kant notes two key criteria that any knowledge that is to be classed as a priori must fill. These are the criteria of universality and necessity3. For a proposition to be classed as a priori it must hold under all circumstances and without exception. Not only that, but it has to be true and does not just happen to be true.

For example, it might be the case that so far, in the entire expanse of history and human experience, albatrosses have always chosen partners for life, and will remain in that partnership unless one of them becomes lost or dies. However, simply because this seems to have happened without exception does not mean that it is impossible for an albatross to exist that takes a range of partners over its life and seems to revel in albatross-adultery. Thus, that albatrosses take life partners is not an a priori truth. It may seem apply universally, but it is not a strict form of universality, it is not necessary and it does require experience to determine.

For an example of a universal and necessary truth, Kant asks us to look at the propositions of mathematics. What is analytic knowledge? According to Wilfrid Sellars, the term ‘ analytic’ is used in a narrow or strict sense and a broader sense4. The narrow sense of the term ‘ analytic’, an analytic truth is something which is a “ truth of logic or is logically true” 5. Clear examples of this usage would be mathematical truths.

It is a logical necessity that 2+2= 4 in base 10, even if this was written in an alien language or not written at all. 2+2= 4 is thus an analytic a priori truth, in this sense. The second usage of ‘ analytic’, according to Sellars, is the broader sense. In this case, ‘ analytic’ is taken to refer to propositions that are “ true by virtue of the meanings of the terms involved. “ 6 This usage would cover statements such as ‘ all red things are coloured’. Red is a colour, thus anything which is red must be coloured.

This proposition also seems to fit the former usage of ‘ analytic’, as being red logically entails being coloured. However, Sellars claims that there are “ interesting examples given …

of propositions which are analytic in [the broader] sense [but] turn out on examination not to be logically true. “ 7 However, Sellar does not actually give such an example, and thus it is left to the reader to consider what he means. It seems likely that he is considering the propensity of some philosophers to define words in their own terms. One could define white as black and thus say ‘ all white things are black’. However, while this seems to follow the form of ‘ A= A’, something being white does not logically entail that it is black.

In this case, it seems natural to assert that the philosopher in question is an idiot because his use of the terms ‘ black’ and ‘ white’ do not correspond to the accepted application of the terms. He is effectively creating new words which happen to share a form with pre-existing terms. A longer example might make my reading of Sellars’ claim clearer. Let us imagine a situation in which a winding street runs alongside a school. There have been accidents between pedestrians and traffic on this road.

A decision is made to widen the road. The justification for this is that poor sightlines have caused accidents, and that removing these poor sightlines will remove the cause of these accidents, thus making the road safer. ‘ A safer road’ has been defined as entailing ‘ a road with better sight lines’. They make the following proposition; ‘ a safer road is a road with better sight lines’. By virtue of the terms involved, this could be considered to be an analytic proposition.

However, once the road is widened, the number of accidents increases due to increased complacency on the part of drivers and pedestrians. The proposition ‘ a safer road is a road with better sight lines’ could thus be deemed analytic but without being a truth of logic.. Kant’s definition of analytic encompasses both of Sellars’ definitions, in the sense that anything that is true by virtue of the terms used would also seem to be logically true, with the exception of those spurious cases such as the one mentioned above. However, Kant claims that there are logical truths which are not analytic8. This claim shall be explored a little later.

In dealing with the nature of analytic propositions, he covers propositions of the subject-predicate form, and states that an analytic judgement is one where “ the predicate B belongs to the subject A, as something which is contained in this concept A. “ 9 He gives the example of, “ all bodies are extended” 10. As the concept of ‘ extension’ is bound up in the concept of a ‘ body’ and the understanding of this truth requires no further experience, this is both analytic and a priori. In fact, all analytic knowledge is in fact a priori knowledge, simply by virtue of the fact that neither require experience beyond the experience necessary to become aware of the terms and concepts in use. The opposite of an analytic judgement is one where the predicate B “ lies outside” 11 the subject A. A truth of this form tells us something new about the subject, as the predicate is not entailed in the subject.

Kant gives the example of “ all bodies are heavy” 12. If this is true, then it gives us some new information about bodies as the term ‘ body’ does not entail the term ‘ heavy’. Judgements and knowledge of this form are called ‘ synthetic’. Are all a priori truths analytic? Here we must explore Kant’s assertion that there are logical truths which are not, in fact, analytic.

He claims that “ all mathematic judgements, without exception, are synthetic” 13, and in order to explain this claim, he asks us to reflect upon a sum. For the purposes of clarity I will not use the simple “ 7+5= 12″14 sum he utilised in his example, but instead will use something a little more complex. The reason for this is that most people are quick enough with their numbers that it seems obvious that 7 added to 5 would be twelve, and thus grasping the concept of mathematical truths as synthetic statements might be problematic. Take instead ’42/6= 7′.

This is a universal necessity that 42 divided into 6 groups means you will have seven in each group. However, one can have a concept of 42 and a concept of 6, and even the concept of dividing 42 into 6 parts without having any knowledge of what the answer will be. Someone can think ’42/6′ without also thinking ‘ 7’. If someone takes time to work out the answer to a sum where they did not already know the answer, they are informed of something about the world which they did not already know, despite the fact that the thing they discovered is a logical truth and thus universal and necessary. However, I would argue that the concept of ’42/6′ does entail ‘ 7’.

42 as a number (and not simply a symbol) entails 42 individual units of something. Those 42 units, when combined with the concept of a division and 6 different groups, does entail 7. The ambiguity stems from the fact that someone can look at ’42/6′ written down and not involuntarily become aware of the concept of 7. However, there is a difference between looking at a series of symbols and having a true understanding of what those symbols mean and how they relate to each other. If we turn to a widely accepted analytic a priori truth, we may see how it could be argued that Kant is mistaken. The term ‘ bachelor’ entails ‘ unmarried’.

However, we could say ‘ Alexander is an unmarried man’. Do we involuntarily conclude that he is therefore a bachelor? We can see ‘ unmarried man’ without having any concept that ‘ unmarried man = bachelor’. When we first learn that ‘ bachelor’ means ‘ unmarried man’ we learn something about the world that we did not previously know. However, once we are aware of the concept of a bachelor and what it means, we make the connection and do not require further experience to determine if a bachelor is unmarried.

This is much the same as with ’42/6′. Once we know that 42/6= 7, we require no further experience to determine if all instances of 42 being divided into 6 will equal 7 in each group. Not only this, but our understanding of the concept of dividing 42 into six groups entails that there must be seven in each group. Each mathematical truth must only be worked out once, and each truth is worked out via knowledge of what the relevant terms and concepts used mean and are. This is much the same as discovering what a new word means.

Kant also mentions that the principles of science are ‘ a priori truths’, but may also be synthetic15. He uses the example of the conservation of matter16. However, while it was thought at the time of writing that this applied universally, is it also necessary? Could it not be otherwise? Indeed, advances in science consistently overturn previously held principles. Conclusion It seems that Kant may be mistaken when he states that mathematical truths are synthetic, as opposed to analytic cases of a priori knowledge. A true understanding of the terms used in most a priori statements lead one to conclude the truth of the statement simply from the terms involved.

In order to discover a case that defies this ‘ rule’, one would have to analyse every a priori statement that could exist. This would be an endless task, and thus I feel compelled to conclude that an a priori truth must at least be analytic. Whether ‘ analytic’ and ‘ synthetic’ are by their very nature mutually exclusive terms is a issues for another essay.