Tutorial A04: Identifying Hidden Assumptions
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A04.1 Introduction

When people give arguments sometimes certain assumptions are left implicit. Example: Homosexuality is wrong because it is unnatural. This argument as it stands is not valid. Someone who gives such an argument presumably has in mind the hidden assumption that whatever that is unnatural is wrong. It is only when this assumption is added that the argument becomes valid. Once this is pointed out, we can of course go on to discuss what this assumption really means and whether it is justified. We might argue for example, that there are plenty of things that are “unnatural” but are not usually regarded as wrong (e.g. playing video games, having medical operations, contraception). Someone who still wants to put forward such an argument might then distinguish between different types of unnatural acts, some of which are supposed to be permissible, others being morally wrong. Pointing out the hidden assumption in an argument can help resolve or clarify the issues involved in a dispute.

In everyday life, the arguments we normally encounter are often arguments where important assumptions are not made explicit. It is an important part of critical thinking that we should be able to identify such hidden assumptions or implicit assumptions.

So how should we go about identifying hidden assumptions? There are two main steps involved. First, determine whether the argument is valid or not. If the argument is valid, the conclusion does indeed follow from the premises, and so the premises have shown explicitly the assumptions needed to derive the conclusion. There are then no hidden assumptions involved. But if the argument is not valid, you should check carefully what additional premises should be added to the argument that would make it valid. Those would be the hidden assumptions. You can then ask questions such as: (a) what do these assumptions mean? (b) Why would the proponent of the argument accept such assumptions? (c) Should these assumptions be accepted?

This technique of revealing hidden assumptions is also useful in identifying hidden or neglected factors in causal explanations of empirical phenomena. Suppose someone lights a match and there was an explosion. The lighting of the match is an essential part in explaining why there was an explosion, but it is not a causally sufficient condition for the explosion since there are plenty of situations where someone lights a match and there is no explosion. To come up with a more complete explanation, we need to identify factors which together are sufficient for the occurrence of the explosion, or at least show that it has a high probability of happening. This might include factors such as the presence of a high level of oxygen in the environment.

A04.2 Exercises

Identify the likely hidden assumptions in these arguments:
We should reduce the penalty for drunken driving, as a milder penalty would mean more convictions.
Moby Dick is a whale. So Moby Dick is a mammal.

Giving students a fail grade will damage their self-confidence. Therefore, we should not fail students.

It should not be illegal for adults to smoke pot. After all, it does not harm anyone.

There is nothing wrong talking on a mobile phone during lectures. Other students do it all the time.

Killing an innocent person is wrong. Therefore, abortion is wrong.

Traces of ammonia have been found in Mars' atmosphere. So there must be life on Mars.

There cannot be more than one God. Otherwise, there would be two Gods equally powerful, or one is more powerful than the other.