## Certaín Knowledge

In the past it was quite common to assert that certainty was a necessary condition for knowledge. In modern times slight fallibilities are usually tolerated, because true certainty seems exceedingly difficult or impossible to achieve, given the huge range of sceptical questions that have now been asked, about every aspect of our cognitive abilities. Increased certainty looks like a nice bonus to add to knowledge, which suggests that ordinary knowledge need not be certain. If we are cautious about how far we can have knowledge, we might even say that fallibility is a cognitive virtue, especially in the practice of science. This even seems to be a virtue in a person whose views are very dogmatic, or very sceptical. When error is no longer even considered to be a possibility, we may be experiencing something closer to a vision than to knowledge. Nevertheless, perfect certainty is clearly an ideal at which knowledge-seekers aim, and it is of great interest to know whether any kind of certainty is possible, and how it might be achieved. It certainly seems inappropriate to claim that you 'know' something while admitting you may be wrong.

Certainty is not the same as absence of doubt, since a believer may lack confidence even when there is no apparent reason to doubt (though if doubt were felt to be absurd, that would suggest certainty). A true belief may be 'indefeasible' without being certain, as with facts about remote history where the evidence that might threaten the knowledge is now lost. Very strong conviction is also not certainty, since some people show passionate conviction even when they cannot cite much supporting evidence. Knowing that you know something doesn't seem to entail certainty, since if the first knowing can be fallible then so can the second. Certainty obviously has a subjective aspect to it, because a child can feel very uncertain even when other people are sure that the child knows something.

It may, of course, be the case that certainty is impossible for finite minds. One strategy for being certain of avoiding falsehoods is to believe nothing, and a strategy to be certain of knowing some truths is to believe everything; however, neither of these is quite what we want! Certainty about the physical world seems elusive, given the contingent and fluctuating nature of reality. This early view is greatly reinforced by the uncertainties in quantum mechanics, where there is not only continual instantaneous fluctuation, but also the apparent impossibility of pinning down all of the facts simultaneously, even for a moment. However we may discover physical certainties which are more general and less detailed, such as some of the laws of nature. We want to be certain about some of the facts, but the facts themselves also need certainty. We can distinguish between a person who wants to be certain (which is a bit subjective), and knowledge or reasons which are certain (and thus ought to be certain to anyone).

It may only be a divine mind which could achieve certainty, but it is beyond us to understand how that could be achieved. For a human mind, the three routes that offer some hope of certainty are pure reason, strong intuition, and direct experience. The pure reason which might lead to certainty could be either of the broad evidential and philosophical type, or the more precise mathematical and logical type. Although evidence itself may be doubted, we can draw inferences from evidence and broad facts about reality which carry powerful conviction, given some initial assumptions, as when a criminal is conclusively convicted of a crime, by converging evidence from independent sources. In mathematics and logic the strongest convictions come from clear and carefully checked proofs. It may be that this conviction is rooted in definitions and tautologies. A diagonal certainly divides a square in a plane into two triangles, but whether this certainty rests on facts about space, or on conventional definitions of lines and planes, is a matter of dispute.

Definitions and tautologies rest on our immediate grasp of concepts, and proofs rely on the obviousness of each step in the reasoning, suggesting that the certainty in formal reasoning may arise from something more basic. 'Intuitions' is the word we apply to these more basic and primitive candidates for certainty, but intuitions are obviously fallible and often wrong. It is only when we say that the intuitions are thoroughly 'clear and distinct', or very 'strong', that we might think there is certainty. We can then say that the truth in question is 'obvious' or 'screamingly obvious', but what is obvious to one person can still be dubious to another, and two views which have been labelled as obvious may even turn out to conflict with one another. If, however, we say something is obvious to everyone, we may have more confidence, and if no one would dream of doubting it that looks close to certainty.

If we claim that simple direct experiences, such as looking at my own hand, can give certainty, this invites familiar sceptical questions about whether we might be dreaming the hand, or some deceptive outside influence is producing it. Defenders of the certainty of such experiences reply that if we compare the experience with the sceptical arguments, it is the arguments which inspire less confidence, so direct experience is the maximum certainty available. At this point we might wonder whether experience counts as knowledge at all if we refuse to face the sceptical arguments, or whether certainty is only available to us if we become a bit casual about what 'know' means.

The most famous claim for certainty in human knowledge asserts that we have perfect certainty when we believe that we exist, because the very act of believing (or thinking) conclusively demonstrates this conclusion. This argument, the 'Cogito' (from *cogito ergo sum*, 'I think therefore I exist'), has had great influence, because it offers a certainty which can act as a foundation for more developed forms of knowledge.

Critics have sought clarification about whether the Cogito is an inference, a direct intuition, or a presupposition. If it is an inference it seems to say that thought is obvious, and thought implies existence, so there must exist a substance (the Self) which exists to support the thinking. If it is an intuition then we see in a single insight that there exists thought which involves a thinker in its very nature. The third view suggests, more critically, that we can't even see that thinking is going on without already presupposing our own existence in having this insight. The strongest challenges focus on the word 'l', asking whether the occurrence of some thinking is sufficient to prove that there is an enduring Self that supports and unites mental experience. The Cogito argument shifted the focus of philosophy away from the external world, towards the role of our own minds in what we understand, with a resultant modern interest in the nature of minds, concepts and language (and a consequent decline in confidence about what is certain!).