

# Keen Reasoning Based on the Evidence of the Senses

Post by “Pacatus” of November 28, 2022 at 5:52 PM

I will take objective certainty as knowing some hypothesis to the probability of  $P = 1.0$ : it is logically or mathematically impossible to be wrong.

In deductive logic and pure mathematics I believe this is possible. But not in the empirical world.

The most an empirical investigator (say, a scientist) can achieve is **to fail to disprove** a given hypothesis **to some probability (objective confidence)  $< 1.0$** .

Now, in our everyday walk-a-bout affairs – where we might question the shape of a distant tower, etc. – this doesn't matter much. Who cares? But if, say, you're doing medical research or calculating the safe orbit of a satellite – or trying to determine if the substratum of the universe is particles and space, or energy, or vibrating strings of some kind – then I think it does matter.

So, I would have to say, at bottom, empirical knowledge is fundamentally probabilistic – but that, like Newtonian physics versus quantum mechanics, it doesn't matter at certain levels of reality: i.e., the one we routinely live in. (Wittgenstein thought that we need to be able *to take certain things as certain* in order to rationally navigate our world.)

When someone says they are certain of something that they cannot objectively prove to a  $P = 1.0$  (whether by observation or logical reasoning), what they are really saying is that **they are so sure that they see no reasonable possibility of doubt**. That is not the same as saying there is no – let alone can be no – such possibility.

For me, the question then becomes: Why would anyone suffer any anxiety or agitation about any of this?