

Empiricism seems to  
be the more valid



**ASSIGN  
BUSTER**

I will explain in the following paper why I believe that realism and instrumentalism are erroneous approaches to science and why empiricism seems to be the more valid approach. I believe that truth is relative to language. The word theory in greek means “ to be in front of”. Our science is limited by our language, because we use our language as a way to construct our world. We use our language and theories to paint over the world what we think exists and while we use that language to create that reality, we paint over other “ realities”, which we don’t acknowledge, because we know no better. Scientific claims can be true in their own proper domain but they don’t tell the whole story, or even that there is a whole story to tell.

The distinguishing features of realism are twofold: realism seeks truth as a goal and when a realist accepts a theory it is accepted as true. So to argue realism would be to argue that no other realities have any causal effect on the observed phenomenon. There can be other truths – different stories about the world – each of which it may be proper to believe. I think its quite narcissistic, not to mention egotistical, to think that we know the totality of science to the extent that we think we’re qualified to make such conjectures about the true nature of the world in which we live. Therefore, I consider realism to be an erroneous approach to science. Before determining the validity of instrumentalism, I think we must look at history to help us determine science’s overall purpose. I believe that science precipitates from an inner curiosity how about how the world works.

I believe that after looking into the past, we can deduce that science has had a dual function: to explain observable or unobservable phenomenon and to help predict the outcome of our actions. For example, with the gravitational

theory, at first we attempted to explain the motion of falling objects and then assuming that this force that we call “ gravity” would stay relatively static, we could predict the outcome of other falling objects. Instrumentalist is a noble theory, but I don’t believe it to be historically consistent with the aims of science as it was created. Consequently I propose an empiricism approach to science. Empiricism takes empirical adequacy (not truth) as the goal of science and when it accepts a theory it accepts it as empirically adequate. Theories can be accepted by the accumulation of successful empirical tests. This leads to empirical generalizations among observable entities. As ideas progress, theories are formulated deductively to explain the generalizations, and new evidence is required to confirm or disconfirm the theory which may provide probabilistic support for its conclusion. Thus, science progresses through the accumulation of multiple confirming instances obtained under a wide variety of circumstances and conditions. Empiricism avoids belief in favor of commitment.

This involves commitment to working within the framework of the theory but not to believing in its literal truth. Empiricism carefully looks at particular scientific claims and procedures, and does not attach any general interpretive agenda to science. Observation being theory laden does call into question the claim that science is securely anchored by the objective observation of “ reality.” There’s general agreement that there can be no real certain knowledge, because we have no direct access to reality. The only thing we have is our senses and they are easily fooled and heavily biased by our human nature and previous beliefs. But since this is best means by which we can observe, and attempt to explain observable

phenomena, it will have to suffice within the realm of our science and for the purpose which we have created. Unfortunately, sensory data is our only link to the world outside ourselves and since such sensory data is subjective in nature, the science that we have created is merely a representation our consensual perspective of the world and therefore empirically adequate.

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