Does science need philosophy?

In recent years, there has been an increasing tendency among some natural scientists to deny the importance of philosophy for establishing true knowledge about the world we live in. "Philosophy is dead!" seems to be the rallying cry of these staunch proponents of a view that has rightly been called "scientism". That is, the view that the modern scientific method of empirical observation is *on its own* sufficient for obtaining all knowledge that could ever be relevant or useful to human beings.

According to this view, philosophy is viewed merely as a kind of irrelevant pastime: Sure, it might be *fun* to sit around all day playing pseudo-intellectual mind games (arguing about how many angels can stand on a pin, or whatever philosophers do nowadays), but if you want to actually learn something, natural science is the only way to go. Just look at all the benefits science has given us! Without it, we would not be able to enjoy the comfort of our cars, trains or airplanes; nor would we be able to effectively cure diseases, travel to outer space, or kick back in front of our flat-screen TVs after a long day at work. Besides, the scientific method provides firm and clear answers about *facts* we all can accept, while philosophers never seem to agree about anything! Isn't it obvious which method is the most trustworthy? Who needs philosophy?

The answer is that *everyone* needs philosophy; even, ironically enough, the proponents of scientism. For what is the view that "philosophy is dead, and science reigns supreme" other than a *philosophy*? It cannot be seriously proposed that the underlying premise of this view (that the scientific method is the only way of obtaining true knowledge about the world) *itself* can be shown to be true by means of the scientific method. Ordered as an argument, scientism might look something like this:

1. The scientific method is the only way of obtaining true knowledge about the world.
2. Philosophy does not make use of the scientific method.
3. Therefore, philosophy cannot be used to obtain true knowledge about the world.

It should be clear to everyone that this is not a sound argument at all. Of course, the only way to avoid simply assuming the first premise *a priori* is to attempt a justification based on further philosophical arguments. They have to be philosophical, because the first premise exists nowhere in the natural world, and thus cannot be reached through the scientific method of empirical observation. But as soon as philosophical reasoning is used to justify the first

premise, the conclusion of the argument instantly falls apart. The *philosophy* of scientism – for it is indeed a philosophy – is doomed to fail before it even gets off the ground.

Why is philosophy so important? If the above has not been sufficient to show the importance of being able to justify one's worldview through reason, let me take another approach. Philosophy is notoriously hard to define, but it has been said that doing philosophy is simply to "think hard" about something. Of course, there needs to be certain guidelines for what constitutes a *good method* for thinking. Why? Because there is no use in thinking hard about something if it will yield no results, or leave you more confused than when you began. That just seems like a waste of time. The *laws of logic* exist to aid philosophers in constructing reasonable arguments for a certain position, which is absolutely necessary if one's goal is to get closer to truth in some way. Well, this all sounds fine and good, but it doesn't really answer the question. Why is it so important to be able to "think hard" about anything at all?

It is important to realize that *all* human beings have a worldview or a philosophy or life, whether they are conscious of it or not. Even from an early age, we accept certain assumptions that allow us to function in the time and place we happen to live in. For example, we assume the existence of the physical world, the existence of other minds, the law of causation, and a heap of other assumptions that serve as starting points for all further knowledge. For many people, their philosophy is "unexamined", that is to say they are not fully conscious of their philosophical assumptions. Thus, they would not be aware of it if any of their assumptions were to stand on shaky ground, either. Maybe our assumption that the physical world exists is wrong. And how can we be certain that the same effect B always will follow the same cause A? The point here is not to stray too far from the main question of this essay: "Does science need philosophy?" The point is rather to show the importance of establishing a philosophical foundation for knowledge, because all of natural science has to rest on certain philosophical assumptions, too.

What do I mean by this? To me, it seems obvious that philosophy is *absolutely necessary* if one has an ambition to do any science whatsoever. As mentioned earlier, there is no way to show the scientific method to be true by means of the scientific method itself. Natural science is certainly a good way of examining the structure of nature, and its overwhelming success in providing good and useful results is unquestionable. However, this does absolutely nothing to suggest that science has no need of philosophy. In fact, scientists assume all sorts of things about the natural world that can only be justified by means of philosophical argumentation.

For example, it would be illogical to conclude anything from scientific experiments if one did not assume that similar causes tend to produce similar effects. But the law of causation cannot be justified by means of scientific investigation (some maintain that it cannot be justified by means of *philosophical* investigation, either, but that is a matter for another essay). More fundamentally, why would one bother to investigate nature at all, if one did not assume the natural world existed? And since natural science depends upon human senses to such a large extent, don't we also have to assume that our sense impressions are reliable, and similar to everyone else's?

The aforementioned objection that while science provides firm, clear and factual answers, philosophy is severely wishy-washy and unable to produce theories that everyone can accept, is easily answerable. Even though there exists a plurality of differing philosophical views on everything from the existence of God to what constitutes good art, this does not in any way preclude the possibility of there being *one* view that is actually correct. Since human reason is fallible, we often make mistakes. Unfortunately, it can be very difficult to realize these mistakes, especially if we are in some way predisposed to believe they are true. This is the case not only in philosophy, but in all areas of human knowledge. For example, there exists a wide array of economical, political, sociological and even psychological theories that often conflict with each other. One might respond by extending this criticism of philosophy to all of the "soft" sciences, leaving only physics, chemistry, and perhaps biology as reliable fields of study. But such a view would simply overlook the plurality of theories within these disciplines even today (such as the different ways of interpreting quantum physics), and the way in which earlier theories have been superseded by new and improved ones (for instance, the theory of a past-eternal universe has been almost completely replaced by "big bang" cosmology).

Even though there is at present no unity of opinion among philosophers, philosophy must, in my view, be recognized as vitally important to all of science. For without it (as we have seen), science itself has no foundation to build upon. Not to mention that the secondary *interpretation* of empirical data also must depend on certain philosophical assumptions. To keep this essay from running far too long (although some may be of the opinion that it already has), I will attempt to wrap up the whole issue right here. In conclusion, then, the view that science has no need of philosophy seems to be entirely wrong-headed. Science really *does* need philosophy: Without the conceptual groundwork that philosophy provides, science would never have been able to provide the extraordinary results that it thankfully has.