

On the 'scientific' character of Hegel's dialectical method.

Hegel uses the term 'science' not only to qualify his philosophy; he claims that his philosophy is the very concept of valid science. Science had not yet been reduced to the current restriction to *empirical science* at the time, it roughly meant systematic knowledge well into the 1800s, thus it isn't too strange that something like philosophy could be considered a science.

An interesting thing I have noticed reading the *Science of Logic* directly is that there is one thing in common with Hegel's conception of science and the current *popular* understanding of it: that science directly accesses its object without subjective aspects entering into the matter investigated and discovered. Because Hegel's method is to investigate the necessary universal character of objects, their concepts, as they self-determine and generate themselves of their own accord, the method is 'objective'. This objectivity is the same objectivity which the common understanding knows: that which is objective is that which is what it is in its own right, and not because of anything else. This, of course, destroys most of the objectivity we presume to exist in the world. Most things are not what they are in their own right, they are what they are through relation to myriad of external factors, some of them being our own subjective determinations upon the objects.

When we investigate objects of the material kind we often find no rational explanation for them but the whole of the universe of matter and forces, and thus the object we begin trying to know finds itself disappearing into a system of dependencies which compose it. At such points of inquiry we find that what we thought were objects were not objects, but merely arrangements of the true objects which constitute them. Not only do we lose the original object being explained, but as far as empirical sciences can go we also lose the criterion of objectivity itself: we posit forces and concepts which are unintelligible to us and which have no necessity we can see other than that they are useful for our relative manipulation of the material world. Why are there only so many laws of nature? We don't know. Why are the laws of nature what they are? We don't know. What is gravity? We don't know. What is positive or negative charge? We don't know. Why is it that atoms have specific electron shell arrangements and bond with other atoms according to these electron arrangements? We don't know. Our theories are subjectively posited and the world arranged into them, but we have no clue why these arrangements and objects should have any unity at all, and even if we somehow do know a necessary unity we do not know why it is as it is at all.

Take for example a piece of chalk. What are its objective features? Certainly not its shape, color, etc. for these are subjective determinations not intrinsic to its substance as chalk. Even the measure of material of the chalk is not objective to its being as chalk, for chalk as chalk is merely its chemical composition as calcium carbonate. Does

calcium carbonate as such exist? It is a synthetic compound of elements, calcium and carbon, each which in turn is a compound of protons, neutrons, electrons, etc. Some of these particles, protons and neutrons, are themselves further compounds of what are now called quarks. The *real* substance, many would say, the real objects of the world, are these fundamental particles and their interaction with forces. In certain theories a further reduction is attempted and matter/space itself is dissolved as an objective being in its own right and pure forces are posited as the real objective being of the world, but what *are* these forces? We find no answer for empirical science which rests upon given assumptions cannot offer it. It cannot give an account of forces as such, it cannot give an account as to what they are in themselves nor why they are as they are. Empirical physics can only posit these fundamental forces and their mathematical character as given, it cannot explain what they are, how they are, why there are as many as there are, and why they should relate in the way that they do. As far as we are able to know with this method, the laws are what they are and relate as they do because we judge them to be so. Such science relies on subjectively determined dogmatic presuppositions of objects of knowledge and how knowing meets the object.

Hegel's methodology does lead to the necessary knowledge of how and why an object is what it is in its own right for it holds itself to following the development of a concept of its own power of self-generating determinations. If objectivity is that which is what it is in its own right and not because of anything else, whatever object we encounter must be the full source of itself from start to finish. If we are to hold the object as it is in itself in the mind we must likewise meet this freely self-developed and determined object with an equally self-developed and determined concept. The encounter of both as corresponding to each other is what Hegel calls the Idea of an object: an actualized concept. Just as empirical science shows that most things we think are real objects are actually not, so does Hegel's science. The difference is that Hegel's objectivity is not a reductive objectivity to that which appears to be what it is in its own right because it is has no further inner constitution. Objectivity for Hegel is not that which has no further inner constitution, is unintelligible, and as such no longer explainable according to anything else, but objectivity is rather that which is most fully intelligible and explainable according to its inner constitution from its simple parts to the whole. For Hegel it is not the laws and matter of physics or of chemistry which are most objective and knowable, but organic life, and above that thinking life, which are the most substantial and objective existences. We can be certain of our objective knowledge with Hegel's method because it is simply the free development of the concept of the object itself.

That empirical science cannot meet the task of objectivity is not to deny its pragmatic usefulness. There is unquestionable functional truth to the products of empirical scientific inquiry, and because we value practical technology we should hopefully never abandon empirical science. That said, currently science oversteps its bounds in many

areas and attempts to do the work of metaphysics in ignorance of its own presuppositions and the problems of its conception of objectivity which causes it to so invert the world as to lose sight of the most obvious existences: that of organic self-organized life and of mind.