

Deconstructionism and Modern Physics

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Abstract

This paper details the relationship between the idea of deconstruction as propogated by pilosophers like Derrida and current models of physics, analyzing the congruency of the two. Deconstructionism, emerged from literary analysis but applicable outside, proposes the denial of an objective truth, that there are in fact infinitely many truths, defined by the subjective experience of each individual. Surprisingly, in light of revelations of the 20th century, this principle is noteworthy in natural sciences and more specifically physics. Heisenberg formulated the uncertainty principle, important for part of the very basis of our world, arguing that quantm particles have neither a real location, nor a real velocity, but rather a mere probability of where they are and where they are moving. This can seem absurd, as the principle is not about what we can see, but what actually is, and at the same time is based on interaction with the human mind: The more closely the location of a particle is investigated, the more concrete its location *becomes*, and the less *defined* its movement will be. The obvious parallels to the deconstructionist view of no objective truth existing will be discussed, as well as the contrast and at the same time further parallel by claiming that the fact that particles do not have a true place is itself true. Equally, the second foundation of modern physics, relativity theory, will be compared, as its postulate of all reference frames being equivalent, and such there being no 'real', superior frame, is even more closely related to the postmodern worldview, when one takes into account that reality in different reference frames can be observed as extremely dissimilar. Such it can be argued that in both physical concepts, observation itself shapes reality, of which there is then no true form. Through this discourse, these ideas will be illustrated with

more concrete physical phenomena, in particular the photon changing its very nature based on how it is looked at, particles being provably in two different spaces at the same time, thought experiments of relativity and the widely known concept called Schrdingers cat. All of these will be put into relation to deconstructionism, and discussed as to how far these phenomena can be argued to support Derridas theory of truth. Finally, we will draw a conclusion as in how applicable this comparison of natural science and an originally literary analysis ideology is, taking into account elements of deconstruction that have to be omitted in such a comparison, like the binary opposition of terms which Derrida argues shape the human mind. Also a final result will be determined, summarizing and extrapolating the previously established implications and relations, trying to form them into a general expression.