

“The application of reason differentiates a scientific theory from pseudoscience.”

Evolution vs Numerology

Reason as a way of knowing refers to our capacity to think and evaluate beyond our immediate experiences as an attempt to interpret the complex world around us as well as to make judgements according to our sense perception and memory to aid in the decisions and conclusions we make in our daily lives. A pseudoscience and a science differentiate greatly when it comes to the use of reason as a way of knowing, with science mainly being based on observable, falsifiable and definitive findings and pseudosciences being based on non-observable, and imaginative information.

A very notable example of a pseudoscience is Numerology (also called Arithmancy) founded by Pythagoras, which describes that numbers have personal significance/attributes and particular numbers can shape an individual's life, the decisions they make, their potential partners and personality. These numbers can be derived from the letters in the individual's name, with each number corresponding to a particular letter (Ex. A=1 and B=2), the person's birthdate and sometimes more obscure sources such as the amount of steps it takes to get from home to work. An example of numerology in effect is shown in the example that Adolf Hitler is the devil counterpart as the letters *HITLER* are converted into numerals (when A = 100 and Z = 125) are all added together to make the number 666 which refers to the devil, thus 'proving' that Adolf Hitler was the devil's counterpart.

The theory of Evolution, developed by Charles Darwin is an established scientific theory which brings attention to the human form and how we have become the way we are. Evolution says that through natural selection and over generations, species have evolved overtime to be able to adapt to the changes in environment around it, resulting in varying traits and abilities that would be suitable for survival. The theory of evolution is widely accepted due to its simplicity and the evidence of universal genetic code that is found in every living organism that suggests that every living thing came from a common ancestor, from which all life evolved from and descended.

Numerology and the theory of Evolution both have not been proven to be 100% correct and thus not considered to be an unchangeable law, although both of the sciences differentiate greatly in terms of the use of logic and reason to come to their statements and conclusions. Evolution uses reason as a way of connecting links between different traits of animals in various parts of the world and coming to the conclusion they are all related to each other due to trends in genetic code and differences in the environment around them. Evolution uses valid arguments from proper scientific method and a hypothesis' that are open to refinement which ultimately combines into a reasonable, valid syllogism through deductive reasoning.

A pseudoscience such as Numerology on the other hand does not use the same logic to prove its supposed validity as the reasoning process is flawed, which results in the conclusion being inaccurate and unusable. Numerology falls victim to a variety of fallacies of logic, one being an Argument from ignorance as there is no way to prove that numbers **don't** have personal significance; therefore Numerologists believe the statement is true. A Problematic/Dubious premise is applied as there is no validity in the statement that numbers do have personal significance which makes the conclusion "7 is your lucky number" false. Lastly, a Flawed cause is practiced which refers to how the error of Post Hoc is made in Numerology by linking unrelated things together to come to a flawed cause such as the conclusion that Adolf Hitler's surname corresponding to the number 666 made him the destructive person he was, not any other factors such as childhood, psychological state and the environment around him.

In conclusion, the reasoning behind Numerology is erroneous due to the use of various fallacies of logic and errors that ultimately make reasoning and syllogisms invalid and untrue, unlike a scientific theory such as Evolution that uses valid, truthful premises and proper scientific method to reach a fitting outcome.

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Ridhwan Mohamed 11D

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