Zeno's paradoxes argumentative essay samples

Profession, Student

Zeno Paradoxes

Zeno of Elea is a mathematician and a Greek philosopher who is famous for his paradoxes that deals with or explains the continuity of motion. He was born during 490 BCE and was a strong devotee of Parmenides who also introduced the Eleactic school of thought in the current southern Italy. He survives in Parmenides, Plato's dialog and from it the origin of paradoxes becomes clear. One of the most familiar paradoxes put across by Zeno states that I cannot walk over you as I need to get there halfway, and in the event that I succeed I must still cover the remaining half distance (Huggett 38). The meaning from this paradox is that there are infinite halfway points which according to the logic no person will ever reach there. This results to a paradox or contradiction as there exists something that seems to be true but in the actual sense in not true. The next question is whether there is a solution that adequately gives answers to the contradicting phenomena. This will lead some people to say there is a contradiction while others say there is no contradiction (Lynd 54).

Parmenides taught that the physical world and the manners in which human being perceive it is an illusion. According to his school of thought, the only thing in actual existence is an unchanging, perpetual thing known as 'One Being'. He argues that the things that a human being perceive as movement does not qualify as physical movement at all, but different appearances or interpretations of the One Being. Against this background, Zeno developed his paradoxes that strongly support and had a basis in the views of Parmenides about the world. These paradoxes were intended to prove that Parmenides was right because movement must be impossible. As a result, he

developed approximately nine paradoxes that were not published, but support the ideas advanced by Parmenides. The most interesting and famous are the three motion paradoxes (Huggett 38).

The first is the paradox of tortoise and Achilles who agreed to participate in a footrace. Tortoise was to start one hundred meters ahead of Achilles because he knew he was swifter. Tortoise moved for ten meters for the time that Achilles took to travel the first one hundred meters. Therefore, when Achilles covered the hundred meters, tortoise was still ahead of him by ten meters, and the tortoise moved an extra meter for the time that Achilles covered the ten meters. Despite, the several times that Achilles moved closer to tortoise, the tortoise moved some distance by the time Achilles got to his last position. Although, Achilles was faster when it comes to running, it was difficult for him to reach and pass the tortoise (Barrow 69).

The dichotomy of paradox is the second most famous and interesting Zeno's paradox. He argues that for Homer to reach the bus stop, it is inevitable for him to get halfway there. Once he covers the halfway distance, he must cover the remaining half distance. That with progressive distance remaining starting with 1/8 the remaining distance to 1/16 to 1/32 to 1/64, Homer will have absolute supply of remaining distance he must travel, and he will never get to stop (McCarty 368). The third famous and interesting paradox is one of the Fletcher, who realizes that not all his arrows can move at once. That at any particular instant in time, his arrow is motionless in flight. The arrows cannot move at all during the frozen moment because it does not have time to do it (Dainton 97). Zeno argues that the time is a constituent of an infinite succession of moments and in each of these moments, the arrow is not

capable of moving. That there is no given moment in which the arrow gets the time to move and regardless of the number of times present, the arrow cannot fall or fly to the ground (McCarty 379).

Zeno's paradoxes are significantly known by some individuals as evidence that science or physics is wrong. Zeno is an ancient Greek philosopher who describes a simple situation that the intuition of a human being tells them that it is obviously correct. He finds it easy for human beings to assign his philosophy more significance than they do the confusing jumble, and this is what makes his paradoxes modern science (Sainsbury 5). He is trying to prove that there is no point in listening to philosophers or scientists like Einstein, who offers a great deal of unfathomable equations. Zeno through his paradoxes tries to support Parmenides and prove that a physical world is not what science perceive it to be. As a result of his line of reasoning, it is worth noting that Zeno gets overwhelming support of New Age supporters of a spiritual universe, as opposed to a physical universe (Lynd 54).

According to (Salmon 6), these paradoxes became an interesting intersection between philosophy and mathematics. In terms of mathematics, it is trivial to calculate the exact place and time where and when Tortoise will be overtaken by Achilles. In terms of philosophical inquiry, Zeno's paradoxes apparently remain intractable. Philosophers describe these paradoxes as immeasurably profound and subtle, and they make numerous attempts to resolve and reconcile them. An epitome of such tactic involves the Planck length that is the smallest unit of measurement within the Planck system. These units are all primarily based on physical universal constants as gravitational constant and the speed of the light. As a matter of philosophy,

it is right to describe Planck length to be a quantum of smallest possible unit, distance. This translates to infinite Planck lengths along the racetrack of tortoise and Achilles as well as between the bus stop and Homer. Homer will eventually arrive at the bus stop because they are never an infinite number of points. Although, this tries to give a solution to the paradox, it fails because a geometric problem cannot be solved by a quantum solution (Sorensen 76).

Therefore, we can say that Zeno is trying to achieve a number of things with his paradoxes. First, he is trying to prove that Parmenides was right as there is no time, no alteration, and no movement as everything is unified. Although, several people criticized Parmenides because what he argued seemed very preposterous, Zeno to some extent proved that assuming that the universe is what people perceive it to be is very absurd (Dainton 97). For example, absurd consequences result from the claim that things are capable of moving and that there are several things in the world. The dichotomy paradox results to contradiction as motion appears to exist, but it does not apparently exist. Zeno refers to the theme of infinity that is common in Parmenides' arguments. It seems to be strange and wrong to a reasonable person as it defies basic intuition. The idea of motion is a natural preposition based on the human ability to walk from one place to another. Similarly, Zeno takes the same of logical philosophical argument as Parmenides to develop the theme of an unchanging oneness (Sorensen 59).

Second, Zeno is trying to prove that is a single or one thing, indivisible, and unchanging. He argues that those who think motion can be infinitely divisible must believe that things such as the arrow do not move. Those who also

think that there are several things in the world must then conclude that those things are both infinitely small and infinitely large. Parmenides also strongly believed in the constancy of reality and absolute unite which is abstract and radical in the Zeno's paradoxes (Joos 110). Like Parmenides, he maintained that the world is literally unchangeable and singular. Zeno flatly denied the existence of change and plurality despite making admission of appearances of some things. He insisted that these were ordinarily opinions and perceptions which ought not to be confused with reality. To a great extent, Zeno is best remembered for his paradoxes that defend Eleactic philosophy intelligibility by trying to prove through logical reasoning that plurality and change of motion are impossible (Soccio 69).

Third, Zeno is trying to prove that there is no part that is less or more real. He tries to prove that there does not exist more than one reality or being or truth. Zeno argues there are people who think that general relativity of quantum lies on Parmenides' side. He says that people who think like this are much smarter than him, and he cannot judge their interesting arguments. His arguments were youthful effort to support his former master position in some areas of philosophical inquiry. It is, therefore, evident that he was trying to defend the Eleactic philosophy from allegations of logical inconsistency. It was not necessary that his paradoxes be regarded as convincing, but we intended to be satires of the fallacious arguments made against Parmenides ideas by philosophers such as Aristotle (Sainsbury 5).

Bibliography

Barrow, John D. The Infinite Book: A Short Guide to the Boundless, Timeless and Endless. Pantheon Books, New York, 2005. Print

Dainton, Barry. Time and Space, Second Edition, McGill-Queens University Press: Ithaca, 2010. Print.

Huggett, N. " Zeno's Paradoxes." Stanford Encyclopedia of Philosophy. Stanford University, 2002. Print.

Huggett, Nick. Space from Zeno to Einstein: Classic Readings with a Contemporary Commentary. Cambridge, Mass [u. a.: MIT Press, 1999. Print.

Joos, Erich. Decoherence and the Appearance of a Classical World in Quantum Theory. Berlin [u. a.: Springer, 2003. Print.

Lynd, P. " Zeno's Paradoxes: A Timely Solution." PhilSci Archive. University of Pittsburgh, 2003. Print

McCarty, D. C. “ Intuitionism in Mathematics,” in The Oxford Handbook of Philosophy of Mathematics and Logic, edited by Stewart Shapiro, Oxford University Press, Oxford, 2005. Print

Sainsbury, R M. Paradoxes. Cambridge: Cambridge University Press, 2009. Print.

Salmon, Wesley C. Zeno's Paradoxes. Indianapolis: Hackett, 2001. Print.

Soccio, Douglas J. Archetypes of Wisdom: An Introduction to Philosophy. Belmont, CA: Wadsworth/Cengage Learning, 2013. Print.

Sorensen, Roy A. A Brief History of the Paradox: Philosophy and the Labyrinths of the Mind. New York: Oxford University Press, 2003. Print.