

THE FALLACY OF CAUSALITY- A PERSONAL STATEMENT BY JACK BASUK

Every cause produces more than one effect. Herbert Spencer

The general theory of evolution...assumes that in nature there is a great, unital, continuous and everlasting process of development, and that all natural phenomena without exception, from the motion of the celestial bodies and the fall of the rolling stone up to the growth of the plant and the consciousness of man, are subject to the same great laws of causation – that they are ultimately to be reduced to atomic mechanics. Ernst Heinrich Haeckel

Nothing exists from whose nature some effect does not follow. Baruch Spinoza

I find it difficult to accept the above citations without, at least challenging them. The Author.

Preface:

This essay is a statement that reflects my beliefs, despite my feelings about such viewpoints. Bertrand Russell said it best when he replied to a query about his willingness to die for his beliefs. "Of course not. They might be wrong." Carl Sagan, who professed to be an agnostic, essentially said the same thing. "I do not want to believe. I want to know." Unfortunately, knowing may be nothing more than an illusion. In any case, since this statement is an assertion of my beliefs or opinions, they too might be totally wrong and subject to all sort of well justified critical attacks. I am not infallible not like a leader of a certain religion claims to be. Some of my scientific assertions might be off the mark.

Very often, however, those who claim to have beliefs assert that everyone else is wrong and that those who are so mistaken are inferior beings. The most common example features adherents to organized religion. Unfortunately they comprise most of the human race. Therefore I decided to bring into play the theological basis of religion, namely causality, which I believe is seriously flawed. Only pantheism does not employ causality in a similar manner. I concede that organized religion has created an edifice of great literature, fabulous poetry and literature, a body of benevolent morality and ethics, architectural wonders, paintings and sculpture and especially music. It is a very seductive philosophy. The problem is that because its foundation is based upon a false premise, it can easily be manipulated to evil ends. Thus it is a target worth demolishing. I hope to accomplish this by concentrating on the flaws in the belief of Cause and Effect.

Since my early twenties, I have been obsessed with the notion of 'existence'. Why is there such a thing? Why does anything exist, from a photon of electromagnetic energy to the colossus of the universe? Does the assertion, 'nothing exists' make sense? Is the language we use nothing more than an extension of our nervous system, manifesting its faults? This fixation has engaged

me in a 'voyage of futility'. I wonder whether, like Don Quixote, I am tilting at windmills of thought, leaving me in awe of what anything is. I know that I do not know. However this voyage has not been a total loss. I became acquainted with some aspects of existence, due to the great ideas promulgated by giants such as Euclid, Archimedes, Aristotle, Galileo, Newton, Darwin, Planck, Einstein, Godel, Heisenberg and others. I believe that the only tool that we possess to learn about the byways of existence is 'science'. With perhaps one exception, its results are reproducible allowing them to be verified independently by others than the scientists who generated them. The one theory that cannot be tested in a traditional manner is 'Darwin's Theory of Evolution'. However there is a preponderance of empirical evidence that supports it.

One notion that I found very appealing was put forward by Popper. He proposed that any scientific theory of merit proffers a test that attempts to show that the theory in question is false. If it cannot then the theory is found acceptable, at least until it is shown to be invalid or limited in its scope

The Argument Against Causality:

Let us start with a mention of how our senses have sometimes led us astray. Actually they are not at fault. We misinterpret the information they provide. Some well known examples are: the sun travels from east to west during the day and the reverse during the night; the Earth is flat; it is at the center of the universe. I have no intention of decrying the role of our senses and the nervous system. After all it is the only conduit we have for discerning existence. I do not wish to throw the baby out with the bath water. I suggest that frequently what we observe leads us to false conclusions. I firmly believe that the notion of 'Cause and Effect' is one such consequence and that it is one that has had deleterious and enduring results.

Let us continue by, as clearly and as simply as possible, define the phrase, 'Cause and Effect' and enlarge on possible consequences. They are two separate, distinct and unidirectional events where Event A(Cause A) brings about Event B(Effect B). Effect B cannot be the cause of Event A but can be the cause of Event C which in turn can be the cause of Event D and so on and so on. Thus Event Z cannot become the cause of Event A since if it did the result would be a static circular system of Cause and Effect. This means that the Creation cannot create the Creator: the effect cannot create the cause in such a system. This problem does not occur if we accept the notion that the above-mentioned events are functionally related and are not unidirectional. After all, one of the principal tenets of Quantum Mechanics is that everything in the universe is connected.

A little more is worth mentioning about functional relationships. In its simplest form such a relationship can be illustrated by an uncomplicated mathematical equation such as $y=2x$. Some would argue that x is the cause of y . However an equivalent equation is $x=1/2y$. In other words, neither x or y is a cause of the other or an effect. They are related to each other functionally. What this really means is that so called cause and effects are really a unity, two aspects of the same thing. This will be further elaborated on a little later.

A cursory examination of some puzzling inferences that the notion of 'Cause and Effect' provide might prove interesting. First, how far back in time should we go in terms of cause and effect?

Should it be at the onset of the 'Big Bang? What if anything existed prior to the Big Bang? Is the belief in a primal cause worth pursuing or should it also be an effect which is the result of a cause? Kant provided a fascinating answer. He asserted that the Primal Cause, namely 'God' was not limited by the boundaries of time and space and thus not subject to the same limitations as those who are, such as 'us'. Unfortunately there is no way of proving or disproving his hypothesis, which leaves us with no position and with a mystery.

Now let us go forward in time. Are there an infinite number of Cause and Effects? If so, how can they be dealt with? After all, we and the universe as we envisage, are not infinite. In fact, we really do not understand and cannot grasp the meaning of infinity despite its frequent appearance in mathematics. Here again we must plead ignorance and simply rely on agnosticism as our fallback position.

Can Cause and Effect be considered a scientific theory? Such a concept is supposed to fulfill at least two criteria. First it must explain the 'how and why' of empirical data. Second it should be required to be accurately predictive. It qualifies for the first but does not for the second.

Since Cause and Effect are two distinct occurrences there must be a time factor between them. However, according to Relativity Theory, time is a variable which depends upon the speed of the device measuring it. Cause and Effect cannot overcome this factor.

Quantum Mechanics declares that something occurs when the probability of it happening reaches a certain level. (The Schrodinger Wave Equation) This neither denies nor affirms Cause and Effect since probability plays no role in it.

Perhaps the most telling problem for Cause and Effect stems from Godel's Incompleteness Theorem and Heisenberg's Uncertainty Principle. Expanding the former from its mathematical basis, it suggests that human thought that appears to be logical is wrought with inconsistencies and incompleteness. Cause and Effect can be viewed as such an example. However I must admit that Godel's theorem is also applicable to the notion of functional relationships.

Heisenberg's puts the final nail in the coffin containing Cause and Effect. In essence he asserts that the observer cannot be separated from what is being observed: there is a functional relationship between the two.

I think that most of the preceding casts a serious doubt on the validity of Cause and Effect.

Postscript.

One can wonder why it is necessary to spend time over this question. Is it not like the scholars of the Middle-Ages debating how many angels can dance on the point of a needle? We have a mind. It is incumbent upon us to use it by exploring, testing, challenging beliefs, debating and questioning the status quo. Otherwise we are in danger of becoming mentally stagnant and fall prey to those who would like nothing more than to censor us. Minds need exercise.

One final thought. It is obvious that the abolition of violence is most desirable. All our efforts to achieve this have failed. With terrible destructive weapons readily available and the misbegotten

behaviour of both the Nation State and Organized Religion we are facing total obliteration. The latter reminds me of a comic line from, 'Laugh In', a past successful TV comedy program. The line was, "The Devil Made Me Do It."

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