Origins of Natural Law

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Abstract: *Natural Law was recently expanded to include all living organisms; it is that all living organisms seek to gratify their desires, whatever those desires may be, with the least exertion. If Natural Law is present in living organisms, then Natural Law may originate through the development of species. Natural Law was examined in the smallest living organisms and was reasoned that Natural Law preceded the simplest behavioural learning, and was determined to be a summation of reactions of stimuli internal and external to the living organism.*

1. Introduction

Natural Law was recently expanded to include all living organisms, and was expanded to provide insights in the economics of man when man was included in the same LAND with all living organisms (Tambunga, 2011), where LAND is defined as "the whole material universe outside of the living organism." Though this expansion of Natural Law was initially intended for the field of economics, upon further examination of the expansion there is a possibility of a relationship between Evolution and Natural Law. If living organisms obey Natural Law, and most living organisms are subject to their instincts, then the origins of Natural Law must be present in some way, and generally unconscionable, through the development of species.

2. Expanded Natural Law Precedes a Change in Alleles that Advance a Species

Expanded Natural Law was stated as: "it is that all living organisms seek to gratify their desires, whatever those desires may be, with the least exertion," where desire was described as "all living organism actions-at least all conscious and voluntary actions-are prompted by desire, and have for their aim its satisfaction. It may be desire to gain something or a desire to escape something, as to obtain food or to enjoy a pleasing odor, or to escape cold or pain or a noisome smell; a desire to benefit or give pleasure to others

or a desire to do them harm or give them pain. But whether positive or negative, physical or mental, beneficial or injurious, so invariably is desire the antecedent of action that when our attention is called to any living organism action we feel perplexed if we do not recognize the antecedent desire or motive, and at once begin to look for it, confident that it has to the action the relation of cause to effect," (Tambunga, 2011). Natural Law can be observed in almost any species and may be a key element in natural selection, which precedes evolution. Here is a hypothetical argument for this:

When foxes chase rabbits the fox typically goes after the slower rabbits, so the allele frequency among the remaining rabbits would be that for faster rabbits. By the expanded Natural Law, the foxes would chase the slower rabbits as chasing the slower rabbits would be the least exertion. If expanded Natural Law was not followed, and foxes chased only after faster rabbits, there would be a lot of slower rabbits and some faster rabbits may learn not to run fast, which would result in starving foxes.

3. Expanded Natural Law and Interpretive Changes to LAND

If expanded Natural Law was a learned behavior, and it is present in living organisms, there must be an origin of this learned behavior and as most living organisms are typically subject to instincts and many have limited abilities in learning, the behavior must be simple to learn or can be self learned. However, if expanded Natural Law is present in the smallest living organisms, such as in prokaryotic life forms that use flagellum or cilia to move toward more hospital LAND, if there were changes to the LAND they inhabit, which have not been previously documented to learn behavior as higher organisms do, then expanded Natural Law must precede the simplest behavioral learning.

The motility of microorganisms with flagellum and cilia (Jarrell, 2008 and Orozco, 1999) includes sensory systems, in response to stimuli, which allows the movement to optimal LAND. The movement of the flagellum is caused by

a combination of electrical signals, gradients, and chemical reactions that are internal to the cell, where these occurrences are mediated by signal transduction proteins, which respond to changes in the LAND, which are associated with the cells senses. If cilia surround the cell, such as a paramecium (Dippell, 1968), then some cilia will respond more that others depending on section of the surface is the closest to the unwanted changes in the LAND. However, the resultant of all the cilia would be the motion of the cell toward the more optimal parts of the LAND.

4. Vector Addition but with Additional Stimuli Vectors

The origins of the expanded Natural Law seem to originate from the summation of reactions to the LAND around the living organism and/or internal of the living organism, such as hunger, where the living organism responds to acquire what it desires, such as moving to optimal conditions. Although the overall actions of the living organism are animate, the internal reactions and the way the environment is sensed are inanimate (Bray, 1995).

There seems to be a similarity to this hypothesis to that of vector addition, where the final result of a vector is caused by the addition of multiple vectors. However, for higher species such as mammals, the reactions to stimuli may not always linear as they are with paramecium. For example, if a lone hyena is very hungry and sees a carcass being devoured by a pack of hungry angry lions, the hyena may choose to not respond to its stimuli of hunger and eat, but respond to a much greater stimulus, and that of fear of death. The hyena may, as a final result in this situation, choose to look elsewhere for food. If the origins of the expanded Natural Law begin with the summation of stimuli, then the final result of the stimuli may begin with the initial result of the original stimuli followed by additional stimuli internal and external of the living organism. The additional internal stimuli may be that of memory, intuition and reasoning in higher organisms, such as when a lion remembers the pain of needles of a porcupine and does not

include them in its meals when hungry, or when an octopus opens a jar to get what it desires that is inside the jar.

5. Animate and Inanimate Similarities and the Principle of the Path of Least Resistance

The origins of the expanded Natural Law, by the hypothesis above, seems to be similar to the results of reactions of inanimate objects, not associated with living organisms. For example: a pressurized vessel rolling down a hill, by influence of gravity, but changes its direction due to a sudden puncture in its shell; or particles moving generally in a single direction but some changing its direction due to the particles own photon releases; or a tennis ball pin-balling between two buildings then being caught by a bird before the ball strikes the ground.

The vector additions of external and internal stimuli of inanimate objects, not related to living organisms, can lead to a physical path that can be considered the path of least resistance such as water under the influence of gravity flowing down a mountain. The path of least resistance is a physical pathway, among a set of physical pathways, which provides the least resistance to forward motion by an entity or given object. However, this path of least resistance can change if any or some of the external or internal stimuli were changed on the path, which further implies a general origin of the summation of stimuli for any principle or law that implies a least resistance or exertion, whether the final results are linear, changed or delayed.

6. Conclusion

Animate and inanimate entities were previously hypothesized to have a similar beginning, where there were, before the beginnings of life, only inanimate objects on this planet. And over the course of billions of years the conditions of the LAND changed to where animate and inanimate entities can co-exist (Joyce, 1989). If the reactions internal to the animate entities are inanimate reactions then any animate and inanimate entity at any

point of time over the course of its existence is a summation of the internal stimuli, from the entity, and external stimuli, from the LAND the entity inhabits, over the course of its existence and over generations for producing entities. The expanded Natural Law are the reactions an animate object has to satisfy its desires, and if an entities reactions are the summation of its external and internal stimuli, then the origins of the expanded Natural Law could be the result of those summations, which is similar to any principle that implies a least resistance or exertion.

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