

# The Wheels of Will:

## On the False Problem of the Origin of Purpose

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### 1 Introduction

When one examines the language used to describe the life of animals, plants, and in fact, other humans, it is obvious that it relies on the conception of purpose. “I went to the shop in order to get milk”, “The lion kills so that it may eat”, or “The plant absorbs sunlight to make sugar”.

On the other hand, when one speaks of the physical world, one tends to describe it in a more mechanical set of words. Unlike the purpose indicated in the words “in order to”, and “so that it may”, sentences regarding the physical world are usually centered around a reverse time relation: “The particle moves at  $\mathbf{v}$  due to the force  $\mathbf{f}$  impressed on it”. Instead of deriving an action from a future goal, in physics, we derive an action, or a fact, from the past conditions of the world. It may be said, that physics, is described by a “mindless” mathematical law, ordaining actions without consideration or thought; and that the worlds of psychology, and biology, are described by the purpose which the subjects strive to fulfill.

The question which this essay aims to answer is: how this purpose arose? How could it be, that such “mindless” mathematical descriptions gave way to creature with an understanding of possible future events, such that they are driven by purpose, and not by said laws?

A first inquiry into understanding this problem might be to check if indeed one can come up with a “purposeful” description of a physical problem, or a “mindless” description of a biological one.

If this is in fact so, then neither is purpose essential to biology and psychology, nor “mindlessness” to physics. If these properties are not essential to either field, then it must be that this question is problematic.

It is then either that all things are purposeful, as was thought by Aristotle, or all things are mathematical and “mindless”, as is common to think today, and as most thinkers influenced by the Scientific Revolution did.

In these cases we would regard the question “How can purpose arise from ‘mindlessness’?” a false one, a false problem. And as the case is with all false problems, in order to get a satisfying answer, and to feel that one truly understood something, instead of simply pushing a side this question, we must explain the origin of such a false question. This process is originally of Bergson who called questions false under a mirage of different flaws. Most notably calling the question “How can something come from nothing?”, a false question for mixing a quantitative difference with a categorical one. [2]

Thus, it is fundamental to our analysis of the question, since it is so suspicious, to find out whether it is false. This will be done in the following section.

### 2 Is purpose applicable to all?

We may already, like Bergson, claim that this question is false, due to that fact that it asks about the origin of something from something else, purpose from “mindlessness”; a difference which in the eyes of Bergson is false due to its confusion of categorical separation and a quantitative one. This falsification of the problem may not be convincing for all, since so many still ask “Why is there something rather than nothing?”, a question already discredited by Bergson.

In order to thoroughly discredit the question, we ask “Can physical problems be described by purpose?”. If so, then purpose is not fundamental to biology or psychology, and the entire question lies in muddiness.

terrain. In fact, if physics may be described by purpose, then purpose may not have arisen at all; but instead has always been an ordination, a law. The answer to this question is quite simple in fact, since a "purposeful" description of a physical problem has been achieved, by Hamilton in the 1830's. "*The most general formulation of the law governing the motion of mechanical systems is the principle of least action...*" [6], as was put by Landau; and this formulation is based upon the idea that a system strives, or has its purpose, in minimising the action, a quantity to be defined. We define a function  $L$ , which takes as arguments the coordinate of the system  $q$ , its derivative with respect to time, and time itself. This function is called the Lagrangian and is used to uniquely describe the system. The action  $S$ , is defined like so,

$$S = \int L(q, \dot{q}, t) dt \quad (1)$$

If a system strives to minimise this quantity, as is demonstrated in many textbooks, Landau's included, we can derive the Euler-Lagrange equations. These equations are formulated as a "mindless" law. It is now of benefit to define exactly what is meant by a mathematical law. To do that we take said equations as an example.

$$\frac{d}{dt} \left( \frac{\partial L}{\partial \dot{q}_i} \right) - \frac{\partial L}{\partial q_i} = 0 \quad (2)$$

This equation relies heavily on the derivative, in fact, all elements of this equation are derivatives of recognisable variables.

A derivative, as is known to all first year physics students [1], is a property of a function at a given point, that is, locally. Any property which is local is a description which is inherently "mindless", as it refers only to a single instance, and not to any length or duration. This can be understood in contrast to an integral law, which inherently involves the entirety of the function. Another illuminating example is that of Maxwell's equations. These can either be stated locally, by the derivative formulation, or globally, by the integral formulation. [5] Not all global laws are purposeful, for example, the formulation of Maxwell's equations using integrals is mechanistic, or "mindless". The essential difference is between local and global in time. A purpose requires global representation in time, or in more sci-fi lingo, a knowledge of the future; while laws which are "mindless" require only knowledge of this very instant. This description of physics, on that utilised a minimised quantity, is very popular in fields from General Relativity, to Quantum Field Theory.

Particularly in Quantum Mechanics, we learn that a particle's purpose, as dictated by when it is measured, is important to the final cause. By this I mean, that if we, for example in the double slit experiment, measure the particle near the slits we receive a vastly different result to if we measure it further after it passed. We'll use here a simple analogy, instead of speaking of the double slit experiment, we'll speak a Zenonian paradox. We observe a line, AB, with a midpoint C. For a quantum particle to "walk" from A to B, is vastly different from "walking" from A to C. This is demonstrated in the double slit experiment, where if the particle's state is measured near the slits it doesn't show an interference pattern, while if we allow it to pass, a pattern does arise. If a particle's purpose is to get to B, it will be different then if its purpose is to get to A. This is argued well in Feynman's formulation of QM [9].

Moreover, one might see in Darwin's a "mindless" description of biology. It is no longer that animals strive to do such and such, and therefore evolve to better fit these actions, but that over immense periods of time the sheer probability of changes in DNA slowly causes changes in animals which fit the environment only by the fact that these changes allow the animals to survive.

Thus it is not purpose, or a striving to survive that morphs animals, and drives them to action, by only the "mindless", "heartless" facts of mutation, time, and death.

However, unlike the description of physics as purpose, the description of biology as "mindless" is far less established. Thus, although one cannot rule a mechanistic description of the world out completely, one can at least treat it less seriously than how one treats a "purposeful" physics.

We may conclude, then, that physics may, and a lot of the time is described by a sort of purpose.

This is sufficient to discredit the question. Due to the fact that – categorically – all problems can be stated in a "purpose" full way. Purpose is thus a possible feature of all these descriptions.

We may either claim that the world is essentially driven by purpose, as Aristotle did; or we may blame ourselves for this mistake, we may claim that purpose is a matter of description, and ask why we chose to describe biology like we do, and physics like we do.

In order to quench the thirst for the origin of purpose, I believe that the question of how this description arose in the first place, is most fitting.

### 3 Why describe using purpose?

The question which is therefore most relevant is "Why we describe using purpose?". A most immediate and intuitive response (something which would appeal to Bergson) is to state that it is a feature of our own cognition: that humans are biased towards such description, that this is the way our brains are wired.

It is worth noting, that this response is immediate only due to the effect of the scientific revolution (good or bad). If we were to ask this question in time such as the middle ages, or ancient Greece, we would hear that God ordained a purpose into all things, and they simply follow it, or that all things have spirit, and are capable of operating to achieve goals.

This second answer is very similar to our own immediate response, as it puts purpose into the spirit, into the perception of the world through the eyes of a sentient being.

The scientific revolution caused the default cause to be the effective one, not the final one. This is also quite similar to the answer probably given by the philosophers of Miletus. They too looked for a material cause, a physical explanation, as we do today.

For me, the reason our perception produces purpose relies on two elements:

1. A concept of causality, or causal structure.
2. A will.

A concept of causality is essential, since one cannot conceive of change, or of results of actions without one. Imagine an alien with no concept of causality, we'll call him Hume. Hume cannot possibly strive to do anything, since he does not understand that doing something might change his position. One might step further and claim that Hume would not understand how to change the things he wants to, and might therefore never form a purpose.

Imagine, on the other hand, an alien with not conception of will, call him Buddha. Buddha might understand that things cause one another, and how they do so, but without a wanting he cannot have purpose, or a goal, for he wants nothing.

We thus understand purpose to be built upon the will, and a causal structure. This would be sufficient to answer the question why we use it to describe all.

Once equipped with an idea of how an organism operates, we would describe all its parts as having purpose, for we know what must be caused (and that it may be caused), and we understand them as wanting it, for they act to achieve it.

This description would fit whether its subject is a cell, an animal, or a particle moving about in a vacuum; for the will in it is placed by the observer, namely, us, and the causation is understood by us.

We thus put it simply: Purpose arose when observers began to understand causality, and began to want things themselves (after which they began to project to the subjects of their studies).

It is thus left to figure out why we want, and why we conceive of causality the way we do. This question is both deep and complex. I'll work towards an understanding of these concepts in the next section.

### 4 Why do we think things cause other things?

This question, has in fact, been under heated discussion since the work of our sceptic alien David Hume.

For Hume, only those ideas for which we can find basis in our experience are valid. This conception of the validity of ideas is where Hume's exceptional Empiricism shines – Only our experience leads to valid ideas.

The way Hume checks whether an idea arose from experience is to check, from introspection, if it's origin is in an impression (an Ideologically safe version of sensory impression), and not in another idea.

A famous, and staple, result of Hume's masterpiece, "A Treatise of Human Nature", is that causality has no origin in impression, but arises from the mind. He shows this by examining the idea of causality, claiming that it requires an order in time, and locality in space-time. [3] [10].

It is now required to explain why we perceive such a structure of the world, if it does not in fact exist. To do so I must appeal to the work of the great philosopher who found inspiration in Hume's desperation: Immanuel Kant.

For Kant, Space-time (although he treats these concepts separately, and for good reason, for the sake of brevity we shall unite them here. for our discussion we need not treat them as separate entities.) is an *a-priori* construction, one which is essential to perception. Additionally causality is also an *a-priori* construction. It is immensely important to Kant's philosophy that these constructions are *synthetic a-priori*. [4]

It is also a staple of Kant's philosophy, although his moral, not metaphysical thought, that Logic is universal to all intelligent beings. [11]. This is essential to my argument. I believe, that a combination of the *a-priori* construction of space-time, and the universal tool of Logic, leads to causality.

A similarity of Logic and causality is visible from the form of sentences in both topics. For example: given two axioms A and B, and a theorem C, we would say "A and B, therefore C"; additionally, given two events A and B, and an event C, we would say "A and B happened, therefore C happened".

Aside from the word of root "happen", we see that these sentences are essentially the same. This similarity was noticed by Spinoza, and played an important role in his metaphysics. [10]

For him, there is no causality, only Logic. For me, Logic as the essence of intelligence, is the origin of causality. **We organize our experience of the world in the same way our minds are organized.** We project the structure of our own thought onto our experience of the world. A deep resemblance shared by the causality all people conceive of, is explained by the universality of Logic in our thoughts.

## 5 Why do we want?

This question, at least so it seems to me, is far more complicated. I will therefore rely more on the work of great philosophers than I did up until now. I will use their work quite mischievously in order to show that finding a mechanical origin for Will, is fundamentally impossible.

It is entirely tautological to state that Will either is a part of perception or it isn't. Either Will is subject, like all our perceptions, or it is objective, that is to say, that it transcends our understanding, and that it the-thing-in-itself.

First we consider the Will as a part of perception. A different question may then be asked: "Can perception be explained by a mechanism?". Luckily for us all, the distinguished German Polymath Gottfried Wilhelm Leibniz, is famously quoted stating: "It must be confessed, moreover, that perception, and that which depends on it, are inexplicable by mechanical causes, that is, by figures and motions, And, supposing that there were a mechanism so constructed as to think, feel and have perception, we might enter it as into a mill. And this granted, we should only find on visiting it, pieces which push one against another, but never anything by which to explain a perception. This must be sought, therefore, in the simple substance, and not in the composite or in the machine." [7].

If, on the other hand, Will transcends perception, which is the basis of the philosophy of Arthur Schopenhauer [8], then it is, by definition, transcendent from perception, meaning, beyond understanding and description, such that even if it does come about by means of a mechanism, it is not within our realm of understanding; making this very question unanswerable.

This take on Will, conforms with the ever essential purpose of physics. As Landau stated, if indeed the Will is a part of objective reality, it would make purpose, in part, a part of objective reality, affecting the world without our understanding. Quantum Mechanics is known for being extremely confusing yet consistent and confirmed experimentally. We might see in QM, it being more purpose oriented than any other field of physics, an expression of this objective Will.

However, it is important to keep our hats on, and to stress that once transcend beyond our Epistemic faculties, it is easy to invent connections which might seem reasonable even if they are not there. We must consider this idea as a Rationalist would, and be aware of its flaws like an Empiricist would.

Thus the ultimate answer to the question is either, "No", or that it is not answerable.

Although one may develop theories further, and discuss this most important of philosophy further, this essay lacks the space, and the appropriate forum to do so.

## 6 Conclusions

In this essay I attempted to convince the reader (and myself) that the question of the origin of purpose is problematic, due to purpose being an essential part of human experience. Whether purpose and Will are part of objective reality, as Aristotle and Schopenhauer would argue, or if they are simply a part of the non-mechanistic part of the mind, they remain beyond mechanistic explanation.

We deconstruct the question in the tradition of Bergson, and in the Method of Descartes, in an attempt to gain understanding of it, before reaching its essence and deciding upon an answer.

In this analysis we have not considered the possibility that the universe is entirely mechanistic due to the so-called purposeful description of physics, and its obvious importance.

In closing, I would like to note that when one attempts to explain the world using the terms of mechanics, by so-called mindless mathematical laws, it is by definition out side of his scope to explain such things are purpose.

A world ruled by a mechanism is, by its very definition, a world in which purpose is only an evolutionary illusion.

If one agrees with Darwin, a most sensible thing to do, one cannot address evolution in terms of purpose, but only in terms of statistical accidents. If purpose exists, then it is the driving force; if the world is a machine, then it is that which defines its behaviour; **one cannot have his purpose cake and eat it too.**

## References

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