

Article

## Why Natural Selection Cannot Explain Biological Evolution

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### ABSTRACT

The indifferent process of natural selection has been dubbed “the blind watchmaker” by Richard Dawkins. Arguments against natural selection are presented that relate to both ontology (reason-based) and epistemology (evidence-based), and the belief that the blind watchmaker drives evolution is revealed to be only a stipulation, at best. The belief is found coming from a metaphysical preference towards naturalism. A new account of evolution is presented that does not hold naturalism as a preference, and permits teleological (or guided) evolution and vitalism. This new account departs from the hidden agenda of naturalism, and fully discloses its preference towards self-evidence in its pursuit of truth.

**Key words:** Darwinism, design, biology, epistemology, ontology, metaphysics, mysticism, teleology, vitalism.

### 1. Introduction

While I accept evolution as a well supported scientific observation, at the risk of stirring up much controversy let me disclose that my voice has been against the Darwinian world-view, as indicated in Smith (2008).

When I have presented my arguments against evolution by natural selection (in the past) the common reaction comes that I have only made a strawman of natural selection. However, in order to test any theory it must be possible to turn theory into a strawman that can be refuted by observation. Karl Popper called non-testable theories pseudo-science, and this label is earned by a presumed evolution by natural selection that hinds behind its own strawman. It can't be that natural selection hinds behind its own strawman in one instance while it pretends to provide foundational support for evolution in another instance. Natural selection can't be the foundation for biological evolution, because the asserted foundation transforms into a strawman that is readily refuted, as I will now show.

It is not that I disagree with the idea of natural selection that is indicative of common descent and gene frequency changes (micro-evolution) due to differential survival. I disagree with the idea that evolution is the blind and indifferent progress that Richard Dawkins described in *The Blind Watchmaker*, a process with no foresight that is limited to mere survival and the passing of genes on to the next generation. Charles Darwin thought that he could explain apparent purpose in biology from a naturalistic foundation provided by natural selection. It is worth noting that Michael Ruse (see page 178 in *The Deep Structure of Biology* edited by Simon Conway Morris) admits that purpose is apparent in biology, it is just that he thinks that it is explained by natural selection. My view is that evolution is guided by the intelligent activity

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expressed by life itself, and this activity is beyond the conventional view of naturalism that is limited to cause and effect.

I will refute the belief in Darwinism that implies that evolution is a blind watchmaker. To this end I present three sub-arguments, the ontological, evidential, and metaphysical refutations. They have a natural flow, and blend into one another.

## 2. Ontological refutation

In the fewest words, the ontological refutation follows: *Darwin's theory assumes a friendly space-time fabric turned sample-space and represented by Richard Dawkins's bioform space (depicting genotypic and phenotypic morphology). In asserting that the fabric is a sample-space the theory invents a hypothetical probability distribution function that represents "random variation." Then this theory assumes a dynamic (responsive to biological change) and smooth (i.e., friendly to natural selection) fitness landscape. That is, Darwin's theory comes with a precondition that natural selection can never explain, as this boundary is hardwired into the very fabric of space-time. And indeed, the boundary can be coopted by an agency turning natural selection into artificial selection, as demonstrated by domestication. Natural selection cannot explain the precondition or the agency that coopts the space-time fabric. Darwin's theory is found asserting a truth statement about the space-time fabric (i.e., that the watchmaker is blind), but it is not a theory about space-time. Or stated another way: Randomness and selection are not context independent. Therefore, Darwin's theory is provisional, and cannot serve as a framework for broad evolution.*

These few words may be hard for skeptics to accept, and so it is worth unpacking the ontological argument in fine detail.

Firstly, it is important to look at what might provide the missing driver in evolution, and to this end we must look at causation and make some careful definitions. Backward causation is where the temporal end point is found causing the temporal starting point. Backward causation is like the opposite of forward causation where effect follows faithfully from cause. I am not a big believer in backward causation, nor do I believe in an absolute determinism or fatalism. I agree with Bergson (1998), that we must look beyond determinism and fatalism to explain life.

However, an understanding of teleology is important, but here we may use Aristotle's "final cause." Teleology complements linear causation that shows cause and effect as a flow. Teleology implies a causal connection across a duration; enough to imply some foresight but differs from fatalism.

Teleology simply asserts that there is a level of causation above the linear flow of cause and effect. Teleology also resolves the conflict between reductionism and holism, in that forward causation flows from parts to whole and teleological causation returns itself from whole back to the parts. The backward mode is joined to the forward mode, and comes with a timeless middle-term that is non-determined.

Teleology is where the end point is found supporting the starting point, unlike backward causation that leaves nothing undetermined. Teleology is like the partner of forward

causation. Teleology hints of a cause-cause connection across a time period, including durations that may be very long. Therefore, teleology indicates the driver behind purpose, and when we look at design we look at this teleology as Kant noted in his *Critique of Judgement*. Teleology indicates purpose and an intent that is signified by designs. In Kant's wake, nineteenth-century German scholars carried the study of teleology into biology, but sadly this trend did not last (Lenoir, 1982). If we are to believe Richard Dawkins, the apparent design in nature is explained by Darwin's natural selection. Given that man evolved from the less evolved, then Dawkins's implication is that human designs are only projections because there is no higher source that carries purpose and because it is believed that man's evolution is explained by natural selection.

It is this hypothetical teleology that defeats the assertion that evolution follows a blind watchmaker simply because natural selection is unable to make assertions about a space-time fabric it cannot quantify. The hypothetical teleology need not be a white-haired designer in a religious sense, but this is getting too far ahead in our discussion. It is enough to note that the arguments that pretend to support natural selection did not do what they have been advertised to do: demonstrate that the watchmaker is blind.

Now there is something very special about a map. The map provides only an image of territory, but the map is not the territory. Nevertheless, by looking at a map and by interacting with the territory we are able to navigate the territory successfully going from point A to point B. Absent the map and there is a significant risk that navigation may fail.

The map is just geometry that provides coordinates for points A and B, among other points. By superimposing the map over the territory, we can stand at position A and point at position B. The coordinates that permit pointing don't tell us how to navigate the territory uniquely, however. There may be several routes to go from A to B. Nevertheless, some teleology is found smuggled into the coordinates system offered by maps, and the only thing missing is the motivation to move. This teleology permits pointing at things while referring to abstract images signified by the map. I made this argument in my paper about space-time geometry, see Smith (2010a).

So maps can support purposeful action given that some teleology is already smuggled into the coordinate system. Let us now turn to the question of randomness. By necessity, random events occur on a sample-space. But for these events to be real, the sample-space must coincide with part of the space-time fabric. The sample-space is like the map, and the space-time fabric is like the territory. But even space-time can be abstracted and turned into a geometry, and so the sample-space is just a particular example of a type of space-time geometry, or map. I am going to now demonstrate how a map that depicts randomness can be hijacked by teleology, defeating the belief that randomness and sampling is necessarily distinguished from teleology.

Imagine a dice game like Yahtzee, but with new rules. You are given five dice, and you are to roll the five dice three times. Your score will be the maximum number of dice that come up showing six over each of the three turns at rolling. For example, if your rolling returns 1 six on the first roll, 3 sixes on the second roll, and no sixes on the third roll, then your overall score is 3. According to the rules of this game I will pay you \$100 times your score, or \$300 if your score is 3 as indicated in this example.

Those are the rules that you must follow when playing this particular dice game, and your rewards can be determined by the properties of randomness so assumed for this game. But when its my turn at three rolls, I am going to change the rules of the game without telling you. Like a magician, I am going to gum up the space-time geometry, and make it only look like I am playing by the same rules as you. But make no mistake, I am only hijacking the sample-space to serve my own teleological ends. By a swiftness of hand, I will only re-roll those dice that do not come up six. I will make a holographic movie of those dice that come up six the first time, and replay it on subsequent turns. So if I roll 1 six on the first turn, then my second roll will involve only four dice. If my second roll returns 2 more sixes, then my new score becomes 3 and my last roll will involve only two dice. If the last roll returns 1 six, then my overall score becomes 4. I will now indicate to you that you own me \$400.

Like the map that permits pointing at points, I have intelligently designed a space-time geometry depicting events that unfold on a sample-space, and I have rigged the game to serve my own teleological ends. People cannot just invoke randomness, and law-like sampling, and conclude that because some data looks to fit the statistical model that teleology can be safely excluded from the pattern of events that reveal themselves in space-time. What gets forgotten is that teleology can work with apparent forward causation, and teleology can hijack the abstract space-time mapping depicting the sampling of random events to serve a covert goal. Randomness and law-like sampling do not necessarily distinguish themselves from teleology.

Natural selection was thought sufficient to explain evolution. Sufficiency carries the indication that the watchmaker might as well be blind, and therefore, God is not needed. However, Dawkins's arguments fails. To assert that the watchmaker is blind depends on both the necessity and sufficiency of natural selection. These are two steps:

(1) The argument that natural selection is necessary depends on the following train of thought. To the extent that natural selection is real in a hypothetical sense, showing how natural selection can explain a projected teleology.

(2) The argument that natural selection is sufficient depends on the following train of thought. To the extent that teleology is real in a hypothetical sense, demonstrating how teleology cannot coopt the preconditions of a projected natural selection (thereby stopping teleology's return to goals).

Dawkins only demonstrated necessity by showing that natural selection might be true, i.e., he correctly treated (1) but ignored (2). He did not show that natural selection was sufficient.

Why did Dawkins, and his followers, not consider (2)? The argument comes that (2) is asking for the proof of a negative argument, and this is not permitted. The response comes that the agent behind the designs indicating teleology might as well be a vampire, and no real scientist would attempt to prove the non-existence of vampires. Strange, only now do my critics demand evidence that affirms the existence of vampires. The reality is that track (2) is rejected as a matter of logical protocol (a mere stipulation), and in doing this it is automatically assumed that natural selection is also sufficient. However, it is only sufficient in that this argument is enough for Dawkins to stop looking for a distinction between natural selection and teleology thereby turning natural selection into a tautology that is said to be "sufficient" and ever fearful of vampires.

If natural selection is going to avoid being characterized as a tautology stuck in its own circular thoughts, then it is necessary for natural selection to distinguish itself from a teleology that coopts natural selection's preconditions. Teleology (coming from the animal or plant breeder) is able to coopt natural selection to return artificial selection, and so the issue of not looking at (2) burns deeply. While artificial selection is distinguished from natural selection, it remains necessary to distinguish teleology and a presumed natural selection in the wild.

When limiting debate to philosophical arguments the distinction between natural selection and teleology never comes. Logical protocol is arbitrary in its rejection of attempts to affirm negative arguments, like (2), while accepting the negative argument without further question. We merely get the assertion that negative arguments don't require justification because no one would ever try to prove that vampires don't exist. However, this is still an admission that natural selection and teleology can't be distinguished; and that Dawkins's assertion of a blind watchmaker failed. Moreover, teleology leaves evidence as designs, and we never argue that the agent behind the creation of design is a vampire. We argue with designs that are found self-evident, the DNA code, the motor flagellum, words written on a page. Even if designs are argued to be merely projections, we cannot justify this belief by automatically asserting that designs are projections because negative arguments don't require justification; this again turns natural selection into a tautology.

I have now restated the ontological refutation of Darwinism. My argument is an ontological argument because it does not involve data. The argument uses reason, and it says that randomness and law-like selection do not necessarily distinguish themselves from teleology that may in fact coopt the apparent natural processes that are identified by natural selection. If natural selection is going to explain away purpose, and teleology, one must look to evidence that permits a distinction. Otherwise, natural selection becomes a tautology and non-testable, it becomes pseudo-science that only pretends to explain purpose. And in this case one must look at the embellishments that are conveniently applied to the space-time geometry to make it more friendly to natural selection (more will be said about the embellishments in the next section). We must look at the fitness landscape, and if the embellishments are too contrived then teleology is found smuggled into the space-time geometry to permit the easy pointing at points by apparent natural processes.

My skeptics are crying out for evidence, but evidence will come in its own time. The irony is that when we consider the evidential refutation of Darwinism in the next section, evidence will not give my skeptics any comfort. With the evidential refutation, it will become apparent that the space-time mapping has been coopted by scientists to only make natural selection look real. It becomes like the breeding of our domestic animal by an agency that coopts an apparent natural selection and returns artificial selection.

Our thinking might start with the belief that teleology is not testable science. But then we note the contradiction that natural selection is said to explain teleology while natural selection sees itself as a testable science. Demonstrating that teleology can hide in the preconditions of natural selection, the assumed random variation coming from mutations and the assumed fitness landscape, reveals that natural selection cannot distinguish itself from teleology on ontological grounds. Therefore, we are forced to look to evidence to see how a now assumed natural selection is different from teleology.

### 3. Evidential refutation

In the fewest words, the following is the evidential refutation of Darwinism: *What does it mean that Darwin's theory is provisional? It means that it is limited to a narrow domain of application (like plant and animal breeding), and we can point to things that Darwin's theory can't tell us. I will now point to the evidence, including the following items but not excluding the plentitude of other facts. Darwin's theory did not anticipate biological symbiosis. It did not explain the extreme convergences of a kind noted by Simon Conway Morris. It did not anticipate the fewness of our genes. It did not anticipate the Hox systems, and the extreme examples of cooption noted by the interactive complexity apparent in the genome. The arrow of time is expressed by biological evolution, leading to complex multi-celled organisms that are unnecessary in a Darwinian evolution that is driven only by reproductive fitness. Darwin's theory did not anticipate the findings of epigenetics where DNA is found activated by environmental cues. Darwin's theory anticipates little, it merely rationalizes itself after the fact of discovery. And therefore, such a theory cannot be used as a foundation for evolution.*

My critics are now crying, “that Darwin's theory does not need to anticipate these facts, it is enough that the theory can be rationalized and made consistent with these observations.” But I will argue that this reaction misses the weaknesses that may be sleeping in our powers of interpretation, missing the purpose of evidence said to support a belief in a blind watchmaker.

To get at this deeper issue, it is ironic that we must return to the details of the ontological refutation and show my critics again what the evidence was supposed to provide that went missing. The ontological argument showed that natural selection cannot be distinguished from teleology enough to say that natural selection explains apparent teleology.

New mutations may be possible, but they need not be probable. Note that possibility does not have the same meaning as probability. Probability has a particular meaning because it relates to what is found random. Random relates to an event that emerges from a sample-space that has been assigned probability measure. Therefore, random is mostly abstraction, it is a nicety, even if random events can be designed. Possibility leaves the assignment of abstract probability measure undeclared, and so possibility is free enough to be impacted by teleology directly. Nevertheless, even if mutations are probable (rather than possible), the sample-space might be coopted by a teleological goal. Moreover, the fitness landscape can be completely coopted to serve a teleological goal, as it is with artificial selection. Dawkins showed how apparent teleology might be explained by natural selection, but the ontological argument showed how apparent natural selection might be coopted by teleology. It is only now discovered that natural selection's preconditions are taken for granted (the presumed random mutations and fitness landscape). It is not just that the Designer can use ready-made natural selection to create abundant and diverse life, with no modification in Darwin's original recipe. It is that natural selection can find a strong-arm purpose because natural selection's preconditions can be completely hijacked to serve a teleological goal. So we better be worried if Darwin's theory fails to anticipate the major features of observed evolution!

Notwithstanding the returning error in equivocating possibility and probability, I will grant the normal understanding of probability theory that underwrites population genetics. While random variation is probabilistic by definition, it is interesting to note that differential survival can also be cast in terms of probabilistic measures. In my paper (Smith and Hammond, 1987), I describe how to represent artificial selection in the context of probability. Essentially, I represented selection by truncating a multi-variate distribution across generations, truncating

parental phenotypes to induce an adjustment to the probabilistic distribution of offspring. The idea can be generalized for several generations, in principle. Though I was looking at artificial selection, the idea can also be generalized to treat natural selection by letting a fitness landscape have a probabilistic impact on truncation. The idea is that both random variation and selection can be represented by a truncated multi-variate probability distribution that reaches across many generations, however complicated. This convention lets us describe natural selection by the randomness coming out of the probability distribution so characterized, and this has the advantage in that we can stop talking about selection that is thought separated from randomness.

For my purpose, we don't have to specify this hypothetical multi-variate probability distribution and this is fortunate because specification would be impossible due to both ignorance and the complexity that is inherent in this formulation. Kauffman (2008, p. 146) notes that Darwinian pre-adaptations come with probabilities that can't be evaluated, and so Kauffman makes the same point. We can't specify this hypothetical probability distribution, but we can talk about it, which is all I want to do: when natural selection is invoked this hypothetical probability distribution is only stipulated, and stipulation is now far from assertion.

While natural selection translates itself into a multi-variate probability distribution, there is nothing in science that says probability space is fundamental, the probability function is only stipulated. A sample-space can be designed, e.g., rolling dice, but probability measure is only abstraction. Real space-time need not be a nice sample-space to fit our abstractions. Moreover, as the ontological refutation indicated, a hypothetical probability that we merely talk about offers us nothing to distinguish the activity of natural selection from teleology. Remember, it is purposeful design that is already apparent in biology and it was natural selection that was intended to explain it. But we have noted that a mere word game that talks about the sensibility of natural selection does not explain teleology because teleology may in fact give all its support to the stipulated probability distribution that underwrites natural selection. Merely talking about the sensibility of natural selection reveals only a tautology, more or less, concluding that what has survived is what has survived. Merely talking about sensibility turns belief in natural selection into pseudo-science, and we have arrived again at the ontological refutation of Darwinism already described.

What do my critics miss that must be provided by evidence? To save the belief in natural selection from the status of pseudo-science we must turn to evidence that distinguishes natural selection from teleology, but here there is a problem that my skeptics did not appreciate: the distinction never comes, and natural selection turns into a complete tautology. What of the major pieces of evidence coming from the study of evolution? Slow and gradual evolution gave way to punctuated equilibrium (Gould and Eldredge 1977). A competitive based evolution gave way to symbiotic evolution (Ryan 2002), thereby exchanging reductionism for holism. The 150,000 genes in the human genome gave way to an accounting that found less than 25,000 genes (noted by Collins 2007). The linear genome (that had been friendly to the additive genetic variation that is taken for granted by plant and animal breeders) gave way to a modular and self-regulated genome (Keller 2000), Hox systems (e.g., Ronshaugen McGinnis and McGinnis 2002), and heavy cooption of the spandrels of San Marco (Gould and Lewontin 1979). A blind walk gave way to directionality (the arrow of time) leading to multi-celled organisms (noted by Teilhard de Chardin 1959). Strong genetic determinism gave way to epigenetic inheritance (noted by Lipton 2005). Evolution of functional form comes from a precondition that is said to be plastic, and gene complexes are described by their plasticity. A

single gene may effect numerous traits, a condition called pleiotropy. And finally there is biological convergence (Morris 2004).

The collection of these key segments of evidential knowledge represents literally thousands of original studies too numerous to list without summary, and they all hint of a possible teleology. Symbiosis conforms with the teleological goal of uniting many with one. Teleology anticipates convergence, plasticity, cooption of spandrels, and evolvability. Natural selection (coopted or not) and teleology (or design) become more and more intertwined when a closer look at evidence is made (Gene 2007). Because teleology fits to the new evidence then it only means that if natural selection is real then a natural selection that is different from teleology has never been demonstrated. The sought distinction between natural selection and teleology never came even within epistemology. You can call this evolution natural selection if you like, but this only turns natural selection into a tautology that can never be proven wrong. We don't see a pure natural selection in the wild, or in the lab, or with artificial selection. We only see life-assisted evolution. Pure natural selection is only observed within a computer simulation, unless you are referring to tautological natural selection; but never mind that the computer and its program were intelligently designed.

The evidence brought to support natural selection does not do what it is advertised to do! Remember, evidence must support a distinction between natural selection and the underlying teleology that natural selection intends to explain away. What kind of evidence would provides such a distinction? Think about this question! If the hypothetical probability distribution that we merely talk about, because it cannot be specified, is thought contrived and complicated then the noted contrivance implies a supporting teleology that goes unexplained. Therefore, the only hypothetical distributions that imply the correctness of natural selection are the ones that are simple and uncontrived. There is a problem when we look to evidence because an interested science has applied the criterion in reverse, by intelligently designing the hypothetical probability distribution! Adding embellishments to the probability distribution is thought proof that natural selection works, but only because the embellishments are what is needed to make natural selection work given the now covert structural support offered by probability. What has been discovered as science looks deeper into biology is not the simple probability distribution function anticipated from Darwin's original gradualist evolution that is found preceding as expected from many genes that have small effects. What is found is complexity, and more complexity with fewer genes that come with potentially large effects.

There had been a hope that natural selection (un-coopted) could explain evolution given that the ontological refutation is less about epistemology. Looking at evidence and we might have found that evolution looks more like natural selection (un-coopted) and less like teleology. Then we could have said that apparent natural selection is different enough from teleology to conclude that evolution is non-teleological and is explained by natural selection (un-coopted). However, this sought distinction was never found! What we find are rationalizations that fit natural selection to new evidence post-hoc (e.g., Collins 2007). For example, we hear that symbiosis, convergence, plasticity, cooption of spandrels, and Hox systems, all agree with natural selection so rationalized. The problem is that every time Darwinism rationalizes itself, it does so by adding contrivance to the hypothetical probability distribution (that we can only talk about) and in doing this it fails to distinguish itself from a supporting teleology that remains self-evident in the designs and complex beauty that life offers. Natural selection so abstracted does not provide a distinction with teleology on first principles, as noted by the ontological argument. You never hear a question about whether the new evidence implies a



distinction between apparent natural selection and teleology. The question gets completely ignored in preference for fundamentalist dogma coming from scientism.

We have now arrived at the evidential refutation of Darwinism. The apparent evolution is found getting more and more complicated as we dig deeper into molecular biology, leading to complexity that was completely unanticipated by a belief in natural selection. Teleology is found remaining apparent, as much so as the apparent beauty that is found confronting the rational mind on a nature walk; this confrontation never weakens. What has been gained now is the knowledge that Darwin's natural selection was only said to explain teleology, but when looking at the details the arguments were found to be empty. The watchmaker cannot be merely asserted to be blind! And the evidence implies something different!

#### 4. Metaphysical refutation

The ontological argument revealed that standard evolutionary thinking depended on a prior preference, and the evidential argument revealed that the standard interpretation of data is also influenced by the same preference. This standard reflects the preference towards naturalism, and some claim that naturalism is a necessary preference that underwrites science. However, despite the purported science and evidence said to support the assertion that natural selection is the blind driver behind evolution, the dependence on a preference gives a fatal blow to this assertion. The word "preference" describes the flavor of ice cream and as such it is a code word for metaphysics, and so belief in the blind watchmaker is reduced to a metaphysical claim that has little supporting evidence; in fact, what evidence there is points in the wrong direction. Darwinists may think they have a safe harbor in metaphysics, but metaphysics is where Darwinism meets its greatest defeat.

In the fewest words, the following is the metaphysical refutation of Darwinism: *Life is said to have an impetus to survive, but Darwin's theory is found equivocating badly on this issue. In one sense this theory implies that the impetus is determined by genes that interact with the environment. Then only an indifferent process of selection and variation is said to determine the successful genes that are passed on to future generations. But life's impetus is also intended to carry a struggle for survival, and this is a duplicity. In one case, the impetus is said to be genetically determined and otherwise indifferent, but in another case the impetus is said to be a struggle for survival and far from indifferent. The two meanings are unable to find agreement, and the only way to resolve this conflict is to return to the space-time fabric. This defeats a belief in Darwinism.*

My skeptics may protest and say, "let science be science!" To this I say that science has the responsibility to study reality the way it is found, not the way it ought to be for scientists that make assertions but are otherwise unable to disclose their underlying preferences and end up breaking the trust.

My skeptics are now the loudest with their opposition to my arguments, crying that: "my argument is entirely metaphysical with the talk of impetus, and all preferences are equally valid and cannot refute the privileged and favored belief in naturalism even if naturalism is reduced to the metaphysical." "So what," they cry. But this equivocation of all preferences fails because what is revealed now is a new type of evidence that permits notable distinctions that hint of improved preferences.

## 4.1 Self-evidence

Sometimes a pretense is made that science is entirely evidential, and that to question is only to bring out new objective evidence. This is a misconception. Evidence depends on preference-impacted interpretation, and if the self is deluded, or otherwise uncultivated, the sought interpretation is on thin ice. Evidence is found open to interpretation, and so a deeper issue must be dealt with: how interpretation comes to us on primal ground.

We must necessarily trust our self, and our abilities of thought, to assert truth within the realms of ontology and epistemology. Can we trust each other? Sadly, the answer seems to be no, but not always. With trust gone there is no trustworthy truth that comes in the name of science, or religion. The trust issue is at the bottom of the ontological and evidential refutations because assertions are found reduced to mere preferences.

Can we trust a partisan to give us the straight talk? Not generally! Note that when some politicians speak the effort is mostly about persuasion, pandering and serving up platitudes, blaming the other side, and less about disclosing facts and preferential assumptions that are both taken for granted and held secret. More often than not, political rhetoric rarely matches reality. Disclosing truth is like pulling teeth, and the affection held for one's opinion can keep the bigger picture from becoming known.

Trust has to do with our ability to accept self-evidence at the deepest level. Being unable to accept self-evidence gives religious faith, and even science, over to fools. I believe that deeper trust reveals ethics and spirituality, it gives us strength to accept the deepest disclosures that reveal themselves.

The new evidence is called self-evidence. This return to empiricism cannot be an empty experience that faithfully holds to the old understanding that gave us scientism. The deeper empiricism has to do with self-evidence emerging from the ground of being. What better evidence than the self-evidence given to us by our own affections? It is affection that attaches itself to our preferences.

Being interested shows the emotion of affection. For example, a scientist is interested in science because the scientist loves science. Science is how the scientist expresses his, or her, self love. There is no such a thing as a disinterested science. This is why the trust and psychological issues won't go away, and to study these issues it is necessary to accept self-evidence. The image of the objective scientist is only a myth that is found collapsing because a weak self-image deserves only a less than perfect public trust. Otherwise, misplaced trust leads to an appeal to authority, but this is recognized as a logical fallacy. To get beyond the limitation coming with a presumed objectivity, Husserl (1970) noted that the best we can hope for is a transcendental subjectivity. Wallace (2000) revisits subjectivity and considers its impact in science.

It is self evident that all of us are self interested, and these activities go all the way down to sense-certainties (in my view). Sense-certainty is the most direct awareness, but take away all interests and there is not even this minimal awareness. Empiricism is merely the pretense that facts emerge from naked sense-certainty without need of interpretation. Evidence is generally open to interpretation and the only way to vet the interpretation is to put our self interested affection to the test. Therefore, reason cannot be removed from empiricism (or emotion). It is reason that vets our affections, to test their authenticity. I believe this is why Hegel, in the

*Science of Logic*, demanded that logic be in-itself (objectively fashioned) and for-itself (subjectively motivated). Logic must return to being self consistent with its own emotion, otherwise a contradiction will reveal itself somewhere. The contradictions become easy to feel (self-evidence again).

There is only one force that I know of that can be so strong that the self interested become blinded by their own self-interests and unable to see the big picture. The only way to relax the blindness, and see the bigger picture with a revived self interest, is to understand that the old self is not authentic. Where is the agent behind the designs of life, including those produced by humans? If you look inside the brain, you will not find yourself there smelling a rose. The self is no where to be found! Ockham's razor implies that there is only one self and this takes us to non-dual mysticism, if you care to follow in that direction to seek a better self image.

Empiricism demands that we feel again in a renewed state. A new affection must come to support the need for empirical evidence. The new affection is an affirmation of a better self image, and it is only now that better preferences can be found.

We are left with the apparent puzzle until reality hits us. It is life's vitality that drives the apparent teleological evolution impacting directly on the space-time fabric. It's life's vitality that drives the biological impetus for survival. It is vitality that relates to self-interested logic, and all human logic is self-interested. Therefore, to understand life and reality there must be a universal grammar that permits self-cultivation of what is now felt and self-evident.

We find two main affections that can only emerge from self. One affection has dominated science and pushed the other affection out of science in a pure march that takes no poisoners. What was called a sufficient argument is revealed only to be a stipulation that the watchmaker is blind. But a sufficient argument does not need intellectual fascism to maintain its self-sufficiency, it maintains itself by its one-sided affection. The one-sided affection turns into a blind hubris as is self-consistent with belief in a blind watchmaker. The over-extension comes as science pushes itself into religion. It is only then that the blind affection turns to pain, and the alienated affection is recognized. This initiates the first felt oscillation that is self-evident, and it then becomes possible to be mindful of both affections. With the better self image and trustworthiness won comes a more refined affection, and a beautiful vista comes into view where we discover the transcendental sciences: transpersonal psychology (see e.g., *Journal of Transpersonal Psychology*), and complementary medicine (see e.g., *Journal of Alternative and Complementary Medicine*). To climb higher is to put more effort into winning trust, and above the previous plateau is the wellspring of Trinitarian vitalism and non-dual mysticism. To climb higher still is to find God.

Self-evidence hints of vitalism, and natural selection has no room for vitalism. This is why the metaphysical refutation of Darwinism is so powerful; first we reflect on our own emotional responses to the ontological and evidential refutations; then we look for the positive evidence that affirms the activity of the same vitality in biological evolution.

#### **4.2 Impetus beyond natural selection**

Where now do we discover the evidence of vitality that impacts on evolution? A very self-interested reason is driven to its conclusions by blind affection. We would expect nothing less coming from the blind watchmaker. Nevertheless, there is a need to look for positive evidence

beyond the strictly negative arguments; the positive evidence for teleology was not considered good enough to withstand the Darwinian post-hoc rationalizations.

Here is the pivotal observation. Natural selection is sometimes caricatured as “survival of the fittest,” even by evolutionists that are strong defenders of natural selection. Some try to imply that the phrase is metaphorical, and provides a misleading depiction of natural selection. There is no use denying this caricature making as even Darwin accepted Spencer’s coinage of “survival of the fittest,” and Darwin used it himself in his fifth edition of the *Origin of the Species*.

While “survival of the fittest” is incomplete, it provides a very accurate depiction of natural selection despite the other anemic attempt to diminish it. For one, we understand that “fitness” relates to the probability of leaving offspring that may carry heritable genes; agreeing with R.A. Fisher’s construction of fitness within population genetics, and with Stuart Kauffman’s application of fitness landscapes. Moreover, the phrase “survival of the fittest” does carry a metaphysical quality that makes its self available to study in evolutionary psychology to such an extreme level that human behavior is thought explained by natural selection. Scientists cannot have it both ways: either “survival of the fittest” describes natural selection, or it does not. If “survival of the fittest” is not a good depiction of natural selection then neither can natural selection explain human behavior for the simple reason that “survival of the fittest” is an accurate anthropomorphism that characterizes self interested struggle. Self interested struggle has left its mark in political and economic theory, and there is no use denying this. Adam Smith wrote about the economy of self interested logic in his *Wealth of Nations*.

Life is said to have an impetus to survive, but natural selection is thought to be an indifferent process. Is life’s impetus a struggle or an indifference? Natural selection as an indifferent process is what most contemporary evolutionists accept. However, this view only makes sense now given a strong genetic determinism, where there are genes for most every trait and obscure behavior that shows the slightest impetus that enhances survival and fitness and leads to an apparent adaptation; otherwise, part of the *goal-directed* impetus for survival is left unexplained by natural selection, and any part is too much. Understand that strong genetic determinism has never found any evidential support because it is mostly a metaphysical claim. There are too few genes to explain the plentitude of our traits thereby forcing an extreme pleiotropy, and there is now evidence for epigenetic inheritance that detracts from a strong genetic determinism. Because the implicit assumption of strong a genetic determinism is very doubtful, we are forced into the alternative view where life’s impetus is found to carry a struggle for survival (prior to selection), and this is a departure from the standard view where natural selection is thought to explain life’s impetus. The alternative view carries the preferred meaning that is both implied by, and conflicted with, Darwin’s theory.

To repeat: In one case, life’s impetus is thought to be genetically determined if it is at all an adaptation that can only emerge from an indifferent driver, but in another case life’s impetus is thought to be a struggle for survival (even before selection) and the opposite of indifferent. The two meanings remain conflicted, but the later is the preferred meaning. Take away the later meaning and natural selection fails as a theory because without the anthropomorphism, that life struggles to survive, is to leave a mechanistic theory that few would accept. Take away the former meaning (that represents the standard view of natural selection) is to admit some goal-directed vitalism. Life is vital because it struggles to comply with “survival of the fittest,” but because this vitality is a precondition for natural selection we discover again that the survival impetus cannot be explained by natural selection.

Something must now be said about the incompleteness of “survival of the fittest,” that clearly left life’s impetus for survival unexplained. “Survival of the fittest” is thought to be the harbinger of self-centered competition, or “greed” (for lack of a better word), and evolutionists invest much effort in attempting to explain altruism by starting with this greed (e.g., Axelrod 1980). Ayn Rand writes favorably about greed in *The Virtue of Selfishness*, not that she really endorses natural selection. If life’s impetus is already unexplained by natural selection, it seems unlikely that attempts to explain altruism, including Axelrod’s, are going to be productive. Nevertheless, there is hope in seeing the driver of evolution not as the individual that struggles for survival, but as the environment that supports the individual (remember, we change our self image to get an improved view). In other words, life’s impetus belongs as much to the environment as to the individual. And if evolution is thought to be an indifferent process, even if mistakenly so, then what better driver than the environment? Here life does not struggle for survival so much, rather life is found complying with the environment. “Survival of the fittest” transforms into “salvation by cooperation,” and remarkably, altruism and biological symbiosis are now easy to explain.

What are we now to make of life’s impetus to survive? It was once recognized by “survival of the fittest,” and now it has polarized itself into its opposite: “salvation by cooperation.” Traditional science is unable to tell these two extremes apart, and this vital impetus is found unexplained by natural selection because it serves as a precondition. Those that cling to the indifferent natural selection pretend that the fitness landscape can adapt to both “survival of the fittest” and “salvation by cooperation,” but this ignores the observation that the two drivers are held as a polarity with an ineffable core. This core is a singularity that creates blind spots in our perception, even as the singularity permeates existence. This punches holes in the fitness landscape. There is no way to map life’s impetus onto a flat surface that knows only indifference.

Natural selection is found ambiguous, and unable to distinguish life’s struggle for survival from a vitality that goes all the way down. It is life’s innate vitality that provides impetus for noted struggle with its own affection, and so it is vitality that serves as a precondition for natural selection. Excluding vitality (now given as an innate polarity) from the precondition that is necessary for natural selection is called the fallacy of excluded middle, but this vitality is self evident. Without vitality there would be no struggle for survival, and there would be no self interested logic so cultivated in the human condition. There would be no graduation is a more authentic expression of self that is found supported by one force.

The goal-directed vital is found climbing higher and higher, depending on how it expresses the innate polarity. But it must leave pressure points behind on the space-time fabric, so it can stand on them and reach to higher forms of evolution. Genes are pressure points, but these cannot be the only pressure points with the actuality of epigenetics. Words on a page act as pressure points for consciousness, where there is resolution of the same polarity in a provisional sense and where information is found. The vital polarity may even cause consciousness to oscillate between particularity and generality (Smith 2010b).

“Salvation by cooperation” and “survival of the fittest” look identical, but feel different. “Survival of the fittest” works with the flow of time and brings self determination. “Salvation by cooperation” works against the flow of time and carries teleology. Strong genetic determinism is now long gone, as genes may convey different information depending on

context. Many genes may change to reach to a new level of evolution and also to demonstrate pleiotropy, finding agreement with the recent fly study (Burke et al., 2010).

But make no mistake, this is not natural selection. Ironically, defeating Darwinism gives us a new theory of evolution that is found closer to Goswami's (2008) account that is based on quantum mechanics. If the evidence for evolution was thought a good fit to natural selection in the past, then this new theory should do a better job without the covert pretense that went undisclosed.

## 5. Conclusions

I have now committed the ultimate offense. I have rejected the idea that natural selection explains evolution; I have rejected Darwinism.

My aforementioned reasons for rejection Darwinism have emerged after intense study in genetics and statistics in graduate school, after years working away from the subject, and then returning to the particular subject putting in years reading and reflecting about philosophy and the epistemological issues. I believe my reasons are well thought out, well articulated and well executed, but there is nothing special to my arguments. Others have put their reasons for rejecting Darwinism forward, including Milton (1997), Spetner (1997), Stove (1995), Meyer (2009), Fodor and Piattelli-Palmarini (2010), Sanford (2008), and many more. Perhaps we are among the most vocal. Nevertheless, my expectation is that most mainstream biologists will continue to disagree with us.

I do not object to disagreements. However, I do object to the pretense that I am a "creationist" in the waiting and ever ready to inject religious dogma into the public schools. I do object to the pretense that views like my own are incompatible with real science, that I am writing only about philosophy and metaphysics. The reality is what it is, I can't help it that vitality is found hard-wired into the fabric of space-time. I can't help it if spirituality is found relating to broad reality despite the best wishes of scientism and the powers that be.

I object to arrogant intolerance, but I was meant to object. It is doubtful that I could ever again be a believer in Darwinism, having once been seduced by its sublime beauty, having once been indoctrinated by my teachers.

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