

The conflict between Naturalism and Science: the return of the Alchemists

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SUMMARY

In his latest, provoking book on faith and science, philosopher Alvin Plantinga argues that no profound conflicts exists between the Christian faith and science, but indeed between Naturalism and science. Who embraces Naturalism can no longer rely on science, according to Plantinga. Although Plantinga's thesis can be put aside by a standard Darwinistic argumentation, Plantinga is right in observing a conflict between Naturalism and science. The conflict is real and deep, because Naturalists and Darwinists reintroduce an Alchemistic view on matter that has been refuted more than two centuries ago by empirical science.

Alvin Plantinga (1932 - present) is particularly known for his publications in the field of metaphysics, epistemology and philosophy of religion. In his latest book '*Where the Conflict Really Lies: Science, Religion, and Naturalism*' he combines arguments from his earlier, influential work that covers five decades and he concludes that there is no fundamental conflict between Christianity and science, but indeed between Naturalism and science. The conflict Plantinga observes is an elaboration of Darwin's doubt about the potential of random processes to generate true convictions about things that go beyond the acquisition of food, protection, shelter and a partner. Such '*higher order convictions*' must be selected from a collection of true and untrue higher order convictions. For Naturalists, this selection is grounded on the representation of a conviction as a pattern of firing neurons, not on its content. Therefore it is likely that in the chains of convictions used in scientific theorizing not every conviction is true, which affects the credibility of scientific theories. Who embraces naturalism can no longer rely on science, according to Plantinga.

In this paper, we will first demonstrate that Darwinists can easily cast doubt on Plantinga's thesis by the standard argumentation they usually apply to contradict criticism. Subsequently, we present two cases to demonstrate that Plantinga is right in observing a conflict between Naturalism and empirical science, by establishing that the empirical findings in these cases and the underlying natural laws are in conflict with the presuppositions of Naturalism and Darwinism. Finally, we discuss our findings and conclude that Naturalism and Darwinism reintroduce an Alchemistic view on matter by supposing that in organic molecules a hidden force is present that can make them form ever more complicated structures. A view on matter that was refuted by empirical science ages before appears to be reintroduced by Naturalism and Darwinism, and is claimed to be scientific.

A Darwinistic retibutal of Plantinga's thesis

Twenty years ago, biochemist Michael Behe described the machinery for the production of proteins that is present in every cell of a living organism, for a non academic audience [1]. The machinery consists of hundreds of component, for the reading of the recipe for a protein, the transportation of this information to the construction site, the actual assembly of the protein, the quality checking, and finally the transportation and transfer of the protein. Every component of the machinery must come

in action in the right sequence, at the right time, in the right way. If one component is missing or does not perfectly match the other components, the machinery stops. According to Behe, the protein machinery is irreducible complex and therefore must have been designed as a whole. Naturalists however claim that the protein machinery can be explained as the result of natural processes [2, 3, 4]. Their argumentation is as follows: (1) Protein machineries exist. (2) Everything that exists is produced by natural processes of mutation and selection. (3) Therefore, hundreds of millions of years ago an extremely simple protein machinery must have arisen. (4) The probability for this is very small indeed, but apparently it has happened. (5) From this proto machinery, the current protein machinery has evolved by a longtime, incremental process of mutation and selection (Q.E.D). Although this argumentation is not testable and thus not refutable and therefore not scientific, it casts doubt on the sustainability of the argumentation of Behe and allows to put it aside. The same line of reasoning can also be applied to the thesis of Alvin Plantinga. It suffices to postulate that hundreds of millions of years ago a very simple pattern of firing neurons was transformed into a corresponding very simple conviction, resulting in selective advantage. Although the probability of such a transition is very small, it apparently occurred. Subsequently, this transition evolved by a long-term incremental process into the current cognitive processes in our brain. By this argumentation, doubt is casted on Plantinga's thesis. Subsequently it can be put aside, followed by the claim that the thesis has been refuted, just like Behe's thesis was claimed to be refuted.

The real conflict

For thousands of years, philosophers have studied our physical reality to understand the natural course of events. In the past two or three centuries, empirical scientists have captured the natural course of events in the laws of empirical science. An omnipresent and fundamental property of our physical reality is that ultimately houses turn into ruins, machines break down, complex molecules disintegrate into simpler units and that any difference, for example, of energy, elasticity, potential, density, pressure and temperature equalizes sooner or later, as confirmed by the respective laws of nature for energy, elasticity, potential, density, pressure and temperature. Empirical science is unambiguously: natural processes are decay processes. This natural decay can only be antagonized or reversed into improvement and innovation, by continuous effort of maintenance personnel, construction workers, engineers and entrepreneurs. The theory of Naturalism that natural processes do not lead to decay but to its opposite – repair, improvement and innovation – is in fundamental conflict with the characteristic properties of our physical reality and with empirical science. The conflict is real, deep, and insoluble. We will demonstrate the conflict by two cases.

Case 1: the test of Miller

In 1953, the chemical structure of the DNA was unraveled by James D. Watson, Francis Crick, Maurice Wilkins and Rosalind Franklin, as well as its ability to code the string of amino acids present in the proteins that build living nature. In the same year, PhD student Stanley Miller set out to prove that natural processes can transform basic organic substances into amino acids in an ever higher concentration. To this end, he took a glass flask with two inwardly projecting electrodes between which he could make sparks stagger and filled the flask with water, methane, ammonia and carbon dioxide. Indeed he found that the artificial lightning in his simulation of a primitive earth atmosphere could produce amino acids. But he also found that the concentration of building block in the flask did not increase ever further, because new sparks destroyed the building blocks that were initially

formed; the larger the faster. Instead of reporting that natural processes are not able to produce an ever concentrated primordial soup, he attached a transport mechanism to the lightning flask, to transfer the building blocks that were produced to a second flask where they would be safe for destruction. In fact, Miller built a primitive amino acid factory, with which he succeeded to produce an ever more concentrated 'primordial soup'. Miller claimed his adjusted test set proved that natural processes could have produced billions of tons of building blocks for life in the primordial oceans. Instead, Miller's experiments prove that an ever more concentrated soup of amino acids can not arise by natural processes, but demands the building of a factory.

Based on the false claims of Miller and his supervisors, it is broadly believed today that organic molecules possess an intrinsic, hidden desire to organize themselves into increasingly larger structures. This view on matter is a repetition of the Alchemist's view, who believed that matter does not merely consist of four basic elements (water, fire, air and earth) but also contains a hidden force (the '*quint essence*'). Many people believe that if we search long enough, this hidden force will be discovered and after triggering it in the right way, it can be released, resulting into a natural process in which organic molecules will transform themselves into increasingly larger and more complex structures [5]. As a consequence, energy would become available for free and the chemical industry would become useless.

Case 2: the Nobel Prize Chemistry 2015 for DNA mutation repair

In 2015 the Nobel Prize in Chemistry was awarded to Thomas Lindahl, Paul Modich and Aziz Sançar. In the 60s, 70s and 80s of the last century, they discovered that in every cell mechanisms are present to detect and repair mutations of the DNA. The cover letter to the prize [6] emphasizes the importance of mutation protection, since mutations lead to cancer and hereditary diseases [7, 8]. Even the smallest mutation may lead to that end, as is demonstrated by the nasty disease cystic fibrosis, which is caused by a mutation of only one nucleotide of the so-called CFTR-gene, which consists of 1480 nucleotides. The cover letter to the Nobel Prize typifies the DNA as a very unstable molecule. In absence of the mutation repair machinery it would turn into complete chaos in a short time. A major part of the hundreds of thousands of mutations of the DNA that happen every day in every cell is produced by '*oxidative deamination*', which makes the letters of the genetic code (A, C, T, G) illegible. This decay process is similar to the oxidation of the ink droplets of a printed text, which becomes illegible sooner or later. Fortunately, the deamination of the DNA is continuously repaired, using the not yet damaged opposite letter at the other DNA strand. The repair starts with the recognition of the damage, followed by a dozen of other steps. In human DNA a total of fifteen proteins are involved in the entire process, which come into action successively. The vast, daily damage of the DNA in every cell, including the sex cells, is largely the result of the natural oxidation of the DNA, and is comparable with the natural rusting of a nail. To repair the oxidation, reduction is required. Since the laws of chemistry do not allow oxidation to bring about reduction, mutations can not establish mutation-repair. Nevertheless, Naturalists and Darwinists claim this is possible [9].

The return of the Alchemists and the integrity of science

According to Naturalism, living nature is produced by natural processes, which can transform basic organic substances into ever more complex structures and can build mechanisms to repair mutations and decay. Although these claims are refuted by the empirical findings in Miller's experiment and the

findings presented in the cover letter of the Nobel Prize Chemistry 2015, Naturalists do not accept empirical facts that contradict their beliefs and simply replace the laws of empirical science by their belief that a hidden force in matter can transform it into ever more complicated structures, with an ever higher energy content. In their Alchemistic view, the hidden force in matter can transform oxidation into reduction and can make mutations to build mechanisms for mutation repair. All of this is claimed to be scientific.

Apparently there is a conflict between Naturalism and empirical science, as Plantinga found in his analysis of cognitive processes. The Nobel Prize Chemistry 2015 for unraveling some of the DNA mutation repair machinery in every cell, makes the conflict between naturalism and empirical science very concrete and hard to ignore. The conflict is deep and serious, because naturalism puts the empirical basis of modern science aside and corrupts her integrity.

Isaac Newton was a true believer of the presence of a hidden force in matter that would be capable of transforming simple and cheap substances in precious materials as gold, if triggered in the right way by; for instance, by a combination of one part Fiery Dragon, some Doves of Diana, and at least seven Eagles of mercury [10]. Such magic ideas seemed to have been erased by the progress of science. Today, the Alchemists have returned. It appears no longer evident that scientific theories must be based on empirical facts and natural laws, and that scientific theories that are contradicted by empirical facts and natural laws should be rejected.

The return of the Alchemists demands to defend empirical science against naturalism. At schools and universities it becomes necessary to teach that decay is the fundamental characteristic of our physical reality and that matter does not contain a hidden force that can turn decay into its opposite, if triggered in the right way. Questions about the origin of the DNA and the mutation repair can only be answered by empirical science with: "*We do not know yet.*" Such a response is normal in every branch of science and is no science stopper but the driving force behind any scientific research. Who wishes to believe that mutations can produce mutation repair is free to do so, but finds no support in empirical science.

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8. Note: Mutations cause cancer and hereditary diseases. Nevertheless, many people believe that living nature adapts to changing circumstances by mutations of the DNA. This is a misconception. Living nature adapts continuously (for instance, the change in the beaks of finches) by the mechanism of recombination of gene variants ('alleles') and selection, and by gene regulation. These mechanisms proceed without the DNA mutation protection and repair mechanisms is coming in action ; they do not produce new alleles, nor expand the length of the nucleotide code. See further: DeJong&Degens (2011) "The evolutionary dynamics of digital and nucleotide codes: a mutation protection perspective", in: *The Open Evolution Journal*, 5 1-4 <http://benthamopen.com/contents/pdf/TOEVOLJ/TOEVOLJ-5-1.pdf>
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