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UNDERSTANDING THE CONTROVERSY OVER INTELLIGENT DESIGN AND THE ACCEPTABILITY OF INTELLIGENT CAUSALITY IN SCIENCE

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pochodzenie życia, inteligentne przyczyny.

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Introduction

On December 20, 2005, Judge John E. Jones III, of the United States District Court for the Middle District of Pennsylvania issued his landmark opinion in Kitzmiller v. Dover Area School District ruling against a pro-intelligent design school board policy in Dover, PA. Siding with the plaintiffs, the court ruled that the Dover school board's policy requiring that intelligent design be taught as an alternative to evolution as an explanation of the origin of life violated the First Amendment of the Constitution of the United States because "intelligent design is an interesting theological argument but [...] it is not science". As a theological argument, the court concluded that ID could not be taught in an American public school without violating the separation between church and state. Not surprisingly the *Kitzmiller* ruling, as the most public event in the debate over intelligent design to date, has engendered much controversy and debate². For one, Michael J. Behe, professor of biological sciences at Lehigh University and the lead witness for the defense in *Kitzmiller*, has published a detailed riposte to the federal court's opinion arguing that intelli-

¹ Kitzmiller v. Dover Area School District, 400 F. Supp. 2d 707, p. 745–746 (M. D. Pa. 2005).

² For discussion of the *Kitzmiller v. Dover School District* case and responses to the court's opinion, see J. Witt, *Traipsing into Evolution: Intelligent Design and the Kitzmiller v. Dover Decision*, Seattle 2006 and G. Slack, *The Battle Over the Meaning of Everything: Evolution, Intelligent Design, and a School Board in Dover, PA*, San Francisco 2007.

gent design is indeed science³. Several scholars in turn have responded to Behe's response and the debate continues⁴.

How exactly should we understand the controversy surrounding intelligent design? Is it a religious dispute as Judge Jones contends, or is it a scientific disagreement as Professor Behe argues? To provide answers to these questions, we will begin with a brief history of the intelligent design movement, the community of scholars that has coalesced around the intelligent design paradigm. We will then move to the intelligent design proposal itself focusing on its two conceptual pillars. The first involves a negative critique of the Darwinian explanation for the origins of life. The second is a positive proposal that asserts that intelligent causality is a better explanation for the appearance and diversification of life on our planet. We will also summarize the counter-arguments put forward in defense of orthodoxy and the Neo-Darwinian explanation for the origins of life on our planet. In the end, we will see that the controversy surrounding the intelligent design proposal is a not a scientific nor a religious debate but a philosophical dispute regarding the legitimacy of intelligent causes not only in scientific but especially in biological explanations.

A Brief History of the Intelligent Design Movement⁵

The Intelligent Design Movement (IDM) traces its origins to the work of Michael Denton who published his book, *Evolution: A Theory in Crisis*, which was published twenty-two years ago in the United States⁶. Denton called into question the two key postulates of the Neo-Darwinian theory of evolution: universal common descent and descent with modification. Universal common descent posits that the similarities among living organisms can be explained because they are descended from a common ancestor who lived over three billion years ago. Descent with modification posits that the differences among living organisms can be explained by a process of natural selection that acts on populations of organisms with different genetic characteristics.

³ M.J. Behe, Whether Intelligent Design is Science: A Response to the Opinion of the Court in Kitzmiller vs. Dover Area School District, w: http://www.discovery.org/scripts/viewDB/filesDB-download.php?command=download& id =697 (15 XI 2007).

⁴ For a snapshot of the current state of the debate, see R. B. Stewart (ed.), *Intelligent Design: William A. Dembski and Michael Ruse in Dialogue*, Minneapolis 2007.

⁵ This brief history of the Intelligent Design Movement is based upon two books sympathetic to intelligent design written by Th. Woodward, *Doubts About Darwin: A History of Intelligent Design*, Grand Rapids 2003; *Darwin Strikes Back: Defending the Science of Intelligent Design*, Grand Rapids 2006 and an alternative historical narrative that is critical of the ID Movement by B. Forrest and P. R. Gross, *Creationism's Trojan Horse: The Wedge of Intelligent Design*, Oxford 2004.

⁶ M. Denton, Evolution: A Theory in Crisis, Bethesda 1986.

Denton's critique catalyzed the intellectual conversion of Phillip Johnson and Michael Behe, two of IDM's leading thinkers, who were already having doubts about Darwin. Johnson, a law professor at the University of California, Berkeley, would go on to publish several key texts including the bestseller, *Darwin on Trial*. Johnson argued that Darwinian evolutionary theory is based not upon empirical evidence but upon an ideology of metaphysical naturalism. Behe, a biochemistry professor at Lehigh University, would go on to pen another bestseller, his *Darwin's Black Box*, which attempted to provide a scientific basis for the intelligent design proposal in his hypothesis of irreducible complexity⁸. Both books were instrumental in spreading the ideas of the intelligent design paradigm in the public square.

Every cultural and intellectual movement needs meetings that bring together like-minded thinkers. The Intelligent Design Movement is no different. Three meetings in particular were critical in shaping the emergence of intelligent design. In February of 1990, a meeting of the Ad Hoc Origins Committee held in Portland, Oregon, symbolized the social emergence of the ID movement. At this meeting, the Committee welcomed Phillip Johnson as the tacit leader of the ID movement, signaling the organization of the fledgling community of design theorists. The committee had begun to meet in 1987 under the leadership of Charles Thaxton who three years before had written *The Mystery of Life's Origins*, a skeptical examination of abiogenesis, the scientific field that studies how life first appeared on the planet⁹. Along with Denton's *Evolution*, *Mystery* is considered one of the texts marking the founding of the ID movement. Thaxton is also the editor of *Of Pandas and People*, published in 1989, which symbolized the first emergence of Design ideas in print¹⁰.

In November of 1996, one hundred eighty scholars of the Design community met in Biola University in Los Angeles for the Mere Creation conference, the first major international conference on design theory¹¹. The goals of the meeting were to "unite on common ground", to "build a community of thought," and to "share ideas and knowledge". This gathering also featured the debut of four young scholars – Stephen Meyer, Paul Nelson, Jonathan Wells, and William Dembski – who would become key players in the ID Movement. Wells and Dembski would go on to author *Icons of Evolution* and *Design*

⁷ P. Johnson, *Darwin on Trial*, Downer's Grove, 1993.

⁸ M. Behe, *Darwin's Black Box*, New York 1996.

⁹ Ch. Thaxton, W. Bradley, R. Olsen, *The Mystery of Life's Origin*, New York 1984.

¹⁰ D.H. Kenyon, P. Davis, Of Pandas and People: The Central Question of Biological Origins, Dallas 1989.

¹¹ W. Dembski (ed.), Mere Creation, Downers Grove, 1998.

Inference respectively, two more books that complete the library of key texts in intelligent design theory¹².

At the turn of the millennium, the ID movement gathered at Yale University for the Yale Design Conference in November of 2000. For design theorists and friends of intelligent design, the conference gave their intellectual project further scholarly credibility. The meeting was also held in a social context that was witnessing the proliferation of ideas conducive to the ID proposal. As one sign of this growing cultural influence, a network of college clubs, IDEA Clubs (for Intelligent Design and Evolution Awareness Clubs) had appeared on college campuses throughout the United States and was spreading rapidly.

Not surprisingly, however, the growth of the ID movement was greeted with the publication of an increasing number of books that were critical of Design theory including Robert Pennock's *Tower of Babel* and Kenneth Miller's *Finding Darwin's God*¹³. In the next few years, anti-ID editorials would appear in "The New York Times" as the debate over the legitimacy of the ID proposal became more public and visible. At this time, the ID movement also entered the political sphere with debates over the place of ID in public school education in Kansas and in Ohio. This political controversy was most visible during the Dover Intelligent Design trial in Pennsylvania in 2005. The controversy continues to this day with the proliferation of both pro- and anti-ID literature¹⁴.

Finally, no history of the ID movement would be complete without a brief mention of the Discovery Institute (DI), which was founded in 1990 in Seattle. Especially since the founding of its Center for the Renewal of Science and Culture (CRSC) in 1996, DI has served as the intellectual, cultural, and financial nerve center of the ID movement. The CRSC sponsors a fellowship program that has supported ID's most influential scholars and publishes defenses of the ID proposal both in print and online at its website <www.discovery.org>.

¹² J. Wells, The Icons of Evolution, Washington, D.C. 2000 and W. Dembski, The Design Inference, Cambridge 1998.

¹³ R. Pennock, Tower of Babel, Cambridge 1999 and K. R. Miller, Finding Darwin's God, New York 1999. For an anthology of both pro- and anti-ID scholarship at the turn of the millenium, see R. Pennock (ed.), Intelligent Design Creationism and Its Critics: Philosophical, Theological, and Scientific Perspectives, Cambridge 2001.

¹⁴ In addition to several books already cited above, recent anti-ID publications include N. Shanks, God, the Devil, and Darwin, Oxford 2003, M. Perakh, Unintelligent Design, New York 2003 and M. Young, T. Edis (eds.), Why Intelligent Design Fails, New Brunswick 2004. Recent pro-ID books include W. Dembski, The Design Revolution. Downer's Grove 2004) and J. A. Campbell, S. C. Meyer, Darwinism, Design, and Public Education, Lansing 2003.

The Intelligent Design Proposal: Its Critique of the Darwinian Paradigm

The ID proposal has two parts. The first involves a negative critique of the Darwinian explanation for the origins of life by suggesting that the fossil and molecular evidence do not support evolution. This facet of the ID proposal was emphasized early in the history of the ID movement with the critiques of Michael Denton and Phillip Johnson and continues in the work of Jonathan Wells and Michael Behe.

Due in large part to its accessibility to the general public, the fossil record is one of the most commonly disputed pieces of evidence in the debate over the veracity of the Neo-Darwinian paradigm. ID theorists note that the fossil record in 1859 did not support the gradual evolution of species – a key prediction of the Darwinian paradigm – and not much has changed since. Instead, the fossil record shows most species appearing fully formed in the geological strata with few to no probable transitional forms appearing beforehand, followed by the persistence or the stability of form. As the best example of this, ID proponents point to the phenomenon commonly called the Cambrian explosion to show that the fossil evidence does not cohere well with the Darwinian view of evolution. Dated to about 540 Mya (million years ago), the Cambrian explosion was the geological time period when most of the biological diversity seen today appeared all at once in the fossil record. Moreover, proponents of ID argue that the fossil evidence suggests that evolution from that point on involved a top-down process: Almost all of the main body plans seen in extant species appeared in the Cambrian explosion and only then showed slight changes throughout time. Again, this is opposed to the Darwinian paradigm that predicts that evolution would involve slight changes over time leading up to the body parts and to the body plans we have today. Darwin acknowledged, as prominent evolutionists still do, the discrepancies between the fossil record and his theory. Stephen J. Gould, a well-known paleontologist at Harvard University, famously admitted, "The extreme rarity of transitional forms in the fossil record persists as the trade secret of paleontology"15. In fact, Gould and his colleague, Niles Eldredge, proposed their theory of punctuated equilibrium for the evolution of life in response to the fossil discrepancy. Gould concluded: "I wish in no way to impugn the potential validity of gradualism. I wish only to point out that it was never 'seen' in the rocks"16.

Darwinists respond to this ID critique in various ways. First, they argue that transitional fossils do exist including the remains of fishlike amphibians

¹⁵ S.J. Gould, The Panda's Thumb, New York 1985, p. 14.

¹⁶ Ibidem.

(Acanthostega gunnari) and whalelike land mammals (Ambulocetus natans). In other words, the fossil record does have evidence for the gradual transformation of one species to another. Many also contend that it is inaccurate to suggest that body plans just appeared during the Cambrian explosion. There are fossils in rocks hundreds of millions of years older than those from the Cambrian period, but they are just not as common. Instead, evolutionary biologists explain that the explosion of fossils during the Cambrian is simply a result of the appearance of hard body parts including bones, teeth and shells, which appeared at that point in evolutionary history. These hard body parts are much more amenable to the becoming fossils. Thus, according to ID critics, the account of the Cambrian explosion proposed by ID advocates is not an accurate one since body parts, primarily soft body parts, predated the Cambrian period. Finally, evolutionary biologists point to recent research that has uncovered some classes of genetic mutations that do change the body plan quite radically and relatively quickly suggesting that any apparent sudden changes in body form could still be explained by standard biological mechanisms.

Next, ID theorists argue that the molecular evidence does not support evolution. Pointing to bacterial flagella, the blood clotting mechanism, and other complex molecular machines, they wonder why biologists are unable to describe an evolutionary pathway for the development of these molecular structures. Furthermore, they suggest that these molecular structures could not have evolved gradually because they are irreducibly complex. Michael Behe explains, "By irreducibly complex, I mean a single system composed of several well-matched, interacting parts that contribute to the basic function, wherein the removal of any one of the parts causes the system to effectively cease functioning. An irreducibly complex system cannot be produced directly [...] by slight, successive modifications of a precursor system, because any precursor to an irreducibly complex system that is missing a part is by definition nonfunctional. An irreducibly complex biological system, if there is such a thing, would be a powerful challenge to Darwinian evolution"17. This argument is frequently linked to a famous quote of Darwin's in the Origin of Species: "If it could be demonstrated that any complex organ existed which could not possibly have been formed by numerous, successive, slight modifications, my theory would absolutely break down"18. According to ID proponents, since there are numerous molecular machines that appear to satisfy this criterion – these machines are irreducibly complex and as such could not have evolved gradually – Darwinian evolution must be false.

¹⁷ M. Behe, *Darwin's Black Box*, p. 39.

¹⁸ Ch. Darwin, Origin of Species, New York 1999, p. 158.

This ID critique has been countered by evolutionary biologists in two ways. First, they assert that the absence of known evolutionary pathways for the molecular machines described by ID proponents is simply a sign of the incompleteness of science. In time, scientific research should uncover these pathways. Second, they have challenged the soundness of the argument for irreducible complexity by arguing that the individual parts of an irreducibly complex system need not have the same function as the system of which they are part in order for them to be selected for in evolution. They need only serve some function in the cell. Kenneth Miller, a professor of biology at Brown University, has pointed out that there is evidence that the component parts of the "poster boys" of irreducible complexity, including the bacterial flagellum, could perform other functions within the cell¹⁹. For instance, the molecular structure of the bacterial flagellum suggests that it evolved from components of a Type Three Secretory System injector pump that were co-opted for the flagellum, suggesting an evolutionary pathway for the appearance of the bacteria's molecular out-board motor²⁰. Within this historical scenario, seemingly irreducibly complex systems could have evolved by small sequential changes over time if components from disparate parts of the cell combined to form complex molecular machines.

The Intelligent Design Proposal: Its Advocacy of Intelligent Causality in Biology

In light of the critique of the Darwinian paradigm, the second part of the ID proposal affirms that intelligent causality is a better explanation for the appearance and diversification of life on our planet. Here, the argument is an appeal to common everyday experience and to the legitimate inclusion of intelligent causality in physics. It is an argument best understood with a discussion of the explanatory filter. This facet of the ID proposal has been developed in the writings of Michael Behe and William Dembski, who first proposed the explanatory filter.

The explanatory filter is a mathematical algorithm used to detect the presence of design in any system. In other words, it detects intelligent causality in the emergence or development of a system. The filter itself is actually rather straightforward. It consists of three levels, three steps in a process of elimination, which can be used to detect intelligent causes. The first level is

¹⁹ For discussion, see K. R. Miller, "The Flagellum Unspun": The Collapse of «Irreducible Complexity» in: W. Dembski, M. Ruse (eds.), Debating Design: From Darwin to DNA, New York 2004, pp. 81–97.

²⁰ For details and discussion, see M. J. Pallen, N. J. Matzke, From "The Origin" of Species to the origin of bacterial flagella, Nature Reviews Microbiology 4 (2006), pp. 784–790.

that of a high probability event. Any event occurring with a high probability is judged to have occurred according to natural law. The next level of the filter is that of a medium probability event, any event that has a very low probability of occurring. A medium probability event is also judged to have occurred according to natural law. The last level of the filter is that of a low probability event, a medium probability event that also conforms to some pattern or ideal. Technically, such an event is called an event that manifests specified complexity. Any low probability event, any event with specified complexity, is judged to be designed. It involves intelligent causality.

The function of the explanatory filter is best illustrated with the probabilities involved in a poker game. The odds that one is dealt a royal flush are very small, but they are still within the realm of possibility since poker players are occasionally dealt a royal flush. However, the odds that one is dealt a royal flush ten times in a row are infinitesimally small. They are so small that any reasonable individual would probably conclude that the dealer is cheating. In other words, the ten royal flushes were designed. According to ID theorists, this commonsense logical process of inferring the presence of design, of intelligent causality, in poker games is precisely what the explanatory filter does: Since a royal flush dealt ten times has an infinitesimally small probability that conforms to a particular pattern, the pattern of cards we know as ten royal flushes, the explanatory filter would categorize it as a low probability event with specified complexity, pointing to the design inherent in the cheating of the dealer. The explanatory filter is simply a mathematical algorithm that formalizes what we do everyday to detect intelligent causality in the world.

Finally, ID proponents point out that the explanatory filter is already being used in science. Physicists engaged in the task of detecting the presence of alien life in the universe including the SETI (Search for Extra-terrestrial Intelligence) Project have to use some form of the explanatory filter, some form of statistical and logical analysis, to separate signs of intelligent alien life from signs of natural processes occurring in space. Since the explanatory filter is legitimately used in physics, ID proponents wonder: Why is it illegitimate for ID theorists to use it in biology? With the SETI precedent in mind, Dembski calculated the probability involved in assembling a bacterial flagellum with random chance alone and showed that it is equivalent to the probability of being dealt 190 consecutive royal flushes. Therefore, he concluded that it must have been designed. Significantly, Dembski concludes, "It is the empirical detectability of intelligent causes that renders Intelligent Design a fully scientific theory, and distinguishes it from the design arguments of philosophers, or what has been traditionally called 'natural theology'"²¹.

²¹ W. Dembski, The Intelligent Design Movement, http://www.arn.org/docs/dembski/wd_idmovement.htm (15 XII 2007).

Evolutionary biologists have responded to the explanatory filter by pointing out that a very low probability does not mean an impossibile one since there is a difference between an improbable event not happening and one event of a certain number of improbable events actually happening. An often-cited textbook example involves the probability of a particular human being coming into existence. Any sexually reproducing pair of human beings can generate in excess of seventy quadrillion genetically unique embryos. In other words, in theory, a husband and a wife could have any one of seventy quadrillion possible children. Therefore, the probability of any one of them existing is one in seventy quadrillion. This is an exceedingly low probability, and yet, you and I exist. Mark Perakh, a professor of mathematics at California State University, Fullerton, explains that it is erroneous for ID proponents , to assume that an event whose probability is 1/N, where N is a very large number, would practically never happen. This is absurd. If the probability of an event in 1/N it usually means that there are N equally probable events, of which some event must necessarily happen"22. Darwinists therefore conclude that the explanatory filter is flawed because a low probability associated with a system cannot be used to determine if the system was designed or not. It could simply mean that the system is the one actual event of a certain number of improbable events. One other fundamental problem with the explanatory filter has also been suggested: It cannot distinguish false positives from real ones. Examples of these alleged false positives include the Fibonacci pattern often found in the biological world as well as the Benard cell, which is a honeycomb pattern of hexagonal cells of moving water produced when heat is applied to a wafer-thin film of water encased between two glass plates. According to ID critics, the explanatory filter would classify both of these natural processes as designed systems since they are low probability events that are complex and specified. This would undermine the reliability and efficacy of the explanatory filter.

In response, Dembski and other ID theorists have argued that the inclusion of a specificity factor in its third level of elimination allows the explanatory filter to distinguish random chance from design. Otherwise, could we ever conclude from the low probabilities associated with ten royal flushes that a dealer has cheated? With regards to the false positives, they contend that for one reason or another, both examples are red herrings that do not touch the relevant issues raised by the explanatory filter²³. Therefore, they conclude that the explanatory filter specifically and intelligent causality generally have a legitimate place in scientific explanation.

²² M. Perakh, *Irreducible Contradiction*, http://www.talkreason.org/articles/behe2.cfm (15 XII 2007). $\,\,^{23}$ For details, see T. Woodward, Darwin Strikes Back, pp. 148–152.

Intelligent Design and the Acceptability of Intelligent Causes in Science

The Intelligent Design Movement began as a simple questioning of the evidence supporting evolution. It has now developed into a full-fledged social and cultural movement that is attempting to provide an alternative paradigm to deal with the perceived shortcomings of Darwinian evolutionary theory.

But as we asked in the introduction, how exactly should we understand the controversy surrounding intelligent design? Is it a *scientific* disagreement as Professor Behe argues, or is it a *religious* dispute as Judge Jones contends? In light of our discussion above, we propose that the controversy surrounding the intelligent design proposal is neither a scientific nor a religious debate but a philosophical dispute regarding the legitimacy and acceptability of intelligent causes not only in scientific but especially in biological explanations.

There is nothing new in ID's negative critique of Neo-Darwinian evolutionary theory. Criticism of Darwinism has been around since the theory was first proposed by Charles Darwin. However, ID's positive proposal raises a new question: Should intelligent causality be allowed in biological explanations? This is the issue at the heart of the ID debate. As we noted above, ID theorists point out that intelligent causality, and thus design, has already found a legitimate place in physics. Physicists routinely presuppose the legitimacy of intelligent causes in their search for extra-terrestrial life. They use statistics and logical reasoning to separate signs of intelligent alien life from signs of natural processes occurring in space. Therefore, ID proponents object: If the appeal to intelligent causality is acceptable in physics, why is it illegitimate in biology?

In response, we suggest that appeals to intelligent causality are only legitimate in science – and in poker games too – when they are accompanied by a reasonable explanation for the existence, nature and mechanism of the intelligent cause. To put it another way, appeals to design are only reasonable when they are accompanied by a reasonable account of the designer.

Michael Behe suggests otherwise. He says, "Inferences to design do not require that we have a candidate for the role of designer... we can hold the conviction of design much more strongly than a conviction about the identity of the designer"²⁴. He is mistaken. To illustrate this point, let us return to the SETI Project. If physicists working on the SETI Project detected a signal indicative of an intelligent alien civilization that appeared to emanate from the very center of our Sun, other scientists would question – rightly in our opinion – their conclusions. How could a civilization exist in the Sun? Suspecting an error in the statistical analysis involved, scientists would doubt the nature of

²⁴ M. Behe, *Darwin's Black Box*, p. 196.

the alleged alien signal of intelligence until a reasonable explanation for the possible existence of the solar aliens, or even better, an explanation as to how the sun generated this signal independent of intelligence, is provided. Inferences to intelligence presuppose an account of the intelligence.

In sum, appeals to intelligent causality are only legitimate in science and in everyday life when they are accompanied with reasonable explanation for the existence and nature of the intelligent cause. Mechanism, an essential aspect of biology, cannot even begin to be addressed by ID theorists without a proposed agent of intelligent causality. The current theory of abiogenesis, while far from certain, at least proposes both an agent and mechanism. Not surprisingly, therefore, Darwinists are demanding that ID theorists provide a reasonable explanation for the designer behind their intelligent design. Thus, while one of the pillars upon which the Intelligent Design Movement rests, the scientific criticism of Darwinian theory, is sound, the other, a legitimate scientific theory to replace it with, lacks necessary cornerstones. Hence, the controversy surrounding the ID movement. Until these essential aspects of their alternate scientific proposal can be answered, the ID proposal and its appeals to design in biological explanation will remain illegitimate. Who is the Intelligent Designer?

ZROZUMIEĆ SPÓR WOKÓŁ "RUCHU INTELIGENTENGO PROJEKTU" I AKCEPTACJI ROZUMOWEJ PRZYCZYNOWOŚCI W NAUCE (STRESZCZENIE)

Jak należy rozumieć kontrowersję wokół teorii "Inteligentnego Projektu"? Czy jest do debata religijna, czy też naukowa? "Ruch Inteligentnego Projektu" (Inteligent Design Movement - ID) opiera się na dwóch koncepcyjnych filarach. Pierwszym jest negatywna postawa wobec darwinistycznego wyjaśnienia pochodzenia życia. Drugim filarem jest pozytywne założenie, że przyjęcie rozumowej przyczynowości lepiej wyjaśnia różnorodność życia na naszej planecie niż czyni to ewolucjonizm. Pierwsza z przedstawionych tez nie jest nowa. Teoria Darwina była kwestionowana od samego jej początku zarówno ze względu na niekompletność dowodów kopalnych, jak też na podstawie badań wykazujących, że struktura molekularna żywych organizmów jest na tyle kompleksowa, iż nie może być wynikiem stopniowego nagromadzenia zmian. Nauka nie może jednak ograniczyć się jedynie do krytyki i dlatego musi zaproponować spójna alternatywe dla teorii Darwina. W ramach teorii "Inteligentnego Projektu" proponuje się przyjęcie inteligentnych przyczyn, które są odpowiedzialne za powstanie życia na ziemi. W sformułowaniu takiej tezy posłużono się matematycznym algorytmem, za pomocą którego można stwierdzić działanie inteligentnej przyczyny w ramach każdego systemu. Metoda ta była już w nauce stosowana, np. w projekcie poszukiwania pozaziemskiej inteligencji (Search for Extra-terrestrial Intelligence - SETI). W świetle przedstawionych argumentów debata wokół ID nie wydaje się mieć ani religijnego, ani naukowo-przyrodniczego charakteru, ale jest filozoficznym sporem o możliwości zaakceptowania inteligentnej przyczynowości nie tylko w kontekście fizyki, ale także biologii.