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Debating the origins: The creation-evolution controversy

In case you doubt whether the metaphysical question of the origins of life, humanity, or the Earth is still anyone's preoccupation in materialist, pragmatic, and science-pervaded Western culture, you should take notice of the long-standing and on-going debate between the advocates of creationism and the supporters of evolutionary sciences in the US. Indeed, if you google-search "creation vs. evolution" in early 2014, you get over 300 million records, not to mention the results of other similar word combinations. Wikipedia is probably where you would then turn to learn some basic facts about the current creationist-evolutionist debate. Indeed, the site does not disappoint, with its abundant 18-thousand-word-long page on the "creation-evolution controversy" (http://en.wikipedia.org/wiki/Creation%E2%80%93evolution_controversy), which ranges over 57 sections accompanied by 201 footnotes, and lists 76 items in its bibliography (not to mention further reading and external links).

However informative the Wikipedia entry is, with its historical sections on the theological and legal framings of the controversy, nuanced presentation of (scientific) arguments on both sides, and contextualizing information regarding its social impact in the US, it is not likely to adequately reflect the fiery rhetorical flourish the debate has taken. Apparently, there are dozens, if not hundreds, of relatively recent publications where authors propound and refute the opposing sides' standpoints on the issue of our origins. Actually, considering the strength of the American rhetorical tradition, it would be naïve to expect that this debate is not pervaded with skillfully administered rhetorical ploys and strategic argumentative maneuvers.

This essay is concerned with one of the latest chapters of the American creationist-evolutionist debate over the origins of the universe and life, namely the theory of Intelligent Design. Importantly, I do not aim to align myself with one side or invalidate the arguments of the other, but to identify the main rhetorical properties of the debate. What has caught my attention is the recent stylization of the creationist rhetoric to resemble scientific discourse. This maneuver is claimed to have been aimed to "restate creationism in terms more likely to be well received by the public, policy makers, educators, and the scientific community," according to the

authors of the abovementioned Wikipedia entry.

The story...

Since the mid-1980s the theory of Intelligent Design has been embraced by a range of conservative American groups, mainly of Christian fundamentalist orientation, as a response to a gradual but irreversible discrediting of the “creationism” doctrine in American public secular discourses. The process was speeded up by a series of US Supreme Court decisions overturning some conservative southern states’ statutes and preventing local educational boards from mandating the teaching of creationism as a part of public school science curriculum (publicized through such cases as *McLean v. Arkansas* 1982, or *Edwards v. Aguillard* 1987, for example). Since in 1987 the teaching of creationism in public schools was finally declared unconstitutional, the doctrine needed to be repackaged and somehow disentangled from its associations of illegality to be further promoted.

That is probably the main reason why the theory of Intelligent Design has been couched in scientific discourse and makes a point of openly denying any links to Christian theology. However, the theory does not specify what the intelligence (other than God) behind the origins would be. In the 2005 *Kitzmiller v. Dover Area School District* court case, Intelligent Design was declared “a form of creationism,” despite its pretense as a scientific theory. Nevertheless the promotion of ID has not waned, as its proponents subsequently focused on undermining evolutionary science through “academic” criticism rather than on insisting on school boards introducing the ID paradigm into the curriculum.

The main exponent of creationist views in the Intelligent Design’s disguise is the Seattle-based Discovery Institute and its offshoot – the *Center for Science and Culture* (CSC) (<http://www.discovery.org/csc/aboutCSC.php>), which maintains a separate official webpage devoted specifically to ID (<http://www.intelligentdesign.org/>). Its publications and activities are closely watched by a host of organizations that find it disconcerting that science is not taught fairly and object to irrational, interested, or pseudoscientific doctrines being introduced to the American public debate. One of them is the *National Center for Science Education* (NCSE) (<http://ncse.com/>).

In this essay, I would like to look at the rhetorical properties of textual materials (excluding visuals and videos) disseminated through the two organizations’ homepages, which, to me, have been created to take a stand in the creationist-evolutionist debate. I look mainly at self-presentation techniques and the ways of building of credibility (ethos), the ways of presenting arguments and reacting to criticism, as well as selected strategic maneuvers that may be effective in persuading

webpage viewers to accept some of the claims presented.

The definition...

To begin with the shared understanding of what this essay is about, let us look at how Intelligent Design's main proponents define it: The ID theory "holds that certain features of the universe and of living things are best explained by an intelligent cause, not an undirected process such as natural selection" (<http://www.intelligentdesign.org/whatisid.php>). Importantly, this definition has been replicated in many online dictionaries and lexicons, notably the New World Encyclopedia (<http://www.newworldencyclopedia.org>). The definition is catchy and memorable, even though it abounds in understatement (Which "features of the universe" are considered? What is the ontology of this "intelligent cause"?), is built around a binary contrast ("intelligent cause" vs. "natural selection"), and is colored by evaluation ("best explained" in plus, "undirected" in minus). The elaboration of this definition is as follows: if a biological system has been demonstrated to entail "irreducible complexity," then this proves the work of an intelligent cause at its origin. The rather reductive reasoning behind this claim is masked by the use of technical jargon, which diminishes one's chances of challenging it, since no objective criteria of what constitutes "irreducible complexity" are specified. As a result, this definition is supposed to be taken "at face value," and become a believer's dogma. If this is the case, we can see the classical leverage maneuver – "the-foot-in-the-door" – at work here.

Another problem I find with the definition is the conflation of the theoretical and the empirical. It is claimed that: "through the study and analysis of a system's components, a design theorist is able to determine whether various natural structures are the product of chance, natural law, intelligent design, or some combination thereof. Such research is conducted by observing the types of information produced when intelligent agents act" (<http://www.intelligentdesign.org/whatisid.php>). The emphasis (rhetorical amplification) of the semantic field of *empirical research* through such words as "analysis," "determine," "product," or "observe" clashes with the domain of theoretical modelling and speculative reasoning that ID is basically about. Perhaps this is a way to "sell" the theory to an audience that holds empirical and practical science in much higher esteem than all kinds of theorizing.

The format...

The hypertextual feature that is increasingly used by the webmasters of many organizations is FAQ – the bookmark containing some frequently asked questions.

By no means are these actual questions directed to the organization, but the effective, audience-oriented way the organization wants to disseminate essential information. Usually there is a list of simple yes/no questions (or wh-questions that are framed as having one simple correct answer), accompanied with some unfolding paragraphs of casually worded explanations. The contemporary pervasiveness of the FAQ functionality reminds me of the erstwhile popularity of Socratic dialogues (as used by Plato and other authors) in the process of arriving at knowledge through asking more and more advanced questions and following the unfolding reasoning to check if it is devoid of inconsistency. Unfortunately, FAQ pages are not rhetorically framed to make readers doubt or question anything presented. In fact, they attempt to dispel the initial doubts one might feel inclined to possess.

Thus, contrary to the ancient method of questioning used to demystify incongruities, FAQ pages are treated as a legitimate, even preferable, means of familiarizing the viewers with the issue at stake. So is the case with both CSC's "top questions" (<http://www.discovery.org/csc/topQuestions.php>) and NCSE's FAQ (<http://ncse.com/about/faq>), which use the dialogic format to make persuasion more effective with lucid answers, a brisk pace of information flow, and instructions on how to navigate the organization's repository of more detailed materials. What is also worth pointing out here is that questions may be powerful presupposition-triggers, as they pass over certain information as if it were "given" not "new," and certain facts as if they were to be taken for granted. For example, in asking "Is research about intelligent design published in peer-reviewed journals and monographs?" the CSC reveals that there is communicable "research" within the ID paradigm, which is, in all likelihood, to be embraced by the academic community. Subsequently, it points readers to the list of top 50 ID-related academic publications (mostly in its own journal *BIO-Complexity*). In turn, NCSE's page features "How does NCSE handle attacks on science education?" – implying that there are continuous attempts to take science off the curriculum, which are being successfully defeated by the organization.

The mission...

A mission statement is an indispensable element of any organization's public image because it allows expression of its rationale and purpose in highly general and positive terms, which, according to Perelmanian rhetoric, is essential for building favorable dispositions within the audience. After all, it is much easier to secure another's agreement as to the general principle than it is with regard to some practical details.

In its homepage insert (<http://ncse.com/about>), the *National Center for Science*

Education presents itself as “a not-for-profit, membership organization” of over 5,000 scientists, teachers, and clergy working with various citizen groups “to keep evolution and climate science in public school science education” mainly by educating the public and providing “needed information and advice to defend good science education at local, state, and national levels.” The center acknowledges that there are public “controversies” surrounding the two top issues – evolution and climate change – which have been deliberately fomented by marginal interest groups, even though in the academic community there is barely any controversy over them. By invoking the number and ethos of its members, who represent socially prestigious occupations, and stressing their voluntary engagement with the NCSE mission, the organization succeeds in building wider credibility and garnering support, particularly since it mentions religious leaders affiliated with it. This may be effective to pre-empt the argument that science is fundamentally incompatible with faith.

Similar ethos-laden self-presentation techniques are deployed by the *Center for Science and Culture*, which is described as a “research program” supporting “scholarship” guided by any of the following four main priorities: (1) challenging various aspects of neo-Darwinian theory; (2) developing the scientific theory known as intelligent design; (3) exploring the impact of scientific materialism on culture; (4) improving science education by teaching students more fully about the theory of evolution, including the theory’s scientific weaknesses as well as its strengths (<https://www.discovery.org/csc/aboutCSC.php>). The organization claims to be widely supported by academics and experts, listed in the following order: “biologists, biochemists, chemists, physicists, philosophers and historians of science, and public policy and legal experts.” Presumably, the list has been compiled to dismiss any suspicions of CSC’s being a Christian theological outpost. By underlining its academic links – directors with PhD degrees and collaborators affiliated with renowned universities – CSC is close to succeeding in projecting its activities as legitimate scientific pursuits.

The strategy...

According to Aristotelian notion of *atechnoi* (extrinsic proofs) or Cicero’s theory of *statis*, the way the arguer uses facts and information to delimit and define an arguable issue is of paramount importance to subsequent persuasion. For roughly the same mechanism, modern theorists of communication use the notion of framing, which is connected with the schemata deployed in the initial stages of argumentation to guide the receivers’ comprehension and interpretation of a given issue in a way that suits the sender’s interests the most.

The paramount tactic in CSC's framing of the ID theory is the denial of any creationist links. This is done by repeatedly stressing that the intelligent designer is not a supernatural being, as in: "unlike creationism, the scientific theory of intelligent design is agnostic regarding the source of design and has no commitment to defending Genesis, the Bible or any other sacred text" (<http://www.discovery.org/csc/topQuestions.php>). Another tactic is to overwhelm the reader with the sheer amount of information about "scientific" publications, expert opinions, and research projects undertaken within the Intelligent Design paradigm (<http://www.intelligentdesign.org/science.php>). The stress is often put on how this knowledge is being continuously disseminated to the public (via mainstream media) and educators (via teaching resources). Another ploy is the use of the concepts of "critical thinking" and encouraging "open debates" as cornerstones of "academic freedom." This tactic helps to polarize the debate and reverse the positions of the antagonists, as it allows the presentation of "Darwinists" as hard-line believers in evolution dogmas, while ID-supporters are cast as open-minded scholars who cherish the freedom of academic pursuit and inquiry. CSC's online materials also include well-chosen clipped quotes from authoritative (even evolution-affiliated) figures, who seem to, at one point or another, have voiced a comment that could be interpreted as "a doubt in the validity of evolutionary science" – a tactic known as "quote mining."

The NCSE has taken a slightly different approach to presenting the issue – its rhetoric is far more activist and "combative." It projects a situation in which science education in the US is under constant attack from religious conservatives and that is why open-mindedness and rationality need to be defended. The sense of urgency is sustained by catchy headlines, imperative structures, and short sentences. The NCSE's news items (e.g., One down in Oklahoma) and tongue-in-cheek blog commentaries (e.g., "Was there ever a flat Earth consensus?") frequently feature appeals to take action in the southern states to counter the process of mis-educating the young about science. Besides, the NCSE is right there to offer ample practical advice on how to get involved (e.g., "How to testify at a School Board meeting," "Ten tips for writing a letter to the editor"). The NCSE online materials may be effective rhetorically due to the amount of self-effacing wit mixed with down-to-earth practicality, but at times the authors seem to exaggerate the issue way out of its proportions (particularly with war metaphors and mobilization initiatives).

With respect to Intelligent Design theory, the NCSE's pages are almost exclusively designed to demystify the rhetoric used by the Discovery Institute and expose its creationist links (<http://ncse.com/creationism/general/what-is-intelligent-design-creationism>). The NCSE provides readers with an overview of various strategies that creationists have used over time to influence American academic

and educational institutions. This is done through a lucid and dramatic narrative. The NCSE also hyperlinks its materials to official reports, judicial documents and decisions, as well as scholarly publications and publicity materials that can be explored by concerned citizens.

The NCSE also devotes much space to analyzing CSC's rhetoric. One specific study exposing the rhetorical maneuvering by the creationists is a computational linguistic study of the use of words in one of the popular creationist school textbooks *Of Pandas and People*, where word counts of "creationist" and "intelligent design" indicate how, after the teaching of creationism was outlawed, the newer editions of the textbook have featured decreased numbers of the former and rapidly increasing numbers of the latter term. This is used to prove that, notwithstanding denials, ID theory is indeed a version of creationism behind all its scientific trappings.

The NCSE's critique is especially stringent with respect to the CSC's calls to embrace ID in the name of "academic freedom" (<http://ncse.com/evolution/education/academic-freedom>). This is rather eloquently expressed in the following words: "Teachers have no freedom to misinform and miseducate students. It is scientifically inappropriate and educationally irresponsible to present ID under its own name or in any other guise as scientifically credible. And it is unconstitutional to do so in the public schools." The NCSE's activists recognize such creationist catchphrases as "strengths and weaknesses" of evolution, or "critical analysis of evolutionary science" as scientifically untenable and confusing, since evolution has been proven beyond doubt, and questions may remain only as to some details, not as to the principles.

The reaction...

Both organizations are vociferous not only in defending their respective causes but also in fending off attacks in the form of refutations of allegedly waged criticisms, clarifications, and ample lists of counter-arguments. As shown above, most NCSE materials devoted to creationism feature some form of disavowal of the CSC rhetoric.

Meanwhile the CSC does not leave the criticisms unanswered. For example, with respect to the American Association for the Advancement of Science's negative opinion about the ID research program, the Discovery Institute points to bias and narrow-mindedness in the AAAS's position: "The board of the AAAS issued a resolution attacking intelligent design theory as unscientific. Unfortunately, the process by which this resolution was adopted was itself anything but scientific. In fact, the resolution was more a product of prejudice than impartial investigation"

(<http://www.discovery.org/csc/topQuestions.php>). The CSC uses the *ad personam* tactic to argue that board members were inadequately acquainted with ID publications to issue their resolution. In yet another maneuver, the CSC accuses its critics of rhetorical maneuvering, supposedly exposing the evolutionists' argumentative weakness: "the charge that intelligent design is 'creationism' is a rhetorical strategy on the part of Darwinists who wish to delegitimize design theory without actually addressing the merits of its case" (<http://www.intelligentdesign.org/whatisid.php>). It might appear that the creation-evolution debate has reached the stage of certain circularity, with both sides accusing each other of rhetorical maneuvering.

The outcome...

The on-going creation-evolution debate is starting to resemble an agonistic duel in which each side resorts to ever more extreme measures to fight the antagonists. The rhetorical intensity of the debate is well encapsulated with the NCSE's point that, despite concerted efforts, creationism has not been defeated by reason and science, but entered a phase in which the doctrine is now being disseminated by "stealth" propaganda (<http://ncse.com/creationism/general/creationism-past-present>). In some way, this might resonate well with audiences thriving on the rhetoric of "risk society," "war on terror," or "clash of cultures," in a public sphere where communicators know that "entering into a confrontation" to "defend our values" is a good way to attract attention and garner support (Tannen, 2003).

Tannen, D. (2003 [1998]) *Cywilizacja kłótni* [*The Argument Culture: Stopping America's War of Words*]. Trans. Piotr Budkiewicz. Warszawa: Zysk i S-ka.