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Guy Haarscher

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Guy Haarscher
Free University of Brussels (ULB)

1. Introduction

A pseudo-argument is an argument made by someone who is not really convinced by the premises he uses before a given audience. Perelman insists that the pseudo-argument does not necessarily involve hypocrisy[1]. Of course, the latter is often present in ordinary debates, in particular when sophists argue in order to manipulate an audience. But in other contexts, the pseudo-argument appears to be legitimate, and, in these situations, it can be made without "bad" intentions and in good faith. This is particularly the case of the judge, who, even if he is, for instance for moral reasons, intimately convinced of the legitimacy of a given position, will be obliged to draw his conclusions from valid legal premises.

The problem can be put another way. Perelman often insists that, when you speak in front of a particular (or the universal) audience, you must start your reasoning by sharing some premises with that audience. If you refuse to do that, your argumentative process will not even be able to begin. If you change audiences, and if you want to continue to argue the same thesis (because you are intimately convinced of its validity), you necessarily have to modify the premises of your argumentation: you must "translate" the process into the language and presuppositions of the new addressees. Such a process of translation is unavoidable, and at the same time dangerous. It is unavoidable because a thesis must necessarily be defended before various audiences; it is dangerous because there is always the possibility that the relationship between the new premises (the new context, the new system of values) and the considered thesis will be partially or totally artificial. It is of course the case when sophists or demagogues try to defend a thesis at any price, in an attempt to deliberately distort the "normal" argumentative process. In doing so, they will present their conclusions as if the latter were logically derived from the presuppositions admitted by the given audience. Then they will win, as it were, on both planes: they will be able to go on defending their own theses, and at the same time they will pretend that they have reasoned from the premises admitted by all possible audiences. As the latter's presuppositions are very often in contradiction with each other, "hypocrisy" and manipulation will be massively present.

If you want to challenge or at least weaken the adhesion to a system of values, you can basically adopt two radically opposed rhetorical strategies. Either you will attack the system in a frontal way: for instance, fundamentalists or fascists deny any validity to democratic values and human rights. Or you will pretend to argue *from within* the system (by saying that you accept some of its basic premises), while subtly distorting the process of reasoning in order to get to your conclusions. If the audience is naïve or poorly informed, you will be able to defend positions that are fundamentally at odds with liberal-democratic values while seeming to argue from inside the system.

Let us give an example of such a process for pedagogic purposes. Censorship, in particular in the name of God, has acquired a justifiably bad reputation in democratic societies. Indeed, the

[1] Perelman defines the "pseudo-argument" as follows. "It is actually possible that one seeks to obtain approval while basing the argument on premises that one does not accept oneself as valid. This does not involve hypocrisy, since we can be convinced by arguments others than the ones used to convince the persons we are talking to." See C. Perelman, RHÉTORIQUES (Brussels : Editions de l'Université de Bruxelles, 1989) at 80.

very idea of blasphemy, considered to be a crime, seems incompatible with the principles of pluralism, freedom of conscience and freedom of expression. When the State censures a speech because it is an insult to God or to an object of religious veneration, the situation is at least intellectually clear: on one side, we have an official religion (or what remains of it in contemporary secularized societies); on the other side, we have a human right (namely, the right to freedom of speech). The censor attacks liberal-democratic values in the name of a different conception of the world (according to which the good *polis* must be the reflection of the divine Order). However, if one does not speak of "God", but rather of the believers who, presumably, will be shocked by the speech, the situation will look very differently: one will affirm that freedom of religion – which is as important a human right as freedom of expression – involves the right not to be gratuitously offended by a speech. If the latter is suppressed, it is thus no more in the name of God and an official – thus, antidemocratic – Church, but in the name of *another human right*. The wolf is so to say in the sheepfold[2].

2. The frontal attack on Darwin

I would like to show how such a process of "perverse" translation works in the context of the Darwinism/Creationism "controversy". (I put the latter word in quotation marks because I shall try to show that what is at stake is a bogus debate and not a real confrontation of reasonable theses).

Before Darwin[3], the scholars who challenged the "statist" theories in the name of a certain idea of evolution of nature were considered heterodox, because it was – above all – difficult to reconcile the idea of evolution with the perfection of the Creation by God in *Genesis*. Jefferson himself had thought about these questions[4]. God created the world in six days, and the species are supposed to be nowadays what they were at the time of Creation, except that some of them disappeared during the Deluge. The presently existing ones are the descendants of the living beings that Noah embarked with himself on the Ark. Indeed, the world is not, so the literal reading goes, that old: not more than 6000 or 7000 years, an approximate number that results from counting the generations in the Bible since Adam and Eve. But the progress made in the field of geology made the origin of Earth older and older (today, scientists consider that the age of the Earth is approximately 5 billion years). Darwinist theory introduced among other things an element of continuity between species, in particular between the great apes and *homo sapiens*, which challenged by itself the idea of Man being a privileged creature having a "transcendent" part (a soul) and having been created in the image of God. Moreover, the way evolution works is immoral – or, better said, amoral – and brutal, which runs counter to some central values of Christianity, and above all to the theological virtue of charity. The process consists in an implacable mechanism of selection through adaptation, which was popularized under the name "survival of the fittest" by philosopher Herbert Spencer[5]. Such a natural process can be interpreted – in a very problematic

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[2] See G. Haarscher, *Free speech, religion, and the right to caricature*, in A. Sajo, ed., CENSORIAL SENSITIVITIES : FREE SPEECH AND RELIGION IN A FUNDAMENTALIST WORLD (Utrecht: Eleven International Publishing, 2006) at 309-328; G. Haarscher, *Rhetoric and its abuses: how to oppose liberal democracy while speaking its language*, in J. Mootz III, Jr., (ed.), RECALLING VICO'S LAMENT: THE ROLE OF PRUDENCE IN LAW AND LEGAL EDUCATION (Chicago: Chicago-Kent Law Review, Volume 83, Number 3, 2008) at 1225-1259.

[3] See E. C. Scott, EVOLUTION VS. CREATIONISM. AN INTRODUCTION (Berkeley: University of California Press, 2004) [hereinafter Scott].

[4] He had sent the explorers Lewis and Clark to, among other things, try to find mammoths, known by fossils: in the beginning of the XIXth Century, the idea of extinction of species was hardly acceptable (except for the destructions that took place during the Deluge) (Scott at 75).

[5] In his *Principles of Biology* (1864). Darwin uses the expression as a synonym of "natural selection", but only the latter continued to be used by the

way – as supporting deregulated capitalism and the right of the stronger (as opposed to the Christian values of love and generosity). It is on that basis that the theory of Social Darwinism developed, at the initiative of Oscar Schmidt in 1879, and was popularized by American historian Richard Hofstader in 1944. Social Darwinism has been severely condemned by the Christian Churches, but also by secular currents such as Socialism or Communism.

Darwin published *The Origin of Species* in 1859, but he had found the basic ideas of the book approximately twenty years before: actually, he hesitated to publish them because, as he said, "[i]t was like confessing a murder"[6]. He eventually decided to publish the book because he feared, in the end of the 1850s, that another scholar, the young Alfred Russell Wallace, would make the ideas public before him.

Until the beginning of the XIXth Century, Darwinism did not pose important problems in the United States: scientific biology and the theory of evolution were not taught at school. Only a small elite had, as it was the case in Europe, access to secondary school. The latter has always been very decentralized in the United States, and the curriculum has often depended on decisions made by local Boards of Education. In addition to that, in the XIXth Century and the first half of the XXth Century, the Supreme Court had not yet declared itself competent to review the constitutionality of public school programs: they were based on State and local law, which was at that time beyond the reach of the Court a far as the Establishment Clause of the First Amendment was concerned. Of course, scientific biology was taught at the level of higher education: American colleges progressively developed at the turn of the century into research universities on the German model initiated by Wilhelm von Humboldt (some university presidents had studied the German university system).

The situation radically changed after the First World War. First of all, there were more and more teenagers attending secondary school, which had the effect of creating a dramatic increase in the number of pupils confronted with the "dangers" of evolutionary biology. We must emphasize here the importance for our subject of American fundamentalism, which developed in the beginning of the XXth Century as a reaction to Protestant modernism. The latter had begun in Germany in the 1880s. Modernism advocated a certain adaptation to contemporary society. Three quarters of a century later, the same opposition would take place at the time of the Second Vatican Council between Catholic integrists ("*intégristes"*) and advocates of *aggiornamento*. One of the central theses of fundamentalism is the idea that there are no errors in the Bible. It is called the doctrine of "inerrancy". Such a position mobilized Protestants fundamentalists against evolutionary biology, which – as we saw before – is basically opposed to intuitions related to a literal reading of the Sacred Text. We can add to this argument that Protestant modernism was of German origin, which contributed to disqualifying it after the horrors of the First World War. Finally, Social Darwinism was a well-known theory at that time and gave a kind of legitimacy to "savage" capitalism, that is, the brutality of selection through the market[7] (It is at that time that Antitrust statutes – notably the

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scientific community.

[6] Scott, preface at x.

[7] "Isn't the pro-Darwin propaganda of the New Atheists really a step back? Doesn't it lose sight of the fact that a critique of the idea of the survival of the fittest is also a critique of a brutal society? *M.C.*: No to the first question. Not necessarily to the second. There is a phenomenon called "Social Darwinism" and it has a long, unpleasant history. If I recall correctly, Herbert Spencer coined the phrase "survival of the fittest.' Darwin's mind may have been influenced by what he saw before him in the brutal world of nineteenth century capitalism, especially in Britain—whose thinking is not shaped by the world they live in? — but that isn't an argument for or against his contentions in *The Origin of Species*, let alone the basis for judgments about how he makes them or the evidence amassed by contemporary evolutionary biologists. Darwin's work—and theirs—is not 'propaganda.' Its main purpose is not a moral critique or embrace of the idea of "survival of the fittest," but an attempt to explain evolutionary processes in nature. (…) In any event, if we ask if Darwin's work justifies a ruthless market society or the ruthless application of 'market

Sherman Antitrust Act of 1890 – were passed and the big conglomerates were progressively dismantled). Fundamentalism adopted, in the struggle against Darwin, conservative theological positions such as the theory of inerrancy, but could also be progressive in the socio-economic sphere. So Darwinism was often considered impious, "German" (modernist Protestantism was of course much more open to science than fundamentalism) *and* socially unjust. It is in such a context that the opposition to the teaching of evolution developed.

We must say a few words here on the famous Scopes trial – the trial of the Century – also dubbed the "Monkey Trial" in direct reference to the Anti-Darwinist conventional wisdom. Scopes was a science teacher who had decided, at the initiative of the American Civil Liberties Union (ACLU), which wanted to test the law, to teach Darwinism in a public school in Dayton, Tennessee. The latter State had passed a law, the Butler Act, prohibiting the teaching of evolution, and in general of any "anti-Christian" doctrine[8]. Several other States had done the same. It was the first time that a great trial had an enormous echo in the media (in the newspapers and on the radio). Two very prominent opponents were on stage: on one side William Jennings Bryan, a fundamentalist, but at the same time a social progressive and former Democratic candidate to the presidency of the United States; on the other side Clarence Darrow, a well-known atheist lawyer. The discussion developed around science, religion and freedom of thought. Bryan was cross-examined as a witness by Darrow and demonstrated his scientific and theological incompetence. But Scopes was eventually convicted because he had blatantly violated the law. Later on, the conviction was overturned because of a procedural flaw (Freud evokes this trial in *The future of an Illusion*, his book on religion)[9].

2. The Supreme Court outlaws the frontal attack

After the 1925 trial, anti-evolution statutes were passed in several States, but they were not always enforced. Then, in 1957, the launching of the Sputnik by the Soviet Union awoke – to use Kant's phrase – the Americans from their dogmatic slumber. The political leaders feared that the Russians had a technological advance that was potentially dangerous in the context of the Cold War and the balance of terror. Whether they were right or wrong, or whether the threat was exaggerated, is not our problem here, as we are only interested in the *perception* of the phenomenon and its consequences for the rhetoric used by Creationists and their followers (at that time, the *missile gap* was also perceived – in good or bad faith – as being a national danger). The launching of the first artificial satellite generated an acute awareness of the shortcomings of the science curriculum in

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principles', it seems to me that the answer is: of course not. The fact that genetic inheritance makes some people more and some people less prone to certain diseases doesn't justify abandoning scientific research into their cures – or even just their treatments (I am a social democrat). We are born into pre-existing political, social, and economic worlds, and while there was no decision by humanity to descend 'from some pre-existing form,' to borrow Darwin's words, that should hardly prevent us from making sure that every citizen is as fit as possible, that is, have good health insurance." Mitchell COHEN, http://dissentmagazine.org/article/?article=928.

[8] "The Butler Act… made it against the law to 'teach any theory that denies the story of the Divine Creation of man as taught in the Bible, and to teach instead that man has descended from a lower order of animals'." (Tennessee Legislature Act , 1925, quoted by L. Frank, *Creationism/ID. A short legal history*, http://www.talkreason.org/articles/HistoryID.cfm).

[9] In the 1950s, a very beautiful movie was released, *Inherit the Wind*, based on a play showed on Broadway, with Spencer Tracy playing Darrow. The movie was about the trial, at a time when the intolerance of the fundamentalists was considered a metaphor of McCarthyism (see also the famous play *The Crucible* by Arthur Miller).

secondary schools[10]. The authorities decided to strengthen it. At that time, the discovery of the structure in double helix of the DNA molecule by Watson and Crick had generated huge advances in biology. After the Sputnik's success story, biology had to be taught in a rigorous way in high school: this was the price to be paid to fill the perceived scientific-technological gap.

Now the Creationists, being confronted with a renewed Darwinist "danger", tried to enforce the anti-Darwinist laws that were still on the books in a certain number of States. Of course, these statutes could have been abrogated for obvious reasons of public policy after the "Sputnik trauma". But the Supreme Court, which was henceforth competent to review the conformity of State and local laws to the Establishment Clause of the First Amendment, struck down an Arkansas statute prohibiting the teaching of evolution[11]. That law was considered by the very liberal Warren Court to impose an unacceptable intervention of religion in science classes in public schools. So, from 1968 on, it had become impossible for the religious right to prevent public schools from teaching "impious" science.

3. After *Epperson*: the ascent of the pseudo-argument

In the following, I would like to summarize the different rhetorical strategies that have been used by Creationists since the *Epperson* decision until today. Actually, the reaction to the Biological Sciences Curriculum Study, a program dedicated to producing new textbooks, came rapidly, in the beginning of the 1960s. There was a tension between the Monkey laws that were still on the books, and the new textbooks that were based on Darwinism and evolution theory. In 1961, the Tennessee State legislature tried to repeal the Butler Act. The attempt was unsuccessful, but, during the debate, Darwinist biologists were put on the same plane as Communists. At that time the Cold War was at its peak, and the comparison was all but innocent.

In 1967, a teacher was fired because he had – as Scopes had done some forty years before – violated the Butler Act. He complained that his First Amendment right to free speech had been violated. The Tennessee legislature, fearing another courtroom fiasco, repealed the law that year.

It is in such a tense context that Susanne Epperson, a biology teacher, challenged the Arkansas "Monkey law". The case was eventually brought before the United States Supreme Court, which, as we already know, decided that the prohibition of evolutionary biology in public school classes in the name of Creationism amounted to a violation of the Establishment Clause of the First Amendment to the US Constitution. Indeed, in 1947[12], the Court had "incorporated" that Clause into the XIVth Amendment, which guarantees, among other things, that States will not deprive any person of life, liberty and property without due process of law. Henceforth thus, the Establishment Clause would be applicable to States and local powers. It is on that basis that the Warren court invalidated the Monkey laws in the 1968 *Epperson* decision.

At that moment in the "drama", Creationists began to "translate" their claims into the language of liberal-democratic values, that is, freedom of scientific research and teaching, tolerance, openness, acceptance of controversies, discussions about epistemology, etc. Rhetorically

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[10] There is a certain irony in the situation. Indeed, another fundamental part of scientific biology – genetics – had been challenged, with disastrous results, by Trofim Lysenko, the director of Soviet biology under Stalin. Lysenko advocated the hereditary transmission of acquired characters, which was the politically correct "Lamarckian" conventional wisdom in the "homeland of Socialism". Indeed, the Soviets believed in a supposedly indefinite progress of humanity. Geneticians who challenged Lysenko's conceptions were severely persecuted.

[11] Epperson v. Arkansas, 393 U.S. 97 (1968).

[12] Everson v. Board of Education, 330 U.S. 1 (1947). The *Everson* case not only made the Establishment clause applicable to States and local governments, but also inaugurated a very "separatist" series of decsions.

speaking, it was a total turnaround: because prohibition of Darwinism was from now on unconstitutional, the way of arguing the case against evolution and natural selection had to be radically transformed. The debate was less and less between reason and dogmatic religion, or between free examination and argument of authority. It was transformed – and disguised – into a debate that was supposed to be taking place *inside* the liberal-democratic sphere of legitimacy. Indeed, we can say that, since the 1968 *Epperson* decision, Creationists and the religious right have begun to adopt a strategy which can be considered an application of Perelman's pseudo-argument doctrine, and, more precisely (as the following will show), of its "hypocrite" version.

4. "Equal time and emphasis"

The first stage of such an argumentative strategy is known as the "equal time and emphasis" doctrine. In 1973, the Tennessee State legislature replaced the now unconstitutional Butler Act with a law that stated that "[a]ny biology textbook… shall [give]… an *equal time and emphasis* on… the Genesis account of the Bible."[13] The Federal Courts also struck down that law in 1975. The judges insisted in particular that the Tennessee statute was "a clearly defined preferential position for the Biblical version of creation as opposed to any account of the development of man based on scientific research and reasoning."[14] In other words, even if the "equal time and emphasis" doctrine was not aimed at excluding evolutionary biology, and signalled the abandonment of the previous frontal attack strategy (prohibition of the teaching of "impious" doctrines in public schools), it put on the same plane science (evolution) and a particular religious conception, considered to be the sole alternative to Darwinism. Of course, there was no scientific reason for giving such a role to a religious doctrine in a science class. So the first form of pseudo-argument used in the Creationism debate was definitely doomed to failure and the appeal to pluralism ("let us teach both conceptions") was rejected by the Courts – at least, at that time, in Tennessee.

5. "Creation *science*"

In these circumstances, religious right advocates decided to slightly modify the strategy. Now they began to speak of Creation *science*, and tried not to insist on the religious elements of Creation. Actually, they attempted to stress the supposedly scientific aspect of the doctrine they defended. Then, in 1981, the State of Arkansas legislature passed a law imposing equal time for Creation "science" and evolution in biology classes. In *McLean v. Arkansas* (1982), judge Overton ruled that the Balanced Treatment law violated the Establishment Clause and declared that the statute was "a religious crusade coupled with a desire to conceal this fact." He called Creation science "a rehash of data and theories which have been before the scientific community for decades." Finally, he said very clearly that "[t]he creationist's methods do not take data, weigh them against the opposing scientific data, and thereafter reach… conclusions… Instead, they take the literal wording of the Book of Genesis and attempt to find scientific support for it." [15]

This seemed to be the end of Creation "science" and of the claim that, being scientific, it should be taught not to the detriment of evolution (as it had been the case at the time of the Monkey laws), but with it and on an equal basis. Of course, the ruling was only binding in the Eastern

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[13] See Flank, art. cit. Emphasis added.

[14] Daniel v. Waters, U.S.Tenn. Jun 17, 1974. NO. 73-1436. The US Court of Appeals for the Sixth Circuit upheld the decision of the lower court (Daniel v. Waters, 417 U.S. 963, 94 S.Ct. 3164, 41 L.Ed.2d 1135).

[15] McLean v. Arkansas Board of Education, 529 F. Supp. 1255, 1258-1264 (ED Ark. 1982).

District of Arkansas but had a great influence on the debate nationwide. Creationists did not appeal the decision. In the beginning of the 1980s, the attempt to give Creationism a scientific legitimacy was not yet very sophisticated. We shall see that the religious right will make some progress on that point later.

Louisiana had also passed a "Balanced Treatment Act", which was struck down in 1985 by a Federal judge. The judgment affirmed that the law violated the Establishment Clause because "it promote[d] the belief of some theistic sects to the detriment of the others."[16] The US Court of Appeals for the Fifth Circuit[17] and the Supreme Court upheld the decision. The latter said that "the pro-eminent purpose of the Louisiana legislature was clearly to advance the religious viewpoint that a supernatural being created humankind."[18] So, all "Balanced Treatment" statutes were declared unconstitutional by the Supreme Court. The Creationist movement had thus lost so far three legal challenges, each of them embodying a different argumentative strategy. Prohibition of Darwinism was unconstitutional (*Epperson v. Arkansas*, 1968), Equal time and Emphasis for Creationist religion and evolutionary theory was also considered contrary to the Establishment Clause (*Daniel v. Waters*, 1975 – only valid for Tennessee). And so was the case for Balanced Treatment between Darwinian *science* and Creation *"science"* (*Edwards v. Aguillard*, 1987 – legally binding for the whole United States). Regardless of the frontal attack strategy (that was characteristic of Monkey laws such as the Butler Act), Perelmanian pseudo-arguments had been used: now the process of argumentation began with liberal-democratic premises instead than with the absolute and literal Truth of the Bible: equilibrium, impartiality, fairness, different scientific approaches, etc.

6. Creationism and Darwinism: both are "religions"

So Creationists adopted still another strategy. The latter can be presented in the following way: yes, the argument goes, we accept that Creationism is a religion, not a science. *But so is evolution*! Indeed, Darwinism is, Creationists argue, the "religion of secularism". It amounts, as it were, to an agnostic, an atheist or a materialist metaphysical conception of the world that *also rests on belief* and is no more testable than theories drawn from the first book of Genesis. So the former strategy is completely reversed. Of course the aim is to reach the same result by another way: putting evolutionism and creationism on the same religious plane. If it is definitely forbidden to teach Creation "science" in public school, then let us expel *both of them* from school, as both are religions that, according to the Supreme Court, have no place in science classes (this is of course only valid for public, "State" schools).. To summarize the argument: if it is so difficult to present Creationism as a science, it will perhaps be easier and more convincing to affirm that Darwinism is based on a metaphysical materialist "belief". So the conclusion will be: both are religions, and should *not* be taught in public school. Of course, the aim will, as I said, be the same as before: challenging the legitimacy, the scientificity and the neutrality of Darwinism. Indeed, the situation – provided it succeeded – would even be better than in the case of the former strategy (both are "sciences"): instead of trying to introduce Creation science in order to limit the influence of evolutionary biology on the minds of pupils, one would attempt to expel Darwinism from school by considering it to be a religion, and accept that Creationism would also be excluded. The basic idea underpinning the considered argumentative strategy was to link the respective fates of Darwinism and Creationism: either both would be admitted inside the class (doctrine of Creation science), or

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[16] Edwards v. Aguillard, 476 U.S. 1103, 106 S.Ct. 1946, 90 L.Ed.2d 355, 32 Ed. Law Rep. 897 (U.S.La. May 05, 1986) (NO. 85-1513).

[17] Aguillard v. Edwards, 765 F.2d 1251, 54 USLW 2078, 26 Ed. Law Rep. 29 (5th Cir.(La.) Jul 08, 1985) (NO. 85-3030).

[18] Edwards v. Aguillard, 482 U.S. 578 (1987) (opinion delivered by Justice Brennan; Justice Scalia and Chief Justice Rehnquist dissenting).

both should be thrown out (doctrine of the "religion of secularism"). Actually, the idea that secularism was "another religion" had been expressed by the religious right well before, when it had reacted to liberal decisions of the Warren Court concerning notably – but not only – the organization of prayer at school[19].

And, indeed, in 1994, a California biology teacher brought an action against a school district and the State, claiming that the teaching of evolution unconstitutionally established "the religion of secular humanism". The United States Court of Appeals for the Ninth Circuit rejected the latter thesis by affirming that the concept of evolution "has nothing to do with how the universe was created; it has nothing to do with whether or not there is a divine Creator…"[20] So the judges rejected the idea that the school district had established a State-supported religion, the "religion" of secular humanism. The Court summarized its argument as follows: "Evolutionist theory *is not a religion*."[21] The Supreme Court refused to hear the case in 1995.

7. "Just a theory"

Another rhetorical strategy that was used during the same period can be defined in the following way. Creationists lobbied textbook committees in order either to eliminate evolutionary biology from the curriculum, or, if not feasible, to add a "disclaimer" stating among other things that evolution is *"just a theory"*. The strategy is not aimed at proving that evolutionism is a religion, but at insisting, by arguing at the level of science and epistemology, that theory is not fact, and that Darwinism is still the object of heated controversies. The argument is also dedicated to showing that there are "gaps", that is, non-observed elements, that make evolution "just a theory" and not a description and explanation of "facts". For instance, in a bill passed by the Washington State Senate, it was affirmed that "macroevolution", that is, evolution from one species to another (as opposed to "microevolution", that is, evolution inside the same species) "has never been *observed* and should be considered a theory. Evolution also refers to the *unproved belief* that random, undirected forces produced a world of living things."[22] This passage clearly shows that the strategy aims at weakening the scientific character of evolutionism. This is new in that now the religious right uses (pseudo)epistemological arguments, such as the distinction between theory and fact. It is not my aim in the present article to deconstruct the argument by showing the untenable character of such an epistemological position. I only want here to emphasize the fact that, for Creationists in their new guise, a theory is *less* scientific than the observation and establishment of facts. Indeed, the phrase "*just* a theory" is obviously derogative. We shall see later that a judge recently tested these epistemological claims.

In 1994, a Louisiana school board decided that a disclaimer should be read before the biology teacher began the presentation of evolution. This disclaimer shows how far Creationists go in the process of perverse "translation" (in Perelmanian terms: "hypocrite" pseudo-argument). Indeed, the terminology of science and epistemology is used more and more. This is done, as we

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[19] The argument was developed after the Supreme Court struck down a Pennsylvania statute requiring Bible reading in class (Abington School District v. Schempp, 374 U.S. 203 (1963)). Actually, Justice Black had argued two years before in a way that gave ammunition to the Christian Right: writing the opinion of the Court in a case that concerned the refusal by a Maryland notary public to declare his belief in the existence of God, he affirmed that no religious test could be imposed as a prerequisite for public employment in the Federal Government or the States. In a footnote, Black mentioned secular humanism among religious currents, (*Torcaso v. Watkins*, 1961). The argument was then used by Creationists and the religious right to support their view that secularism was just another religion. The Supreme Court has consistently rejected such an interpretation, in particular in *Edwards v. Aguillard.*

[20] Peloza v. Capistrano Unified School District, 37 F.3d 517, (9th Cir. 1994).

[21] Emphasis added.

[22] See Flank, art. cit.. Emphasis added.

know, to support the claim that the debate takes place *inside* the realm of liberal-democratic values and has nothing to do with a controversy between freedom of scientific research and teaching on the one hand, religious dogmatism on the other hand. "Science" is invoked (Creation *science*), but also justice and non-discrimination (if evolutionism and Creationism are sciences, both should be taught; if they are religions, both should be expelled from public school), and finally "theory", "fact", etc. But the Louisiana disclaimer goes even further: it invokes "the basic right and privilege of each student to form his/her own opinion", and the necessity of "critical thinking". Here the "wolf" is really installed in the "sheepfold": the principle of autonomy (the right to form one's own opinion and to express it) is used to allow parents and activist groups to intervene in the biology class. And the invocation of "critical thinking" only means that students should compare evolutionism to "the Biblical version of Creation". In so doing, they will be trapped in a bogus either/or position, a false and manipulative "controversy".

Some parents filed suit alleging that the disclaimer amounted to an establishment of religion that is forbidden by the Constitution. The US District Court for the Eastern District of Louisiana declared the disclaimer unconstitutional, and the US Court of Appeals for the Fifth Circuit upheld the decision, affirming in a non-equivocal way that the translation of the problem into the language of liberal-democratic values was artificial and sophistic: "… the primary effect of the disclaimer is to protect and maintain a particular religious viewpoint, namely belief in the Biblical version of creation." The Court added that the reference to the "exercise of critical thinking" was "*a sham*"[23] (that expression had already been used by the US Supreme Court in the *Edwards v. Aguillard* case[24]). The Supreme Court refused to hear the case, so the decision of the Circuit Court stands.

Another "disclaimer case" was lost by the Creationists in 2005 in Georgia. A Federal District Judge, Clarence Cooper, declared the disclaimer unconstitutional and added: "The distinction of evolution as a theory rather than fact is the distinction that religiously motivated individuals have specifically asked school boards to make in the most recent anti-evolution movement."[25] In May 2006, the decision was vacated by the US Court of Appeals for the Eleventh Circuit, which remanded the case back to the original court for further findings of fact. In December 2006, the case was settled out of court in favour of the plaintiffs (who challenged the constitutionality of the disclaimer).

8. Intelligent Design

Actually, Creationists have already adopted still another strategy, which consists in trying to eliminate all references to religion and Scripture from the alternative conception they defend. In a certain sense, they want to correct the obvious defects of the Creation science strategy. So for instance, they do not speak anymore of a Creator, but use the vaguer and more abstract notion of a "Designer". The "Intelligent Design" movement was born in the end of the 1980s as another strategy dedicated to responding to the 1987 *Edwards v. Aguillard* decision of the US Supreme Court. The latter ruling rejected equal time and emphasis for Creation science and evolutionism, but it affirmed that if scientific alternatives existed, they could legally be taught in class.

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[23] Freiler v. Tangipahoa Parish Board of Education, 975 F.Supp. 819, 121 Ed. Law Rep. 614, E.D.La., August 08, 1997 (NO. CIV. A. 94-3577); Freiler v. Tangipahoa Parish Board of Education, 185 F.3d 337, 137 Ed. Law Rep. 195. Emphasis added.

24 "While the Court is normally deferential to a State's articulation of a secular purpose, it is required that the statement of such purpose be sincere, and not a sham." (Edwards v. Aguillard, 482 U.S. 578 (1987)).

[25] Selman v. Cobb County School District, 449 F.3d 1320, 65 Fed.R.Serv.3d 106, 210 Ed. Law Rep. 51, 19 Fla. L. Weekly Fed. C 576, C.A.11 (Ga.), May 25, 2006 (NO. 05-10341, 05-11725).

In order to avoid any reference to the Bible, ID advocates even present the Designer in certain versions of the doctrine as possibly being an Extraterrestrial[26]. The age of the Earth, as it was calculated by the previous Creationists on the basis of the succession of generations in the Bible – not more than 8000 years – is not mentioned anymore[27]. Even a certain form of evolution is now accepted. But it remains that the central idea is that, from the very point of view of a free scientific researcher, and supposedly without any religious assumptions and references to the Scripture, it is impossible to understand the existence and functioning of complex organs and organisms without presupposing an Intelligent Designer, whatever or whoever it/he can be and whatever that might mean.

In 2001, the Senate of the United States tried to add an amendment to the "No Child Left Behind" Bill that was dedicated to improving primary and secondary education. The text stated that students should be prepared to make the difference between "testable theories of science" and "philosophical and religious claims… made in the name of science", and be informed of the "continuing controversies" generated by the notion of evolution. The amendment was finally dropped in committee, but, curiously enough, some members of the religious right movement continued to pretend that it was part of the Act[28].

Then, in Ohio, a chemist, Robert Lattimer, criticized the dominance of evolution theory in the biology programs and argued in favor of teaching Intelligent Design as a *"scientific"* alternative to Darwinism. In so doing, he took advantage of the loophole I mentioned before in the *Edwards* decision. After the Discovery Institute, which is the main proponent of ID theory, had lobbied the State legislature, a bill was voted. Again, the purported aims of the statute were prima facie secular and were referred to liberal-democratic values. The idea was "to promote academic freedom" and "neutrality" of the State in the domain of religion and non-religion. The teaching should be done "objectively" and "without religious, naturalistic, or philosophic bias or assumption." Again, the students would be encouraged to "think critically", which was directly related to the supposedly controversial character of evolutionism.

Of course, controversies exist in science – they are even the very engine of scientific progress: no scientific truth or method is definitive, and indeed there have been major controversies, for instance between Einstein and Bohr concerning relativistic physics and quantum mechanics. But in the present case, the controversy is a bogus one – a *sham*, to use the language of the Supreme Court. It was artificially created in reaction to the several judicial challenges Creationists have lost so far. The strategy failed in Ohio, and Intelligent Design was even explicitly excluded from the standards. "The intent of this indicator does not mandate the teaching or testing of Intelligent Design."[29]

So Creationists have adopted a supposedly more modest position. It is called "teaching the controversy". Instead of trying to force Intelligent Design into class, they use now a negative rhetorical strategy: they want the alleged scientific problems and "gaps" in evolution theory to be taught: "somehow, somewhere, something must be wrong with evolution"[30]. So members of the Ohio Board of Education devised a "model lesson plan" entitled "Critical analysis of evolution". Again, the debate seems to be taking place in the domain of science and normal scientific controversies. Critical analysis is an integral part of the scientific process. But of course, such a reference to critical analysis is made in order to erode – at least in the minds of the students – the

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[26] See Scott at 116.

[27] Actually, some Creationists (*Old Earth Creationists*) do not read *Genesis* literally and consider that the Earth is much older than what results from a literal reading by *"Young Earth Creationists"*. See Scott at 60-63.

[28] See Flank, art. cit.

[29] See Flank, art. cit.

[30] Flank, art. cit.

scientific character of evolutionist biology. The first version of the letter contained some references to Intelligent Design as an alternative to Darwinism, but they were dropped from the second one in 2003. Only the "teach the controversy" strategy remained, aimed at including supposedly "*scientific* criticisms of evolution"[31] without mentioning ID as an alternative (although these "criticisms" have been developed for years by the Discovery Institute).

In June 2004, The Board of Educators of the Dover school district in Pennsylvania decided that the biology teachers should read in the beginning of the classes the following statement:

> "The Pennsylvania Academic Standards *require students to learn about Darwin's Theory of Evolution* and eventually to take a standardized test of which evolution is a part.
>
> Because Darwin's Theory is a theory, it continues to be tested as new evidence is discovered. The *Theory is not a fact*. *Gaps* in the Theory exist for which there is no evidence. *A theory is defined as a well-tested explanation that unifies a broad range of observations*.
>
> *Intelligent Design is an explanation of the origin of life* that differs from Darwin's view. The reference book, Of Pandas and People, is available for students who might be interested in gaining an understanding of what Intelligent Design actually involves.
>
> With respect to any theory, students are encouraged to keep an *open mind*. The school *leaves the discussion of the Origins of Life to individual students and their families*. As a *Standards-driven district*, class instruction focuses upon preparing students to achieve proficiency on Standards-based assessments."[32]

It is worth while, before addressing the legal aspects of the problem, to briefly analyze the arguments presented in the statement. First, the Board says that the pupils will study Darwin, which seems to be good news (for science, separation of Church and State, etc.). But the reason for the acceptance that Darwinian evolution is taught in class is given immediately afterwards: the "Pennsylvania Academic Standards" *require* it. So the statement gives, right in the beginning, the impression that a certain topic is taught *because it is imposed by an authority*, and not because of its intrinsic scientific value. The argument is the following: this is the law, so we are obliged to teach "that". Immediately after the first sentence of the statement, the doubts raised about the scientific character of Darwinism surface: it is a "theory", and, as Creationist and ID advocates always say, theory is not fact. There are "gaps", non-tested and non-observable elements of the theory. "Theory" is neither considered a scientific explanation of life valid at a certain period of time, nor a purely arbitrary ideology. If the latter were true, it would be totally impossible to understand why evolutionism would be imposed on the students by the authorities of Pennsylvania. If the former were true, there would not be any need for such a statement to be read to the students. So "theory" is something *in between*: less scientific than observed facts, but more scientific than a simple opinion (a *doxa*).

According to me, the central rhetorical strategy underpinning the statement is the following: Darwinism is only a theory, that is, it is based on a certain number of observations but contains many gaps. There are – to use Perelman's terminology – good reasons to accept Darwinism as a "theory". But such a watered-down version of theory has the following, unavoidable consequence:

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[31] Emphasis added.

[32] *York Daily Record*, Jan 8, 2005. Emphasis added.

by such a relaxed standard, *Intelligent Design also is a "theory"*. So students should be informed of it – and the "reference book", *Of Pandas and People*, should be left at their disposal.

The last paragraph of the statement mentions that "students are encouraged to keep an open mind". As the devil is in the details, we must ask what such an apparently legitimate claim really means. It is explained in the following sentence: the "theory" shall not mention the origins of life, which shall be kept out of class and left to the pupils and their families. It seems strange to me that the reference to an "open mind" is immediately followed by the requirement that *some problems will not be addressed in class*.

But the main argument of the statement consists in emphasizing the notion of "theory", a category that – as we saw before – can easily be referred to Darwinism *and* to Intelligent Design. So we can see that some former argumentative strategies are integrated into a new one. Now, (disguised) Creationists do not pretend any more that the conception they advocate is scientific (strategy of the "Creation science"). They do not claim either that both Darwinism and Creationism are religions, so that they should both be "expelled" from public school. They adopt a middle-of-the road position: both Darwinism and Intelligent Design are supposed to be "theories" (with observed facts and "gaps"). If the authority of the Legislator (which represents the transient opinion of a majority of politicians, or of judges and Justices) mandates that evolutionary theory be taught, it would be fair to inform the students of the existence of *another "theory"*, that is supposed to have the same epistemological status as the theory of evolution. That theory is apparently a secular alternative to Darwinism. So it could be legally taught in class according to the *Ewards* decision. The claim is modest (after the statement is read, "normal" biology classes can begin) and in a certain sense it is wholly perverse: the courses are *a priori* delegitimized in the eyes of the pupils (or at least it is the expected result of the statement being read in class).

In December 2004, eleven parents sued the Dover Area District School alleging a violation of the Establishment Clause of the First Amendment. Judge Jones from the Federal District Court was confronted with contradictory claims (Is ID science or at least "theory"? What is "theory"? Is ID religion, Creationism in disguise?). He decided to hear as witnesses some great scientists from major US universities. The result was clear and the December 2005 decision reflected it: the supposedly scientific arguments used by ID advocates were untenable: there were no peer-review articles, the data used were outmoded, the arguments had been rebutted a long time ago in the scientific community, and the "Designer" was – even if it could be identified with another entity than the Christian Creator – in all cases a supra-natural being, which, by all generally accepted methodological and epistemological standards, has strictly no place in a science class, even as a vague presupposition (without a Designer, say ID proponents, you cannot explain the complexity of at least certain organs, etc.). Here are some particularly relevant passages of Judge Jones' decision:

> "Although Defendants attempt to persuade this Court that each Board member who voted for the biology curriculum change did so for the secular purposed of improving science education and to exercise critical thinking skills, *their contentions are simply irreconcilable with the record evidence. Their asserted purposes are a sham*."
>
> "Any asserted secular purposes by the Board are a sham and are merely *secondary to a religious objective*."
>
> "Defendants' previously referenced flagrant and insulting falsehoods to the Court provide sufficient and compelling evidence for us to deduce that *any allegedly secular purposes that have been offered in support of the ID Policy are equally insincere.* Accordingly, we find that the secular purposes claimed by the Board amount to *a pretext for the Board's real*

purpose, which was to promote religion in the public school classroom, in violation of the Establishment Clause."[33]

The *Kitzmiller* (Dover) case is so far the last one in a series of legal defeats experienced by the Creationist movement. Of course, the struggle is far from over: the religious right is still politically very powerful, and the Jones' decision is only binding in one of the three Federal Districts of Pennsylvania.

I hope to have shown in the present article that the rhetorical strategies used in order to challenge the legitimacy of the teaching of biological evolutionism in public schools rely on "pseudo-arguments" in the Perelmanian sense of the term. To conclude, I can only refer again to the same kind of research I did, notably in the domain of free speech and blasphemy. Let us not concentrate all our energies on the frontal attacks: indirect attacks, that is, the "wolf in the sheepfold" strategy, can perhaps be still more damaging to the very fabric of liberal-democratic values.

[33] Tammy Kitzmiller, et al. v. Dover Area School District, et al., 400 F.Supp.2d 707, 205 Ed. Law Rep. 250, M.D.Pa., December 20, 2005 (NO. 04CV2688). Emphasis added.