

Argumentative Techniques in Article «Finding Design in Nature», by Cardinal Schönborn

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Abstract

The objective of this paper is to make a rhetorical analysis of the op-ed entitled *Finding Design in Nature* by Cardinal Christoph Schönborn, Archbishop of Vienna, published by *The New York Times* in 2005, three months after the death of John Paul II. In this essay, the Cardinal states that it is an error to affirm that Catholic doctrine is compatible with the «neo-Darwinist» theory of evolution and that the Roman Catholic Church accepts that theory. For the Archbishop, the origin of this error lies in the abuses committed in the interpretation of John Paul's 1996 speech in which the Pope affirmed that evolution was more than a hypothesis and showed himself more favourable towards evolutionary theory than his predecessors. In his article the Cardinal described that papal message as «vague and unimportant». In this paper, four argumentative techniques used by Schönborn in his article are analysed: the argumentative lexical choices to make a negative assessment of «neo-Darwinist» evolutionary theory; the argumentative definition to make a polemical description of that theory; the verbs of speech; and the use of the implicit contents to suggest approximation to the movement of intelligent design. We interpret Cardinal Schönborn's position as a rhetorical change with respect to John Paul II's 1996 speech. From our point of view, the Archbishop directed his criticism against evolutionary theory not only because of its scientific theories (not rejected by Church teaching) but also for being potentially dangerous in its use by certain authors as a scientific argument in defence of their atheism.

Resumen

El objetivo de este paper es analizar desde el punto de vista retórico el op-ed titulado *Finding Design in Nature*, del cardenal Christoph Schönborn, arzobispo de Viena, publicado en 2005 por

The New York Times, tres meses después del fallecimiento de Juan Pablo II. En este essay, el cardenal afirma que es un error afirmar que la doctrina católica es compatible con la teoría «neodarwinista» de la evolución y que la Iglesia Católica Romana acepta dicha teoría. Para el arzobispo, el origen de este error está en los abusos cometidos en la interpretación del discurso de Juan Pablo II de 1996 en que el Papa afirmaba que la evolución era más que una hipótesis y se mostraba más favorable a la teoría evolutiva que sus predecesores. En su essay, el cardenal calificó este mensaje papal como «vague and unimportant». En el presente artículo se analizan los procedimientos retóricos empleados por Schönborn en su essay: las *elecciones léxicas* para valorar negativamente la teoría evolutiva de procedencia «neodarwinista»; la *definición argumentativa* para describir de forma polémica dicha teoría; los *verbos de lengua*; y el uso de los *contenidos implícitos* para sugerir una aproximación al movimiento del diseño inteligente. En este trabajo interpretamos la postura del cardenal Schönborn como un cambio retórico respecto al discurso de Juan Pablo II de 1996. Según nuestro punto de vista, el arzobispo dirigiría sus críticas contra la teoría evolutiva por ser potencialmente peligrosa al ser utilizada por algunos autores como argumento científico en defensa de su ateísmo.

1. Introduction

Following the position taken by John Paul II in 1996 on the compatibility between evolutionary theory and Catholic doctrine (John Paul II, 1997), it seemed that the debate on evolution and religion in the ambit of the Catholic Church was, if not completely closed, then at least much assuaged. However, the publication of an open-ended article entitled «Finding Design in Nature» by Cardinal Christoph Schönborn, Archbishop of Vienna, published in *The New York Times* in July 2005, reopened an old controversy in Catholic circles (Schönborn, 2005a). The Cardinal, one of the maximum authorities on Catholic doctrine, rejected the «neo-Darwinian» theory in his article because of its supposed materialism and atheism. This has reawakened a debate within the Catholic Church which began 150 years ago with the appearance of the book *The Origin of the Species* (1859) by the naturalist Charles Darwin. The Cardinal's article has provoked critical reactions among scientists, philosophers, theologians and believers in general, as well as support from other writers.

The purpose of this paper is to realise a rhetorical analysis of the aforementioned article by the Austrian Cardinal through a description of the principal rhetorical mechanisms which the Viennese Archbishop uses to express his point of view. The article

is a study of the problem of the relationship between science and religion – particularly between evolutionary theory and Catholic doctrine – from an original focus. The sciences of communication and language can provide data, observations and explanations on a question in which, as with other public controversies, rhetoric plays a vital part in the discursive construct. Our intention is not to adopt a position on what the relationships between science and religion are or should be (independence, compatibility, conflict or dialogue), but rather to analyse what the texts say by studying how they express it.

The theoretical framework of our paper is a rhetorical analysis of the text, starting from the neo-rhetorical theory by Chaïm Perelman and Lucie Olbrechts-Tyteca (1969) and discursive theory by Michael Billig (1996). Likewise, at a more practical and applied level, we use analytical tools and categories with their origin in linguistics, pragmatics or the linguistic analysis of discourse. We do not aim to carry out a philosophical or theological study of Schönborn's article, nor a strictly linguistic-philosophical description of the text (lexical and grammatical features). The aim of this paper is to make an analysis which examines the rhetoric procedures through which the text is constructed as a discursive manifestation of cognitive representations which constitute the author's thoughts. At no moment do we understand the rhetoric in a superficial way without cognitive or ideological implications, as simple literary decoration or as a «way of speaking». We believe that a text's rhetoric contains the essence of the author's thoughts. This research sets off from the following principles: 1) discourse is a constituent part of the ideology, culture, mentality or vision of the world of its author, and not merely an external communicative vehicle which serves as formal way to express ideas; 2) the cognitive representations (beliefs, knowledge, judgements, evaluations, opinions) which make up the discourse are the products of thought and are extracted from the author's memory, but what is *communicatively relevant* is the specific linguistic configurations or formulations activated, in the form of declarations or propositions which are the fruit of the context and the result of interaction between the participants in the communication; 3) «the distinction between form and content is more easily drawn in theory than in practice. No actual utterance, whether written or spoken, can have only content, for it must

appear in some form or other» (Billig, 1996, 3); «the form can be understood as part of the argument itself, in which case the distinction between form and content collapses» (Billig, 1996, 5); «the style [...] was part of the argumentative business» (Billig, 1996, 5); 4) it is necessary to distinguish clearly between explicit content (expressed directly, patently and openly by the author) and implicit content (more or less hidden and which the listener has to infer, deduce or extract from the linguistic marks which appear in the text); the latter afford are possible interpretations which are not equally accessible to all recipients and which depend on social and personal communicative factors; 5) the linguistic materialisation of the discourse is achieved through rhetorical operations, procedures, mechanisms and resources which organise the text, order it hierarchically and orientate it ideologically, as do the lexical choices, the epistemic modality, the polyphony, the argumentative techniques, the textual representation of actors and those quoted, the connectors used in the argument and the tropes, amongst others.

2. The context of Christoph Schönborn's article

According to journalistic sources in *The New York Times* (7 July, 2005), Schönborn's article was a reaction to an op-ed entitled «School Boards Want to 'Teach The Controversy'. What Controversy?», by Lawrence Krauss, a non-Catholic physicist defender of the compatibility between science and religion, and published in the same New York newspaper on 17 May, 2005. In that article, it was affirmed that the Catholic Church accepted evolutionary theory without any problems. In reality, Krauss's article had been the immediate cause or detonator of the Archbishop's article, because Schönborn's reasons for publishing his article possibly come from further back in time. The moment for publishing an op-ed article clarifying the position of the Catholic Church had not only been chosen because of the appearance of Krauss's opinions, but coincided with the then recent death of John Paul II. The Pope's death, whose 1996 speech Schönborn downplayed, occurred only three months before the Austrian Archbishop's text saw the light of day.

Wojtyła's October 1996 speech showing a favourable stance on the theory of evolution was interpreted by many analysts, both Catholic and non-Catholic, as evidence that the Church supported the compatibility of evolutionary theory and the Catholic faith. For Schönborn, this interpretation was mistaken,

and this supposed error was what led him to publish his article, clarifying what he considered to be the real ecclesiastical position. It needs to be borne in mind that the papal speech had been written nearly a decade before Schönborn decided to clarify the position detailing the ideas of the Polish pontiff. In spite of the many declarations about compatibility between the Catholic faith and evolutionary theory similar to that of Krauss which were made by John Paul II over those ten years, the Austrian Cardinal made no declarations whatsoever in this respect during that decade. It was only after the death of John Paul II that the Cardinal decided to make his clarificatory points of view public. Among them he included a judgement minimising the precision and importance of Wojtyła's 1996 speech by describing it as «vague and unimportant», as we will see.

Other factor exist which could explain the creation of a favourable context for the publication of the Archbishop of Vienna's article: the intense publicity campaign carried out by the Discovery Institute against the theory of evolution, in the beginning out of fear of local campaigns in the United States, but with ramifications which had been extending bit by bit to Europe in preceding years, albeit with limited force and impact. According to news published in *The New York Times* on 7 July, 2005, the vice-president of that organisation was the one who had pressed Schönborn to write his article, and from that to it seeing the light of day in a North American daily has to be understood in a North American context, although with worldwide implications given the spread of Catholicism over five continents.

Likewise, we have to consider a key factor which, in our opinion, may have had a considerable influence on Schönborn to make him initiate his argument against the theory of evolution: the diffusion of materialist evolutionism and anti-religious criticism worked up by certain scientists, like Richard Dawkins, who employs very persuasive rhetoric, or Daniel Dennet. Dawkins' thoughts have significant media impact, especially in the Anglo-Saxon world, through popular books, essays, documentaries, interviews in the media and webpages, which could be perceived as a threat to the Catholic Church – and other religions. These authors defend the idea that the evolutionary mechanisms discovered by science are natural internal laws which by themselves explain the origin of life, man and all living

things, making external agents such as God or a supreme being unnecessary. In their writings they consider that atheism is a *necessary conclusion* of evolutionary theory, using it as an irrefutable scientific argument that God does not exist and that divine action is not required in the evolutionary process.

This anti-religious hostility is not unanimous among scientists, but this position of conflict is what may have weighed most on Schönborn's mind when he wrote his article on the relationship between evolutionary theory and Catholic doctrine. There are also other researchers (Kenneth Miller, Lawrence Krauss, Francisco Ayala, Stephen Jay Gould) who defend the fact that science and religion are two independent and reconcilable worlds, and that science does not concern itself with supernatural questions, nor religion with biological and physical laws and mechanisms. In the same way, there are other scientists who do not make public declarations about their religious beliefs or the relation between science and religion. In their published work, whether it be specialized or popular, they do not draw metaphysical conclusions either in favour of or against the existence of God or divine providence. In his article, Schönborn neither mentions nor considers these positions which are neutral or indifferent to the relationship between science and religion and centres his attention on anti-religious scientists, atheists or materialists, somewhat transmitting the idea that they are the only ones who exist.

Byrne¹ (2006) explains the Cardinal's position in this way:

"Numerous writers and speakers have indeed exploited the success of a neo-Darwinian explanations as a basis for denying that the natural world has divinely authored value and purpose, a tenet so central to the truth of Catholic faith. Quite rightly Schönborn was concerned to redress those excesses. Still, his criticism was leveled not merely at those excesses as such, but at the whole of neo-Darwinism without distinctions. This was too sweeping and undifferentiated a critique, since numerous scientists and nonscientists affirm both the legitimacy of neo-Darwinian methods of scientific explanation as well as transcendent divine purpose in creation".

¹ Byrne, P. H. (2006). Evolution, randomness, and divine purpose: a reply to Cardinal Schönborn, p. 654

3. The argumentatives procedures

In his op-ed, Cardinal Schönborn, through a strategy of distancing himself from John Paul II's 1996 address, constructs a harder and more critical appraisal of evolutionary theory than that maintained by the Vatican. The papal message, together with other pontifical and conciliar documents, forms part of the so-called magisterium of the Church, which is the set of truths of faith, dogma and beliefs which all Catholics must profess. It represents the doctrine or «official stand» of the Catholic Church on the different aspects of the faith and morality. The positioning of the Pope towards evolutionary theory – as with other scientific theories – is not a truth of the faith but, given that it appears in papal texts, has an important doctrinal value as it forms part of ecclesiastical teaching. Although Schönborn's article may not reject the papal message of 1996, the text distances itself from the content of Wojtyła's address by means of a series of rhetorical procedures. This rhetoric rests on four discursive resources: 1) the lexical choice, 2) the argumentative definition, 3) verbs of speech; and 3) the implicit content.

3.1 The lexical choice

We feel that the lexical choices in the Cardinal's article referring to the denomination of evolutionary theory, the description of the theory and mention of the action taken by scientists and by the Church are rhetorically relevant. Currently, modern biological theory based on the ideas of Charles Darwin is known by the term *synthetic theory of evolution, theory of evolution or evolutionary theory*. This theory represents the consensus of the scientific community regarding evolution and its biological mechanisms. The synonymous term *neo-Darwinism*, preferred by Schönborn, is used less frequently. This is formed with the suffix *-ism*, which is generally used to form nouns and designate *ideologies*, social movements or philosophical, political or economic doctrines, but not normally to name scientific theories. This denomination can serve so that a scientific theory (explicatory model of reality based on empirical data) becomes implicitly assimilated into or reduced to ideology (belief systems which support the social interests of human groups).

This implicit appraisal made by Schönborn through the term *neo-Darwinism* becomes explicit with the use of other terms with

which the Cardinal designates evolutionary theory: *ideology* and *dogma*. The first of these supposedly evokes in the reader semantic features such as ‘beliefs’ (and not ‘knowledge’), ‘power’, ‘interests’ (political, economic, corporative), ‘attempt to dominate or manipulate’ or ‘distortion of reality’. Likewise, with the term *dogma* the idea is transmitted that the scientific postulates of evolutionary biology are defined with intolerance and intransigence as unquestionable principles.

Together with these highly connotational terms, the Cardinal employs other equally marked terms to refer to «neo-Darwinian theory» which contrast with the words used to describe the position of the Catholic Church, as we can see in the Table 1.

Schönborn uses negative terms to refer to neo-Darwinian scientific theory which do not appear in John Paul II’s address, especially nouns and adjectives (*not true, abuse, not scientific, not science, abdication*), with a scarcity of verbs which is an attempt to reflect a passive attitude. The verbs express actions of a pejorative (*invented*), neutral (*invoked, to try, to portray*) or negative character (*denies*). Of all these words, the Cardinal uses two which contain a marked value judgement regarding evolutionary theory: *invented* and *abdication*. The Archbishop says that neo-Darwinism is a «scientific claim [...] *invented* to avoid the overwhelming evidence for purpose and design found in modern science». The word *invented* acquires a despective connotation in the text, as it possesses the negative sense of ‘construct a false reality’, ‘create something which is the fruit of the imagination’, in this case with the supposed intention of denying the intention or finality of biological evolution. In the same way, the Cardinal considers that evolutionary theory affirms that evolution is the fruit of «chance and necessity», and this categorises it as the «abdication of human intelligence». *Abdication* means ‘a king’s formal resignation’ and, in a general sense, *to abdicate* is a synonym of ‘leave’, ‘let go’, ‘reject’, ‘give way’, ‘give in’, ‘give up’. For the Archbishop, evolutionary theory supposes an abdication of the use of intelligence, that is to say, a refusal to see reason. With these words, Schönborn considers that the modern synthesis involves *irrationality*, not because it moves away from scientific rationality but from neutral rationality in the sense that, according to his vision, it is a rejection of simple human reason.

Neo-Darwinism	Catholic Church
invoked	proclaims
not true	light of reason
details	human intellect
might be true	clearly
not science	real
abdication	robust
unfortunate	teaching
to portray	clear
abuse	naturally concluded
invented	authoritative
to try to explain	human intelligence
not scientific	surely
abdication of human intelligence	human reason
denies or seeks to explain away	concluded
	reaffirms
	cautions
	proclaimed
	defended real
	firm defense
	taught
	use of reason
	taught
	overwhelming evidence
	human reason
	will defend
	proclaiming
	real
	truths of faith
	said
	vague
	unimportant
	agrees

Table 1
Terms and words used by Cardinal Schönborn to refer to «neo-Darwinian theory» and to the magisterium of the Church.

On the contrary, in the article the appearance of the Church in the discourse is represented through solemn action verbs from linguistic teaching, proclamation and defence (*proclaims, reaffirms, defended, cautious, proclaiming, taught, will defend*),

nouns (*evidence, defense, light of reason, reason, intelligence*) and intensifying adjectives (*authoritative, overwhelming, clear, robust, real*) and intensifying adverbs (*clearly, surely*). The Archbishop associates Catholic doctrine with the terms *truth, reason, intelligence* and *evidence*, which denies evolutionary theory. Compared with the defenders of neo-Darwinism, the Church is described as an institution characterised by a firm active attitude in the face of its enemies in the defence of the truth. From this linguistic representation of the Church as an organisation that adopts firm and solemn teaching activity there are only two adjectives are out of step, *vague* and *unimportant*, referring to John Paul II's address in 1996. This assertive rhetoric used by the Archbishop in his journalistic essay is characteristic of ecclesiastical teaching. The Church defends its beliefs and dogmas as the *truth* revealed by God and that is why its stances are expressed through epistemic linguistic markers of absolute certainty. Schönborn applies this rhetoric to journalistic text – whose style is usually more personal, free and creative – to give his article the solemn authority which characterises official, doctrinal documents.

Schönborn uses transparent and openly negative terms when referring to neo-Darwinist theory (*dogma, ideology, invented, abuse, not true, abdication of human intelligence*), with the absence of epistemic accentuators to reduce the force of the content (*perhaps, to be possible, maybe etc*), of maskers (euphemisms) and polite mitigators which could show a more cooperative attitude towards the dialectical adversary and soften the disagreement. The Cardinal's op-ed is a very modalised text (direct, explicit and transparent expression of the author's opinion), whose assertive rhetoric could carry these functions: 1) showing a controversial attitude distinct from the posture of conciliation and dialogue adopted by John Paul II; 2) delegitimise the adversary's discourse, depriving them of scientific status and undermining their authority and credibility; and 3) transmitting power, through the use of intensifiers and the absence of accentuators, maskers and mitigators used to reduce conflict and force.

3.2 The Argumentative Definition

From the rhetorical point of view, there are two types of definition: the *conventional definition* and the *argumentative definition*. The first has the function of clarifying the meaning of a

word by avoiding misunderstandings; it is neutral and technical, it doesn't usually invite rejection, it strives for precision and does not contain elements of valuation; it is an established and widely-accepted definition. The *argumentative definition* is a dialectical weapon, because it contains an argument, that is to say, a thesis which leads to a conclusion; it is valuative in nature and usually provokes debate or controversy; it is a definition of discord.

The definition Schönborn offers the term *neo-Darwinism* is of the argumentative type. If the choice of terms *neo-Darwinism*, *dogma*, *ideology* and others supposes the choice of designations which generate controversy, the definition offered of the theory will assume a stronger sense of controversy. In his article, Schönborn distinguishes two ways (or «senses» to use the author's own word) of understanding evolution: a) as a «common ancestry» (the existence of a common ancestor which all human beings come from), and b) as «an unguided, unplanned process of random variation and natural selection», which is the explanation the Cardinal considers to be «neo-Darwinian». Further on, citing a theological document, the author offers more information about his way of understanding evolutionary theory. Schönborn attributes neo-Darwinism with the denial of «divine providence» in evolution, when he makes use of these words extracted from the document *Communion and Stewardship: Human Persons Created in the Image of God*: «An unguided evolutionary process – one that falls outside the bounds of divine providence – simply cannot exist». For the Cardinal, following the aforementioned document, the unacceptable is «all theories of evolution, including those of a neo-Darwinian provenience which explicitly deny divine providence and a truly causal role in the development of life in the universe».

With regard to these definitions, it is worth distinguishing two questions: in the first place, the way the Archbishop has of understanding neo-Darwinism (or the synthetic theory of evolution), to which he attributes the explicit denial of divine action in the evolutionary process as an inherent feature; in second place, the Cardinal's judgement and stance against the theory.

As regards the first aspect, Schönborn considers that evolutionary theory defends the following ideas: 1) evolution is a process whose mechanisms are natural selection and random variation; 2) this process is neither guided nor planned; 3) in

evolution, God's actions do not exist and nor is there a cause. For Schönborn, at least, the modern evolutionary synthesis would explicitly affirm that there is no divine action which directs the origin of the species. According to the Cardinal, those who defend neo-Darwinism (that is to say, the synthetic theory of evolution) would maintain that the denial of God is a necessary scientific conclusion extractable from empirical data, and not a metaphysical or philosophical interpretation. Therefore, the denial of God would form part of science, which would confirm that the inexistence of divine providence had been proved. Schönborn does not attribute this divine denial only to certain scientists who defend those ideas which go against God's action, but he attributes them indiscriminately to the «neo-Darwinian» scientific community, which is the equivalent of saying scientific theory itself.

The first two are *scientific principles* of the modern synthetic theory (science considers them two of the diverse biological mechanisms in evolution), while the third (the denial of divine intervention in evolution) is a stance whose *scientific* character is the object of discussion. Not all researchers – not all scientific philosophers and theologians – believe that evolutionary theory defends the explicit denial of divine providence; there are authors who actually consider that the denial of God and divine action in evolution is a logical and scientific extension of the theory, but others believe that this thesis (and the contrary, that is to say, defending God as the director of the evolutionary process) is a metaphysical or philosophical tenet, far from the concerns of science.

This vision of evolutionary theory has attracted the criticism of some writers. The interpretations of Schönborn's posture are of two types: 1) that which considers the Cardinal commits the *error of misunderstanding* evolutionary theory by not properly understanding the concept of random, which is not a synonym of «unguided» or «unplanned» but of «unpredictable» and «non-deterministic»; and 2) that according to which the Archbishop's approach is *misplaced*, given that he directs his criticism globally against scientific theory (which in reality makes no declarations about the action of divine providence in evolution) when what he is really trying to do is censure only one part of the scientific community (those who explicitly deny God's action).

The first interpretation is supported by the physicist Alec MacAndrew and another physicist Stephen Barr. For the former,

«the Cardinal's thesis is based on a mistaken understanding of the methods and content of biological and other sciences». On the concept of randomness in science and how the Archbishop uses it, MacAndrew (2006) maintains:

"Schönborn gives no definition of what he means (nor does it seem that he has one clearly in mind). Actually, defining randomness is quite a hard problem in both philosophy and science. He talks about randomness as a process that is 'uncorrelated' but makes not the slightest nod to the different possible meanings of the term – for example, we can interpret random events as being unpredictable, non-deterministic, undirected in terms of a particular outcome, or uncorrelated to other events".

Supporting similar ideas, Stephen Barr² declares:

"This is the central misstep of Cardinal Schönborn's article. He has slipped into the definition of a *scientific* theory of neo-Darwinism the words "unplanned" and "unguided", which are fraught with *theological* meanings".

And he later adds³:

"In common speech, «random» is often used to mean «uncaused», «meaningless», «inexplicable» or «pointless». [...] When scientists are actually doing science, however, they do not use the words «unguided» and «unplanned». [...] The word «random» as used in science does not mean uncaused, unplanned, or inexplicable; it means uncorrelated".

For his part, the theologian Robert John Russell⁴ offers another interpretation of Schönborn's position:

"When evolutionary theory is coopted by atheists to serve their agenda [,] the Cardinal should challenge the atheists, not the science they falsely claim proves their views".

Russell⁵ goes on to say:

"When the Cardinal attacks "scientific theories that try to explain away the appearance of design as the result of chance and

² Barr, S. (2005). *The Design of Evolution. First Things*

³ *idem*

⁴ Russell, R. J. (2006). *A Critical Response to Cardinal Schönborn's Concern over Evolution*, p. 194

⁵ *idem*, p. 197

necessity” he is not attacking a scientific theory such as neo-Darwinian evolution, but its ideological interpretation by materialists and atheists. This ideology must be resisted with all the power of the Church, but the Church will do a tragic injustice if it attacks neo-Darwinian science instead of attacking atheism”.

Russell regrets, therefore, that Cardinal Schönborn commits the «injustice» of «attacking» science when the challenge to the Church does not come from there but from atheism, which uses evolutionary theory as irrefutable proof of its vision of man and life. According to this interpretation, rather than finding ourselves before an error of comprehension of the theory from a lack of knowledge or scientific ignorance, we are facing a tactic considered by Russell (2006) to be mistaken, for being unfair and divorced from the «constructive dialogue between science and theology that John Paul II so strongly supported for decades»⁶.

The biologist Juli Peretó⁷ considers that Schönborn’s article «podria fer pensar en un canvi estratègic per part de la jerarquia catòlica» [«could make one think of a strategic change on the part of the Catholic hierarchy»]. This author does not consider the question in the same way as Russell (the Archbishop attacks science instead of scientific atheism), but also believes that the Austrian Cardinal’s position is *strategic*, as it responds to a possible tactic of approximation by the Church to intelligent design, in the line of «determinats grups catòlics radicals nord-americans» [«certain radical North American Catholic groups»]⁸. The difference between those groups and the Cardinal is that the latter is a senior member of the Catholic Church hierarchy, which converts his declarations into an «fenomen inesperat i inquietant» [«unexpected and disturbing phenomenon»]⁹. On the other hand, given the diversity of stands within the Catholic Church – some of them less anti-evolutionary, such as that held by Cardinal Poupard or by George Coyne – Peretó expects future changes in the clergy to clarify the «posició veritable de l’Església respecte a l’evolució» [«true position of the church with regard to evolution»]¹⁰.

⁶ idem, p. 193

⁷ Peretó, J. (2006). El disseny intel·ligent i l’assalt a la ciència, p. 12

⁸ idem

⁹ idem

¹⁰ idem, p. 13

With regard to the second question (declaration in favour of or against the theory), the distinction of the two «senses» implies that the Cardinal accepts – or «might» accept, to be more exact – the fact of evolution (transformation of the species) as «true», but rejects the «neo-Darwinian» explanation of evolutionary biological mechanisms as false. However, the text does not specify the extent of this rejection, given that the definition of neo-Darwinism offered by Schönborn contains various elements which he makes no explicit declarations about.

The definition includes three elements: 1) random variation, 2) natural selection and 3) the absence of a guide or plan. The author expresses his rejection of this concept of evolution in global terms, but does not clarify if this repudiation is extendable to each and every one of the three elements in the definition or only to some of them. Could it be just possible that the Archbishop would accept natural selection and random variation if these were subject to a guide or divine plan, as other Catholics do? Schönborn dedicates almost all of his article to openly and explicitly criticising the third element (denial of God), but does not argue about the first two, nor does he make any specific declarations about them. That may make it possible for the only point on which the Cardinal is in disagreement to be the denial of a driving plan of evolution, but not with its natural mechanisms (natural selection and random variation). The lack of information in the text does not allow us to learn more about the Archbishop's points of view on this question.

As a result of all this, we have to conclude that Schönborn's text does not contain a clear pronouncement on the scientific principles of evolutionary theory, that is to say, it does not offer data about whether the Cardinal accepts or rejects natural selection and random variation. The only thing we can be certain of with the Viennese Archbishop is that he rejects the denial of a divine agent who directs biological evolution. This certainty does not provide any new information as regards the position of the Catholic Church on divine intervention in the origin of the species. The aspects which could really constitute novelty with regard to the prevailing view in the Catholic Church formulated in the documents of John Paul II are others: 1) the consideration that neo-Darwinian theory explicitly denies divine action, and 2) the assessment that Schönborn offers of neo-Darwinian theory as *ideology* and *dogma*.

There is moreover another aspect related to this question of rejection or acceptance of neo-Darwinism by Schönborn. The Cardinal quotes a reference in plural to the «theories of evolution». In the text he does not specify what these theories are, not does he describe or judge their content. On this question, it would be necessary to ask one's self if there really are one or various *theories* of evolution. According to Thomas Fowler and Daniel Kluber, there are four *schools of thought* regarding evolution: neo-Darwinism (the dominant paradigm), creationism, intelligent design and meta-Darwinism. In this latter group, heterogeneous in its makeup, can be included scientific contributions such as the *neutral* theory of selection by Motoo Kimura (appearing at the end of the 60s) and the *punctuated equilibrium theory* by Niles Eldredge and Stephen Jay Gould (formulated at the end of the 70s), apart from others such as the endosymbiosis theories, self-organising complex systems and evo-devo.

All of these subschools or «theories» agree in that the reigning paradigm is valid for explaining *some* changes, but not all the evolutionary phenomena, which is why they propose new mechanisms which complete and widen the explanations provided by the standard theory. Likewise, none of these theories rejects random mutation and natural selection, and all of them offer explanations of the strictly naturalistic type. So therefore, the non neo-Darwinist theories do not differ substantially from the neo-Darwinist school in their fundamental scientific, epistemological and methodological positions. At the same time, they are not theories which contrast with the synthetic theory in its defence of religious or metaphysical beliefs in favour of a designing agent or a God creator. What, therefore, are the acceptable theories for Schönborn?

Synthesising the judgement which the Cardinal makes regarding evolutionary theory and its relationship with religion and reason, Schönborn approaches the debate of theory of evolution–Catholic faith as a triple controversy: 1) a *pseudoscientific controversy vs religion or Catholic doctrine* (neo-Darwinism vs the belief in «God the Creator»); 2) a *pseudoscientific controversy vs science* (neo-Darwinism vs «overwhelming evidence for purpose and design found in modern science»); 3) a *pseudoscientific controversy vs reason* (neo-Darwinism vs «reason of human intellect», «human intelligence»).

In conclusion, the definition Schönborn offers of «neo-Darwinian theory» is argumentative and overtly polemical. His description of it is the object of debate between those who think that the theory of evolution explicitly denies divine action and those who consider that the theory, as with all scientific theories, neither confirms nor denies the intervention of possible supernatural beings in the evolutionary process. The polemical tone is also apparent in the fact that the Cardinal denominates the synthetic theory with the highly value-laden term –not the descriptive one– *neo-Darwinism*, and that he defines it as dogma, as ideology, as invent and as an abdication of human intelligence, words which contain pejorative connotations. With this terminology, Schönborn considers the theory to be subjective, irrational, false and lacking scientific validity, and scientists as incapable of accepting criticism and subjecting their positions to review.

3.3 The verbs of speech and their rhetorical function

One of the linguistic discourse markers referred to are the verbs of speech, that is to say, those with which the textual quotes incorporated into the message are introduced. So, in the utterance *John says that Mary is coming*, *says* is the reporting speech verb which introduces what John said. From the polyphonic point of view, the verbs of reporting speech can be divided into three types: 1) those that present the discourse referred to as a fact, a truth or a certainty, which we can consider assertive (e.g. *to reveal, to betray, to assert, to declare, to state, to proclaim, to promulgate*); 2) those that present the information quoted as an opinion subject to discussion or loaded with doubt or uncertainty, which we can consider non-assertive (e.g. *to think, to opine, to suppose, to consider, to believe, to presuppose, to imagine*); 3) neutral verbs (e.g. *to say*).

Schönborn uses different verbs of reporting speech, depending on the speaker being quoted:

Neo-Darwinist	Catholic Church	Message John Paul II 1996
invoked	Proclaims	Said
defend	Concludes	
denies	Agrees	
seeks to explain away	Reaffirms	

have sought to portray	Cautions	
concluded	Proclaimed	
try to explain away	taught	
	Proclaiming	

Table 2

Verbs of reporting speech used by Schönborn to introduce the neo-Darwinists' discourse and the documents of the Catholic Church.

In tune with the idea that the beliefs of faith of the Catholic Church are the truth revealed by God, the Cardinal uses verbs which present the Catholic discourse quoted as *the truth*, as undisputable and certain fact: that which is *proclaimed* is something which is declared with solemnity, authority and clarity or which is true; that over which one is *advised* is a fact which is claimed to be true; that which is *reaffirmed* is a belief over which there is no doubt. However, the quote from Pope Wojtyła's speech in 1996 («[evolution] is more than a hypothesis») is introduced with the verb *to say*, which reduces its truth or certainty.

As far as verbs which indicate the linguistic action of neo-Darwinists are concerned, they are words which lack assertive force, such as *to seek to portray* (*to portray* implies a subjective vision and *to seek* reduces the action to an attempt, effort or search), *to try to explain away* (implies the action of 'ignore or do without a fact to explain something', minimising through the use of *to try*, which once again reduces the action to an attempt) and *to seek to explain away*, with a similar rhetoric function to the two previous cases. The verbs *to invoke* and *to conclude* likewise lack the assertive strength of the verbs used to incorporate the Catholic discourse. *To defend* is used as much for the Catholic discourse as for the neo-Darwinist one, with the difference that in the first case what is defended is the *truth* («[...] the church has defended the truths of faith given by Jesus Christ»), and in the second a *theory* («[...] when they [defenders of neo-Darwinian dogma] defend their theory [...]).

3.4 The implicit content: does Schönborn support intelligent design?

Pragmatics, science which is concerned with the study of the so-called *implications*, teaches us that communication, in addition to the conventional or semantic meaning inherent in its words and sentences, possesses certain added implicit messages, which are determined by the context and intention of the speaker. These implicit messages are extracted by the receiver through decoding

or interpretations made through inferences (deductive reasoning which starts off from certain premises to reach certain conclusions) and other processes. Many of these meanings are not irrefutable or invariable, that is to say, they cannot be assigned the value of truth. Moreover, these meanings are cancellable, that is, they can be annulled if new information contradicts them.

According to the principle of relevance shaped by pragmatics, for each listener there are assumptions which are more relevant, that is to say, each recipient of a message considers some interpretations of the same utterance to be more plausible than others. These assumptions are those which have a greater contextual effect (a greater quantity of new information) with the least processing effort. Thus, determining whether something is said implicitly forms part of the subjective interpretation of each recipient. Despite that, on occasions, exegeses, textual analysts or merely readers try to make us believe that the implicit content they have picked up on are not just one possible interpretation, but information which has to be understood as necessary deduction.

In Schönborn's article repeated references to the *design* of nature appear, which has made some writers and media infer that the Cardinal supports the movement on intelligent design. As is known, that movement believes that life and man are part of a plan set up by an intelligent agent who acts as the designer. Although its supporters do not explicitly identify the designer with the creator, that is to say, with the omnipotent personal God of Christianity, some of its followers believe that the agent who designs nature is the Christian God. The scientific community believes that the doctrine of intelligent design, although it tries to present itself as a scientific theory based on biochemical evidence, is in reality an a posteriori justification for the belief in a creator or in a superior being who controls nature.

The Archbishop's text does not contain any explicit, direct support of intelligent design. The Cardinal does not mention the key concepts of this «theory», such as *uncompromising complexity*, *specific complexity* or *inference of design*. Likewise, he does not quote its most representative authors either, like Michael Behe, William Dembski, Stephen Mayer or F. Johnson. In spite of that, Schönborn uses the noun *design* eight times, albeit never accompanied by the adjective *intelligent*. There are other

terms with a similar meaning, such as *finality*, *purpose* or *final cause*, but the Archbishop chooses the term *design*, sometimes alone or sometimes in coordination with these other related words. *Design* is a word which is very loaded with connotations associated with an anti-evolutionary posture linked to North American creationism. Given this suggestibility, if the Cardinal had wanted to distance himself from the American movement in order to avoid possible association with it or to rule out possible interpretations or implications, he would have done so explicitly. Without this distancing, there is the possibility, though it is not a certain deduction, of interpreting that the Cardinal is implicitly in favour of this anti-evolutionary movement. The uses made of the term *design* are the following:

1. «Finding design in nature». The term *design* appears in the very title of the op-ed. According to the sentence, the Cardinal contemplates the possibility that *nature* is organised in line with a design.

2. «[...] the human intellect can readily and clearly discern purpose and design in the natural world [...]». Two terms are used in conjunction, *purpose* and *design*, and the philosophical-rational position is stated that human reason is capable of discerning design in nature.

3. [there is] «overwhelming evidence for design in biology». From proposing the existence of a design in nature, he goes on to consider that there is design *in biology*. This implies an attempt to introduce the concept of design into science, which supposes the adoption of a methodological and epistemological posture contrary to that of the majority of present day biologists. These latter exclude finality, design and any other teleological approach from their research, considering that science is incapable of perceiving and empirically demonstrating a direction or finality to evolution. In contrast, Schönborn does consider that present-day science has evidence of design.

4. «[...] the word “finality” is a philosophical term synonymous with final cause, purpose or design». Despite the fact that the Cardinal defends evidence of design backed by science, Schönborn goes

on to say that *finality* or *design* are philosophical terms, but does not add that they are scientific, as would be expected. In that sentence the Cardinal coincides with John Paul II, who uses the term in the context of philosophy, not science.

5. «The commission's document, however, reaffirms the perennial teaching of the Catholic Church about the reality of design in nature». The Archbishop again states that there is design in nature, and that this principle is a permanent teaching point in the Church.

6. [there is] «overwhelming evidence for purpose and design found in modern science». These appear as coordinated terms whereas they had previously been considered synonyms; the Cardinal declares that design is verifiable by science, not only discernable through reason and philosophy.

7. «[...] inmanent design evident in nature is real». The Cardinal again places design not in biology (scientific research), but in nature.

8. «Scientific theories that try to explain away the appearance of design as the result of «chance and necessity» are not scientific at all [...]». Schönborn maintains that scientific theories which deny design are not scientific.

The Cardinal does not offer a definition of the term *design*. It is a polysemous word which, according to Byrne¹¹, has two meanings: 1) «intelligible pattern discovered and verified in empirical data»: according to Byrne, there are natural facts for which science has discovered patterns or regularities, such as the projectile's parabolic motion, the ellipses on planetary orbits, Krebs' cycle, exchange and interdependence within and among cells or the dependency among organisms and their environments; 2) «necessary existence and agency of a designer», a being with «the deliberate intention to accomplish some purpose»: according to Byrne, science does not offer observations on or evidence of this type of design.

The Cardinal's text does not include a definition of the term, as we have indicated, but it considers *design* to be a synonym of *purpose* or *finality*, and that design in nature is also design in

¹¹ Byrne, op. cit., p. 654-655

biology, that is to say, natural design discernable through reason can be demonstrated scientifically.

We must understand, therefore, that Schönborn is nearer the second meaning (deliberate intention to reach an end) than the first (natural regularity). Thus, he gets closer to the way the term is used by the intelligent design movement, who claim the design of natural life to be an intelligent plan whose existence has been patently demonstrated by science's own information –that fostered by its supporters, against the neo-Darwinists. The defence of the two previous tenets (design as finality and design as scientific evidence) strengthens the possible interpretation that Schönborn implicitly supports intelligent design. However, in his paper «The Designs of Science» published in response to the criticisms received of the op-ed in *The New York Times*, the Cardinal states that his «argument was based neither on theology nor modern science nor “intelligent design theory”». In any case, we believe that stating and counterstating, getting close to something without actually saying it, suggesting without affirming, evoking without patently defending and mentioning without defining, constitute rhetorical procedures which give the text a largely calculated ambiguity.

4. Conclusion

Schönborn accepts the *fact* of evolution as a possibility and without a clear posture, as he affirms that evolution «*might* be true» and not that it «*is* true» (emphasis added). The verb *may* and the conditional verb tense express doubt, uncertainty and a lack of a clear assumption. The Archbishop denies compatibility between Christianity and «neo-Darwinian theory» (to which he attributes the denial of God and of his providential action in the evolutionary process as an inherent thesis). He gives a negative evaluation of that theory, which he calls as *ideology*, *dogma* and *invention*.

He introduces the concept of *design* which, as he considers it to be a term belonging to Catholic doctrinal tradition, he uses with a certain ambiguity, being conscious that with this term the reader can evoke the intelligent design movement, which is considered pseudo-scientific by the scientific community. Schönborn does not keep a distance from intelligent design, allowing the readers to draw links between him and that movement.

In our opinion, in his op-ed Cardinal Schönborn embarks on a significant rhetorical change with respect to John Paul II's 1996 speech. The Cardinal's article is not directed at criticising the philosophical doctrine of materialist evolutionism (rejected by him and the Catholic doctrine), as John Paul II did, but at scientific evolutionary theory itself. This rhetorical swing to a hardening Catholic attitude towards the theory may be due to it being seen as dangerous because of its possible materialist and atheistic interpretations (held by some scientists with a great media impact), that is to say for considering it to be ultimately responsible for the expansion in materialist and atheist theses based on evolutionary scientific arguments.

Acknowledgements

This article forms part of the research project «Evolutionism and the origins of humanity: the configuration of paleoanthropology as a scientific discipline and its influence in Spanish biology», cofinanced by FEDER and MEC (HUM2006-04730/HIST).

Bibliography

1. BARR S. 2005. The Design of Evolution. *First Things* Feb. 15, 2005 <http://www.firstthings.com/article.php3?id_article=238>.
2. BILLIG M., *Arguing and thinking. A rhetorical approach to social pysochology*. Cambridge: Cambridge University Press and Maison des Sciences de l'Homme, 1996.
3. BYRNE P. H., *Evolution, randomness, and divine purpose: a reply to Cardinal Schönborn*, *Theological Studies* 67: 653-665, 2006.
4. FOWLER T., and DANIEL Kuebler, *The evolution controversy*. Grand Rapids: Baker Academic, 2007.
5. JOHN PAUL II, Message to the Pontifical Academy of Sciences, 22 october, 1996, *The Quarterly Review of Biology* 72 (4): 381-383, 1996.
6. MACANDREW A., *Life: Puppetry or Pageantry? A response to Cardinal Schönborn's attacks on science, Evolution, Design and the Catholic Church*, 5 August 2007, <http://www.evolutionpages.com/Schoenborn_critique.htm>.
7. PERELMAN Ch., and LUCIE Olbrechts-Tyteca. *The new rhetoric: A treatise on argumentation*. Notre Dame: University of Notre Dame Press, 1969.

8. PERETÓ J., *El disseny intel·ligent i l'assalt a la ciència*, L'Espill 22: 6-12, 2006.

9. RUSSELL R. J., *A Critical Response to Cardinal Schönborn's Concern over Evolution*, *Theology and Science* 4 (2): 193-198, 2006.

10. SCHÖNBORN, C. *Finding Design in Nature*, *The New York Times* 7 July 2005. 5 August 2007 <<http://www.nytimes.com/2005/07/07/opinion/07schonborn.html>>.

11. A Summary and Clarification of the Evolution Debate. *The Schönborn Site*. 2005. Ed. Christoph Schönborn. 5 August 2007 <http://www.cardinalschonborn.com/update17dec05.html>.