

DARWINISM IN ROMANIA, BETWEEN SCIENCE AND IDEOLOGY

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Abstract. The motivation of this work starts from the following five considerations: i) Theories of science are often exploited ideologically; ii) The evolutionary theory of Charles Darwin (1859) was and still is the most ideologized scientific theory; iii) The consequences of Darwinism ideologization have always had negative effects on Darwinism as a scientific theory (unlike, for example, by the ideologization of Lamarck's theory, which has increased its image, more precisely, the idea of the tendency towards perfection, suggested by Lamarckism, conforms to the older theories of progress, suggesting the idea of a sense of the existence of the world and man, much appreciated also by the religious ideology); iv) Data from the literature shows the transition from totalitarian political regimes to political relaxation regimes on freedom of expression is generally associated with an increase in public confidence in untrue, unscientific facts (pseudoscience, esotericism, religion, occult practices etc.), to the detriment of science and critical thinking. v) Currently, in Romania Darwinism and evolutionary biology are eliminated, without any scientific or didactic justification, from school curricula, and in some biology textbooks there are accredited creationist theses. The paper has a working hypothesis the process of ideologization of Darwinism in Romania, as a phenomenon associated with the changes of the political regime in this country, starting with 1859 to the present.

Keywords: darwinism, evolutionary biology, darwinism ideologization, political regime, Romania.

Rezumat. Darwinismul în România, între știință și ideologie. Motivația acestei lucrări pornește de la următoarele cinci considerente: i) Teoriile din știință sunt adesea exploatate ideologic; ii) Teoria evoluționistă a lui Charles Darwin (1859) a fost și este încă cea mai ideologizată teorie științifică; iii) Consecințele ideologizării darwinismului au avut întotdeauna efecte negative pentru darwinism, ca teorie științifică (spre deosebire, de exemplu, de ideologizarea teoriei lui Lamarck, care i-a sporit imaginea, mai exact, ideea tendinței spre perfecțiune, sugerată de lamarckism, concorda cu mai vechile teorii ale progresului, sugerând ideea de sens al existenței lumii și omului, mult apreciată și de ideologia religioasă); iv) Date din literatură arată că trecerea de la regimuri politice totalitare la regimuri politice de relaxare privind libertatea de expresie este asociată, în general, cu o creștere a încrederii populației în fapte neadevărate, neștiințifice (pseudostiințe, ezoterism, religie, practici oculte etc.), în detrimentul științei și gândirii critice. v) În prezent, în România darwinismul și biologia evoluționistă sunt eliminate, fără vreo justificare științifică sau didactică, din programele școlare, iar în unele manuale de biologie sunt acreditate teze creaționiste. Lucrarea are ca ipoteză de lucru procesul de ideologizare a darwinismului în România, ca fenomen asociat schimbărilor de regim politic din această țară, începând cu anul 1859 până în prezent.

Cuvinte cheie: darwinism, biologie evoluționistă, ideologizarea darwinismului, regim politic, România.

Introduction

The evolutionist conception of biology is based on the theory of Charles Darwin on the origin of species by natural selection published in 1859. Darwinism has had a major impact on science, but also on the extra-scientific domain: philosophical, ideological, political, religious. The evolutionary theory developed by Charles Darwin represented a revolution in the way to study nature, also in thought (Barnett, 1995; Smocovitis, 2005; Ruse, 2009). "Darwin gave the death blow to uncritical vitalism in biology, to occultism in psychology, and to mysticism and formalism in philosophy" states US evolutionist J. M. Baldwin, 50 years after the publication of *The Origin of Species* (Baldwin, 2015). Two

aspects here retain attention. First, the fact that Darwinist evolution based on natural selection offers the only mechanism of adaptation and the most important mechanism for evolution accepted by science at present, more than 150 years after the publication of *The Origin of Species*. Second, Darwinian theory of evolution is the most ideologized and politicized scientific concept, with different cultural, social and political effects. Ernst Mayr, one of the most prominent evolutionists of the twentieth century, has shown that no scientific theory has faced such a fierce and long-standing opposition (Mayr, 1982, Flonta, 2010). We point out that the ideologization of certain aspects of science is inevitable (Young, 1971); here we want to denounce the abuse of ideologization in terms of culture, education, social life and political action, which ultimately undermine science.

Darwinism had such a profound impact on the mentality of its age that its principles, understood or misunderstood, were used for or against various ideas and ideologies. George Bernard Shaw (a Socialist) once remarked that Darwin "was lucky enough to thank everyone who had a personal interest". Evolutionism "has been used to support virtually any kind of "imaginary «ism»". (Alexander, 2010). In *Autobiography*, speaking of the languages in which *the Origin of Species* was translated, Darwin specified that an essay about this book also appeared in Hebrew "wishing to show that the theory is contained in the Old Testament" (Darwin, 1962 [1887]). What has generated and still generates most of the comments, interpretations or even hostile reactions to the theory of evolution through natural selection is that for the first time a scientific explanation has been given to the finality in nature, without the need for imagining a supernatural creator. Since Darwin, our static and sufficient vision of the world, imposed by authority such as that of the Church, has been demolished; it has been replaced by a dynamic vision, free of any omniscient authority, always subject to criticism and renewed, through the contribution of science. It is amazing how a simple observation of an obvious fact in nature - differentiated survival (at the same time - differentiated reproduction), could generate so many extra-scientific interpretations. Receiving a metaphorical name, which was almost personified by some, differentiated survival was a source of ideological manipulation and could cause harm to both science and society (Dennett, 1995). Differential survival can be found by anyone, there is no need for a scientific method. But the scientific analysis of this finding involves explaining why some individuals leave offspring, and others do not, why not all individuals have the same qualitative traits. Differential survival, continued for a long time, produces irreversible biological changes. Darwin called this process *natural selection*, and its result in time - descent with modification and character divergence; we today designate these two findings with a single term - *evolution*.

Natural selection, a blind but creative essence, take over the creative role of God, therefore it is the opposite of divinity, it is diabolical. Differential survival status or natural selection is often designated by the words driving force, cause, factor, mechanism, fundamental principle, agent, thus creating conditions for personification of nature. As a result, this "force" appears to be the ultimate danger of mankind: it leads to man's approach to animal and leads to the animal's approach to man, leads to instability and the destruction of social order, interethnic discord, cultural disorientation, atheism, the biologisation of society, the ruin of traditional religious morality, sexual revolution, ethical nihilism, the disappearance of humanism and the governance of animal laws in society, to the idea that the world would be governed by a law of conflict and war and not of peace and harmony, to the

disappearance of the sense of life, to the activation of hidden forces in the individual's psychology: selfishness, violence, shamelessness, disobedience, discrimination of others, etc.

Acceptance of Darwinism, of the idea of evolution in general, is directly related to the freedom of critical thinking and the political regime. There are observations that show that when a political regime changes with a more relaxed regime in terms of freedom of expression and opinion, most people tend to use this freedom rather towards occult beliefs, untrue facts, marginalization of science, rather than approach the recognized values of science. Carl Sagan (1996) (citing situations in Russia, China, Germany, USA) shows that in countries with these political changes, the phenomena of mysticism, esotericism, astrology, religion, intellectual imposture, etc. have grown to the detriment of culture based on science, logic and critical thinking. These phenomena become truly dangerous when formalize and become a norm of education. A phenomenon of this kind can be seen in the post-totalitarian Romania. As in other countries, in Romania, the attitude towards Darwinist evolution has experienced in time oscillations and accents, depending on the cultural and political environment of the moment.

1. Darwinism as science subjected to ideologization

The differentiated survival of living beings is intuitively perceived by anyone as a result of natural processes, arising from self; if we say that this survival is the result of a "competition" and a "selection", then obviously we used some indispensable metaphors of our way of communication. Darwin has been always bounded of the biologizant interpretation of human society. "A man can by an act of sacrifice, by the example he give so, to do more good his tribe than giving birth to descendants" he said in his *Descent of Man* (Darwin, 1967 [1881]). Ideologisation of Darwinism was applied, over time, in philosophy (social Darwinism), religion (Darwinism theological evolutionism theist), social doctrines politics, eugenics, racism, colonialism, territorial expansionism, militarism, serving interests that are unrelated to science with biological evolution, thus contributing to misinterpretation of the concept of Darwinian.

In philosophy, the Darwinian evolutionism has been exploited ideologically even in the Darwin's time. The philosopher Herbert Spencer (1820-1903) expanded the notion of "struggle for life" on economic and social life, and of the phrase "survival of the more apt" (formulated by him and also used by the Darwin), gave him even a moral connotation („more” = better capable, superior), although the expression refers to the reproductive success (*fitness*, in current terms). Darwin later said that Spencer's ideas "have been of no use to me" and "his deductive manner of treating a subject is quite opposed to the structure of my thinking ... my fundamental generalizations do not seem to me to be of any strictly scientific utility". Erroneous ideas of H. Spencer have considerably damaged the correct understanding and acceptance of evolution by natural selection and led to the doctrine, falsely titled, social Darwinism (Ayala, 2008). Hodgson and Knudsen shows that social evolution is not *analogous* to evolution in the natural world, but, at a high level of abstraction, social and biological evolution share general principles – complex population systems been found in both nature and the human social world. In this sense, social evolution *is* Darwinian (Hodgson & Knudsen, 2006). The idea of free evolution through natural selection has created fear, even during Darwin's life, that nature is left to chance and society can be subjected to disorder at any time. The fear of indeterminism that has arisen since Darwin's life (at Duke of Argyll, 1867) (White & Gribbin, 2004) will persist later and will generate the fear of fatalism, the

fact that man is not fully responsible of his actions (at Bernard Shaw) (Flonta, 2015). In an opposite, strictly deterministic view, evolution based on selection seemed to abduct the freedom of events in nature, that everything is reduced to a mechanical sorting and elimination process. J.M. Baldwin points out that the first objection to Darwinism was that natural selection leaves no room for freedom, but reduces the whole succession of nature to cause and effect (Baldwin, 2015). Friedrich Engels used Darwinism to lay the foundations for an ideology of the state - dialectical materialism, and a new philosophy - the dialectics of nature, which attempted to encompass in general laws, matched with left-wing political ideology, processes in nature, society, thinking (Flonta, 2010). When the principles of Darwinism, applied to the living world, were associated with human society, they were used to justify political goals or actions.

Darwinism was used in political interest (acceptance or denial) in different political regimes: in societies under the left dictatorship (Lysenkoism - anti-capitalist pseudoscience of the unique party in the USSR), dictatorship of the Right (Nazism) or as a subject of propaganda of sectoral, anti-evolutionist, creationist dictatorships, of religious lobbying structures in democratic states (in the US). Darwin's principles will be praised or denied by interest in both different political or religious entities (political regimes, political parties, religious worship institutions) and within the same entity as dictated by political or religious ideology. The ideologization of the Darwinist selectionist principle was to serve both the right-wing Western Capitalist policy (nobility elites, entrepreneurs, capital holders) and left-wing Communist politicians (the proletariat as a profile of the newly evolved social man) (Alexander, 2010). Darwinism could be exploited by personal political ideologies (electoral campaign type) (Buican, 1994, Flonta, 2010) or state policies (soviet creative Darwinism) (Buican, 1994). Darwin's conception of evolution through natural selection also links abusively the ideas of eugenics, racism and social Darwinism (Alexander, 2010). Darwinism was used as a weapon against bigotry (in England) or as an ideology for hegemony (in Germany) (Mârza, 1957). Darwinism was used as a fighting weapon, both by the materialists, as well as by the idealists, both revolutionary and reactionary parties (Mârza, 1957).

Darwinism has been extensively processed ideological and also in the field of religion. In general, religious ideology has disapproved and ridiculed Darwinism over time due to its atheistic and materialist consequences. What draws attention, however, is that from doctrinal interest, theology has sympathized in three situations with Darwinism. First, even during Darwin's life, when the mentality of the natural theology of the age suggested that science is only a tool to study Creation and to confirm the Creator's plan. Darwin's theory had to be received with understanding because it revealed, in this optics, the way the Creator works in the living world. The second most recent situation is that theology strategically approved Darwinism, when the validity of Darwinian evolution had already been confirmed by all sciences. In this case, the cultivated, faithful world, including many well-known biologists, imagined a theological evolution or "theological darwinism" to remain faithful to both the principles of science and personal religious dogmatic sentimentality. The third is the situation where theology sought to respond to a secular problem, which made it logical to the difficult test and affected its credibility in the eyes of believers - *the theodicy* or why there is suffering, cruelty if God is a benevolent, and especially how evil often touches children, innocents, innocent people, valuable people or even believers. The saving solution was Darwinism. The Creator did not plan the evil, Darwinian laws of evolution are responsible for the free actions and attributes of individuals, so Darwinist science is, as Francisco Ayala

says, a great believer biologist in the title of a book written by him, a gift for both science and religion. "Evolution is a disguised friend of theology, not her enemy", and Darwinism "is also the solution to the thorny problem of evil" (Ayala, 2008: 18-19). About the new quality of Darwinism as a "friend of theology" in Romania does not seem to have been taken into account because Darwinism, or evolutionism, has completely disappeared from the biology textbooks, and in the textbooks of religion (Muha, 2012) it is qualified, without being explained, as a source of evil in society, a tool of the communist and atheistic ideology that marked the national history.

It is obvious that these ideological interpretations of Darwinism are associated, most often with the defense of immediate interests: political, military or the defense of an ideological *statu quo*, such as the religious one. On the other hand, the ideologization of Darwinism has led to the emergence of pseudosciences (social Darwinism, soviet creative Darwinism), which have and still have yet to complicate the public's understanding of strictly scientific evolutionary conception. The accusation that Darwinism was the basis of criminal ideologies (racism, colonialism, nazism, etc.) not only is it unfounded, but it also induces a logical error called *reductio ad absurdum*, which has the purpose of exonerate the culprits. In this sense it must be said that a scientific theory can not be held responsible for its use for antisocial or inhuman purposes, based on extra-scientific analogies. Darwinian evolutionism, once validated by science, he belongs not only to Darwin, but to universal science. Contemporary evolutionism is even more Darwinian than Darwin's theory, because it excludes any Lamarckist-type means that Darwin, from caution, continued to take into account.

2. Darwinism ideologisation in Romania

A detailed presentation of how penetrated and was perceived Darwin's theory of evolution in Romania was achieved in particular by Mârza (1957), Pop (1958) and Stugren (1969). In this paper we propose to highlight in the current perspective image of Darwinism in Romania, past and present. To analyze how Darwinism was perceived in Romania, we will demarcate three historical stages since 1859, the official birth year of Darwinism. These stages correspond to three political regimes in Romania: First, the period from 1859-1947, with democratic regime; second, the period from 1948 to 1989, with the left-wing totalitarian regime; the third, the post-totalitarian period, 1990-present, with developing democratic regime.

The period 1859 - 1947 corresponds, generally, to a democratic political regime in Romania. During this time, Darwinism will be victorious in confronting with other theories of evolution (mutationism, neo-lamarckism, orthogenesis, neovitalism, various finalist theories) (Pop, 1958) and will, along with genetics, stand at the basis of the synthetic theory of evolution. In Romania, the evolutionist idea quickly penetrated, a decade after the publication of *The Origin of Species*, as a subject of study for naturalists and philosophers. The first articles favorable to Darwinism were published by C. Grigorovici (1869), Gr. Ștefănescu (1870), A.D. Xenopol (1870), E. Șuțu, (1874), A.P. Alexi (1875), P. Vasici (1878) (Botnariuc, 1961). Darwinism was accepted by most of the Romanian naturalists after 1870, but a distinct approach between evolutionism in general and purely scientific Darwinian evolution was made. In general, Darwinism, as a scientific theory, is accepted except its materialistic character - I. Baraș, 1862; I. Ghica, 1866 (Botnariuc, 1961). On the contrary, there were convinced Darwinists, such as Julius Römer (1876), who appreciated the

materialistic character of Darwin's theory (Heltmann, 1968). The presentation of Darwinism is usually critical but honest. Thus, Xenopol accepts the Darwinian vision of the origin of species and man, admits the influence of the environment on organisms, admits the concept of struggle for existence and overpopulation in nature, but rejects it in society, arguing that man has multiple possibilities to increase his means of existence. The rejection of Darwinism during this period was made either in the name of idealistic, spiritualist orientations (B. Hașdeu, 1873) or fixist and creationists (D. Ananescu, C. Exarcu) or political reasons (G. Barițiu). G. Barițiu feared that the theory of the struggle for existence and the survival of the most apt to be used as justification in the policy of denationalization of the Romanians in Transylvania (Botnariuc, 1961). At the end of the nineteenth century the socialist movement in Romania worked in two directions: the struggle for Marxism and fight for Darwinism. The combination of Darwinism with a certain political doctrine was the first form of ideologization with political goal of Darwin's theory of evolution (Mârza, 1957). Between 1881 and 1891, the magazine "Contemporanul", of socialist orientation, publishes numerous articles on Darwinism (Mârza, 1957). In the political life of 1880s, the socialist Constantin Dobrogeanu Gherea detest the "brutally introduction" by Herbert Spencer of "Darwin's law" in human society (Gherea, 1976). It is interesting to note that the first Romanian scientist who accepted Darwinism, Gr. Ștefănescu, admitted this theory with all its materialistic consequences. In the „Archaeopteryx” article, published in 1870 in the „Revista Științifică”, he points out that paleontology offered the intermediate forms predicted by Darwin's theory of evolution, and called for "to tell the truth in all frankness," and without preconceived ideas (Ștefănescu, 1876). Beginning with the twentieth century, although Darwinism was in its eclipse, in Romania this conception is imposed among scientists and begins to be integrated into the university courses of natural sciences and philosophy. Officially, Darwinism is not censored, but is not included in the curricula (Mârza, 1957). Professors naturalists from universities (N. Leon, P. Bujor) or philosophers (P. P. Negulescu) promoted the evolution of the chair (Stugren, 1969). The evolutionist conceptions of the Romanian authors of this period are also loaded with a dose of lamarckism and neo-lamarckism (eg E. Racoviță, 1929), an excusable fact given that the synthesis theory of evolution that would reconcile Mendelian genetics with the theory of natural selection in Darwin's original theory had not yet been elaborated. On the other hand, there were also reasonable suspicions about the involvement of natural selection in all kinds of evolutionary processes. Thus, L. Blaga considered that the theory of natural selection of mutations would explain evolution as a whole only if it would prove that the mutagenic process is carried out in several directions. "... nowhere in nature do we observe this supposed explosive variability, in infinitely many directions and every step of life" (Blaga, 1948). The same type of suspicion will be raised over a quarter of a century by the authors of the punctuated equilibrium theory (Flonta, 2010), which, referring to macroevolution, were not convinced that all the evolutionary changes are based on small and continuous changes of each particular feature of a body, under natural selection, for a long time. A categorical opponent of Darwinism, in this period is physiologist Nicolae Paulescu, who denied Darwin's whole conception, trying to introduce the notions of "soul" and "God" into science. Professors N. Leon and D. Voinov reacted against him, publishing several articles in "Convorbiri Literare". Against idealistic attitudes C. Fedeleş affirmed in 1911 that "scientific research never uses hidden powers" (Fedeleş, 1911).

As a conclusion it is noted that initially Darwinism was accepted by a number of Romanian scholars, although the theory was strongly criticized in the epoch. The fact that

Darwinian interpretations were often mixed with the Lamarckist ones is due to the persistent divergence between geneticists and Darwinists, until the synthesis theory of evolution was developed, and that Darwin himself left some lamarckist theses acceptable. Attitude to Darwinism depends on the authors' free opinion and not on the state policy. Withholding against Darwinism has generally two main reasons: the materialistic and atheistic conclusions of the theory, and the fact that it was not yet achieved the synthesis of genetics and natural selection theory. In these circumstances, some lamarckist explanations seemed even more scientific than Weismann's speculation (suggesting preformism) - which was self-defined as a neo-Darwinist (Delage & Goldsmith, 2016 [1920]). At the First Congress of Naturalists in Romania, held in Cluj in 1928, long before Romania's evolutionism became an object of educational policy, it was stated: "The naturalist, especially the modern biologist, can not be anything other than evolutionary" (Bologa, 1930).

In the period 1948-1989, although some concurrent evolutionary concepts (neutral theory, punctuated equilibrium) appear, the evolutionist explanation remains in the Darwinian paradigm. In Romania, this period corresponds politically to a totalitarian left-wing, socialist regime. The state is declared secular. Now two historical stages can be delimited: one of direct Soviet influence, between 1948-1964, and another of socialism of a national character, from 1965 to 1989. These stages of political regime will also influence the way in which Darwinism is presented and ideologized in Romania. When the left dictatorship begins in Romania, after the end of the Second World War, evolutionism already marks the triumph of classical Darwinism, the theory of natural selection, within the synthetic theory of evolution. In these circumstances, it was easier to adopt the Darwinist evolutionist conception in its purely scientific form, without deformations and ideological manipulations. In reality, Romania's political life will impose an unprecedented ideology of all biology in the early years of the new political regime. At the end of the 1940s and in the 1950s, the Romanian biology supported the Soviet ideological influence. "Does not exist and can not exist a science detached from politics" says a quote from the Soviet Academic Letter to American Professor Müller (Romania Liberă of 15. XII. 1948: Mârza, 1949). Darwinian evolutionism will be used as an argument and instrument of the political ideology of the new regime, which we will call here *socialism of direct soviet influence*. In the scientific papers of „proletarian biology” (Buican, 2009), published in these years in Romania, it will be spoken of a capitalist, bourgeois and idealistic, reactionary biology and a progressive, materialistic science of socialist society (Mârza, 1949; Present, 1949; Munteanu, 1951; Stănescu, 1951; Munteanu, 1955; Ghiță, 1959). Since 1948, evolutionary biology is taught in the school under the title "The Basics of Darwinism"; in the early 1960s it will be called *General Biology*, having a wider contents (Mârza & Zaharia, 1966; Stugren, 1966). Between 1949 and 1977, Darwin's main books were translated and published (Mârza, 1977). *The Origin of Species* was published in 1957 (Darwin, 1957). The Darwinian evolutionism will be popularized, but distorted in certain aspects, denied or distorted in others, because it also contained, in the concept of time, elements of bourgeois thought, reactionary and idealistic (Lepeltier, 2009). Although this ideologization is not a romanian creation, it marked the scientific life of Romania and it is appropriate to be discussed. What we want to emphasize here is the potential for ideological manipulation of a scientific theory.

Soviet biology, which various Romanian authors will make popular in the 1950s and early 1960s, will consider Darwinism as a weapon of class struggle. The fact that the Darwinian mechanism of evolution is materialistic is appreciated, but it has been used

excessively to support the political atheism of the regime. At the same time, ideologically, certain aspects of Darwinism are denied, without a critical scientific analysis. Behold, in short, what aspects of Darwinism were uncomfortable for the Soviet biology promoted then in Romania (Mârza, 1949): the evolution of Darwin is too slow, without leaps, that is without "revolution"; the explanation given is that the bourgeoisie had a repulsion to the idea of revolution and this is felt in the work of Darwin. The Russian agronomist I.V. Miciurin, "the founder of the biology of the age of socialism" (Munteanu, 1955), took from Darwin the essence of theory (selection, variation, hereditary transmission of body variations through sexual cells), but did not take "reactionary theses" as: the struggle for existence and overpopulation, derived from Malthus's conception, the idea that evolution is made by small variations. In addition, "man can cause great variation to ensure a qualitative leap in a single generation". Malthus's concept of overpopulation is typically bourgeois, reactionary because it proposes the solution that the poor population, which is the fastest growing population, should be limited by abortion. Miciurin has shown that man can transform nature. As a result, Darwin took on an inhumane economic theory as the "bourgeois theory of competition" (Engels), which is unacceptable. These ideas are a weakness of Darwin's theory. It is shown that neither the "sexual selection theory" has been imposed. The scientific concepts of Lamarck and Darwin "were imposed by battle." *creative soviet Darwinism* was imposed by the struggle, and Trofim Lysenko, the brightest student of Miciurin, raised the battle flag (Mârza, 1949). Soviet creative Darwinism was a mixture of Darwinian and neo-lamarckist ideas arranged in accordance with party ideology and class struggle, maintained by serious experimental tricks (Buican, 2004, 2009). This pseudoscience was invented by the soviet agronomist Trofim Lysenko, using as a basis the argumentation of Miciurin's agronomic activity. The part of Darwinism that suggested the exclusive creative role of natural selection was denied (Preda, 1952); also, has been denied the role of chance in evolution, the struggle for existence, especially the intraspecific one. According to Miciurin, the genotype, a variation factor, is not entirely determined at the formation of the zygote, as morganists say, but evolves with the stages of development of the organism. Thus he concludes that by crossing individuals - in which the degree of maturity of the variation has reached a rather advanced stage - and considering their degree of development, we can not only obtain new species but also anticipate the characters of these species (Present, 1949). After Miciurin, the struggle for existence, intraspecific, is replaced by the cooperative relationship (a continuation of P. Kropotkin's mutual aid thesis of 1902). Lysenkoism tended, ultimately, to a new communist man, compatible with the dogmas of communist ideology. If social Darwinism started the selection to improve human heredity and ultimately society, Lysenkoist neo-lamarckism considered that the social environment (reformed by the socialist revolution) could change both heredity and human society. Soviet post-war evolutionism criticized a series of scholars who played a leading role in the triumph of the synthetic theory of evolution and thus of original Darwinism, such as Mendel, Morgan, Weismann on the grounds that they are idealists and promote a bourgeois, reactionary ideology. In Nicolae Botnariuc's extensive work on the history of general biology (Botnariuc, 1961), the Darwinian evolutionary thinking is broadly detailed, but the work devotes a separate chapter to Miciurin's theory (more exactly lysenkoism). It is obvious that Botnariuc's work had to respond to the country's ideology and political status, namely Soviet-type socialism.

Separation from Soviet biology was made in the early 1960s. We will refer in this regard to the appearance in 1965 of the book *Science of Evolution* by Bogdan Stugren, a fully

depolitized book written in consensus with the valid data available in Western science. This rupture is also marked by political declarations of the new President of Romania, Nicolae Ceaușescu: „A series of discoveries in the natural sciences, in biology and especially in genetics, from cybernetics and other fields have long been treated as pseudosciences, as reactionary ideological manifestations" (Bobeică & Kolassovits, 1966). Bogdan Stugren published in 1969 the book *Evolutionism of the 20th century*, a valuable synthesis on the history of evolutionary thought, with reference to Romania (Stugren, 1969). These works are elaborated in rigorous scientific manner, without reference to T. Lysenko's pseudoscience, they belong to the "national" type socialism, which characterized the political life of Romania. During this period, the evolutionism is studied in high school and Darwin's conception is extensively explained, without being attached extra-scientific, unnecessary comments, with political or religious connotations. The chapter "Evolutionism" in the General Biology manual taught in class XII (Raicu et al., 1986) is placed correctly after chapter "Genetics", offering students the basis understanding of variability and heredity, essential concepts of Darwinian mechanism of evolution. It should be emphasized that, in this period, evolutionary biology is used as an argument "in the formation of atheistic-scientific conceptions." School biology must contribute to the rejection of religious concepts, which now claim to have a "scientific" character, which would logically flow from the interpretation of science data (Mărcuș, 1980).

In period 1990 – present, the synthetic theory of evolution or neo-Darwinism contemporary develops based on studies of genetics, molecular biology and developmental biology. The explanation of evolution remains in the Darwinian logic, such as Ernst Mayr said, the most important evolutionary theorist of the twentieth century (Mayr, 2004). Ideologically, the evolutionism is strongly attacked by various extra-scientific and anti-scientific doctrines - creationist, of religious essence and others pseudoscientific and mystical (such as the intelligent design, the theological Darwinism, the theistic evolutionism, the anthropic principle) (Cojocaru, 2015). The political regime in Romania, since 1989, is democratic. Is no longer stipulated laic character of the state. Today, Darwinism is promoted in Romania by only certain specialists biologists and philosophers (among which Buican, 1994; Flonta, 2010; Derevenco, 2011). No paper with antidarwinist message published by prominent Romanian biologists is known. Although creative messages dominate the media, an anti-evolutionist attitude has not been officially assumed. In bookshops can find many books of evolutionary biology translated from other languages. An official anti-evolutionary attitude is seen only in educational policy and we refer to the content of curricula. After 1989, only a few notable works on the evolution or importance of the Darwinian conception were published in Romania, except for university courses. The book of P. Derevenco, *Darwin and Darwinism* (2011) appeared as a reaction to the formal abandonment of this subject in Romania. Instead, the influence of anti-evolutionary literature has increased and the one dedicated to pseudoscience or religious propaganda, according to the socio-cultural model presented by Sagan (Sagan 1996). Darwin's fundamental work, *The Origin of Species*, published in Romanian in 1957, at the Romanian Academy Publishing House, is not reproduced, although improvements are required in the form of the presentation. The year 2009 was a good opportunity for reprinting this grandiose works, but Romanian Academy did not propose this.

The evolutionism has been removed from the biology curriculum, în 2006, by decision of the Minister. Instead, religious doctrine is presented during the entire period of

basic education and secondary education (12 years). In religion textbooks is contained anti-evolutionist propaganda (the evolutionism is presented as a philosophy of atheists and communists). The academic environment has not officially reacted to this action. In some science textbooks (such as Dumitrache et al., 2006), the scientific explanation regarding the evolution is placed on the same plane with Biblical mythology, the latter being presented as been plausible and as an alternative explanatory science. In Romania today, creationism has entered science textbooks. The internal (Derevenco, 2011 Cojocaru, 2015) and external reactions to this situation were isolated and without visible effect.

Romanian Academy has not signed the 2006 statement of the Global Network of Science Academies ("IAP Statement on the Teaching of Evolution"), which requested that scientific evidence, data, and testable theories about the origins and evolution of life on Earth not be *concealed, denied, or confused* with theories not testable by science (<http://www.interacademies.net>). Romania also has not signed Resolution 1580 (in 2007) of the Parliamentary Assembly of the Council of Europe „The dangers of creationism in education" (<http://www.contributors.ro>). The statistical data show that a quarter of Romanians reject evolution (Blancke et al., 2014); in the school situation is even more worrying, a study showed that 86% of students of classes VII-XII did not accept the concept of evolution (Derevenco, 2011).

Conclusions

Darwinism ideologisation was achieved for political reasons or philosophical, always with negative effects for understanding the scientific content of this theory among the most people. The censorship of Darwinism can be assumed (in totalitarian political systems, sectoral organizations) or can not be assumed (associated with self-censorship in democratic political systems, such as Romania). Darwinism ideologization in Romania, as in other countries, was closely linked to the political factor - the type of regime and political ideology. Darwinism has rapidly penetrated the Romanian intellectual environment, a decade after the publication of *The Origin of Species*, being perceived generally favorable, as a scientific theory. Over the next seven decades after the publication of *The Origin of Species*, Darwin's concept is known especially in the sphere of cultural elites, who accepts, in whole or with reserves, or reject it. Officially, Darwinism is not censored, but is not included in the curricula. There is no state policy pro-Darwinian or anti-Darwinian. Until the appearance of the synthetic theory of evolution, which coincides with the installation of communist power in Romania, in the mid twentieth century, Darwinism was critically judged on strict scientific positions and did not amount object of state policy or party politics, concerning science or education. The communist regime in Romania did not distort Darwinism (as in the USSR, for example), Darwin's evolutionary concept being presented in the education system just as a biological science. During this period is first translated and presented extensively to the Romanian public Darwin's scientific work.

With the post-communist democratic regime in Romania, installed after 1989, evolutionary biology is gradually removed completely from public school (2006). The censorship of Darwinism in the public schools is now confused with the censorship of the entire evolutionary conception about nature. From this point of view there is a return to a century ago, except that in the past, the theory of evolution on Darwinian base had no scientific support that it has today. Evolutionary biology is now treated not as a true science, *but as an ideology that can be rejected under the pretext of the freedom of conscience -*

freedom respected by any genuine democracy. At the same time, the religion (more exactly theological dogma) is introduced at all levels of the school education (elementary, secondary, high school). The elimination of evolutionary biology has not received any scientific or pedagogical justification, being simply a way of educational policy. It seems plausible that in a public school that guarantees the seriousness of the religious point, Darwinism, with its extra-scientific interpretations, must be regarded as an inconvenient doctrine. In addition, in the program of religion is approved the discrediting of evolutionary biology (as in Muha, 2012).

The ideologisation of Darwinism and of evolutionary biology in Romania today is an expression of the policy practiced also in other countries, to unite with force the science and the miracle (under the slogan "the dialogue and harmony between religion and science"), if this brings social or political benefits. Epistemologically the science paradigm is going to be compromised in the sense that whether there can be an "theistic evolutionism", then we can talk about any science as "theistic", therefore the science is placed in a relationship of subordination to theology (in the sense supported by Thomas Aquinas in the thirteenth century). Currently, by corrupting the scientific paradigm by anti-evolutionists, the main ideological opponent of Darwinism is no longer the religion or creationism, but the „theological Darwinism”, also called "theistic evolutionism". And this fact is the supreme ideological manipulation of evolutionary biology, of science in general.

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