

**DOSSIER**

*Innovation and tradition in the Transnational History of Educational Knowledge and Practices*

**Herbert Spencer: science and evolution in History of Education manuals in circulation in Brazil (1914-1999)*****Herbert Spencer: ciência e evolução nos manuais de História da Educação em circulação no Brasil (1914-1999)***

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**ABSTRACT**

This is a communication of research results that examined Herbert Spencer's ideas disseminated in History of Education manuals in circulation in Brazil between 1914 and 1999, which included, on the one hand, disciplinary manuals with foreign authors that were translated into Portuguese between 1939 and 1999 and, on the other hand, manuals with Brazilian authors published between 1914 and 1989. The main starting point was the ideas of Chartier (1990 and 1999), Chervel (1990), Choppin (2004) and Gatti Jr. (2014). The problem that motivated the investigation was related to the analysis of the different appropriations of Spencer's ideas contained in the History of Education manuals analyzed. In methodological terms, we started with bibliographical research, through the reading and analysis of works by commentators about Spencer's philosophical, social and educational ideas, and then by reading and analyzing works written by the author himself. Then, we examined the content related to Spencer's ideas present in the History of Education manuals published in Portuguese, by comparing Spencerian concepts and categories with the representations of them contained in these History of Education manuals, with an emphasis on three main themes: evolutionism; hierarchy of knowledge; scientific education. We concluded with a reflection about the differences in the representations of Spencer's ideas contained in the History of Education manuals examined.

*Keywords:* Herbert Spencer. Science. Evolution. History of Education. Manuals.

**RESUMO**

Trata-se da comunicação de resultados de pesquisa que teve como objeto o exame das ideias de Herbert Spencer disseminadas em manuais de História da Educação em circulação no Brasil entre 1914 e 1999, o que incluiu, por um lado, manuais disciplinares com autores estrangeiros que foram traduzidos para o português entre 1939 e 1999 e, por outro lado, manuais com autores brasileiros publicados no período compreendido entre 1914 e 1989. Partiu-se, principalmente, das ideias de Chartier (1990 e 1999), Chervel (1990), Choppin

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(2004) e Gatti Jr. (2014). A problemática que animou a investigação esteve relacionada à análise das diferentes apropriações das ideias de Spencer contidas nos manuais de História da Educação analisados. Em termos metodológicos partiu-se da pesquisa bibliográfica, por meio da leitura e análise de obras de comentaristas das ideias filosóficas, sociais e educacionais de Spencer e, em seguida, da leitura e análise das obras escritas pelo próprio autor. Depois, foram examinados os conteúdos relacionados as ideias de Spencer presentes nos manuais de História da Educação publicados em português, por meio do cotejamento dos conceitos e categorias spencerianas com as representações sobre os mesmos contidas nesses manuais de História da Educação, com ênfase em três temáticas principais: evolucionismo; hierarquização de saberes; educação científica. Finalizamos com uma reflexão sobre as diferenças das representações sobre as ideias de Spencer contidas nos manuais de História da Educação examinados.

*Palavras-chave:* Herbert Spencer. Ciência. Evolução. História da Educação. Manualística.

## Introduction

In this article<sup>1</sup>, we address the representations of Herbert Spencer's (1820-1903) ideas disseminated in History of Education manuals published in Portuguese, by both foreign and Brazilian authors, between 1914 and 1999. We emphasize this is a line of thought found widespread international dissemination, both within social theory and in the educational concepts prevalent since the late 19th century, with repercussions in Brazil<sup>2</sup>.

To this end, we draw on the ideas of Chartier (1990 and 1999), Chervel (1990), Choppin (2004), and Gatti Jr. (2014). The research question concerned understanding the different representations contained in History of Education textbooks published in Portuguese during the period in question. The hypothesis was that these contrasted with typical positions from the turn of the 19th century to the 20th century, liberal and scientific, which sought social reform through educational renewal, and Catholic, which demonstrated concern for maintaining the social, political, and religious relevance of the Church amidst the changes taking place in the historical world at the time, through an outspoken fight against liberal and scientific ideas, through the Catholic Restoration movement.

The methodology initially involved bibliographical research, including the reading and analysis of works by commentators about Spencer's philosophical ideas, social theories, and educational concepts, as well as the reading and analysis of works written by the author himself. After this initial effort, the author's content found in History of Education manuals published in Portuguese were examined. Spencer's ideas were not always present in manuals, but in some cases they were, and it is these History of Education textbooks that we will reference in this article.

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<sup>2</sup> In the Brazilian case, we could highlight Spencer's influence, for example: in the opinions written by Rui Barbosa in the 1880s (Lucas; Machado, 2003); in research on the *Constituinte Paulista e a Constituição Estadual de 1891* in relation to school education (Cury, 2022); in the *Manifesto dos Pioneiros da Educação Nova*, of 1932, which advocates the importance of science for society and its teaching in schools; the laws of social evolution; the preparation of the democratic hierarchy through the hierarchy of capabilities (Azevedo, 2010).

In order to achieve these objectives, we have divided the text into three parts. In the first, we present a summary of Spencer's ideas, notably about evolutionism, the hierarchy of knowledge, and scientific education. Then, in the second part, we address the representations of the author's ideas presented in History of Education textbooks published in Portuguese by foreign authors. In the third and final part, we address the representations of Spencerian ideas in History of Education manuals by Brazilian authors. Finally, we offer some concluding remarks.

## Spencer's Educational Ideas

Spencer, a British philosopher, was born in Derby (1820) and died in Brighton (1903). Thus, the historical context in which he lived resides primarily in the events of the 19th century, when the effects of the Industrial Revolution were evident. In this context, Spencer's ideas engage with the thinking of Comte and Darwin, evidently through convergences and divergences.

Spencer developed important conceptual foundations related to evolutionism, the relation among state, society, and the individual, and the hierarchy of knowledge. Regarding the idea of evolution, Abbagnano (1970, p. 376) states that for Spencer, "evolution is progress, and, moreover, a necessary progress, which, as far as humankind is concerned, will end only with 'the greatest perfection and the most complete happiness.'"

Spencer anchored the foundation of his theories in science, notably biology, through which he sought to explain social and economic problems within liberalism, considering the social organism in line with the human organism. Thus, we observe an intrinsic relation in the author's conceptions among the biological, the sociological, and the philosophical, and he developed his work with a focus on evolutionism. He formulated assumptions about the theory of evolution from the cosmos, from living organisms to human beings, and concluded that analyses of the assumptions applicable to nature would also be equally pertinent to the history of human culture.

He developed a philosophical system, known as Spencerian evolutionism, which presented itself as a model that, according to Burke (2002, p. 183-184), places "emphasis on social evolution, that is, social change that occurs gradually and cumulatively ('evolution' as opposed to 'revolution') and is determined essentially from within ('endogenous' as opposed to 'exogenous' process)." For Spencer, this analysis presupposes that

the universe evolves, and to evolve is to progress; it progresses, as a whole, as the cells that constitute or inhabit it progress. And being the determining cause of this progress, in all orders — astronomical, geological, organic, social, economic, etc. — common to all of them, there must be a common character to all of them, it must be able to be expressed in terms of this attribute; there must be a common character to all transformations. The continuous passage from the homogeneous to the heterogeneous must be based on a law that can be determined from the transformation and stated in this way: every cause produces more of an effect, or every active force produces more than one modification. And since each

modification produced is the cause of others, we will have the effects, over time, multiplied indefinitely to the point of implausibility (Spencer, 1939, p. 8-10).

In Spencer, change is observed through the processes of displacement from the simplest to the most complex, from the least specialized and informal to the most specialized and formal, from the homogeneous to the heterogeneous. For him, there is a constant progress of the universe, in which science, through its continuous advancement, takes care of the formulation of increasingly comprehensive laws, but which, as a consequence, makes knowledge increasingly complex.

In 1852, Spencer, seven years before Darwin published *On the Origin of Species*, sought “to discover scientific laws in his work on evolution by which individuals could lead their own lives without government interference. While Darwin confined his theory to biology, Herbert Spencer extended evolution to the whole of nature and society” (Batho, 2008, p. 151).

Regarding Comte, there are important distinctions to be made in relation to Spencer, as the former emphasizes collective life, while Spencer gives centrality to the individual and to “Comte’s ideal of subordinating individuals to moral regulation through political and social hierarchies, Spencer opposes with the ideal of minimizing external coercion and maximizing spontaneous cooperation” (Levine (1997, p. 161).

Spencer applied a universal evolutionary principle, which led him to consider the existence of a process of increasing individualization in society, defending the primacy of the individual over society and the State, with nature being the source of truth, including moral truth. Spencer highlights the antagonism between the organization of primitive societies, whose cohesion was maintained fundamentally by force, and industrial societies, whose foundation was founded on competition.

For Spencer, state interference in the lives of individuals would hardly bring benefits, but rather a great expense to society, since “a State with universal functions characterizes a type backward social situation; the abandonment of functions by the State characterizes progress toward a higher social type (Spencer, 1891, p. 270). The natural evolution of human society toward individualism would ultimately produce the most developed form of State, that is, one that would not interfere in individual affairs. Spencer was convinced that the system, in caring for the less fortunate, would always do so at the expense of the rest of society, regardless of the consequences, bringing about what he called “future slavery” (Spencer, 1900, p. 34), which he would describe as harmful, since State intervention in the individual’s life removed responsibility for their actions and excluded them from the merits received for their effort and dedication in the pursuit of evolution and contribution to social progress.

In the Spencerian model, which views society as a living organism, the existence of individuals with a higher degree of development compared to others was due to the evolutionary process and natural selection within the species. Evolution is progressive and irreversible and seeks balance, with the selection process which sustains it being a mechanism that reflects the direction of the species, as it necessarily leads to progress. Evolution will lead the human species to a level of superiority and perfection that would inevitably lead to complete happiness, because “whether or not the progress

from the homogeneous to the heterogeneous is quite visible in the biological history of the globe, it appears, with sufficient emphasis, in the development of the most modern and most heterogeneous being — The Man” (Spencer, 1939, p. 25).

Spencer’s ideas gained him notoriety due to his advocacy of the fittest survival. According to Pinker (2018), there was a harmful political use and, consequently, epistemological errors related to the application of the concept of social Darwinism based on Spencer’s approach, distorting it to justify the existence of other theories of racial superiority and forms of exploitation among nations, claiming it was a natural course of the evolutionary process.

His political philosophy, a primitive form of libertarianism, was adopted by corrupt tycoons, advocates of laissez-faire economics, and opponents of social spending. Because these ideas had a right-wing slant, left-wing writers mistakenly applied the term “social Darwinism” to other similar ideas, such as imperialism and eugenics, even though Spencer was firmly against this government activism (Pinker, 2018, p. 466-467).

Regarding his educational theory, Spencer was the leading proponent of evolutionism in the humanities, applying ideas derived from the natural sciences to the renewal of education on a scientific basis, through the establishment of the following pillars: centrality of science teaching; critique of traditional classical education; advocacy of state non-intervention in education; and hierarchical classification of the content that should be taught in schools.

For him, schools should be private throughout all grades, since leaving this responsibility to the state would bring far greater harm than the potential benefits that could arise if access to the educational system were free for all. It was necessary to train young people who were ready to compete, as he believed that “the giving of free instruction to children will be followed in some cases by the likewise providing them with food, and when this practice has gradually become generalized, we may be sure that it will extend to many other cases” (Spencer, 1962, p. 46).

Spencer sought to demonstrate that only through Science, the Education could achieve its objectives, given that only through the predominance of scientific content and the relegation of classical education could progress be achieved. For him, Science in Education is the answer to the questions related to what constitutes the most valuable content in school education.

For self-preservation, for the preservation of life and health, the most important knowledge is science. For indirect self-preservation, what is called earning a living, the most valuable knowledge is science. For the proper performance of family functions, the most appropriate guide is found only in Science. For the interpretation of national life, past and present, without which citizens cannot properly regulate their conduct, the indispensable key is science. For the most perfect production and for the enjoyment of art in all its forms, the indispensable preparation is still science, and for the purposes of intellectual, moral, and religious discipline—the most effective study is, once again, science (Spencer, 1900, p. 85-86).

Broadly speaking, the educational theme, which was always present in his works, was specifically presented with the publication of the work “*Education - Intellectual, Moral, and Physical*” in 1861, which summarized Spencer’s ideas about education. To expound his educational doctrine, he demonstrated that the importance of the teaching method lay in more effectively conveying knowledge through the sciences for intellectual, moral, and physical education. Within the scope of intellectual education, he emphasized that to achieve better results, it is necessary to make teaching an activity that produces pleasure and satisfaction for the student, and that education cannot be considered a burden to be borne by the young.

### **Spencer’s ideas in History of Education manuals published in Portuguese by foreign authors and circulating in Brazil**

In History of Education manuals published and circulating in Brazil by foreign authors, we sought to understand how Spencer’s ideas were represented. Thus, among the manuals analyzed, in this article we considered only those that mentioned the author’s ideas with some intensity, namely, in order of publication of the first edition in Portuguese in Brazil: Monroe (1939); Riboulet (1951); Luzuriaga (1955); Hubert (1957); Eby (1962); Larroyo (1970); Cambi (1999).

In Paul Monroe’s *História da Educação*, Spencer’s ideas are mentioned in eight pages, with reference to the modern scientific trend in Education, which began between the 18th and 19th centuries, which Spencer would be one of the main representatives, due to the “great development of the physical and biological sciences, the influence of the naturalist tendency to exalt the value of contact with nature, and the insufficiency of the old humanist education as preparation for modern life” (Monroe, 1970, p. 317).

Monroe takes Spencer’s ideas toward a liberal education focused on practical training in which useful content takes precedence. He also highlights the importance of the sciences, which were fundamental to education in the 19th century and contributed to the “predominance of such liberal education and such an organization of its subjects, that it will be possible for the ordinary professional in any of the professions to combine liberal education with professional or technical education” (Monroe, 1970, p. 320).

Although he agrees with some of Spencer’s ideas, Monroe disagrees with the understanding that education is preparation for life, given that it should be understood as consonant with life itself, since “it must be recognized that Spencer’s position is merely a reaction against the excessive emphasis placed on method by the supporters of disciplinary education and the representatives of the psychological trend, although they did so in a completely different way” (Monroe, 1970, p. 324).

Louis Riboulet, in turn, mentions Spencer in ten pages of the last four volumes of his *História da Pedagogia*. He argues that in the 19th century, the experimental method gained prominence through the search for the application of methods from the physical and natural sciences to the so-called psychological and pedagogical sciences. From this perspective, Riboulet, when discussing

positivism and evolutionism, mentions, respectively, the importance of Comte's studies and the Spencer relevance. Regarding English evolutionism, Riboulet states that "it resembles, in several points, French positivism. It admits successive transformations of humanity, the creation, through the imagination, of religious and philosophical myths, and makes scientific experimentation the sole criterion of certain knowledge. Its pedagogy rests on science" (Riboulet, 1951, p. 71).

Riboulet sought to establish a clear division of Spencer's educational foundations and, in doing so, presented its main characteristics, but also criticizes them. In the matter of method, for example, the fundamental principles defended by Spencer are embodied in interest and spontaneous activity. That is, for Spencer, as long as study becomes habitually repugnant, the will to stop studying will prevail, as soon as boys can escape the coercion of parents and teachers. Thus, when the study of science is habitually enjoyable, then the tendency to continue without supervision in the studies begun under the teachers' guidance will prevail.

In this sense, Riboulet criticizes Spencer's thinking, as he should "distinguish between what is pleasant and what is useful: certain exercises that students really enjoy are not the most important [...] If it is important to make the class interesting, it is even more important to teach students to overcome their repugnance and whims" (Riboulet, 1951, p. 74-75).

Finally, it is worth mentioning the analysis carried out by Gatti and Silva, in which it was pointed out that in Riboulet there is "a predominance of analysis about scientism and evolutionism, however, in a combative register, in which the errors of these currents are pointed out, when they reject Christian principles in the analysis of the educational field" (2019, p. 15-16).

For Gatti Jr., in Lorenzo Luzuriaga's *História da Educação e da Pedagogia*, the objective was to "offer an overview of the history of education and pedagogy, trying to relate education and the social and cultural conceptions of each historical moment" (2014, p. 487). Regarding Spencer's ideas, Luzuriaga dedicated five pages, notably when he referred to pedagogy in the 19th century, to the consideration of social evolutionism within the positivist current, and "its greatest representative was Herbert Spencer (1820-1903) who, although not strictly speaking a pedagogist, had a certain influence on education" (Luzuriaga, 1963, p. 208).

Luzuriaga is critical of Spencer's ideas. While acknowledging the author's contributions, qualities, and relevance among scholars of his time, he asserts that "in reality, there is very little that is original in Spencer's pedagogy, other than the insistence on the utilitarian, pragmatic nature of education and the value of scientific knowledge" (Luzuriaga, 1963, p. 209).

Regarding social pedagogy, as defined by Luzuriaga (1978, p. 253), it is understood as having its ancestry in Plato. However, regarding pedagogy understood as science, an idea that gained strength from the 19th century onward and consolidated in the 20th century, we again observe that Spencer was also considered a member of this current, as a representative of historical social pedagogy within the positivist movement.

In René Hubert's *História da Pedagogia* mentions Spencer's ideas over eleven pages. He emphasizes that "the most characteristic feature of the history of pedagogical institutions in the

main countries of Western Europe since the Renaissance is the continuity of development” (Hubert, 1976, p. 122), stating that Spencer’s great contribution lay in the fact that he was responsible for uniting two pedagogical trends: experimental psychology and philosophy. For him:

it seems that the two trends converge again and unite in the doctrine of education developed by Herbert Spencer (1820-1903), first in articles he wrote at the beginning of his career and compiled in 1861 in a work entitled *Da Educação intelectual, moral e física*, and then in several publications. This general philosophy, however, takes on an entirely different character in Spencer than it did among post-Kantians: the theory of evolution is, for him, essentially a generalization and systematization of the various sciences results. Its resonance is entirely positive, in no way metaphysical. Furthermore, this systematization draws its principles from mechanical science and physical science, rather than from biology or sociology; when he develops the doctrine of the Unknowable, he still uses the notion of force to express the depths of being (Hubert, 1976, p. 288-289).

Hubert, regarding the appropriation of the idea of evolution and how it transcends the purely biological idea, but also encompasses the psychic and social aspects. Unlike other authors, he brings to his text works by Spencer beyond *Educação - Intelectual, Moral e Física*, also citing *O indivíduo contra o Estado* to demonstrate its importance in explaining Spencerian evolutionism.

Hubert dedicates himself to evaluating the function of pedagogical doctrines and, regarding the issue of education, states that the problems of education have ended up not being given due importance in many philosophical schools. Hubert explains Spencer’s position, arguing that great philosophical systems

somehow dissolve man into the realities that transcend him, barely paying attention to the problems of education. If Spencer dwells on these, it is because he considers them primarily in terms of this philosophy of history, which is his sociology. A pedagogical doctrine is, first and foremost, a claim for human rights, for freedom, and therefore for human individuality, in the face of the traditions of any nature that weigh upon it, deform it, and hinder its development. Whatever plane this development is specifically proposed on — that of biological nature, that of social adaptation, that of spiritual demands — all theoretical and practical speculations always converge toward the idea of man, his essence, and his destiny (Hubert, 1976, p. 356).

In Frederick Eby’s *História da Educação Moderna*, Spencer’s ideas are mentioned in six pages, where scientific evolutionism appears as Spencer’s main contribution, demonstrating this philosophical current based on science and the belief in the constant progress of humanity and society. Thus, Eby cites the example of England, where “the existing institutions remained, in a great measure, unaffected by the change of events, but a new type of schools and universities arose to cater for modern progress. Furthermore, the bastions of Humanism and Idealism were vigorously attacked by the defenders of scientific evolutionism” (Eby, 1970, p. 507).

Spencer, along with Darwin and Huxley, are elevated to the category of scholars who made a fundamental contribution to the idea of science as the basis of education. According to Gatti and Silva, Eby's manual "gave prominence to Spencer, with his idea of knowledge bringing contributions to life and education being a preparation for a complete life, with a high value being attributed to scientific knowledge. Huxley, in turn, also had a great influence, through his emphasis on the need for science education in school program, which he considered the only method to truth" (2019, p. 21).

For Eby, the importance of Spencer's thought lies in the same rank as thinkers like Dewey, for whom education "is understood as a process of reconstructing experience, granting it a more socializing perspective, based on individual advancement and development" (Gatti Jr., Lima, 2019, p. 26). In this regard, Eby explains that "Spencer argued that the natural sciences were, from every point of view, the most valuable" (Eby, 1970, p. 584-585).

In *História Geral da Pedagogia*, Francisco Larroyo mentions Spencer's ideas in six pages, which are characterized, from the outset, within the framework of evolutionism, with similarities and differences in relation to positivism. he:

Comte [...] understood, despite the shortcomings of his doctrine, the limitations of intellectualism. He recognized the value of the emotional principle in philosophy and education. Herbert Spencer (1820-1903), on the other hand, emphasized, to the extreme, the importance of science in educational tasks (Larroyo, 1974, p. 666).

In Larroyo, Spencer's theory is recorded within the scope of pedagogical scientism, which is the fundamental basis of pedagogy in which "education is a marked evolutionary process that operates in the progressive march of a being who, little by little, reveals his aptitudes and potentialities" (Larroyo, 1974, p. 667).

In Franco Cambi's *História da Pedagogia*, Spencer's ideas are laid out in seven pages. When addressing England, the author highlights English empiricism in education, stating that it orbits between utilitarianism and evolutionism, emphasizing the Spencer's role in this empirical tradition.

For Cambi, the emergence of industrial society impacted pedagogy, with a secular orientation focused on scientific knowledge. Regarding pedagogy, "new social tasks and a new model of epistemological rigor are identified (moving from philosophy to science), but thus closely linking it to the processes of ideology" (Cambi, 1999, p. 465).

When analyzing pedagogical positivism in England, Cambi demonstrates how the valorization of scientific knowledge was relevant in a more advanced industrial society, stating that "the dominant figure is Spencer, but alongside him, the empiricist Bain and other lesser figures, such as John Tyndall (1820-1893) and Thomas Huxley (1825-1895), who openly defended the validity, and even the superiority, of scientific education, should also be remembered" (Cambi, 1999, p. 468). He argues:

The English philosophical culture of positivism, which uniquely intertwines the empiricist tradition and Darwinian evolutionism, finds its ultimate pedagogical

expression in the work of Herbert Spencer (1820-1903), “Intellectual, Moral, and Physical Education,” which, in Europe, was a kind of manifesto of pedagogical positivism (Cambi, 1999, p. 470).

## Spencer’s ideas in History of Education manuals by Brazilian authors circulating in Brazil

Among the History of Education manuals by Brazilian authors, we selected those that addressed Spencer’s ideas most intensely, namely: Barreto (1914); Peixoto (1933); Peeters and Cooman (1936); Andrade Filho (1941); Santos (1945); Archêro Jr. (1957); Rosa (1971); Giles (1987); Aranha (1989). In *História da Pedagogia* René Barreto states that in the English context, Bell, Lancaster, Mill, Bain, Quick, and Spencer were the philosophers who contributed most to education and pedagogy. Spencer was considered “one of the most celebrated contemporary philosophers and one of the greatest names in learned England. His pedagogical work— *Da Educação intelectual, moral e physica* — had an extraordinary influence throughout the civilized world” (Barreto, 1914, p. 213).

Barreto already considers the importance of the dissemination of Spencer’s ideas and works, which published from the second half of the 19th century onward, reached various countries around the world, including Brazil. He states that “Spencer’s *Ensaio* deserves a prominent place among works about pedagogy. Translated into almost every language, it exerted a notable influence about the science of education in various respects” (Barreto, 1914, p. 217).

Júlio Afrânio Peixoto, in turn, in *Noções de História da Educação*, asserts that Spencerian educational theory is understood in the sense that “education is everything we do for ourselves and what others do for us, to bring us closer to the perfection of our nature” (Peixoto, 1933, p. 175). Thus, “evolution, a universal law of nature and spirit,” also determined education. Just as adornment preceded clothing, instructive superfluities preceded useful knowledge” (Peixoto, 1933, p. 175). The importance of science, a fundamental point for Spencer, is reinforced in Peixoto, as it is “the soul of education.” To acquire it, there is *interest and spontaneous activity*” (Peixoto, 1933, p. 176). In this sense, Peixoto asserts that Spencer’s merit was to conduct

a sharp critique of traditional education — still prevalent — for its excessive intellectualism and demanding moral and religious education, to the detriment of physical education, which is fundamental and indispensable. Then, with knowledge, instead of outdated gifts, already instructive today, (Latin and Greek... and so many other things... for what? There are already good translations...) and for which the excuse of being educational has been found, useful, applicable knowledge emerges, which instructs and educates. (Why should one prefer a useless educational subject, if there are useful educational subjects?) As humanity learned, so must the child learn. (Peixoto, 1933, p.177).

The Mothers Francisca Peeters and Maria Augusta de Cooman, in *Education: Educação: História da Pedagogia Problemas Actuaes*, they clarify that the manual they wrote was intended to “serve normal students who desire concise and clear notions about the evolution of educational processes and doctrines in time and space” (Peeters; Cooman, 1936, p. 11).

In the section dedicated to the theme of scientific naturalism, they analyze Spencer’s ideas within what they call a new paradigm, whose “fundamental axiom [...] ‘There is no difference in nature between man and animal’ inspires the entire educational doctrine of its adherents.” From now on, it will no longer be the spirit that must dominate: the physical subjugates the spiritual” (Peeters; Cooman, 1936, p. 106). For them, this new conception opens up space for Spencer’s importance in the propagation of evolutionist doctrines in education.

Critically, they emphasize that in Spencer, the factor in education would be Nature, since neither “the parent, nor the teacher, nor the State, nor the Church, should play the main role: The great educator is Nature: ‘Let Nature do everything’” (Peeters; Cooman, 1936, p. 108). Regarding Spencer’s pedagogy, they state that “his particular system, in what is original, is of minimal value. The few sensible things found there are commonplaces that can be taken from any good textbook about pedagogy” (Peeters; Cooman, 1936, p. 108).

In Bento de Andrade Filho’s *História da Educação*, Spencer’s ideas are addressed within the context of scientific education, seen as the culmination of the 19th-century educational trend. Among the most relevant contents of Spencerian philosophy is “science, including the science of educating” (Andrade Filho, 1941, p. 249), and the complete life, according to Spencer, consisted of “a scientific preparation for every kind of activity” (Andrade Filho, 1941, p. 249). Under the criticisms leveled by the author against Spencer’s philosophy, one finds the lack of possibilities for the proposed theory to be educationally feasible. Thus,

at the point we analyzed, the educational ideal was proposed: preparation for a complete life; this life was defined; but when the principle is applied in practice, we see how restricted the original idea was — for it is necessary to attend to the “most necessary things” for this complete life. Now, here the inconsistency of the plan is manifest: what are these essential things for life? To base oneself on the philosopher’s ideal — which tends to give educational purposes the universal character of scientific truths — would be to commit the gravest error, for, as we have seen, what is important to each kind of life is *essentially mutable*, as is life itself” (Andrade Filho, 1941, p. 253).

Concluding his analysis of Spencer, Andrade Filho acknowledges Spencer’s most relevant positive contribution, which consisted of defending the scientific character that education should possess and the objectives it should achieve in society and individuals. However, he states that “In regards to defining *ends*, Spencer largely contributed *means*. Regarding the latter, ‘Spencerian *evolutionism* is the soul of all that is thought and established with the characteristic of scientific facts” (Andrade Filho, 1941, p. 226).

Theobaldo Miranda Santos, in *Noções de História da Educação*, also takes Spencer's ideas within the context of scientific education. For Santos, the scientific trend in education was centered on the "concern of transforming the educational process into a simple scientific and experimental problem, which we find dominating certain pedagogical circles of the 19th century, and was a reflection of the philosophical ideas of the time" (Santos, 1945, p. 400). Spencer's importance lies in his contribution, which, along with Comte's, came to dominate the cultural landscape of the 19th century. The predominant philosophical currents of this period — positivism and evolutionism, according to Santos (1945), are characterized

by the exaltation and apotheosis of nature. Their basic viewpoint is that only that which is capable of empirical verification exists. Matter is the eternal foundation of all existential order. God is replaced by Nature, one, autonomous, and sovereign (Santos, 1945, p. 401).

In Santos, considered the philosopher of evolutionism, Spencer wove ideas into the educational field that were merely a reflection of his philosophical ideas. From this perspective, "pedagogy must be guided by the light of evolution, that is, by the progressive progress of a being that grows and whose powers are successively unfolding" (Santos, 1945, p. 407).

Archêro Jr., in *Lições de História da Educação*, states that Spencer was the "greatest representative of positivism in England [...]. An engineer in his youth, he later became interested in social issues and devoted himself to the study of biology and psychology. He is the father of evolutionism" (Archêro Jr., 1957, p. 81). He highlights Spencer's work, *Educação – Intellectual, Moral e Physica* which he considers to be the one that clearly sets out his pedagogical ideas, where education would be "everything that we and others do to bring us closer to the ideal of our nature" (Archêro Jr., 1957, p. 81). The ideal consists of "the child achieving a complete preparation for later life" (Archêro Jr., 1957, p. 81), with the goal of acquiring the knowledge considered most useful for developing individual and social life. For him:

the education is the most perfect preparation for a complete life. All studies must be organized with a practical end in mind (utilitarianism), hence the predominance he gives to the study of science. For him, the ideal method is that of Nature. These ideas were later accepted by Dewey (Archêro Jr., 1957, p. 81).

In *História da Educação através dos textos*, Maria da Glória de Rosa, after introductory notes, presents excerpts from original texts by educational thinkers, in which the didactic nature of the disciplinary manual in question is clearly evident. Spencer is one of the authors highlighted in the eighth chapter, entitled *Educação no século XIX*, preceded by an analysis of the ideas of Herbart and Froebel.

The author emphasizes the deterministic and generalizing nature of Spencer's ideas, given that he claimed "to have found the unique formula according to which phenomena of all kinds arise and develop: from mechanical phenomena to biological, psychological, and social facts. It is

evolution, that is, the passage from the homogeneous to the heterogeneous” (Rosa, 1971, p. 267). The approach given to Spencer’s evolutionary ideal, as presented by the author, posits an idea of linear evolution with no possibility of change other than the prioritized passage from the simplest to the most complex, however,

Strange as it may seem, Spencer’s formula for evolution is not as purely mechanical as it seems at first glance. He believed that at the basis of the evolutionary process there must be some supernatural Power and viewed evolution as ultimately synonymous with progress. However, he referred to this Power as the Unknowable and argued that it should not merit scientific consideration. Man should only study that which is within his capacity for knowledge; that is, human speculations should not go beyond matter, movements, and the facts of sensory experience (Rosa, 1971, p. 268).

Thomas Ransom Giles<sup>3</sup>, in his *História da Educação*, addresses Spencer’s ideas in the context of analyzing parallel education systems in England, the birthplace of the Industrial Revolution. These systems were based on the growing need for scientific education, as this revolution brought changes to the very structure of people, through an urban evolution that “created new professional needs, especially bureaucratic ones, to meet the needs of banks, railways, warehouses, shops, and even the government itself” (Giles, 1987, p. 228).

The educational reform aimed at meeting growing demands imposed the need for changes in the structure of traditional education through the modernization of curriculum, with Spencer being one of “the strongest voices in favor of the introduction of scientific studies” (Giles, 1987, p. 229).

Regarding science and its importance in education, Spencer argues that scientific knowledge is “indispensable for human progress” (Giles, 1987, p. 229) and, in this sense, highlights the hierarchy of knowledge advocated by Spencer, notably in *Educação Intellectual, Moral e Physica*. Spencer opposes traditional classical education by valuing the sciences, replacing the teaching of subjects whose content the British philosopher considered useless. Spencer also attributes the importance of teaching methods to overcoming archaic teaching.

In *História da Educação*, Maria Lúcia de Arruda Aranha states that “nineteenth-century pedagogical thought is influenced not only by economic and social changes [...] but must be understood in light of the current state of philosophy and science” (Aranha, 1989, p. 139). By giving relevance to philosophy and science in the development of pedagogy and the educational process itself, the author believes that positivism greatly influences this development, since it “expresses the exaltation provoked in the 19th century by the advancement of modern science, capable of revolutionizing the world with increasingly effective technology: ‘Knowledge is power’” (Aranha, 1989, p. 139). The author states that Spencer’s greatest contribution lies in the incorporation of Darwinian evolutionism into positivism, contained in the idea of the preeminence of science among other forms of knowledge, because, for her,

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<sup>3</sup> American by birth, he settled in Brazil in 1965 (Giles, 1987, p. 2).

Education, like everything in the world, undergoes an evolutionary process in which the individual reveals its potential. Imbued with the scientific conception, Spencer wrote the highly popular work "*Education*." In it, he considers science teaching to be the center of all education, not only in terms of transmitting knowledge but also in the very formation of the scientific spirit. Among the sciences, he considers physics, chemistry, and biology to be the most important. His work is dominated by an interest in utilitarian issues, in stark opposition to traditional humanistic teaching (Aranha, 1989, p. 140).

## Final Considerations

An examination of History of Education manuals published in Portuguese throughout the 20th century reveals that the ideas formulated by Spencer in the 19th century had a significant impact on the content disseminated among teacher training institutions. This indicates a significant process of circulation of ideas regarding the need for innovation in knowledge and school practices based on evolutionism, the hierarchy of knowledge, and scientific education proposed by Spencer, which were present in the content of these manuals.

First, it is important to note the variety of foreign authors — from the United States, France, Spain, Argentina, Mexico, and Italy — whose works were translated into Portuguese throughout the 20th century, based on originals published several years earlier. As for the History of Education manuals with Brazilian authors, published since 1914, Spencer's presence also stands out in a significant number of works that achieved wide circulation throughout the 20th century. However, in this case, it is important to note that many Brazilian authors had access to the original versions of the manuals published abroad. In other words, in many cases, they did not need to wait for the Portuguese versions of foreign manuals to be published, which adds to the fact that they could access the Spencer's works directly, in their original languages or in Portuguese translations.

In the analysis of the content conveyed about Spencer in the History of Education manuals analyzed, the most frequent mentions were related to the valorization of scientific knowledge and the teaching of science, notably Physics, Chemistry, and Biology, in a hierarchy of knowledge consistent with the idea of preserving life. This was related to the proposition of overcoming traditional education in favor of a new, experimental education aligned with a new philosophical position. This influence on Dewey's ideas and even on some proposals for educational renewal was highlighted in some manuals.

These educational ideas, which had widespread international dissemination, were linked to Spencerian evolutionism, which is presented quite differently in the History of Education manuals analyzed. In some cases, the antecedence of Spencer's evolutionary ideas in relation to Darwinian theory of evolution was perceived, but in others, Spencer's evolutionism was unqualifiedly mentioned within the framework of Social Darwinism.

Another point of divergence among the authors of the History of Education manuals analyzed concerned the idea that Spencer should be classified within positivism, sometimes referred to as English positivism, an interpretation that appeared with some regularity. However, a close reading of Comte's body of work, in comparison with Spencer's, reveals that despite the scientific character of both, the spirit that presided over positivism was founded on the idea of the predominance of collective interest over private interest, in a kind of civic liberalism. While the role of the individual and private interest, as well as reservations regarding the role of the state, which also applied to education, was the keynote of Spencerian evolutionism. Thus, on the one hand, positivism, as a theory about society and, by extension, about education, was based on the social nature of being, and on the other, evolutionism was anchored in the natural nature of being and, therefore, in the prominence of the individual, in the particular interest in the movement of society.

Finally, there appears, albeit infrequently in the History of Education manuals analyzed, a perspective that at first glance seems anchored in Kant's thought, regarding humankind and nature, amenable to scientific elaboration and treatment, with the necessary distance from the unknowable, a creative power, but unattainable in the scientific record.

We conclude with the clarity that Spencerian ideas have inspired philosophical thought, social theory, and the educational field since the late 19th century, with repercussions that reached primarily into the 20th century, at least with regard to teacher training, through the teaching of History of Education. Various disciplinary manuals over time have presented the author's ideas, not without contradictions and antagonisms. Thus, in some cases, with positions more favorable and, in others, unfavorable to Spencer's ideas, a fact that reveals, primarily, the battles waged between civic-minded and scientific liberals and clergy and laypeople linked to the Catholic Restoration, in the realm of policies, institutions, and manuals related to teacher training, particularly during the first half of the 20th century. However, with developments that reached the end of that same century and that can be seen in some way re-enacted at the beginning of the 21st century.

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