

# Critical rationalism and institutional change in Hayek

## *Racionalismo crítico e mudança institucional em Hayek*

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RESUMO: A análise institucional promovida por F. A. Hayek busca compreender de que maneira se dá a ação humana e a coordenação entre os diversos indivíduos em um ambiente em que o conhecimento detido por cada pessoa é incompleto e não totalmente passível de ser transmitido. Nesse tipo de ambiente, o aparato institucional possui um importante papel ao condicionar, ao menos parcialmente, o comportamento dos membros de uma ordem social, ordem que surge de maneira espontânea. Diante disso, o objetivo do artigo é apresentar a abordagem institucional evolucionária de Hayek, organizando a discussão proposta pelo austríaco sobre o tema. Para isso, discutirá a distinção proposta por Hayek entre o racionalismo crítico e o racionalismo construtivista. Tratará também da forma pela qual Hayek explica a mudança institucional. Ademais, detalhará sua abordagem evolucionária para as ciências sociais (em oposição às ciências naturais).

PALAVRAS-CHAVE: F. A. Hayek; instituições; evolução.

ABSTRACT: The institutional analysis promoted by F. A. Hayek seeks to understand how human action and coordination among individuals occur in an environment where the knowledge held by each person is incomplete and not fully transmittable. In such an environment, the institutional framework plays an important role in conditioning, at least partially, the behavior of members within a spontaneously emerging social order. In light of this, the objective of this article is to present Hayek's evolutionary institutional approach by organizing the discussion proposed by the Austrian economist on the subject. To do so, it will discuss Hayek's distinction between critical rationalism and constructivist rationalism. It will also address Hayek's explanation of institutional change and delve into his evolutionary approach to the social sciences, as opposed to the natural sciences.

KEYWORDS: F. A. Hayek; institutions; evolution.

JEL Classification: B25; B31; B53.

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\*\* The author thanks David Dequech, João Luiz Pondé, Keanu Telles, and Rogério Pereira de Andrade for valuable critiques and suggestions, and the National Council for Scientific and Technological Development (CNPq-Brazil) for financial support. The usual caveats apply.

## 1. INTRODUCTION

The institutional analysis promoted by F. A. Hayek seeks to understand how human action and coordination among individuals occur in a complex world where the knowledge held by each person is incomplete and not fully communicable or verbalizable.<sup>1</sup> In such an environment, the institutional framework plays an important role in conditioning, at least partially, the behavior of members within a spontaneously emerging social order characterized by individuals acting in a rule-governed manner.

The next step in analyzing Hayek's contribution to the study of institutions in the described type of environment is understanding how he explains the emergence, consolidation, and change, over time, of institutions that are characteristic of a society.

It will be shown that Hayek positions himself within the tradition of critical rationalism, as opposed to constructivist rationalism. This is reflected in his explanation of institutional change, where he acknowledges his debt to the Scottish Enlightenment thinkers. His approach is evolutionary, and he refers to the evolutionary process of behavioral rules as cultural evolution (Vanberg, 1994, p. 77).

As will be seen, if a social group possesses behavioral rules, institutions, traditions, ethical or even aesthetic patterns that allow it to be better adapted to its environment than another (possibly competing) group, and if the actions of its members are better coordinated (Hayek, 1967a, p. 101), resulting in prosperity, power, and survival while others weaken or disappear, its pattern of rules and institutions will survive. The set of rules of conduct that remains are those that enable human beings, or rather, the spontaneous orders they generate, to better interact with the environment. Institutions, rules, culture, etc., change (evolve) through a three-stage process: variety, transmission, and selection (Ebner, 2005, p. 143).

The analogy with Darwinian biological evolution is inevitable. Hayek clarifies several times that the evolutionary approach has emerged among philosophers since Ancient Greece, through medieval scholasticism, until reaching the Scottish Enlightenment thinkers, who were "Darwinists before Darwin." An important question to be addressed in this article is the distinction between the evolutionary approach and some form of "Social Darwinism," an idea rejected by Hayek. It will be shown that, according to Hayek, it should be clear that a proper interpretation of the evolutionary principle applied to social issues should focus on the selection of rules, institutions, and culture rather than individuals and innate or genetic characteristics.

It is important to clarify that the process to be explained, the focus of attention

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<sup>1</sup> According to Paulani, in Hayek's thinking "what makes each individual an irreducible singularity [is] a kind of 'specialization' that each one has in modern society, making them the exclusive possessor of information. This element is the 'economic location,' a set of specific circumstances of space and time that makes knowledge exclusive to those occupying that location. It is not, therefore, like scientific knowledge, a transferable understanding" (Paulani, 1996, p. 117, my translation).

throughout the article, is that which occurs within a spontaneous order, a spontaneous process, as opposed to the political process (Vanberg, 1994, p. 80).<sup>2</sup> In other words, there is a distinction between two forms of emergence and change of rules: spontaneous and political. Spontaneous changes are the result of the actions of separate individuals seeking private ends, which inadvertently lead to unintended outcomes (in this case, new rules or practices). Political processes, on the other hand, involve explicitly chosen rules aimed at achieving specific ends (Hayek, 1973, ch. 4; Vanberg, 1994, p. 80).

Therefore, the objective of this article is to present Hayek's evolutionary institutional approach by organizing the discussion proposed by the Austrian economist on the subject. Following this introduction, Section 2 will present Hayek's distinction between critical rationalism and constructivist rationalism. Section 3 will discuss Hayek's explanation of institutional change, Section 4 will detail his evolutionary approach to the social sciences (in contrast to the natural sciences), and finally, Section 5 will provide the concluding remarks.

## 2. CRITICAL RATIONALISM *VERSUS* CONSTRUCTIVIST RATIONALISM

Hayek (e.g., 1965, 1970, 1973, 1988) argues that throughout the history of ideas there have been two approaches to understanding human societies and how they organize, change, and propagate over time: critical rationalism and constructivist rationalism.

According to him, constructivist rationalism is a foolish and naive kind of thinking. This is because followers of such doctrine do not see any limits to the capacity of the human mind to comprehend and create the characteristics of a complex world that surrounds us. From the constructivist perspective, civilization, its institutions, culture, and other features can and should only be the result of deliberate and expressed human will, constructed by the capacity of reason: "all the useful human institutions were and ought to be deliberate creation of conscious reason" (Hayek, 1965, p. 85).

This almost unlimited belief in the power of human reason is, from the Hayekian perspective, a "Fatal Conceit" (Hayek, 1988) present in many social theories. Instead of being rational, such a belief actually represents the "abuse of reason."<sup>3</sup> It seeks to find rational foundations that justify the existence of behavioral rules, laws that govern a social group, cultural traditions, and so on. Thus, the existing institutions

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<sup>2</sup> Garrison and Kirzner (1987), writing about Hayek, argue that Economics only makes sense as the study of a world in which the emergence of spontaneous order (such as the market) exists. Similarly, Boettke (1989) states that the role of Economics is to seek an understanding of the institutions of spontaneous emergence that exist in society.

<sup>3</sup> "It seems (...) that this desire to make everything subject to rational control, far from achieving the maximal use of reason, is rather an abuse of reason, based on a misconception of its powers" (Hayek, 1965, p. 93).

in a society could only be beneficial to individuals if they were “artificial” in the sense of being planned and brought into existence through the explicit desire and deliberate action of people. Moreover, the intentional creation of institutions, behavioral rules, etc., should be done with the aim of achieving certain specific ends desired by the group that created them: “[this] view holds that human institutions will serve human purposes only if they have been deliberately designed for these purposes, often also that the fact that an institution exists is evidence of its having been created for a purpose” (Hayek, 1973, p. 8).

Hayek argues that the foundation of constructivist rationalism is the adoption of a type of thinking that he classifies as “anthropomorphic.” This worldview sees intentionalist meaning and seeks a direction in history as if, even though its followers may not notice it, it is given by an external factor beyond the world itself. Constructivist rationalists perceive society as if it were governed by a mind similar to the human mind or as if it had a mind capable of coordinating the actions of its members and determining social or power relations. Hayek considers this view to be precarious, primitive, and almost animistic: “[t]his view (...) is a deeply ingrained propensity of primitive thought to interpret all regularity to be found in phenomena anthropomorphically, as the result of the design of a thinking mind” (Hayek, 1973, p. 9).

Hayek (1965, p. 4) traces the origins of this constructivist thinking to Classical Greece, especially in the works of Plato, and its influence increases with the works of René Descartes.<sup>4</sup> Descartes’ emphasis on the value of human reason, the “natural light” available to all men as a guide to the truth through deductive reasoning from axioms: “[r]eason was for the rationalist no longer a capacity to recognise the truth when he found it expressed, but a capacity to arrive at truth by deductive reasoning from explicit premises” (Hayek, 1963, p. 102).

The establishment of methodological doubt, questioning and rejecting everything (including – and especially – our sensations) that is not proven true from axioms, undeniably true premises, clear and distinct from their conclusions, and the application of deductive reasoning typical of geometry, led Descartes’s disciples to regard as irrational the rules and institutions that could not be clearly justified in a deductive manner as being useful to society.<sup>5</sup> They rejected adherence to these rules and institutions, considering themselves enlightened and free from the superstitious spirit typically associated with the Middle Ages. Traditional moral standards and traditional behavioral rules were reduced to mere “personal preference,” without any acceptable basis or argument in their defense. According to Hayek: “[t]he rejection as ‘mere opinion’ of all that could not be demonstrated to be true by

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<sup>4</sup> “The great thinker from whom the basic ideas of what we shall call constructivist rationalism received their most complete expression was René Descartes” (Hayek, 1973, p. 9).

<sup>5</sup> Hayek describes the Cartesian *esprit géométrique* as follows: “a capacity of the mind to arrive at the truth by a deductive process from a few obvious and undoubtable premises” (Hayek, 1965, p. 85).

his [Descartes's] criteria became the dominant characteristic of the movement which he started" (Hayek, 1973, p. 10).

As a result, traditional moral standards were disregarded, and decisions about the best course of action were made solely based on specific objectives and the pursuit of certain ends, without an externally determined standard of behavior: "this kind of rationalism must lead to the destruction of all moral values and to the belief that the individual should be guided only by his personal evaluation of the particular ends he pursues, and that it tends to justify all means by the ends pursued" (Hayek, 1965, p. 89).

Thus, with the extension of Cartesian methodological doubt to socially shared institutional and behavioral practices, they can only be useful to individuals by mere chance if they happen to coincide with those that can be created and planned by the human mind: "[i]nstitutions and practices which have not been designed in this manner can be beneficial only by accident" (Hayek, 1973, p. 10). Similarly, human behavior came to be regarded as "irrational" if it did not strictly follow objectives defined according to explicit and logically deduced ways, or if it was determined in any way other than exclusively by human reason: "[s]ince for Descartes reason was defined as logical deduction from explicit premises, rational action also came to mean only such actions as was determined entirely by known and demonstrable truth" (Hayek, 1973, p. 10).<sup>6</sup>

From then on, the belief in the human capacity to deliberately recreate social institutions, such as language, moral rules, culture, and law, was spread. The constructivist perspective believes that these institutions should be designed to explicitly serve the objectives of society.

Rationalism in this sense is the doctrine which assumes that all institutions which benefit humanity have in the past and ought in the future to be invented in clear awareness of the desirable effects that they produce; that they are to be approved and respected only to the extent that we can show that the particular effects they will produce in any given situation are preferable to the effects another arrangement would produce; that we have in our power so to shape our institutions that of all possible sets of results that which we prefer to all others will be realized. (Hayek, 1965, p. 85)

This anthropomorphic view of the world and the supposedly intentionalist character of institutions reached its peak, according to Hayek, with Hobbes and Rousseau

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<sup>6</sup> Diamond (1980) identifies three fields that define the central characteristics of constructivism as expounded by Hayek: epistemology, ethics, and politics. In epistemology, constructivist rationalism is characterized by an optimism regarding the powers of human reason and adherence to Descartes' deductive method. In ethics, constructivism is characterized by the theory of social contract and utilitarianism, which justifies human attitudes through calculations of pleasure and pain gains. In political practice, constructivism aligns itself with socialism and central planning.

and the theory of social contract as an explanation for the foundation of the State, where individuals in the state of nature deliberately relinquished their rights in exchange for the security provided by the sovereign in the civil state (Hayek, 1973, p. 10). In this sense, the understanding of a State deliberately created to serve the interests of a privileged minority against the oppressed majority, a class against another class, fits into the same line of thought as a particular case.

This tradition of social rationalism forms the basis of movements such as socialism and Nazism, in their eagerness to control the particular facts of the economy and society and their belief in replacing traditional institutions with rationally constructed ones, aimed at achieving certain national plans and objectives: “[i]t is from this kind of social rationalism or constructivism that all modern socialism, planning and totalitarianism derives” (Hayek, 1965, p. 85).<sup>7</sup>

According to Hayek, the wrong conception of human society presented here ultimately lies in an imprecise and incomplete understanding of the nature of recurring phenomena experienced by humans, and of the order present in people’s everyday lives.

Followers of constructivist rationalism see a duality in the world between natural events, in the sense that they are entirely independent of human action (*physei*), and artificial events (*nomo*), the products of human action and planning, deliberately constructed social conventions. From this point of view, ultimately, order can only exist if there is prior planning, organization, and execution of the expressed will of human beings: “Cartesian rationalism and all its descendants assume (that) human civilization is the product of human reason” (Hayek, 1965, p. 86).

Hayek, however, argues for the acknowledgment of a third category that is intermediate between *physei* and *nomo*: the recognition of the existence of institutions and orders that arise from human action but are not the result of deliberate will and planning by individuals.<sup>8</sup> This fits into a “distinct third class of phenomena (...) described by Adam Ferguson as ‘the result of human action but not of human design’” (Hayek, 1973, p. 20).

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<sup>7</sup> In his most popular book, “The Road to Serfdom,” Hayek (1945) dedicates a chapter to the analysis of the legal, ideological, and economic similarities between Nazism and communism: “[i]t is a common mistake to regard National Socialism as an (...) irrational movement without intellectual background (...). The doctrines of National Socialism are the culmination of a long evolution of thought, a process in which thinkers who have had great influence far beyond the confine of Germany have taken part (...). It was not merely the defeat, the suffering, and the wave of nationalism which led to their success. Still less was the cause, as so many people wish to believe, a capitalist reaction against the advance of socialism. On the contrary, the support which brought these ideas to power came precisely from the socialist camp (...). It was the union of the anticapitalistic forces of the Right and of the Left, the fusion of radical and conservative socialism, which drove out from Germany everything that was liberal” (Hayek, 1945, p. 167-168).

<sup>8</sup> “[W]hat was really required was a three-fold division which inserted between the phenomena which were natural in the sense that they were wholly independent of human action, and those which were artificial or conventional in the sense that they were the product of human design, a distinct middle category...” (Hayek, 1967a, p. 97).

Hayek seeks to follow the Scottish Enlightenment tradition, which, through thinkers like Bernard Mandeville,<sup>9</sup> David Hume,<sup>10</sup> and Adam Smith,<sup>11</sup> sought to study how unintended results of actions taken by society's members could be beneficial to society: “[i]t was finally in reaction to (...) Cartesian rationalism that the British moral philosophers of the eighteenth century (...) built up a social theory which made the undesigned results of individual action its central object” (Hayek, 1967a, p. 98-99). Additionally, Hayek clarifies that non-planning according to supposedly rational criteria of orders or institutions does not imply that those who adhere to them are irrational. Quoting Karl Popper, he writes that “undesigned social institutions may emerge as unintended consequences of rational actions” (Hayek, 1967a, p. 100, n. 12).

According to Hayek, this tradition of “critical rationalism” began, just like constructivist rationalism, in Ancient Greece, especially with Aristotle, and passed through medieval Thomist thought until it culminated in the Scottish Enlightenment thinkers and the liberals of the 18th and 19th centuries, such as Kant and Tocqueville. This philosophical line recognizes the existence of limits to the capacity of human reason to fully comprehend all facets of the complex world in which we live and considers rational the recognition that reason itself is not unlimited in its ability to understand and improve society.<sup>12</sup> According to this view, the human mind and reason are products of civilization and its institutions, and not the other way around, as constructivist rationalists argue: “[m]ind is as much the product of the social environment in which it has grown up and which it has not made as something that has in turn acted upon and altered these institutions” (Hayek, 1973, p. 17); “man’s mind is itself a product of the civilization in which he has grown up” (Hayek, 1960, p. 24). It recognizes that man is not omniscient, and therefore adheres to a system of general, abstract, and not necessarily planned rules that shape, at least partially, his behavior.<sup>13</sup>

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<sup>9</sup> “Perhaps in no case did he [Mandeville] precisely show how an order formed itself without design, but he made it abundantly clear that it did, and thereby raised the questions to which theoretical analysis, first in the social sciences and later in biology, could address itself” (Hayek, 1966, p. 251).

<sup>10</sup> “Hume gives us probably the only comprehensive statement of the legal and political philosophy which later became known as liberalism” (Hayek, 1963, p. 105).

<sup>11</sup> “The recognition that a man’s efforts will benefit more people, and on the whole satisfy greater needs, when he lets himself be guided by the abstract signals of prices rather than by perceived needs, and that by this method we can best overcome our constitutional ignorance of most of the particular facts, and can make the fullest use of the knowledge of concrete circumstances widely dispersed among millions of individuals, is the great achievement of Adam Smith” (Hayek, 1976, p. 269).

<sup>12</sup> “True rational insight into the role of conscious seems indeed to indicate that one of the most important uses is the recognition of the proper limits of rational control” (Hayek, 1965, p. 93). According to Barry, “[t]he whole of his [Hayek’s] social philosophy may be described as an assault on the exaggerated claims made for ‘reason’ and a justification for the view that we must adopt an attitude of humility towards natural processes” (Barry, 1982, p. 76).

<sup>13</sup> According to Paulani, in Hayek’s thinking “rules assume significant importance (...) precisely due to the conception of knowledge as subjectively grounded and our ignorance regarding the future outcomes of the courses of action we choose” (Paulani, 1996, p. 118, my translation).

However, as Weimer (1982) argues, Hayek's criticism of constructivist rationalists does not make him a proponent of irrationality in any sense. Rather, Hayek's goal is to show what he understands as the correct sense of reason and its best use, something that had been neglected by followers of that type of thinking. This makes Hayek a promoter of reason and a critic of the abuse of reason.

Critical rationalism argues that due to the mental limitations of individuals, the existence of institutions that are not deliberately created or followed to achieve specific objectives, or even those that do not have a recognized function for social cohesion, can be beneficial for the group that adopts them. Hayek states that “[m]any of the institutions of society which are indispensable conditions for the successful pursuit of our conscious aims are in fact the result of customs, habits or practices which have been neither invented nor are observed with any such purpose in view” (Hayek, 1973, p. 11).

Critical rationalism emphasizes the unintended consequences of human action. According to this tradition of thought, human action itself creates consequences that were not (and could not be) foreseen by the individual. Therefore, each person acting according to their own plan and interest, utilizing their unique knowledge and only constrained by certain rules of conduct, can contribute to the existence of a spontaneous order that is of general interest and benefit, which was not the plan of any member of society.

Thus, for Hayek, the emergence of order can (and should) be spontaneous, in the sense that it is not the result of anyone's deliberate action or planning, but rather the result of individuals in a certain group acting in their own interest, governed by a common institutional pattern, and not the explicit desire or intentional action of any of them. Vernon Smith, commenting on the critical rationalist tradition to which Hayek belongs, states that “the key proposition articulated by the Scottish philosophers [is]: to do good for others does not require deliberate action to further the perceived interest of others” (Smith, 2002, p. 503).

Adhering to critical rationalism, as opposed to constructivist rationalism, does not lead Hayek to seek to justify the usefulness of moral rules or institutions of a spontaneous order. From his perspective, one should not even attempt to seek any rational foundation for them or for any social system: “no matter what rules we follow, we will not be able to justify them as demanded; so no argument about morals – or science, or law, or language – can legitimately turn on the issue of justification” (Hayek, 1988, p. 68). According to him, if humans were to act only according to what their reason approves or recommends, or if they were to seek the rational basis for each of their actions, their very survival would be impossible, given the limitation of their mental capacity: “[i]f we stopped doing everything for which we do not know the reason, or for which we cannot provide a justification in the sense demanded, we would probably very soon be dead” (Hayek, 1988, p. 68).



### 3. THE EVOLUTIONARY APPROACH TO INSTITUTIONAL CHANGE

As seen, according to Hayek, the tradition of thought of constructivist rationalism, by asserting that institutions are and should be the result of the expressed will and deliberate planning of humans, leads to the conclusion that the existing institutions in a society must be modified and transformed according to the desires and deliberate actions of individuals: “[t]he basic conception of (...) constructivism can (...) be expressed in the simplest manner by the (...) formula that, since man has himself created the institutions of society and civilisation, he must also be able to alter them at will so as to satisfy his desires or wishes” (Hayek, 1970, p. 3).

In other words, the fiction is created that it is up to individuals, and that they are fully capable of doing so, to reorganize society by designing and creating laws, moral rules, and institutions according to pre-established rational objectives. In accordance with this view, the set of institutions that characterize a particular society changes over time according to the dictates of human reason, deliberately.

On the other hand, the line of thought of critical rationalism, to which Hayek adheres, sees institutions, behavioral rules, and culture existing in a society as the product of an evolutionary process.<sup>14</sup> According to him, the institutional system (in a broad sense) prevailing in a spontaneous order allows it to be better or worse adapted to the environment in which it lives compared to its potential rivals.

Most of [the] steps in the evolution of culture were made possible by some individuals breaking some traditional rules and practicing new forms of conduct – not because they understood them to be better, but because the groups which acted on them prospered more than others and grew. (Hayek, 1979, p. 161)

According to Hayek, the process of selection of institutions arises as a consequence of individuals seeking to adapt to the complex environment in which they live, an environment that is largely not comprehensible in its present state or what the future will bring.

Social groups that possess a system of rules, aesthetic and ethical standards, and a legal system that allows them to better adapt to the environment compared to rival groups will be stronger and more resilient. They will propagate more easily over time, allowing the efficient institutional framework to continue to exist and be passed on to new generations of the surviving or more powerful group: “the present order of society has largely arisen, not by design, but by the prevailing of the more effective institutions in a process of competition” (Hayek, 1979, p. 154-155).

Thus, continuous competition is a fundamental concept for Hayek’s approach to institutional change, as highlighted by Ebner (2005). In Hayek’s words, “[n]ot

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<sup>14</sup> According to Caldwell (2004b), the evolutionary approach to institutions emerges in Hayek’s works starting in the 1950s and becomes more consistent and explicit in “The Constitution of Liberty” (Hayek, 1960).

only does all evolution rest on competition; continuing competition is necessary even to preserve existing achievements” (Hayek, 1988, p. 26).

The combination of the ideas of the emergence of unintended results from human action and competition as a process of selecting better-adapted institutions leads Lavoie (1986) to argue that, under Hayek’s evolutionary approach, the evolutionary process exhibits a kind of rationality in promoting the best adjustment of the social group to its environment. Lavoie then opposes the neoclassical approach, which exaggerates the belief in the rational ability of agents to perfectly understand reality and anticipate future scenarios and the outcomes of their actions, attributing rationality solely to individuals and understanding reason and societal knowledge merely as the sum of individual parts.

From Hayek’s perspective, what allows a particular group to be better adapted to its environment, thus enabling it to survive and propagate its own institutions, is the existence within it of individuals who act in a manner that can be described as rule-following. If an individual acting according to certain behavioral rules succeeds within the group and proves capable of surviving in the best possible way in the complex and competitive environment, she/he may be followed by others in their way of living and behaving.

In this sense, Hayek’s evolutionary approach assigns a central role to individual action and self-interest as initiators of institutional change and as endorsers of new practices. A person starts to act in a certain way to pursue a purpose and in response to the continuous change in the perceived data, the inherent uncertainty of the world she/he lives in, and the ongoing competition she/he faces.<sup>15</sup> This new form of action may be more successful in a particular field of activity or in the eyes of a certain social group, causing her/him to stand out positively compared to their peers. As a result, others, seeking the same success, start to imitate that individual (not necessarily deliberately or intentionally). Thus, a new form of behavior spreads throughout the order, even though it was not the intention of the innovative individual.<sup>16</sup> In this way, Hayek emphasizes the unintended results of human action in pursuit of a certain goal.

The law breakers, who were to be path-breakers, certainly did not introduce the new rules because they recognized that they were beneficial to the community, but they simply started some practices advantageous to them which then did prove beneficial to the group in which they prevailed. (Hayek, 1979, p. 161)

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<sup>15</sup> “Despite [the] differences, all evolution, cultural as well as biological, is a process of continuous adaptation to unforeseeable events, to contingent circumstances which could not have been forecast” (Hayek, 1988, p. 25).

<sup>16</sup> “In addition to their individual purposes and the subjective understanding each possesses of the world, the rules that people tend to follow unquestioningly, through a process of imitation, play an extremely important role in Hayek’s vision of human action” (Paulani, 1996, p. 116, my translation).

In this sense, Hayek's evolutionary approach assigns a central role to individual action and self-interest as initiators of institutional change and as endorsers of new practices. A person starts to act in a certain way to pursue a purpose and in response to the continuous change in the perceived data, the inherent uncertainty of the world she/he lives in, and the ongoing competition she/he faces. This new form of action may be more successful in a particular field of activity or in the eyes of a certain social group, causing her/him to stand out positively compared to their peers. As a result, others, seeking the same success, start to imitate that individual (not necessarily deliberately or intentionally). Thus, a new form of behavior spreads throughout the order, even though it was not the intention of the innovative individual. In this way, Hayek emphasizes the unintended results of human action in pursuit of a certain goal.

According to Feldmann (2005), in Hayek's institutional approach, there are two levels: the individual level, where behavior is at least partially guided by rules, and the collective level, which emerges from individuals acting in a way that can be described by that system of rules (i.e., forming an order). Similarly, the evolutionary process of institutional change begins at the individual level, with people seeking to adapt to new conditions and information in the uncertain and competitive environment in which they live, adopting new routines, technologies, etc. It then reaches the collective level as this new form of action is efficient for those who adopt it and becomes increasingly common, altering the practices and routines of a growing portion of the social group. Moreover, at the collective level, competition between groups also takes place, leading to the selection of the best rules that allow the adopting group to have greater well-being, wealth, power, etc.

Feldmann (2005) argues that Hayek's evolutionary approach, despite dealing with the collective aspect of institutional change, is not inconsistent with the methodological individualism characteristic of the Austrian school, as it is ultimately based on the behavior of individuals. However, as noted by Caldwell (2004a, p. 315), a correct understanding of Hayek's position on institutional evolution should not be limited to individual analysis alone; instead, one should seek to understand the crucial role of group selection in an evolutionary theory. On the other hand, according to Christainsen (1994), the coherence between methodological individualism and Hayek's evolutionary approach to institutional change is a controversial point among Austrian school proponents.

For Hayek, members of the spontaneous order should not blindly, absolutely, and unquestionably submit to traditional institutions; instead, they should critically and rationally evaluate them and seek to improve them. Regarding Hayek's evolutionary research on institutional change, Boettke states that "[t]he role of economics as a theoretical science is seen to be primarily to understand the evolved institutions in contemporary society, to rationally diagnose their failings, and to offer positive suggestions for their revision" (Boettke, 1989, p. 75). However, individuals must recognize their limited capacities to understand and simultaneously

alter the entire institutional framework: “although we must always strive to improve our institutions, we can never aim to remake them as a whole and, in our efforts to improve them, we must take for granted much that we do not understand” (Hayek, 1960, p. 63).

Therefore, in a free society, institutional change does not occur exclusively in a spontaneous and evolutionary manner but also to some extent through deliberate intervention. However, it recognizes the human inability to fully comprehend and reconstruct institutions as a whole, leading people to approach the possibility of deliberate intervention in the institutional system with caution and humility.<sup>17</sup> Hayek argues that in a free society, there should be room for deliberate changes to the institutional apparatus (particularly those that can enhance the competitive and rivalrous aspect of the catallactic order), and the government has a crucial role in observing the legal system and punishing transgressors. In an interview regarding which government activities he does not attack, Hayek mentions “the whole design of the legal framework within which competition works – the law of contract, the law of property, the general provisions to prevent fraud and deception. All these are entirely desirable activities” (Hayek, 1994, p. 112).<sup>18</sup>

Ebner (2005) systematizes Hayek’s approach to spontaneous institutional change in three stages: variation, transmission, and selection. Variation refers to the change, not always explicit or deliberate (often random), in habits, routines, and technology by individuals seeking to achieve certain goals in a world permeated by uncertainty and in a competitive environment. Such change presupposes the existence of an institutional or legal platform that allows human action to be free within certain limits, rather than precisely defining the exact steps that the action will take, and that has some tolerance for those who break the rule system. Birner and Ege (1999) note that for Hayek, the market order (“catallaxy”) is this platform where individuals can pursue their own interests and deviate from expected behavior.

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<sup>17</sup> “The recognition of the insuperable limits to his knowledge ought indeed to teach the student of society a lesson of humility which should guard him against becoming an accomplice in men’s fatal striving to control society – a striving which makes him not only a tyrant over his fellows, but which may well make him the destroyer of a civilization which no brain has designed but which has grown from the free efforts of millions of individuals” (Hayek, 1974, p. 34).

<sup>18</sup> “The question whether the state should or should not “act” or “interfere” poses an altogether false alternative, and the term “laissez-faire” is a highly ambiguous and misleading description of the principles on which a liberal policy is based. Of course, every state must act and every action of the state interferes with something or other” (Hayek, 1945, p. 80-81). Particularly, Hayek’s non-dogmatic stance can be seen when he admits that the government may, with care and good judgement, legislate on the maximum working hours for workers. When asked if the legal establishment of a limit on the daily working hours is compatible with his thoughts on the proper role of government in the market, Hayek responds: “[y]es, if it is not carried too far. It is one of these regulations which creates equal conditions throughout the system. But, of course, if it goes beyond the point where it accords with the general situation of the country, it may indeed interfere very much” (Hayek, 1994, p. 112).

#### 4. “DARWINIANS BEFORE DARWIN”

The study of the evolutionary approach to institutional change naturally leads to an analogy with Charles Darwin’s famous theory of species evolution. Hayek was not oblivious to the impact caused by the ideas of the English naturalist. This is because, according to Ebenstein (2003, p. 1-2), his father (similarly to his grandfather) was an important and respected botanist of the Austro-Hungarian Empire, with several influential works on the subject and a chair at the University of Vienna. At the time (the late 19th and early 20th centuries), Darwin’s theories were beginning to sweep through the minds of European intellectuals, and Mr. August von Hayek and his circle of friends embraced these ideas. According to Ebenstein, “a very crude understanding of evolutionary selection came into being. ‘Survival of the fittest’ became the general idea of Darwinian evolutionary selection that filtered through to the majority of people” (Ebenstein, 2003, p. 4).

The young “Fritz’s” early scientific research took place alongside his father: “[m]y first scientific interest was, following my father, in botany. (...) I had much opportunity to help him, first as a collector and later as a photographer” (Hayek, 1994, p. 42-43). Hayek’s siblings and children also pursued natural sciences. According to Hayek, his interest in his youth quickly progressed to the theory of evolution: “[s]ystematic botany with its puzzle of the existence of clearly defined classes proved a useful education. But my interest gradually shifted from botany to paleontology and the theory of evolution” (Hayek, 1994, p. 43). Therefore, it is reasonable to imagine that Hayek must have been deeply influenced by Darwinian ideas before fully engaging in social sciences debates.

Despite having encountered Darwin’s ideas earlier and possibly being influenced by them, Hayek, in various points of his works (e.g., 1960, 1973, 1988), insists that evolutionary ideas emerged in the study of social issues long before they did in the natural sciences, from Classical Greece to the Scottish Enlightenment.

Since the emphasis we shall have to place on the role that selection plays in this process of social evolution today is likely to create the impression that we are borrowing the idea from biology, it is worth stressing that it was, in fact, the other way round: there can be little doubt that it was from the theories of social evolution that Darwin and his contemporaries derived the suggestion for their theories. (Hayek, 1960, p. 59)

[Darwin’s] painstaking efforts to illustrate how the process of evolution operated in living organisms convinced the scientific community of what had long been commonplace in the humanities. (...) Darwin got the basic ideas from economics. As we learn from his notebooks, Darwin was reading Adam Smith just when, in 1838, he was formulating his own theory. (Hayek, 1988, p. 23-24)

That is why Hayek insists that followers of “critical rationalism” were actually “Darwinians before Darwin” (Hayek, 1973, p. 23). However, the analogy is not per-

fect because, despite their similarities, the evolution-inspired method typical of the natural sciences would not allow for its direct application to the fields of humanistic studies: “[o]f course the theory of cultural evolution (...) and the theory of biological evolution are, although analogous in some important ways, hardly identical” (Hayek, 1988, p. 25).

For Hayek, the problem was that evolutionary theory had made its way back, migrating from Darwin to the social sciences and bringing about dangerous transformations. This was the emergence of the so-called Social Darwinism.

A nineteenth-century social theorist who needed Darwin to teach him the idea of evolution was not worth his salt. Unfortunately, some did, and produced views which under the name of ‘Social Darwinism’ have since been responsible for the distrust with which the concept of evolution has been regarded by social scientists. (Hayek, 1973, p. 23)

Thus, Hayek insists that advocating an evolutionary approach does not imply adopting or endorsing Charles Darwin’s ideas or methods: “Social Darwinism, in particular, proceeded from the assumption that any investigator into the evolution of human culture has to go to school with Darwin. This is mistaken” (Hayek, 1988, p. 23).

It is necessary, then, to distinguish Hayek’s evolutionary theory, applied to the study of social phenomena and the cultural transmission of institutions, from Darwinian theory concerning the origin of species, which involves genetically transmitted characteristics and its direct application by adherents of constructivist rationalism. Hayek’s criticisms can be summarized, following his own suggestion (1973, p. 23-24), in two fundamental points.

Firstly, Social Darwinism is concerned with the selection of individuals who are better adapted, stronger, capable, or intelligent. It focuses on the innate qualities of individuals and seeks to understand the evolution of societies based on the selection of individuals forming them, according to their genetic qualities.

On the contrary, critical rationalism bases its analysis on the process of institutional evolution, where institutions are transmitted through education and group experiences. The selection here is not on an individual basis but rather on social groups or, more accurately, on the institutional framework that characterizes each group. In Hayek’s words, “[t]he error of ‘Social Darwinism’ was that it concentrated on the selection of individuals rather than on that of institutions and practices, and on the selection of innate rather than on culturally transmitted capacities of the individuals” (Hayek, 1973, p. 23). According to him (1988, p. 25), it was not a consensus among scholars whether group selection also occurs in biological evolution.

Secondly, Hayek argues that the correct application of the evolutionary principle cannot allow for the existence of any kind of determinism regarding the outcome or stages of the process. The evolutionary process of institutional change is not teleological; it does not allow for predictions regarding the specific steps it will

take or its precise outcome. This is due to both the cognitive limitations of humans and, more importantly, because there are no determinants of the evolutionary process that force it to take one path or another. It is open to the course of history and, therefore, incapable of being fully anticipated. According to Hayek, the correct evolutionary approach allows the scholar to anticipate only some general aspects of the process.

The theory of evolution proper provides no more than an account of a process the outcome of which will depend on a very large number of particular facts, far too numerous for us to know in their entirety, and therefore does not lead to predictions about the future. We are in consequence confined to 'explanations of the principle' or to predictions merely of the abstract pattern the process will follow. (Hayek, 1973, p. 24)

However, constructivist rationalism and Social Darwinism perceive a stage-like character in history by asserting that a society organized with certain characteristics has gone through or will have to go through specific stages of its economic or social organization, moments necessary for its maturation towards an inexorable new reality. In this sense, they see a fatalism, a determinism in history that Hayek views as entirely misguided. Such a perspective regards the institutional evolution of social groups as following a kind of general law that everyone must obey. Hayek characterizes this view as follows:

The pretended laws of overall evolution supposedly derived from observation have in fact nothing to do with the legitimate theory of evolution which accounts for the process. They derive from the altogether different conceptions of the historicism of Comte, Hegel and Marx (...) and assert a purely mystical necessity that evolution must run a certain predetermined course. (Hayek, 1973, p. 24)

Hayek does not argue that there are laws that determine the course of biological evolution; rather, according to him, this is a misapplication by those who seek to use Darwin's theory in the social field.

In addition to these distinct characteristics, Hayek (1988, p. 25) identifies other differences between the correct method used in the study of cultural evolution and that used in investigating biological evolution. Cultural evolution is much faster than biological evolution because it is transmitted through learning rather than genetically. Furthermore, cultural evolution only makes sense when viewed as pertaining to learned social behavior rules, not innate rules inherent to human beings themselves. Lastly, the transmission of innate rules occurs exclusively and directly from parents to children, while cultural rules, accumulating knowledge and being transmitted through social interaction, can be inherited from many other members of the group.

Kresge (1994) proposes that Hayek's analysis implicitly argues that the true "test" of adjustment in an evolutionary process is survival. However, using Darwin's

method, appropriate for the study of natural sciences, the non-adjustment of certain genetic rules results in the physical death of individuals possessing those innate characteristics. If correctly applied to social issues, however, the evolutionary approach will show that non-adjustment pertains to behavior rules transmitted culturally rather than genetically. “Inefficiency” leading to death, then, refers to the system of rules and not necessarily to the living beings themselves. Similarly, the survival of the well-adapted refers to the system of rules and the institutional framework, rather than to individuals in a physical sense.

## 5. CONCLUDING REMARKS

The article sought to systematize Hayek’s vast contribution to the study of institutions and their change. This aspect of the Austrian economist’s research agenda and his extensive body of work should be understood as part of a larger effort to comprehend what he referred to as the abuse of reason – the exaggerated belief in the capacity of human reason and its history over the centuries. Of course, this should not be disconnected from Hayek’s criticisms of what he saw as the two main threats to freedom in the post-World War II era: socialism and Keynesianism.

As seen throughout the text, Hayek reconstructs two intellectual traditions in Western thought: critical rationalism and constructivist rationalism. Followers of critical rationalism, according to Hayek, argue that certain events or institutions arise as a result of some human activity or act, even if such outcomes were not intended or planned when the action was taken. This tradition includes, among others, David Hume, Bernard Mandeville, Adam Smith, Carl Menger, and, based on his work, the entire Austrian School (Hayek, 1967a, p. 98-99; 1965, p. 84).

On the other hand, there is the so-called constructivist thinking. Stemming from Plato, Descartes, and Bacon, this tradition gained strength, especially with Hegel, Marx, Comte, and others. According to them, all institutions and outcomes of human action would be products of human will. From Hayek’s perspective, under this view, there would be no unintended or non-intentional results that are not derived from the explicit desires of humans. This way of thinking fostered the belief that humans could construct or reconstruct society and its institutions, rules, and traditions through reason, denying the possibility of a stable spontaneous order (Hayek, 1970, p. 3; 1965, p. 85).

Based on his defense of critical rationalism, Hayek seeks to establish his institutional approach from an evolutionary perspective. At the same time, he seeks to dispel the misunderstanding that such an application of the evolutionary principle to social sciences is an application of Darwinian ideas. Again, this can be seen as a result of his reflections on the abuse of reason, in this case, particularly regarding methodological issues: the criticism of methodological monism and the application of methods and criteria from natural sciences to social sciences.



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