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Institutions and Agricultural Economics: a theoretical framework from Evolutionary Institutionalism

This paper aims to present central concepts of Evolutionary Institutionalism and to highlight analytical elements that may be useful for studies in agricultural economics. To this end, the study carried out a literature review based on the main references of institutional and evolutionary economics. The main analytical contribution of Evolutionary Institutionalism to agricultural economics lies in understanding economic relations from the perspective of human behaviour. Individuals become central to the analysis of the rural world, since they establish habits, behaviour patterns, and rules of conduct that, when interacting collectively, produce institutions. Thus, it is from the active role of the individual that rural dynamics emerge and consolidate an institutional environment and prevailing social structures. It is possible to point out some specific themes that emerge as potential applications of this line of thought: a) the analysis of the development trajectory of and institutional changes affecting different rural sectors; b) the role of habits, traditions and behavioural trends; c) power relations in agricultural markets; d) the evaluation of public policies for agriculture; e) innovation and technology as determinants of the evolution of routines, and f) the institutions “behind” the new relations of food production and consumption.

Keywords: Agricultural markets; evolutionary economics; original institutionalism; rural economy.

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Introduction

Agricultural economics is a branch of economics that investigates the relationships between rural organisations, markets, and the state, using the scientific method and economic theory to find answers to agri-food problems. However, this research area has maintained a certain conservatism in relation to its analytical assumptions, and although agriculture is a sector in continuous transformation, the specialised literature still maintains a close relationship with neoclassical economics and its “immutable” assumptions.

The emergence of neoclassical theory as part of the economic mainstream consolidated assumptions and methods for the economic understanding of rural dynamics starting in the late nineteenth century. The agricultural sector began to be analysed based on static supply and demand instruments, functions of diminishing marginal returns, profit maximisation models, and optimisation of resource utilisation. Over time, neoclassical assumptions such as substantive rationality, symmetric information flow, equilibrium, and competitive markets were added to the agricultural analysis.

During the 20th century, the rural world experienced intense transformations, changing both the productive structure of the agricultural sector and the individuals responsible for the development processes. Although these transformations gave rise to a new dynamic in agri-food markets, one very different from that found at the end of the 19th century, the dominant instruments of analysis of the rural economy remained practically unchanged.

The closer interaction of the rural with the urban, as well as the process of industrialisation of agriculture brought new characteristics to agricultural markets, disconnected from the assumptions of neoclassical economics, such as: dynamic behaviour, existence of imbalances, shocks and instabilities, asymmetry of information, productions focused

on tradition, culture and sustainability, the bounded rationality of individuals, the intense process of agro-industrial innovation, economies of scale and scope, market imperfections, new marketing arrangements, learning, the benefits of the interaction of individuals and the permanent influence of institutions.

Some transformations in the rural environment stimulated the application of heterodox concepts, as in the case of the role of institutions (as formal rules) and governance structures in the coordination of agro-industrial chains, based on the theoretical framework of the New Institutional Economics (NIE) (Williamson, 1993; North, 1990). However, in the NIE the static approach to analysis remains, and there is no prior institution to be explained. Institutions matter, but they are given within a general framework. From this perspective, there would be no prior cultural and social structure - there is no past (Hodgson, 1998).

It is believed that the assumptions of NIE and neoclassical instruments of analysis, such as estimation of supply and demand curves, elasticities, price transmission analysis, and scenario design remain relevant elements for the study of agricultural economics. However, they can be reconciled with a systemic and dynamic analysis, more compatible with the rural reality.

Original Institutionalism was born as a theoretical current at the end of the 19th century, seeking to recognise the importance of institutions and proclaim the need for a genuine evolutionary economy. This approach was called “original” to differentiate it from the NIE, which preceded it in the history of economic thought. His works offered different perspectives on the nature of the individual, based on the concept of habit, without the concern for a “theory of everything”, as in physics, but approaching a theory of change, like evolutionary biology (Hodgson, 1998). More recently, the literature concerning innovation processes

(neo-Schumpeterians) and the evolution of institutions (original institutionalists) have inspired evolutionary ideas and have demonstrated that the evolutionary perspective in economics can provide a useful theoretical framework for applied research (Dosi and Nelson, 1994). This recent approach, led by Geoffrey Hodgson, represents contemporary developments in the theory, culminating in the proposition of an Evolutionary Institutionalism.

This perspective of Institutionalism, even though it originated in the 19th century, only came to be used in rural studies more recently, based on interdisciplinary perspectives, which recognise the importance of institutions, from habits, traditions, and behavioural norms, as a fundamental part of the economic system, and not only as a given institutional environment, as determined by the NIE.

Thus, in the field of agricultural economics there is still a lack of research aimed at analysing problems based on the assumptions of Evolutionary Institutionalism. This means that the analysis should focus on the process of change, imbalances, the individual as an active agent, the importance of habits and customs, and the understanding of institutions and history as fundamental factors to understand the present and project the future. Therefore, this paper aims to present central concepts of Evolutionary Institutionalism and to point out analytical elements for studies in Agricultural Economics.

Institutionalism: origin and evolution

The expression “Institutional Economics” was first introduced by Hamilton (1919), who recognised that the economy should be understood by a theory of human behaviour, having institutions as the central element to explain it. The origin of this body of theory is due to the studies of Thorstein Veblen (1898), followed by Wesley Mitchell (1910) and John R. Commons (1931), who founded the school called Original Institutionalism.

The central concept of Original Institutionalism is the active character of the individual, viewed as a determinant in the evolution of economic life. It is from the individual and his collectivity that institutions originate: a fundamental element of the economic process. For Veblen (1898), institutions are individual thought habits established by common thought. Habits are the consequences of processes shared by a number of people in a given society.

The older the habit, the more legitimised it becomes; and the more a habit coincides with custom, the more persistently it will become fixed. The habit will be firmer if the special tendencies of human nature are tendencies already deeply involved in the vital process, or intimately connected with the life history of a given group (Veblen, 1899). If habits of thought transform the social structure, individuals become active agents in economic life and the direction of their individual activity is determined by their temperament, heredity, experience, and traditions. That is, through action, the agent also contributes individually towards modifying the environment in which he is inserted (Rutherford, 1998).

Veblen (1898) built a theory of change and sought to understand the effects of technical progress on the economy under a static state of equilibrium and under an evolutionary process (Hodgson, 1993). The ideas of Darwin’s Theory of Evolution were always present in Veblen’s works and Darwinism is found in the concept of institutions as units of selection (Hodgson, 2005), in the statement that the economy is “an infinite causal process of a cumulative nature without ever reaching equilibrium” (Hodgson, 1992, p. 290) and in the argument that “with the exception of the instinct of self-preservation, the propensity to compete is probably the strongest, most alert and persistent of the economic motives” (Veblen, 1899).

Economic history, in the Veblenian view, is a blind flight, in contrast to dialectical movements and the deterministic or progressing process. Thus, Veblen breaks with the teleological, finalistic future of Marxism and the Neoclassicals and the view that the economy moves toward a benevolent end; the economy is not based on equilibrium and the end is neither benevolent nor malevolent but depends on the angle used to interpret it (Dugger, 1988).

Original Institutionalism is a behavioural approach and analyses the behaviour of individuals when faced with choices. Choices are either voluntary or involuntary, imposed individually or by principles of collective action (Commons, 1934). John Commons was an important institutionalist who influenced the Behavioural Economics, New Institutional Economics, Post-Keynesianism and Regulation Theory (Hodgson, 1998). Commons (1934) strove to find a universal circumstance common to all behaviour known as institutional, and then defined an institution as collective action that controls, liberates, and extends individual action.

Collective action ranges from disorganised customs to social interests. The principle common to all links is the greater or lesser control, release, and extension of individual action through collective action, which results in a gain or a loss for another individual. Collective action is more universal in the organised form of customs than in the organised form of interests. Customs change over time, as the economic environment changes (Commons, 1934).

For Commons (1931), institutions determine what an individual can (or cannot), should (or should not) do, under collective sanctions. Thus, a world of institutions in the form of collective actions is a constantly changing world, in which the future becomes uncertain. It is worth noting that according to Commons (1934), the concept of institution forms established patterns of conduct, while in Veblen’s (1898) view the institution is more flexible and libertarian.

Evolutionary thinking can be found in John Commons in the way the author treats the role of the individual in economic transactions. For Institutional Economics to be evolutionary, a psychology of transactions rather than an individualistic and hedonistic psychology becomes necessary (Commons, 1934). John Commons’ thought stands out due to its search for a theoretical and methodological organisation capable of stimulating studies that are applicable to institutional economic realities. The legacies of his thought were: the construction of an institutional ontological character; the nature of the institutionalist theoretical environment; the consolidation of theoretical assumptions; and the search

to formulate a method of analysis. These efforts influenced the thought of Williamson (1993), who highlights Commons' contributions to the New Institutional Economics: dynamic view of institutions; formulation of the transaction as the basic unit of analysis; analysis of the relationship between the part and the whole; and a historical appreciation of how the habits, legal background and laws of a society evolve into a collective pattern of behaviour.

Evident in the ideas of Veblen (1898) and Commons (1934) is a break with the conception of the individual as "given", maximiser, and hedonist. They formulate an institutional theory that positions the individual as the agent of change through his common and collective habits of thought, which, over time, form the institutional structure.

The Development of an Evolutionary Institutionalism

The ideas of Original Institutionalism fell into disuse post-1930 due to the changes that occurred in the social sciences, especially those arising from the consolidation of the mathematical method and positivist philosophy. Within Institutional Economics, original thinking was nevertheless supplanted by the increasing theorisation and application of the NIE. However, starting in the 1980s, a group of academics reverted to the Original Institutionalism and brought it closer to being an evolutionary economic theory (Hodgson, 1998).

Led by Hodgson (1998), Rutherford (1998), Dugger (1988) and Samuels (1995), this movement has rescued the importance of the central concepts of Original Institutionalism, especially Veblen's, and brought them closer to the growing theoretical vigour of the neo-Schumpeterian tradition, developing an approach that can be called Evolutionary Institutionalism. The convergence between the institutionalist and neo-Schumpeterian schools resides in the evolution of institutions and their influence on technological change. Veblen's cumulative circular causation is nothing more than a synonym for evolutionary path dependence.

One of the main authors of this movement, Hodgson (1992) points out the main assumptions that guide Evolutionary Institutionalism and motivate researchers to use evolutionary metaphors in the economic field:

- a) the idea of a process of cumulative causation as opposed to descriptions of the economy as something that develops towards an equilibrium situation;
- b) the analogy between the natural selection process of biological organisms and the selective process in the social world;
- c) the taxonomic diversity of the economy through the diversity of individuals, variations, mutations, and dynamisms; and
- d) the need for an evolutionary analysis to include the three Darwinian principles of variation, inheritance, and selection.

From this perspective, the institutional body of theory is constituted by the emphasis on economic and social evolution. Culture has a dual aspect, as a cumulative process of causation and coevolution. Institutional analysis is pluralis-

tic, cannot be separated from historical analysis, and relates institutions, social structure, and the behaviour of individuals (Samuels, 1995).

When defining institutions, Veblen's influence is strong. Institutions are "habits of thought common to human beings generally" (Hodgson, 1992, p. 287). The habits of thought, which become routinised by a certain number of people in a society, are formed from instincts, which, in turn, are also formed by institutions, in a process of coevolution (Hodgson, 1992). In an evolutionary sense, habits and institutions have connective dimensions (today's situation forms tomorrow's institutions) and are analogous to genes in biology. The evolution of the social structure is consolidated as a process of natural selection of institutions (Hodgson, 1993).

The presence of biological analogies is evident. The idea of the evolution of institutions as a process of variation, inheritance and social selection is the central aspect of the recent development of the theory. In Rutherford's (1998) words, the evolution of institutions is determined by material conditions and the innate and persistent propensities of human nature. Instincts are the initial conditions for the cumulative evolution of habits and institutions. However, the crucial element is subsequent cultural development, where the environment regulates the thought and action of individuals. Habits of thought embedded in institutions are supported by social sanction, and can stabilise in the form of laws, making institutional schemes more permanent (Rutherford, 1998).

Thus, the culture, traditions, and behavioural norms of a people or nation are as or more important than its legal system. For Hodgson (1992), habits can be shaped or introduced by culture, everyday practice, and technology - a habitual line of conduct leads to a habitual line of thought. Habits of thought, in the form of institutions, are not founded simply on instincts, but also on culture and action (Hodgson, 1992), and last longer than individuals. Instead of trying to explain who came first, individuals or institutions, one should unravel the processes that led to the development of both (Hodgson, 1998).

In this sense, for Hodgson (1998) it is possible to trace common characteristics to the concept of institution in institutional theory:

- a) Institutions involve the interaction of agents;
- b) Institutions are formed by shared habits and routines;
- c) Institutions sustain and are sustained by shared habits;
- d) Although not immutable, institutions exhibit durable qualities; persistent and self-reinforcing;
- e) Institutions incorporate a society's values and reinforce its moral legitimacy.

Thus, it can be observed that the concept of institution in Evolutionary Institutionalism is broader and more libertarian than the concept expressed in the NIE. In this conception, the "rules of the game" of the NIE are only part of a complex institutional framework determined by human nature. This broader perspective of the concept of institution, expressed in the importance given to the behavioural norms of society, is present even in recent publications by Douglass North. North (2005) presents ideas capable of integrating a "micro" approach, based on the individual of Evolutionary Institutionalism, with a "macro" scheme of economic change,

based on the coevolution between empirical reality, beliefs, technologies, institutions, and policies. In this view, North emphasises the importance of the “informal rules of society,” and remaps the economic performance of regions as a function of evolutionary change of institutions and technology.

Another key point of Evolutionary Institutionalism is the idea of “blind flight”, or “non-teleological movement”. There is no intention, purpose, and planning during the process of economic development; yet individuals are purposeful actors, hence institutional or cultural evolution should be considered as the unintended result of causal processes, in constant institutional change (Rutherford, 1998).

For Rutherford (1998) institutional change is a process that follows: i) a start, from instincts and/or social institutions; ii) influence of the environments of individuals aiming at certain goals; iii) change in the material pattern of life; iv) new habits of thought; v) previous institutions become backward. Within this process of institutional change, one seeks to find an amount of imitation, inertia, and “cumulative causality”, through the patterns and regularities of human behaviour (Hodgson, 1998).

In this sense, Hodgson (1997) criticises the neoclassical reductionism that reduces the whole to the rational, optimising and maximising individual, and the “macro” environment resulting only from the sum of individuals. For Hodgson (1997), breaking with reductionism does not mean breaking with the individual, but treating the individual without methodological individualism and in an evolutionary way, where the concept of institution connects the microeconomic world of individual actions, habit and choice, with the macroeconomic sphere.

From this critique of methodological individualism, a central concept of Evolutionary Institutionalism emerges. The connection between institutions and individuals results in emergent properties, fundamental to structural change and economic development, which are produced from a process of “upward and downward causation” between individuals

and institutions. That is, habits and choices reinforce and are reinforced by institutions. The interactions consolidate a macroeconomic environment that stimulates change in an evolutionary environment (Hodgson, 1997). Therefore, the individual is affected by the current institutional framework and, at the same time, determines with his habits and actions the future institutional framework.

Within the economic theory, Hodgson (2007) positions Evolutionary Institutionalism as presented in Figure 1. The horizontal dimension refers to the minimum number of actors in the theory in question. The vertical dimension refers to the degree of assumed knowledge, deliberative (rational) consideration of decisions, and knowledge of other actors in the theory.

In the central region of the figure lies the domain of evolutionary and institutional economic theory. These theories, like Game Theory, assume a world structured according to rule-bounded interrelationships. However, unlike Game Theory, institutional theory takes a more limited view of individuals’ capabilities and decision deliberation. Decision making occurs in a context of complexity and uncertainty, limiting logical thinking. The analytical focus on equilibrium becomes less central, and its ontological foundations include institutional structures and processes involving habits and rules (Hodgson, 2007).

Thus, Hodgson (2007) argues that one of the factors inhibiting the potential use of Evolutionary Institutionalism in economics is the form of mathematical modelling used in economic studies and the lack of interdisciplinarity and holistic knowledge in economic education. These factors exposed by Hodgson (2007) can also be used to explain the limited use of the theory in agricultural economics.

Therefore, it becomes important to position the applicability of Evolutionary Institutionalism in Agricultural Economics. We start for a comparative discussion of its main conceptual and methodological aspects with the mainstream theoretical approach: Neoclassical Economics.

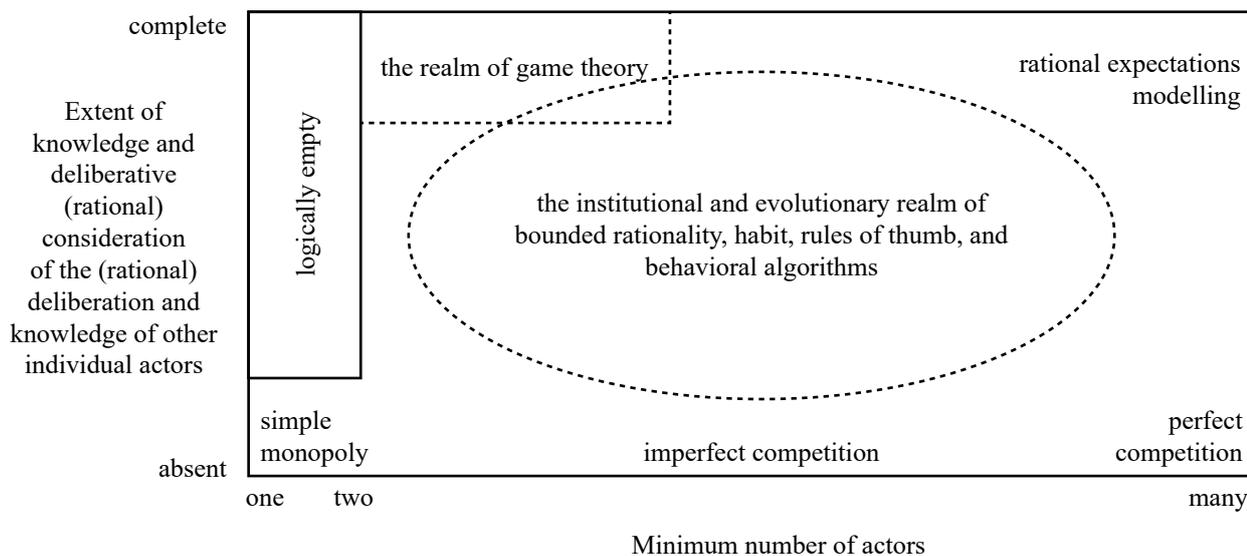


Figure 1: Graphical presentation of Evolutionary Institutionalism. Source: Hodgson (2007)

Neoclassical Economics and Evolutionary Institutionalism: conceptual and methodological differences for Agricultural Economics

The recent resurgence of interest in institutional and evolutionary theories is due, fundamentally, to the dissatisfaction with the way that orthodox economics deals with the processes of technological change and with any type of transformation that alters the form and dynamics of the economic system (Saviotti and Metcalfe, 1991).

The characteristics of each economic school are due to the scientific environment lived at the time of their origins: the classical theory in the 18th century, under the influence of Newton's theory, and the Original Institutionalism, in the 19th century, under the influence of Theory of Evolution of Darwin. Neoclassical economic theory and the construction of its assumptions of human nature, social universe, and progress reflect Newtonian mechanical, fixed, and repetitive laws. In contrast, Institutionalism is based on a constant and cumulative evolution, where its assumptions of human nature, social organisation, and progress are part of an evolutionary change process of Darwinian origin (Hamilton, 1990).

Stanfield (1999) argues that Institutionalism differs from mainstream economics in scope, method, and significance. The scope of mainstream economics is based on a science of choice, which is to examine the allocation of resources to achieve maximum real output. The desires of individuals are infinite, resources are finite, but both are given. For Institutionalism, individual desires and resources are available and are part of the variables to be explained. Human desires and technology change, redefining the scope of available resources. These changes emerge from the exercise of power and habit. The method of Institutionalism differs from mainstream economics in its emphasis on econometric models for generalisations. Econometrics is part of the methodological scope of Institutionalism, but qualitative empirical information of a historical and cultural nature, participant observation, and comparative studies are added to these methods. The significance of Institutionalism is based on the evolutionary emphasis on social change and the inclusion of power and culture in its field of analysis. Desires, technologies, and resources are endogenous, in contrast to the economic tradition.

The main difference between the neoclassical and evolutionary economic approaches lies in the concept of change. Neoclassical economists view change discontinuously and treat it as a process of restoring equilibrium or a state of quiescence. The cause of change is independent of the economy and caused by disturbances generated outside the system. Thus, a new adjustment must be made in response to the disturbances to rearrange the equilibrium. On the other hand, Evolutionary Institutionalism considers change as part of the economic process. The economic system is constantly undergoing a process of cumulative change; and the study of economics becomes a study of this process (Hamilton, 1990).

From this perspective, institutionalists such as Veblen (1898), Commons (1934), North (1990), and Hodgson (1998) have made criticisms of the assumptions of mainstream economics. For Commons (1934) orthodox economics is a hedonistic school, which seeks to understand the man-nature relationship, where the behaviour of exchange takes place in an individualistic way and the unit of analysis is the good produced by labour. In contrast, for Commons (1934), economics should be concerned with transactions and the rules of operation of collective action, seeking to understand the man-man relationship, where the unit of analysis is the transaction. Institutionalism determines the legal control of things, while neoclassicism determines the physical control of things (Commons, 1931).

For Veblen (1898), the problem with neoclassical economics is that human nature is conceived solely in a hedonistic, passive, inert, and unchanging way. The hedonistic conception of man is that calculator of pleasures and pains, which oscillate like a homogeneous globule of desires. This man has no antecedents and no consequences. He is a human datum in stable equilibrium, except for forces that shock him and move him in one direction to another. When the impact of the force subsides, he rests as a globule of desire. The hedonistic man is not a promoter of anything, he is only a man subject to external circumstances (Veblen, 1898).

As pointed out, Neoclassical Economics assumes given individuals, that is, it establishes rights and freedoms. But if rights and freedoms are changeable rules, from institutions, there is no way to predict a future framework. There is nothing predestined by equilibrium or the laws of nature (Commons, 1931). In this light, for Hodgson (1998) an individual governed by given preferences is a prisoner of his social environment, he is a robot programmed by a utility function. There is no free will and possibility of choice in this form of being. Therefore, for Veblen (1898), economic action should be the *raison d'être* of economics, that is, it is on human material, and not on resources, that the development process should be studied.

In turn, for North (1990), from a macro-analytical perspective, Neoclassical Economics is an inappropriate theory to analyse and prescribe policies that induce the economic development of countries and regions. The economic mainstream was consolidated with mathematical precision and the elegance of models considering a static world. In analysing economic performance over time, Neoclassical Economics has two fundamental flaws: institutions do not matter, and time does not matter (North, 1990).

North's (1990) desire to understand these interactions is present in the evolutionary idea of economic change. For Metcalfe (2001), in an equilibrium theory time would pass without change and without a process of cause and effect. In this sense, the neoclassical idea of "equilibrium" is nothing more than a formal way to avoid inconvenient problems with the facts. The evolutionary approach rejects "perfect prediction" and radical subjectivism; instead, the future can be imagined and guided. The disruption of equilibrium is the evolutionary nature of capitalism, the challenge is in capturing historical records, identifying the emergence of quantitative and qualitative changes to understand long-term development (Metcalfe, 2001). In summary, in the

Table 1: Summary of the theoretical-methodological differences between Neoclassical Economics and Evolutionary Institutionalism.

Neoclassical Economics	Evolutionary Institutionalism	Literature
Newtonian influence	Darwinian influence	Hamilton (1990); Hodgson (1998; 2005); Nelson (2006).
Convergence to equilibrium	Imbalances, shocks, instabilities, and Evolution.	Nelson and Winter (1982); Hodgson (1992).
Static analysis	Historical and dynamic analysis	Veblen (1898, 1899); Nelson and Winter (1982); Hodgson (1992); Dopfer (2005).
Passive and maximising individual	Active, non-maximising individual: influence of habits, tradition/culture and collective actions.	Alchian (1950); Commons (1934); Nelson and Winter (1982); Van den Bergh <i>et al.</i> (2007).
Disciplinary analysis	Interdisciplinary analysis	Nelson (2006); Hodgson (1998).
Mathematical models form the theory	Mathematical models help in the understanding of empirical reality	Stanfield (1999)
Market as a means for resource allocation	Market as institution, as filter of adaptation and selection; social construction	Magnuson (1994); Dopfer (2005).
Institutions don't matter	Institutions matter; permanent influence of institutions on the economy	Veblen (1898, 1899); Metcalfe (2001); Dugger (1990); Hodgson (2004); Rutherford (1998); Nelson (2002).
Exogenous technology	Endogenous technology: imitation, learning, innovation, and industrial R&D	Nelson and Winter (1974, 1982, 2002); Winter (2005); Nelson (1995); Freeman (1995); Freeman and Soete (2008).
The aggregate (macro) is the sum of the individuals (micro)	The aggregate is the sum and interaction between the individuals; emergence properties and reconstitutive downward causation	Hodgson (1997, 2007); Samuels (1995).
Methodological individualism; hedonism.	Individual as agent of change; variation, diversity, and routines	Veblen (1898); Commons (1934); Nelson and Winter (1982, 2002); Hodgson (1993; 1997); Metcalfe (2001).
Economic irreversibility	Circular cumulative causation and path dependence	Veblen (1898, 1899); Nelson and Winter (1082); Van den Bergh <i>et al.</i> (2007).
Substantive rationality	Cognitive failures; bounded rationality	Simon (1955, 2005); Nelson (2008); Van den Bergh <i>et al.</i> (2007).
Finalistic future	Non-projected future; blind flight; non-theological	Veblen (1898); Dugger (1988); Rutherford (1998).
Mathematical analysis method	Quantitative and qualitative methods of analysis; participant observation, comparative studies, biological analogies, and historical research	Stanfield (1999); Dopfer and Potts (2009); Hodgson (2007); Frenken and Idenburg (2006).

Source: Own composition

argument of Dopfer and Potts (2009), neoclassical economics is focused on the study of economic growth viewed through the prism of profit maximisation and optimisation of resource uses, and an evolutionary approach is linked to the study of economic evolution based on an analysis of structural, institutional, and knowledge changes.

Under this comparative context, Table 1 presents a summary of the main theoretical-methodological differences between Neoclassical Economics and Evolutionary Institutionalism, indicating the authors who theorise about the distinctions presented.

Therefore, Institutionalism provides a broad theoretical and methodological framework for studies in agricultural economics. The following section highlights the analytical elements for application in studies and projects about the transformations in the rural world, the processes of technological change, and the dynamics in agricultural and agro-industrial markets.

Analytical Elements of Evolutionary Institutionalism for Agricultural Economics Research

The main analytical contribution of Evolutionary Institutionalism to agricultural economics lies in understanding economic relations from human behaviour. As emphasised by Commons (1931), the approach bases its theory on the human-man relationship, rather than the mainstream human-nature relationship. Based on this premise, individuals become central to the analysis of the rural world, since they establish habits, behaviour patterns, and rules of conduct that, interacting collectively, produce institutions. Thus, it is from the active role of the individual that rural dynamics emerge and consolidate an institutional environment and a prevailing social structure.

For Evolutionary Institutionalism, man is not a mere handful of desires. He is an active structure of propensities and habits that seek fulfilment and expression. The circumstances are constitutive elements of man's brain structure and are the results of his antecedents, his life history, his hereditary characteristics, forged by traditions and conventions (Veblen, 1898). In this way, habit is defined as a non-deliberative, self-acting propensity involved in a general pattern of behaviour. Beliefs and prior knowledge are the essence of habit establishment (Hodgson, 1998). Habits determine choices, which, in turn, materialise a routine of actions, which, when repeated and generalised, shape institutions.

When we think this way, we see that productive systems are formed by a complexity of institutions, shaped over time by shared habits, traditions, and cultures. These, in turn, cannot be neglected as an exogenous factor in the agricultural economic analysis, but rather as a constituent element of the production system itself. Institutions are the determining elements of the economic and productive performance of rural organisations. For Hodgson (1998), organisations can be defined as a special subset of institutions. Thus, when we think of agricultural organisations as institutions, we determine the farmer himself, based on his habits, traditions, and culture, as the central element of this economic life.

From this understanding, a contribution of institutionalism to agricultural studies is its vision of the individual no longer with the sole objective of maximisation. The farmer cannot be seen exclusively as an optimising being, allocating resources based on the signalling of an "efficient" price system. The farmer is a result of human nature, a being full of certainties and uncertainties, of hits and misses, limited rationally and, at the same time, with logical flashes. His behaviour is determined by his habits and previous experiences. Therefore, when studying agricultural socioeconomic phenomena, understanding these institutions, formed by habits and behavioural norms of the farmer, is as important, or even more important, than understanding the legal and/or normative institutional environment in which the agro-industrial organisation is inserted. Corroborating this perspective is the statement by Commons (1931) that institution is more universal in the form of disorganised customs than in organised interests, and customs that change economic conditions may be more indispensable than the decree of a dictator.

Allied to the central position of the individual is the importance of time in agricultural analysis. The economic and social conditions of the present are the result of its previous conditions. The economic picture cannot be analysed exclusively in a static way. History matters. That is, when taking a non-deterministic perspective, one must study the process of change as something that has an eminently evolutionary character. It therefore follows that the notion of path dependence must be integrated into studies of agricultural economics, and the perspective of analysis of change becomes central.

Thus, to understand any problematic in the rural world, it is necessary to understand human behaviour, expressed in the habits, actions, and rules established by the generality of individuals, and their relationship with time. The individual cannot be understood as given and maximising, his behav-

our is the result of his history and his environment, under a non-substantive rationality. It is in this integration between the concept of active individual and path dependence that the perspective of institutional change emerges, either as a process of cumulative circular causation of institutions, in Veblen's (1898) view, or in Hodgson's (2007) notion of reconstitutive downward causation. Therefore, the idea of progress is grounded in the idea of institutional change. One can also use evolutionary concepts to understand this process of change, starting from the elements of variation, inheritance, and selection.

How do institutions affect the choices and motivations of farmers? How has time shaped the institutional environments of different agribusiness sectors? What role do institutions play in food markets? How are formal rules (e.g. laws, norms, etc.) recognised and legitimised by institutions for individual behaviour? Or even, why are some public policies aimed at agriculture not effective or incorporated in their target audience? These are some examples of questions in the agricultural economics with strong influence of the concepts of individual and path dependence of the institutionalist approach.

Two other central elements in agricultural economics can be understood as institutions: technology and markets. Technology cannot be understood as exogenous. It originates in public and private entities or within the organisations themselves, from the development of an R&D environment. However, technology cannot be characterised as a given, because its application in productive systems depends exclusively on the decision of farmers to adhere or appropriate technological packages. And, as already seen, the individual decision process is grounded on previous habits and experiences, determined by institutions.

In this line, Evolutionary Institutionalism can contribute to agricultural studies on two fronts: a) the analysis of institutional conditioning factors of technology appropriation by producers, based on the relationship between habits of thought and the available credit and technical assistance policies. The analysis of farmers' "mental models" is a research potential, integrating North's (1990) contributions with evolutionary institutionalism; and b) in the study of the evolution of technological change in agriculture and its impact on agro-industrial dynamics, determining technology as an element of transformation of firms' routines. The issue of learning becomes important. This front has a strong neo-Schumpeterian influence, with the work of Nelson and Winter (1982) as a reference.

Still, in agricultural economics, market studies take a prominent position. In the institutional approach, the price system is a convention and depends on habits. Therefore, the market is the result of human interaction, and institutionalism is the theory that examines the institutions in which prices are being formed (Hodgson, 1998). Thus, markets are institutions because they reflect collective behaviour and power relations. In the institutionalist view, it is not the markets that determine the choices of individuals, it is the habits and actions of individuals that determine the markets. And their conditions are given by the social structure in which agents interact. A structure that is not guided by benevolence. As already stated by Commons (1931), economic relations are

not guided by harmony, but by regular conflicts of interest due to the universal principle of scarcity.

Instead of seeing an omnipresent and omnipotent price system, it is necessary to develop specific price theories that reflect the institutional structures of the real world (Hodgson, 1998). Therefore, it is possible to study the specificities of agri-food markets from the viewpoint of institutions, where a market can be modified or even constructed by human action, under a permanent relationship of conflict and power between the parties.

It was in this vision of “false harmony”, of constant conflict in market relations, that Commons (1931) determined transactions as the main unit of analysis in economics. Transactions are not the “exchange of commodities”, but instead involve the alienation and acquisition of freedoms and property rights between individuals, negotiated before labour can produce, or consumers can consume, or even before commodities are exchanged (Commons, 1931). There is neither exchange nor consumption before a transaction. This view of Commons (1931) associated with Coase’s (1937) nature of the firm inspired the NIE in Williamson (1993) formulation of Transaction Cost Economics.

From 1990 on, the NIE was positioned as a dominant theoretical approach in studies about agri-food markets. In this movement, the analysis of transaction costs and the determination of more efficient governance structures were the central points of application. However, little progress was made in the analysis of power relations in agro-industrial transactions. The Evolutionary Institutionalism stream can contribute by giving less focus to the governance structure and more attention to the social relations present in economic transactions, especially those determined by Commons (1931): conflict, dependence, and order. A state or an organisation can establish and enforce rules that determine the economic relations between individuals in a market. However, collective actions in economic organisations are more powerful than political collective actions (Commons, 1931), which can help to explain different types of conflicts in relations between farmers and industries in agro-industrial chains.

Here we seek to determine some useful analytical elements of institutionalism for application to agricultural economics phenomena. Since it is an interdisciplinary approach, other elements should be added, especially with the approach of other theoretical approaches. However, Hodgson (1998) highlights some contemporary issues of institutionalism that, from the perspective of this paper, together emphasise its importance for studies in the agricultural economics:

- a) Institutionalism does not seek to be a theory of everything;
- b) Institutionalism seeks a conceptual framework coherent with the analysis of reality and viable methodologically based on interdisciplinarity;
- c) Studies focused on individual economic behaviour;
- d) Concept of rules and habits as the centre of the theory, approaching concepts from other approaches, such as neo-Schumpeterian routines;
- e) Learning and mental models emerge as new study themes.

From these items, it can be concluded that Evolutionary Institutionalism presents several analytical elements that can be useful for understanding the rural world. Now, it is worth pointing out some specific themes emerging in this line such as:

- a) the analysis of the trajectory and institutional changes of different rural sectors;
- b) The role of habits, traditions, and behavioural norms in productive systems and in the process of rural development,
- c) Power relations in agricultural markets;
- d) The evaluation of public policies for agriculture with a focus on the capacity of their appropriation by rural farmers;
- e) Innovation and technology as determinants of the evolution of the routines of agro-industrial firms;
- f) The institutions “behind” the new relations of food production and consumption,

Institutionalism provides these emerging issues with an interdisciplinary approach, which supports quantitative and qualitative methods of analysis, comparative studies, biological analogies, and a historical and cultural contextualisation. It is only from this methodological plurality, the understanding of change, the exposure of the individual and history as central, that we can approach the realities of the agricultural economics.

Conclusions

Agricultural economics is a field of study in constant transformation. Changes in the social, productive, and technological environments define the characteristics of world agribusiness, driving global economies. In this sense, agricultural economics lacks a theoretical lens that is more flexible, interdisciplinary, and feasible to the current reality.

In this context, we outlined in this paper the alternative of Evolutionary Institutionalism as an approach capable of understanding this contemporary agricultural dynamic. In opposition to neoclassical economics, Evolutionary Institutionalism is attentive to change and to the role of the individual in the economic system. It positions institutions as the central element of analysis, in a process of path dependence. These concepts provide a wide application in agro-industrial phenomena, bringing the problems of modern agriculture closer to economic theory.

In this perspective, for the economic analysis of agriculture the main inspiration should be the idea of evolution from biology, rather than the notion of equilibrium from physics. As in the words of Kenneth Boulding (1981, p.795) “agriculture is also a good example of a reverberant system, where the echoes do not die away but set the system on a course of irreversible evolutionary change”.

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