A CONCEPT IN SEARCH OF TWO AUTHORS: COMMONS AND WILLIAMSON ON TRANSACTIONS

SEBASTIÃO NETO RIBEIRO GUEDES[1]
FCLAr/UNESP
RODRIGO CONSTANTINO JERONIMO[1]
FCLAr/UNESP

Abstract: The idea of Transactions in social sciences was conceived by John Rogers Commons in the beginning of the 1920's, representing a mental instrument capable of describing capitalism and its peculiarities. On the other hand, Oliver Williamson's approach in late 70's reduced the concept to the mere transfer of goods and services in institutions that are or are not guided by the price system. The aim of this article is to present the characteristics of these two different approaches to the concept of transactions, evidencing the role of epistemological aspects and investigative purposes (referred to relevant research context and problem originated in it) as the causes of its metamorphosis. John Commons' effort to build up a concept not only capable of transcending the idea of exchange, but also of giving a totalizing perspective to the interpretation of capitalism is emptied in Williamson's appropriation of the term. By utilizing Commons conception of transactions and trying to subsume it to his "general theory of transaction costs", Williamson limits its scope and meaning, adjusting it without producing rupture with the Neoclassical Economy. This text tries to catch the vicissitudes of this concept found in both authors.

Key words: Transaction; John Commons; Williamson;

JEL Classification: B25; B52;

Introduction

John Rogers Commons firstly elaborated the concept of Transactions in the social sciences in the beginning of the 1920's as one of the essential psychic instruments to interpret capitalism in its "regulated" phase. Nearly fifty years later, Oliver Williamson utilized the same nomenclature to study the "mechanisms of governance" in capitalist institutions. Did the idea of transactions remain intact despite being employed in distinct periods? Did its content endure/fade in the course of time? What are the gains or losses resulting from this metamorphosis? These are the questions guiding the present article. Therefore, the text compares how Commons and Williamson elaborated and utilized the concept of transaction, acknowledging at once that neither the meaning nor the application attributed by these two authors in their theoretical approaches are equivalent.

✉ Sebastião Neto Ribeiro Guedes
sebaneto@fclar.unesp.br

Rodrigo Constantino Jeronimo
rodrigoconstantinoj@gmail.com

[1] Departament of Economics, São Paulo State University, Araraquara, Brazil.

In terms of formal distribution, the article is composed of five sections. After this introduction, the first part presents the backgrounds of the concept of transaction that may be traced back to the theoretical physics in the second half of the XIX century. The second section introduces Common's original formulation on the concept of transaction, emphasizing the epistemological roots of his approach, which refers, on the one hand directly to the pragmatist philosophy and, on the other hand, indirectly to modern physics. The third part concentrates in presenting succinctly Williamson's theory of transaction costs, trying to observe, by means of contrasting with the first sections, in what sense and with what implications this author used the concept of transaction. The text concludes with the final considerations.

Transactions: Backgrounds and Influences

Thanks to the Dewey and Bentley (1946), the origins of the concept of transactions can be traced back to the reflections undertaken in the second half of the nineteenth century by the British physicist Maxwell. A Newtonian by schooling, his convictions about the aspects of classical physics were shaken and eventually abandoned when he had to deal with the problem of space. We can summarize the terms of the problem as follows: from the acceptance of the wave theory in 1815, light was believed to be a wave motion that propagated in a space composed of ether and governed by Newton's laws. Thus, the displacement of any object, both in space and on earth, should bring about equal displacement of ether "fractions" regardless of their size. From this "belief", researches in theoretical physics went to identify by means of experimentation the dislocations of ether, which proved fruitless (Kuhn, 1996: 101/102).

Maxwell's magnetic field theory, although intended to be within normal Newtonian science, has apparently, involuntarily (ie, unintentionally falsification) established one of the pillars of the modern theory of relativity, since the electromagnetic field in which the body moved dispensed the ether. It asserted, roughly, that electric charges and currents act as sources of electric and magnetic fields that vary in time, and vice versa, which explained the existence of electromagnetic waves propagating in the empty space. The speed calculated by Maxwell for the electromagnetic waves coincided with the speed of light, which allowed him to assert that light is a form of electromagnetic wave.

Dewey and Bentley (1946) interpreted Maxwell's contributions as signifying the abandonment of the atomistic and relational perspective of the elements in space-time, in favor of the transactional approach, which according to them *"*Where systems of description and naming are employed to deal with aspects and phases of action without final attribution to "elements" or other presumptively detachable or independent "entities", "essences" or "realities" and without isolation of

presumptively detachable “relations” from such detachable “elements”. Both authors show that Maxwell used the concept of transaction, preferred to that of relation, which still fitted the mechanical and atomistic view of Newtonian physics. Both hailed it as an appropriate approach to the analysis of social phenomena, and, curiously enough, cited some social scientists who successfully applied the concept of transaction, one of which was Commons. If this is so, Commons appears, in the authors' perspective, not only as a pioneer social scientist, but also as one that anticipated for those sciences a methodological approach of the theoretical physics questioning the approaches of Newtonian background. Despite the observation of the authors previously quoted, it seems unlikely that Commons derived it from Maxwell's physics, which he apparently ignored and did not quote in his three main books. It is also true that he did not make Maxwell's physics, or modern particle physics, the unifying principle of his theory. These facts seem to suggest that the development of the concept of transaction in Commons was done autonomously, and that the reference to modern physics appeared more as a metaphor than as an inspirational source.

Commons and the Concept of Transactions

The general context in which Commons theory took place may be characterized as the collapse of liberal capitalism and the emergence of alternative forms of socioeconomic organization, expressed by communism and fascism. Commons opposed to both and, being unable to resuscitate the dying liberalism, offered a theory and practice of reformist economic policy denominated “reasonable capitalism”. This was compatible with the intellectual and political atmosphere of the Progressive Era prevalent in the US in the first quarter of the twentieth century (Leonard, 2015). From this, he derived the central problem he attempted to confront: explaining the capitalist economic order not as the spontaneous result of the free interaction of rational, self-interested actors, but as a deliberate product of social regulation (Bazzoli, 1999). In view of that, Commons introduced the concept of transactions in Economic Sciences as a key element of his theoretical system. He made it the "basic unit" of analysis, a central aspect to the reflections that led him, in the second decade of the twentieth century, to attempt to build a volitional theory of institutions (Bazzoli, 1999) (Ramstad, 2001). Ramstad (1986), (Guedes, 2013), Guedes (2016). Because it operates with a conception of human action subsumed in distinct temporality (futurity), the concept of transactions used by Commons relates to both the influence of pragmatist philosophy and the dynamic view offered by modern physics. For this reason, we will comment both below.

The Pragmatism or Pragmaticism was a philosophical and epistemological approach that emerged in the United States in the second half of the nineteenth century, which sought to renew and revitalize philosophy (Haack, 2009), with Charles Sanders Peirce (1839-1914) as its founder and most

eminent member. The American philosophers William James (1842-1910) and John Dewey (1859-1952), continued and expanded Pragmatism. Perhaps the best way to present the general contours of pragmatist philosophy in order to identify how it influenced Commons is to confront it with the philosophical tradition that preceded it[2]. It conceived science as an individual quest for truth through the tools of logic (e.g. the syllogism) either to reveal the truth directly (as in mathematics), or to generate testable or refutable hypotheses by experimentation or data.

In any case, the quest was for truth, which exists independently of human cognition. In tradition, the world, including mathematics and moral and political concepts, was regarded as a passive object, waiting to be discovered by humans using exact reasoning methods. In addition, the achievement of its secrets was solitary, conducted by trained experts or people of great insight, operating in isolation. In the same way, the search for "truth" is problematized because there is no conclusive, definitive, perennial investigation; simply because we could not put ourselves out of the world and observe the absolute correspondence between it and the description of how it really is (Haack, 2009). It is not the truth, but the control over your environment, enriching your horizons and improving your life, what people want. The scientist seeks not that isolated and contemplative individual of the world, but the one who acts in combination with other scientists and produces collective knowledge.

Peirce – who named pragmatist philosophy – in refusing the absolute doubt contained in Cartesian philosophy also denied apriorism as the starting point of the investigation. He affirmed that there are only doubts when a set of previous beliefs is already established and that, therefore, it precedes and regulates that in the sense that doubt – which is never the complete and full discard of all our doubts – is nothing more than that "frustration of expectations". Inadequate beliefs (giving rise to relative doubts) lead to the search for new beliefs, which are self-satisfying and constitute solid ground for action in the world. In this way, beliefs are at the beginning and end of the process of knowledge and control of the world, and doubt is a transitory moment. It is not worth mentioning here the four methods of fixing beliefs analyzed by Peirce, with only one reference: the scientific method. For Peirce science has the attributes capable of producing the truth derived from the investigation of reality. For this, the procedures of science can be decomposed into three stages: abduction-deduction-induction. The scientific method in Pierce encompasses all stages, but begins with abduction.

[2] This risky attempt to confront pragmatism to the past tradition does not neglect Haack's observation (2009: 11/12), which, in dealing with the past and present vicissitudes of the use and understanding of what is pragmatism, showed that it does not contain doctrinal unity, nor in its beginnings among its founding fathers. Nevertheless, she asserts that pragmatism rejects dogmatism and false dichotomies, does not lean toward a priori naturalistic philosophy, takes evolution seriously, and tends to look to the future.

Pierce understood abduction as “[…] the process of forming explanatory hypotheses. It is the only logical operation to introduce new ideas, since induction merely determines a value, and deduction involves only the necessary consequences of a pure hypothesis "(PIERCE, 1980, p. 46). Atkin defines it as the activity of research in which the hypotheses that guide the other stages of the investigation are formulated and selected until the truth of a proposition (belief) is reached and confirmed. The abduction stage uses the resources of creativity and daring, for "Abductive inspiration happens in us in a flash. It is an act of insight, though extremely fallible "(Peirce, 1955, p. 51), and also because the explanatory possibilities of a phenomenon that establishes the condition of doubt are broad and almost limitless (Atkin, 2016: 7).

The second stage of science production is deduction, whose importance unfolds in two moments. The first, called corolorial deduction (ATKINS, 2016), gives logical consistency and clarity to our hypotheses. The second, the theoretical deduction (ATKINS, 2016), allows the derivation of predictions that will be submitted to the experimentation.

The third and last stage of scientific activity is induction, which is simply the stage of hypothesis confirmation or refutation. This stage is quantitative in nature, requiring from Peirce a statistical approach by means of probability. We will not deal with this complex and controversial topic of Peirce's work, limiting ourselves to observe that for him the hypothesis test requires a long series of relative frequencies for the probability of the events analyzed since he adopts the so-called "weak law of large numbers ". This law affirms the tendency of the samples to exhibit similar population patterns from which they were withdrawn (ATKINS, 2016, p.11). In this way, Peirce's epistemology escapes both apriorism and "problems of induction".

In Dewey (1946), pragmatism is built upon the critique of mind-body dualism, matter-idea, action-thought, contained in Cartesian philosophy. He called it the "spectator model of knowledge," and rejected it by assuming a "disinterested" subject of knowledge, capable of, through isolated, exclusive mental operations, reflecting mind reality, that is, knowing it. For Dewey, however, the subject he knows is interested, that is, he is a creature endowed with purpose and engaged in his materialization in an environment constituted by continuous processes. The subject is immersed in nature and society exchanging with them. Hence, he approaches philosophical problems as outcomes of the transactional (not sensory or rational) process between organism and environment (Hildebrand, 2013: 63).

For Dewey though meaning – what we take for real – comes to us as understandable, related, anticipated, meaning, this does not require as a prerequisite a sophisticated machinery of categories and *a priori*. Likewise, the meaning does not originate from past sensations or innate structures, but from the perspective of projected future goals, purposes, and meanings. According to one of his commentators (Hildebrand, 2013: 10)

> This idea – that meanings emerge from the co-penetration of future and present – is perhaps the key advance pragmatism makes over Kant and earlier modern epistemology. Ideas have significance based upon their power to control predict or guide the course of future action, not upon their static reflecting of 'reality' (be it sensorial or conceptual […] as a theory of meaning-for-action, pragmatism, like the living philosophers who wields it, leans forward. Thus, Dewey's instrumentalism rejects modern epistemology and, by replacing Kant's mind-centered system with a decentered, dynamic and ecological one, effects a "reversal compared to a Copernican revolution'. No longer just a product of evolution, intelligence stands now as a toll or instrument actively guiding evolving creatures.

These are the fundamental characteristics of the pragmatist school, which Commons embraced and recognized at various points in his extensive intellectual production (Commons, 1924 [1995]). The concept of transaction seems to spring from this epistemological framework by harboring the dynamic field of human action and its projection in the future, when present action makes sense. Likewise, he makes no concessions to aprioristic deductivism, which he strongly condemns (Commons, ...)

Commons begins his analysis from an ontological point of view: in general, the field of economic interactions that contains scarcity, interdependence and order are a transaction. Transaction is enthroned as his basic unit of analysis (1924 [1995]), it is a characteristic social form of capitalism because it incorporates the material-human-nature relationship and the social man-man, inscribed in the physical dimension of the processes of transformation and distribution of material wealth in the dimension of transfer of property rights over such wealth (and also over nature).

A transaction is not the exchange, which existed before capitalism, since trade fairs and trade entrances brought face-to-face buyer and seller, and the act of transferring physical and material wealth was equivalent to the transfer of ownership of that wealth (Guedes, 2016). It was generically defined as "actions between individuals" (Commons, 1934 [2003]: 73), emphasizing the volatile and dynamic aspects that bind individuals. A more precise, definition of transaction is found in *Legal foundations of Capitalism* (Commons, 1924 [1995]: 7/8), which associates its nature and dynamism with that of atomic and subatomic particles.

> While the economists start with a commodity or an individual's feelings towards it, the court starts with a transaction. Its ultimate unit of investigation is not an individual but two or more individuals -plaint8 and defendant-at two ends of one or more transactions. Commodities and feelings are, indeed, implied in all transactions, yet they are but the preliminaries, the accompaniments, or the effects of transactions. The transaction is two or more wills giving, taking, persuading, coercing, defrauding, commanding, obeying, competing, governing, in a world of scarcity, mechanism and rules of conduct. The court deals with the will-in-action. Like the modern physicist or chemist, its ultimate unit is not an atom but an electron, always in motion-not an individual but two or more individuals in action. It never catches them except in motion. Their motion is a transaction.

In this way, the content of the concept refers both to the pragmatist philosophy and to the modern physics of the particles, thus delimiting the epistemological and ontological field on which it is based. Despite the analogy with modern physics and chemistry, there is no evidence that Commons was aware of Maxwell's electromagnetic theory and thus the notion of transaction. Although Commons' knowledge of the theoretical and methodological advances achieved in other areas of knowledge, including those of the "hard" sciences, was not trivial, it seems more likely that the concept had had autonomous development. If this is correct, the reference to the hard sciences may be limited to the production of useful metaphors, or be interpreted more as a rhetorical element of his theory.

It is worth mentioning the distance maintained by the concept relation to the analogies and metaphors present in the neoclassical economy of Commons' period, anchored in some version of utilitarian philosophy and fully adequate to the principles of mechanical physics, especially in its atomistic treatment of individual action (Davis, 2003). Kemp (2006) correctly observed that the transaction is a concept that "roots" the exchange in the social structure, making inadequate both its "naturalization" (Smith's natural propensity to change) and its derivation from axiomatic rationality.

As Kirat and Bazzoli (2003) noted, the notion of transaction proposed by Commons differs from the exchange and transcends it because it is concerned with the transfer of property rights, and not necessarily with the physical transfer of goods. Thus, this dissociation between ownership and rights over physical goods implies an equal separation between present and future, since the purchase, sale, use and other aspects of goods aiming at their control can be negotiated and involve the introduction of power in economic relations. In addition, the concept of transaction makes the dimensions of economics and rights inseparable, demonstrating the interaction between "public" and "private". In the same way, the concept of transaction encompasses the dimension of the circulation of goods and services (the exchange), as well as the distributive and productive dimensions (managerial transaction), consisting of a methodological approach with totalizing properties. Finally, transactions are a promising approach to analyzing relations between individuals and institutions in the provisional establishment of some "order" for the relations of dependence and conflict that men establish among themselves.

For Commons, within the framework of modern economic life, the institutions of capitalism tended to operate three types of transaction: bargaining, managerial and rationing. They exist simultaneously and individuals coexist with all, traveling from one to another constantly. The bargaining transaction is a kind of social relation that involves at least five actors: two sellers, two buyers and the sovereignty. Its main characteristic is the formal equality between the parties that use the resources of persuasion and also, but supplementarily, of coercion. Its essential function is to transfer ownership rights among those involved in the transaction. When two people "trade" their

products, what they are doing is transferring ownership, or the right of possession and use, from one to another. Although it is a kind of social relationship between "equals" (only before the law), Commons has no illusions about the nature of the bargaining transaction, which involves real differences of power between its participants and mechanisms of coercion.

In this way, the bargaining transaction contains four conflicts of interest requiring arbitrage. The first is the conflict between equal (unequal) opportunities, which emerges when in competitive practice one actor favors (or harms) another, charging for the same service different values. This unreasonable discriminatory practice may lead to the bankruptcy of the injured actor and generally leads to mediation. However, the result of bankruptcy is reasonable and legal when it arises from differences in the management of economic efficiency in terms of quantity, cost and quality.

The second kind of conflict of interest is that derived from fair or unfair competition. Such conflict originates in the means by which the competitive process materializes and by the unequal distribution of economic power among competitors. Preventing others from the access of resources by monopolizing its source is a kind of problem that requires mediation.

The third conflict arises from reasonable or unreasonable price (value). Competitors take and set prices that must observe the reasonableness of the two previous conflicts and allow the reasonable compensation of all. Courts intervene to enable social actors, through various judgments, to become aware of this reasonableness.

The fourth conflict of interest appears “due process of law”. It states that the imposition of the appropriate working rules for individual transactions will ensure that individual property and freedom are subject to due process of law before they are omitted from individuals. For Commons (1934 [2003]: 63):

> Due process of law is the working rule of the Supreme Court for the time being. It changes with changes in custom and class dominance, or with changes in judges, or with changes in the customary meaning of property and liberty. If a state legislature or the Federal Congress, or a lower court, or an executive, deprives any of the four participants in a transaction of his equal choice of opportunities, or his liberty of competition, or his bargaining power in fixing a price, that act of deprivation is a “taking” of both his property and his liberty. If the deprivation cannot be justified to the satisfaction of Court, then it is a deprivation of property and liberty without due process of law, and is therefore unconstitutional and void, and will be enjoined.

The managerial transaction typically occurs between two people, whose powers are unequal. The managerial transaction is hierarchical, materialized between superior and inferior, employer and employee. The task of this transaction is to *produce wealth* and its most obvious (but not exclusive) dimension in modern capitalism is the large corporation. This is the space of efficiency, achieved

through submission of the inferior to the command of the superior. To do so, therefore, the *rules of operation* (working rules) must establish the usual reasonable conditions of obedience and command. In other words, they must impose on the individual who works in a company, for example, their duty to obey, while withdrawing the right to refuse orders, detract from them or sabotage them, within the factory, unless they are contrary to what is regarded as reasonable obedience. Likewise, the superior (owner or agent of this) has the right to command, but the duty to monetarily compensate his inferiors.

In the managerial transaction, the "freedom" of the inferior is constrained, subordinate to the freedom of command from the superior. Clearly, the managerial transaction is an essentially coercive, arbitrary and imposing space of power by nature. The freedom of the superior can organize the productive process giving its inferiors a condition of "resource", an instrument for the increase and qualification of the physical production of goods. This is the most brute and visible dimension of labor relations. In the managerial transaction, the objective of efficiency - understood as the production of use values with the least expenditure of resources - is a goal that is confused with the corporate profit objective itself.

The rationing form of transaction also occurs between two persons (or organs), being hierarchized and performed by authorized *going concern*s, that is, imbued with legality and legitimacy. It is responsible for deciding on the allocation and distribution of resources, establishing the burdens of that decision. The distributed resources are not only "physical" but also "power", when, for example, the legislature changes electoral legislation and redistributes the existing correlation of forces. In the first of the two articles entitled *Institutional Economics*, Commons characterized this type of transaction in the following terms (Commons, 1996: 448/9):

> Finally the rationing transactions differ from managerial transactions in that the superior is a collective superior while the inferiors are individuals. Familiar instances are the log-rolling activities of a legislature in matters of taxation and tariff; the decrees of communist or fascist dictatorships; the budget-making of a corporate board of directors; even the decisions of a court or arbitrator; all of which consist in rationing either wealth or purchasing power to subordinates without bargaining, although the negotiations are sometimes mistaken for bargaining, and without managing, which is left to executives. They involve negotiation, indeed, but in the form of argument, pleading, or eloquence, because they come under the rule of command and obedience instead of the rule of equality and liberty. On the borderline are partnership agreements which ration to the partners the benefits and burdens of a joint enterprise.

In addition to these three types of transaction, Commons alluded to other two, which he called routine and strategic transactions. Both are contained and transversal to the other types. Routines were recurring actions that, suited to the unchanged environment, took the past and habit as references. Strategies anticipated changes or were caused by these, requiring the mobilization of

broad cognitive instruments, from rational calculation, specific heuristics etc (Bazzoli, 1999); (Fiorito, 2010).

The types of transactions previously analyzed were present in different degrees and measures across all going concerns, understood as the institutional perimeter within which transactions take place (Fiorito, 2010: 284) and which are as diverse as family, company, union, church, etc. The internal welding of a going concern was given by the working rules that prescribed behavioral patterns that govern the actions of each participant to a transaction, defining, at the same time, expectations about "what the participants can, must, or may do as controlled, liberated, or expanded by collective action*"* (Fiorito, 2010:284).

As pointed above, transactions take place within what Commons called *going concerns*, human collectives "animated by a common purpose, governed by common rules made by themselves" (Commons, 1995:145). All *going concerns* concentrates more than one individual, and has some instance of deliberation, direction, and imposition of rules. It has goals, so that, acting and interacting on the inside, individuals produce meaning and materialize the goals of the *going concern*, which are different and often divergent of its individual members.

Going concerns are similar to governments, with their hierarchies, rules and objectives; and individuals are their citizens, because they act within and between them as subjects who are indebted to obedience and duties, but also who have rights. The totality of us is born, grows and dies in *concerns* that organize the work and collective action of isolated individuals. The socialization of individuals occurs within and between *going concerns*. In them, they submit to the rules of operation in command, adjusting their behavior and evaluating the others. By doing so, they fulfill the objectives of the *going concerns*.

Commons was clear about the specificity of capitalism: the valuation of wealth either material or immaterial (Commons, [1950, 1970]; Commons, [1934 (2003)]. This objective was carried out within a specific *going concern*. A dual organization aiming profit and monetary wealth valuation. The Commonsian enterprise conception identifies two dimensions of its material structure, one that refers to the physical structure of the company, called *going plant*, and another that refers to the external relations of the company in the search for appreciation of the wealth that it produces or owns (as property), which he called *going business*.

A *going plant* is the physical location of production: the building, machinery and equipment, raw materials. It is the place where the labor force, handling the proper instruments, transforms the raw material into commodities. *Going business* is a broader concept because it takes into account the firm's external relations (suppliers, customers, government, etc.), the fundamental notion of property, and various financial and legal relationships. The same *going business* may have several *going plants*.

Going plant and *going business* are inseparable but distinct concepts. The first refers to relations of production, labor and technical division of tasks. The second, to mercantile, financial and legal relations that encompass a larger universe of agents.

The *going plant* is the genuine productive unit since the beginnings of capitalism, in it: the labor force appears reunited and deprived of the ownership of the means of production; the artisan is transformed into worker; the division of labor exploits to the maximum the potentialities of cooperative work and; the command over work establishes the hierarchy of power in the productive space of labor. *Going business* is the business unit in which the return on investment is ensured by top management coordination. In time, it became the modern capitalist corporation. The quote below clarifies the dichotomy present in the company, which differentiates going plant from going business:

> The one is producing power which increases the supply of goods in order to increase the quantity of use-values; the other is bargaining power which restricts the supply of goods in proportion to demand, in order to increase or maintain their exchange-value. Bargaining power is the willful restriction of supply in proportion to demand in order to maintain or enlarge the value of business assets; but producing power is the willing increase of supply in order to enlarge the wealth of nations (COMMONS, 1995, p.20/21).

These two instances of *going concern* undress a kind of strained relationship expressed by the divergent possibilities of making profit. In fact, in the operation of *going plants* the fundamental aspect is the search for productive efficiency in the use of its material elements, fixed and circulating capital. Within it the intentional effort of men turns to economize the means and to raise the ends (the product), either through the reorganization of productive space (and Taylorism is an example of the possibilities of this type of intervention), or through the introduction of more capital (or better quality capital replacing the former). In other words, it is the search for increase of use values (material wealth) by resource efficiency. Although it is a "technical" dimension, it is precisely because of this, it gives rise to unequal power relations of the hierarchy type. For that reason, Commons inserts it in that typology of the managerial transaction.

The *going business* dimension refers to the collective action that unifies the actions of one or more *going plants* under the same property in the relations maintained with the environment and the context, aiming at the valuation of the company's total assets. The objective of generating exchange values (assets) depends on the coordination of the assets and the control (through private property) of the scarcity. Assets include a significant portion of intangible and incorporeal assets that find valuation in the markets. These forms of wealth increase the value of *going business* and the income it can earn without mobilizing the productive resources present in the *going plant*. For example, companies may: earn income buying private (actions) public (public debt) bonds; anticipate the realization of an asset owned by it (the sale of a property before its price falls); negotiate currencies

and arbitrate some gain anticipating market trends, pocket the goodwill in the conclusion of a business involving the transfer of assets ownership. It can also restrict the supply of use-to-demand to increase or retain the exchange value by using Commons bargaining power concept. In other words, the *going business* facet can deliberately compromise the productive efficiency to enable pecuniary gains. Clearly, the pecuniary dimension (exchange values) dominates and controls the productive dimension (use values). As Bazzoli noted, L; Dutraive, V (2002, p.21):

> *The business logic is the acquisition and transfer of property rights as the basis of future transactions for pecuniary gains. This is why 'the businessman restricts or regulates the quantity produced in order to maintain or increase its monetary value' (COMMONS, 1934, p. 286).*

There is no assumption of efficiency inherent to the companies. The emphasis is foremost on the exercise and the permanent tension between the expression of economic power - the pecuniary logic - and the development of production.

Therefore, *going concerns* constitute the social fabric in which social relations (transactions) take shape. They are various (family, company, union, class associations, schools, hospitals, state, etc.), independent, but connected by the social bonds that individuals "stitch" into their daily lives as they move from one to the other. The same person lives at a given time and throughout his life in various *going concerns*. It undergoes different working rules, different patterns of behavior, representation and cognition.

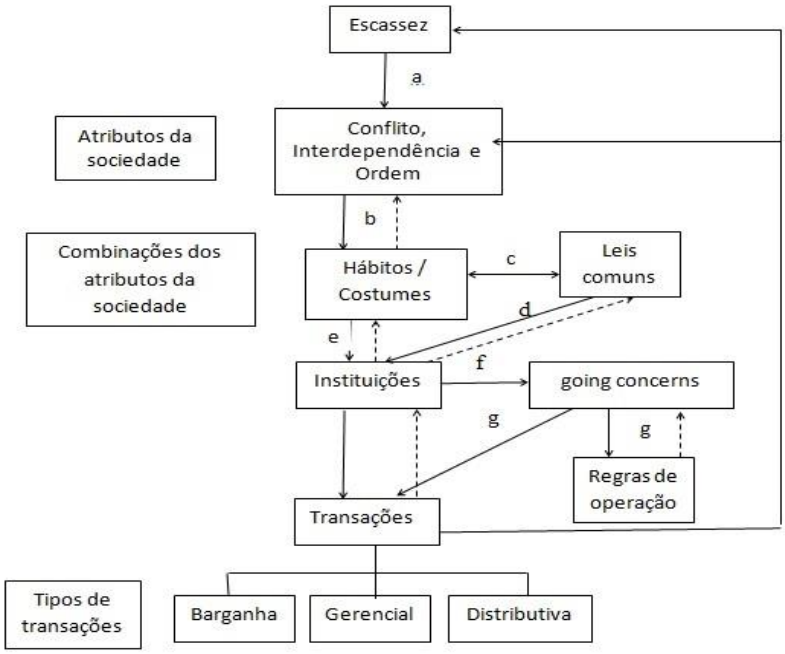
A *going concern* is collective action determining and being determined by individuals. It determines in the sense that they exist before the individual and he comes across in his social life with those prior structures with which and often within which they have to deal daily. *Going concerns* offer the living force of actions of other individuals in the past, who remain and are perpetuated through customs, customary practices, precedents, methods of work, ie, rules of operation that constrain the discretion of the present (Lawson, 1996).

At the same time, however, people in the present animate with their daily practices and behavior the very existence of the *going concern*. Although conditioned by habits and customs, people preserve varying degrees of autonomy and discretion. In this sense, the working rules are not only the source of constraints and conditioning (negative aspect), but also of protection and stimulation of the autonomous and discretionary behavior present in the individual sphere. Thanks to them, they can exercise discretion and choose alternatives, so that the "will" of the *going concern* is nothing more than the rules of operation (Commons, 1995: 147), that is, the actions and transactions of those who obey them.

Several authors have emphasized the fact that the Commons approach offers a promising methodological alternative between holism and individualism without compromising a totalizing approach to capitalism (see Lawson 1996, Hodgson 2003, Kemp 2009).

A summary of Commons' economic theory conceptual structure, its hierarchy and interrelationship can be seen in Figure 1. The starting point is scarcity (natural or artificial). The arrow "a" links scarcity to the attributes of society (conflict, interdependence and order). In human societies - given the need to assure their members the minimum of housing, food and conditions of reproduction - conflicts (individual and/or collective) are framed in relations of interdependence and cooperation that produce some stability and predictability in human relations (order). The "b" arrow that departs from the attributes of society is linked to habits and customs, whose reiteration reinforces the elements of integration (interdependence) and social order, reducing or managing conflicts. Customs are social conditioning stronger and more effective than habits, which are also present at this analytical stage. Customs are artificially selected, that is, intentionally by individuals through common law (hence arrow "c" unites them). Both produce formal and informal institutions (d and e). The formal institutions, which particularly interested Commons, are going concerns (f), within which certain types of norms are established (working rules) and transactions take place (g). Transactions and their three types, in turn, transform the very nature and dimension of scarcity (h), making the cycle return to its origin and continue indefinitely. In this way, the theory moves in a structure of conceptual interactions that endogenizes the "institutional environment", which becomes a dynamic element - not a parameter - of human interactions.

Figure 1- Conceptual Structure of Commons' Theory



Source: Author

Williamson and the Concept of Transactions

The context and problematic of Williamson's theory are distinct. If we take the publication of his article *The vertical integration of production: market failure considerations* (Williamson, 1971) and later his book *Markets and Hierarchies* (Williamson, 1975 [1991]), his reflections are part of the complex flow of events that runs counter to the "excesses" of capitalist regulation, the most radical expression of which was Margaret Thatcher's 1979 election in England. This is why his reappraisal of the Antitrust Law, presented in the final chapter of that book, as well as his interest in "private" forms of governance, that is markets, firms and contracts (Williamson, 2009). Likewise, intellectual influences seem to be solidly three, although his rhetorical strategy has shifted emphasis and added new influences. They were, as he says himself, Commons, Coase, Hayek, theorists of industrial organizations, among others.

In fact, Williamson was the most explicit economist of the New Institutional School in recognizing some debt with Commons. In his book *Market and Hierarchies,* he delineated and measured the debt by affirming the importance attributed by Commons to recurrent contracts in conditions of uncertainty and for which they are necessary successive adjustments for the parties to achieve an effective adjustment. In *The Economic Institutions of Capitalism*, he affirmed the importance of treating the transaction as a unit of analysis, which made possible "the study of economics at a much more microanalytical level" (Williamson, 1985: 3). Williamson's intention in this narrative is to place Commons' theory within his own, as a set of promising insights that were only fully developed when subsumed to Williamson's own more general and predictive theory.

In the same book, Williamson commended Commons for neglecting the role of technology in economic organization and emphasizing "the purpose of harmonizing relations between parties that are otherwise in actual or potential conflict" (Williamson, 1985: 3), which inspired him to the contractual approach that aims at continuous relation in specialized structures. However, he regrets Commons' insistence on making the Courts the main forum for conflict resolution. Finally, in the article *"Transactions Cost Economics: the natural progression"* (2009), Williamson suggests an "evolutionary" narrative for transaction cost economics, which has its origin in Commons and Coase and in which its version of transaction costs appears as the culmination, threshed with contradictions and capable of greater formalization and predictive power. There would be four evolutionary stages of the theory: the informal, the pre-formal, the semi-formal, and the fully formal. In the first (supposed

to be Commons' place), "the informal stage of transaction economics was the literature from the 1930s (especially Commons and Coase) where errors or omissions in the neoclassical set up were described" (Williamson, 2009: 471).

Williamson's task of adapting Commons to his project implied in the following movements: a) reduction it the scope of the concept of transactions to the microeconomic dimension more adequate to the traditional approach and the methodological individualism; b) circumscribed it to the sphere of the circulation of goods, explicitly recognizing the general adequacy of the theory of neoclassical production; c) transported the problem of efficiency from the dimension of production to that of circulation, but segmenting them; d) endorsed the general deductive and apriorist approach of neoclassical economics, as well as advanced in its mathematical formalization, understanding it as an expression of scientific discourse. In order to analyze these four aspects of Williamson's approach, a small deviation is necessary in order to present, as in the previous item on Commons, the most salient and crucial contours of Williamson's economic theory.

The author's main objective (Williamson, 1985, 1991, 1996) is the comprehension of the origins and functions of the various structures of enterprise and market, that is, the capitalist economic institutions. The question is how these institutions (markets, firms and contracts) deal with the problems associated with the transaction, since, as Coase has shown, the use of the market mechanism entails costs.

By transaction, Williamson understands the transfer of goods and/or services between agents who are separated by technologically distinct stages of production (Williamson, 1985:1). That is, his scope of analysis deals with the physical dimension of transfers between agents that are not present in a given place or position. Such physical transfers become the object of investigation because, in a general way, they imply costs associated with the task of planning, adapting and monitoring them. Thus, the theory of transaction costs analyzes the costs that must be sustained to effect the exchanges in their different phases of research, negotiation, prevention and control. Put in these terms, the capitalist economic institutions have as main function, though not exclusive, the reduction of transaction costs[3], thus a transaction can be assimilated to exchange, with the difference that this, in the approach of the mainstream happened with assumptions that are not "realistic". In some way, the purpose of raising economic efficiency articulates the economic institutions and their change, a purpose that was not in the scope neither of Commons nor of any original institutionalist economist.

From the beginning, Williamson's approach emphasized the need for interdisciplinarity, since the study of transactions encompasses a significant range of disciplines, such as business administration, law, and economics. Regarding the latter, Williamson's proposal differs from the

[3] As the author announces in Chapter 1 of *Economic Institutions of Capitalism* (1985:17) "This book advances the proposition that the economic institutions of capitalism have the purpose and principal effects of saving transaction costs."

mainstream economic approach. This distinction, although mitigated in several moments by the author, is fundamentally in two spheres: the treatment given to the firm and the behavioral hypotheses attributed to the economic agents, given the tensions and contradictions that the going concern company internalizes in its going plant and going business dimensions.

In the first case, Williamson's criticism of neoclassical economics lies in the erroneous treatment given by this school to the firm. The neoclassical firm is represented fundamentally by means of a production function, from which the available economic resources are organized and allocated according to maximizing objectives. The price mechanism is sufficient to convey the information and signals needed for this task, so that transactions – presumed impersonal and instantaneous in the market – are carried out accurately and at no cost.[4]

In contrast, the firm for Williamson must be treated as a governance structure. In a governance structure, the goal is to ensure a more efficient coordination of economic activities (with or without the market), saving transaction costs and reducing uncertainty, compensating the agents of limited rationality and opportunism.

These last two concepts refer to the second dimension of the breakdown of Transaction Cost Economics (TCE) in relation to mainstream economy and refers to behavioral hypotheses. It is important to note that the existence of bounded rationality and opportunism are the basic determinants for the existence of transaction costs in interfirm economic relations (Pitelis, 1994). They are also, as observed by Kirat and Bazzoli (2005), a fundamental feature of Williamson's apriorist method inherited from the orthodox approach.

The concept of bounded rationality is one of the pillars of Williamson's theory and stands against the neoclassical concept of rationality. The fundamental question here is to discuss whether or not there are limits to the cognitive capacity of the human mind and what consequences it brings for economic activity.

Williamson best performed the treatment of this question in his book *Markets and Hierarchy* (Williamson, 1975), indicating the precise sense in which our cognitive capacity is limited and introducing uncertainty as an essential component. In this work, there are three determinants of bounded rationality. a) the uncertainty, which exists because it is impossible or very costly to identify future events and to specify, *ex ante*, appropriate adaptations to them; b) neurophysiological and language limitations, because our mind has limitations to receive, store, retrieve, process and analyze information without errors. We may add our limitations of language, which consists *"in the "inability of individuals to express their knowledge or feelings through the use of words, numbers and graphs so that others can understand"* (Williamson 1975: 39)*;* c) complexity, derived from the fact that

[4] A very useful characterization and critique of the neoclassical assumptions is found in Ingrao, B, and Israel, G. *The Invisible Hand* (1990).

decisions faced by firms imply the impossibility (or, where possible, prohibitive costs) of listing all the possibilities and consequences of decisions.

On the other hand, Williamson admits that there is potentially space for opportunistic behavior in the relation between economic agents. The essential idea of this concept is that in the pursuit of self-interest, men do not always conduct themselves in a transparent and honest manner. Opportunism refers, therefore, to the lack of sincerity or honesty between the parties in the transactions. Or, according to Williamson's definition (1985: 47)

> By opportunism I mean self-interest seeking with guile. This includes but is scarcely limited to more blatant forms, such as lying, stealing and cheating. Opportunism more often involves subtle forms of deceit. Both active and passive forms and both ex ante and ex post types are included. Opportunism is a particular source of uncertainty in transactional relations among agents insofar as: 1) may involve a chosen or distorted disclosure of the information; 2) gives rise to the possibility of consciously false promises regarding future conduct; 3) Given the asymmetries of information among the agents, it is possible for one of them, in a transaction, to know/unknown aspects relevant to negotiated goods / services.

Thus, insofar as the problem is transactions and not the allocation of scarce resources, and those are done through contracts, the agents' dilemma is to ensure the elaboration and execution of contracts that are adequate enough to the limitations of rationality and adaptive to uncertainties the environment and opportunistic behavior.

According to Williamson, transactions are managed through an optimal governance (coordination) mechanism selected as one that minimizes transactional costs between a "market" type of governance, a "hierarchical" mode of governance, or an intermediate mode (hybrid forms). The choice of the most appropriate coordination mechanism is determined by analyzing three parameters of the transaction: specificity, frequency and uncertainty (see figure 2).

The uncertainty present in transactions is mainly related to the existence of opportunistic behavior, which makes it unpredictable to identify possible future deviations of behaviors/commitments, and difficult the identification of false signals and information by the partners involved in transaction. However, as Williamson (1985: 59) warns,

> The influence of uncertainty on economic organization is conditional. Specifically, an increase in parametric uncertainty is matter of little consequence for transactions that are nonspecific. Since new trading relations are easily arranged, continuity has little value, and behavioral uncertainty is irrelevant. Accordingly, market exchange continues and the discrete contracting paradigm holds across standardized transactions of all kinds, whatever the degree of uncertainty.

In fact, uncertainty becomes relevant only in cases where the transaction involves specific assets. For Williamson (1985: 60), in these cases,

> Whenever assets are specific in nontrivial degree, increasing the degree of uncertainty makes it more imperative that the parties devise a machinery to "work thins out" – since contractual gaps will be larger and the occasions for sequential adaptions will increase in number and importance as the degree of uncertainty increases. Also and relatedly, concerns over the behavioral uncertainties referred to above now intrude.

Frequency refers to the number of times of transactions and their recurring nature. Thus, the more often a transaction is performed, the more dependent become its parties.

Finally, there is the asset specificity. Assets are called specific when they cannot be re-employed for another use without incurring loss in their values. Investments in this kind of assets have consequences for the firm because "such investments are also risky, since specialized assets cannot be re-employed without sacrificing their productive value if the contracts are to be interrupted or prematurely broken" (Williamson 1985 : 54). The cited author identifies at least four types of specific assets: locational specificity, the specificity of physical assets, the specificity of human assets and dedicated assets.

In the first case, it arises when successive and separate stages of the productive process are located close to each other, "since the assets are locational, the parties thereafter will operate in a bilateral exchange relation for the entire useful life of the asset" (Williamson, 1985: 95). Physical specificity refers to the physical attributes of the assets that are required to produce a particular component.

The specificity of human assets linked to learning-by-doing or difficulties in shifting human assets in the form of teams favors employment relations over autonomous contracts.

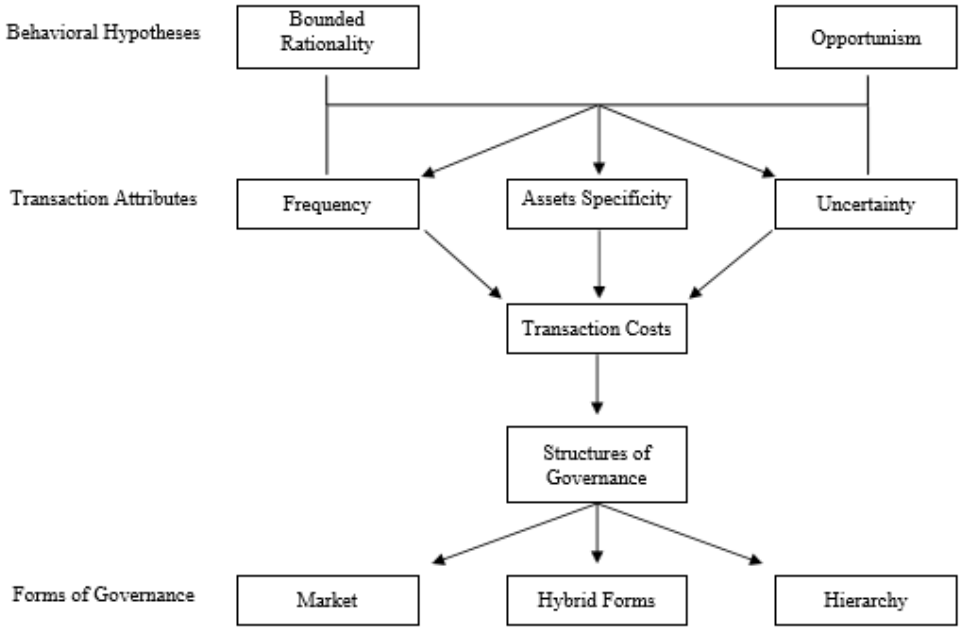
Finally, dedicated assets "represent a discrete investment in generalized (when contrasted with special purpose) production capacity that would not be made other than through the prospect of selling a significant amount of the product to a particular customer" (Williamson, 1985: 95).

The combination of these five elements sets the parameters for the determination of transaction costs. Assuming the same degree of bounded rationality and opportunism, transactions involving high frequency, uncertainty, and specific assets are best performed in hierarchical governance structures in which monocratic and taxing decision-making power reduces the potential waste of transactions with those characteristics. On the contrary, when the attributes of the transactions are less relevant in economic activity, the least expensive form of governance is the market. Hybrid and contractual forms occupy an intermediate position, reflecting the various possibilities of combining those variables. Curiously, it is absent in Commons' reflection on state governance, which seems to result from other determinants than those previously discriminated.

The Figure below synthesizes Williamson's contribution. It reveals that Williamson's theorization is anchored in two great methodological pillars: methodological apriorism and

individualism. The first compromising the approach to deductivism and the second assigning general behaviors to the economic actors (bounded rationality and opportunism). Combined to certain transaction attributes (frequency, asset specificity and uncertainty) they define transaction costs, that is, of transferring goods and services from one hand to another at different stages of production. Aware of these costs, economic actors select the best governance structures, which can be the market, the hybrid forms, and hierarchy. This process occurs, however, in a given context or institutional environment, that is, impervious to the economic interaction between the actors. This aspect responds by the main characteristics of the theory: its microanalitic approach and its static nature.

Ficture 2 – Conceptual Structure of Williamson's Theory of Transaction Costs



Source: Author

Although Williamson's approach has "modernized" thematically and conceptually the Neoclassical Economy, it does not constitute a break with it, as suggested by several authors. Bouvier-Patron (1993) and Goldbaum (1998) criticized the optimization and efficiency assumption contained in Williamson's analysis when the firm chooses its form of economic coordination. For the first author, the argument used by Williamson to impute efficiency to the forms of governance chosen by the firm is that it compares the transaction costs in the market and the costs of the organization. From this comparison, the firm opts for less costly and thus more efficient coordination. The argument of efficiency is thus deduced and never demonstrated, since this calculation is possible only when assuming homogeneous transactions. Goldbaum argues that Williamson's attribution of efficiency to

the chosen form of economic coordination stems from the accentuated functionalist component of his approach. For Goldbaum, to validate Williamson's argument it would be necessary to explain: a) the selection mechanisms that produce the best governance structures and b) recognize that the authority of the hierarchies does not eliminate the manifestations of opportunistic behavior within the structures of governance, so that the efficiency argument must be relativized.

In the same direction, Ankarloo; Palermo (2004) drew attention to several problems present in Williamson's theory, which they roughly identified as a "as if" methodological approach to history. In so doing, Williamson produces reversals of senses and historical determination, such as mistakenly assuming markets exist before hierarchical organizations, or failing to explain how to reconcile the function of institutions as efficiency-seeking arrangements with persistently coexisting forms of institutional arrangements.

Conclusions

This article sought to present the concept of transaction as manifested in the economic thinking of two American economists who chose it as their basic unit of analysis. Although they have the same concept, the notion of transaction differs in the two authors regarding their context of origin, epistemological root, content and application. As seen above, the notion of transaction appeared in Commons as part of a practical project of capitalist reform that theoretically implied the rejection of both the *deductive apriorism* of classical and neoclassical schools *and methodological individualism*. For this, his theory borrowed the deep reflections of philosophical pragmatism, with abduction as its fundamental reference. In the same way, the discussions that took place within theoretical physics, whose focus was on the field produced by the constant movement of particles, and not on the isolated behavior of each of them, was inspiring for Commons. This revealed to him that individual action and its motivations are embedded in social relations that make it a mistake to take them as given preferences or behaviors. The combination of these two contributions resulted in a reading of the economic facts that elected the transaction as the central unit of his analysis. Dynamic and relational, the transaction delimits the field, which he called going concerns, within which the interaction between purposeful individuals happens and is structured by common rules. The transaction thus appears as a mid-level approach, which denies both holism and individualism. By this means, the interpretive approach of capitalism can be totalizing, in the sense that it is represented roughly by the types of transactions that predominate in it.

Williamson proposed the concept in contexts and with distinct objectives: it navigated the chain of liberal forces hostile to capitalist regulation and sympathetic to private regulation, whether via markets, firms or contracts. That author reduced the concept to the transfer of goods and services

in institutions that are or are not guided by the price system. There is no epistemological discussion per se, but in endorsing the general validity of "conventional economics", he seems to recognize that his own theory shares the same epistemological background as that. Similarly, he based his theoretical formulation on *apriorist deductivism*, which allowed him to prospect future advances of theory in the sense of formalization and prediction. For this reason, his theory suffers from some limitations pointed out by his critics. It is static and, despite adopting more realistic hypotheses about the economic man, it conforms adequately to methodological individualism.

The recovery of the trajectory of the concept of transaction deserves a final comment, which transpires some irony: Williamson's appropriation of the concept of transaction formulated by Commons has, after having been adjusted and emptied to fit in the neoclassical theory, produced insights capable of advancing the positive heuristic of the neoclassical Scientific Research Program. Paving a research agenda with relative empirical success is to some extent astonishing and, in any way, grandiose. On the other hand, it remains to be explained why the rich concept of transaction elaborated by Commons did not have an equivalent split in the scope of the Original Institutional Economy. The attempt to contrast the two authors by systematizing their conceptual architectures is to show the superiority of that formulated more than 60 years ago by Commons. Contributing to the task of the Original Institutional economists who undertake to confront the challenge posed by Kaufman (2017: 318) that "its practitioners progress the field beyond a plethora of loosely connected themes and commitments to a more unified theoretical paradigm vision - perhaps with NIE nested within it - with a complementary set of analytical tools and concepts".

Acknowledgements

The authors would like to acknowledge FAPESP (Fundação de Amparo à Pesquisa do Estado de São Paulo) for the financial support which gave origin to this paper. Specifically the grants 14/18542-7 for Sebastião Neto Ribeiro Guedes, 15/20533-9 and 17/07136-6 for Rodrigo Constantino Jeronimo.

References

ATKIN, A. **Peirce and the scientific conception of truth**. Disponível em: https://www.sheffield.ac.uk/polopoly_fs/1.71442!/file/2atkin.pdf>. Acesso em: 13 mar. 2016.

BAZZOLI, L (1999) - *L'economie politique de John R. Commons: essai sur l'institutionnalisme en sciences sociales*. Paris:Editions L'Harmattan.

COMMONS,J.R (1924 [1995]) – *Legal foundations of capitalism*. New Brunswick:Transaction Publishers.

COMMONS,J.R (1934[2003]) - *Institutional Economics: its place in political economy.* New Brunswick:Transaction Publishers.

COMMONS, J.R (1936 [1996]) - *Institutional Economics*. IN: RUTHERFORD,M; SAMUELS, W.J (ORG) *John R. Commons: Selected Essays (vol II)*. London:Routledge:-443-452.

COMMONS,J.R (1950[1970])– *The economics of collective action.* Madison:The University of Winsconsin Press.

COMMONS, J.R (1909[1996]) – *Institutional economics*. IN: RUTHERFORD,M; SAMUELS, W.J (ORG) *John R. Commons: Selected Essays (vol II)*. London:Routledge: 443-452.

DAVIS,J.B (2003) – the theory of the individual in economics: identity and value. London: Routledge.

DEWEY, J; BENTLEY,A.F. (1946) – Interaction and transaction. The Journal of Philosophy, vol.43,n.19, pp.505-517.

FIORITO, L (2010) – John R. Commons, Wesley N. Hohfeld, and the origins of transactional economics. History of political economics, v.42,n.2, 267- 295.

GUEDES, S.N.R (2013) – "Lei e ordem econômica no pensamento de John R. Commons". Revista de Economia Política, 33(2): 281-297.

GUEDES, S.N.R (2016) – Uma análise dos microfundamentos da teoria econômica de John R. Commons. Relatório final de Pesquisa. Fapesp/Processo 2014/18542-7. 208p.

HAACK,S (2009) – The meaning of pragmatism: the ethics of terminology and the language of philosophy. Teorema, vol.28:3, pp.9-29.

HILDEBRAND, D (2013) - Dewey's pragmatism: instrumentalism and meliorism. IN: MALACHOWSKI, A (Org) – The Cambridge companion to pragmatism. Cambridge: Cambridge University Press, pp.55-82.

HODGSON, G.M (2003) – "John R Commons and the foundations of institutional economics". *Journal of Economic Issues*, 37(3): 547-575.

HODGSON, G.M (2000) – What is the essence of institutional economics? *Journal of Economic issues*, 34(2): 317-330.

INGRAO, B;ISRAEL,G (1990) The invisible hand. Cambridge, Mass: MIT Press.

KAUFMAN, B (2017)- The origins and theoretical foudation of original institutional economics reconsidered. Journal of the History of Economic Thougth, v.39,n.3,p.293-322.

KEMP, T (2006) – Of transactions and transaction cost: incertanty, policy and the process of law in the thought of Commons and Williamson. Journal of Economic Issues, v.40, pp 45-58.

KIRAT,T;BAZZOLI,L (2005) – A propos du réalisme en économie des institutions et sés implications sur l′analyse des fondaments juridiques des transactions économiques: Commons versus Williamson. Économie Apliquée: archives de l′institut de science économique appliquée, institut dês

science économique appliquée, institut des sciences mathematiques et économiques appliquée – ISMEA, 2003,LVI (3),p.171-209. <halshs -00004484>.

KUHN, T (1996) – A estrutura das revoluções científicas. São Paulo: perspectiva.

LAWSON, C (1996) – Holism and collectivism in the work of J.R. Commons. Journal of economics issues, vol.30, n.4, p.967-983.

PEIRCE, C. S. **Conferências sobre pragmatismo**. São Paulo: Ed. Abril, 1980. (Os pensadores). p.5-60.

PEIRCE, C. S. What Pragmatism is? In: WIENER, P. (Org.). **Charles S. Pierce**: selected writings (values in a universe of chance). Mineola: Dover publications, 1958. p. 180-202.

PEIRCE, C. S. The fixation of belief. In: BUCHLER, J. (Org.). **Philosophical writings of Pierce**. Mineola: Dover publications, 1955. p. 5-22.

PEIRCE, C. S. How to make our ideas clear. In: BUCHLER, J. (Org.). **Philosophical writings of Pierce**. Mineola: Dover publications, Inc., 1955, p.23-41.

PEIRCE, C. S. The essentials of pragmatism. In: BUCHLER, J. (Org.). **Philosophical writings of Pierce**. Mineola: Dover publications, 1955. p. 251-268.

RAMSTAD, Y (2001) - "John R. Commons's reasonable value and the problem of just price". *Journal of Economic Issues*, 35(2):253-277.

RAMSTAD, Y (1986) – A pragmatist's Quest for Holistic knowledge: the scientific methodology of John R. Commons. Journal of economic issues, v.XX, n.4, p 1067-1105.

WILLIAMSON, O (1971)- The vertical integration of production: market failure considerations. American Economic Review, 61, p.112-123.

WILLIAMSON, O.E (1975 [1991])- Mercados y jerarquías: su análisis y sus implicaciones antitruste. Mexico, D.F: Fondo de Cultura Económica.

WILLIAMSON, O.E (1985)- The economic institutions of capitalism. New York: The Free Press.

WILLIAMSON, O.E (1996) – The mechanisms of governance. New York/Oxford: Oxford University Press.

WILLIAMSON,O.E (2009) – Transactions cost economics: the natural progression.