

Uniqueness of Cumulative Causation in J. R. Commons' Institutional Economics

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Uniqueness of Cumulative Causation in J. R. Commons' *Institutional Economics*

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Abstract

This article demonstrates the uniqueness of cumulative causation in J. R. Commons' *Institutional Economics* (IE). It highlights the following three points. First, it establishes causation with *trans*-action as the focus of both the institutional change theory and the value theory. Second, it defines conflict as instances of creativity and innovation, that is, momentum for institutional evolution. Third, conflicts puts a 'will' in *trans*-actions, which drives the evolution of institutions and values. This article emphasizes that the will is exercised actively during negotiations, that is, will in *trans*-action is not a standalone authoritative will. Thus, cumulative causation in IE indicates the possibilities of bringing about institutional evolution through the will in transaction.

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Keywords: Cumulative Causation, *Trans*-action, Negotiation, Conflict.

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1 Introduction

Cumulative causation is an important aspect of institutional economics (Kapp 1976). It refers to a change in factors, progressing cyclically and cumulatively through reciprocal reinforcement. There are two genealogies of the theory of cumulative causation.

In the first genealogy, which is widely used, analytical themes provide the dynamics of the macro economy. The beginning of this genealogy is marked by A. Young (1928) and it includes others like G. Myrdal (1957) and N. Kaldor (1966).

In the second genealogy, analytical themes include the cumulative causation between a society and individuals. This focus on causation enables us to consider “cognition,” “volition,” or “choice of individuals” as they are socialized and simultaneously maintain their own singularity, without lapsing into “reductionism” or “totalism” (Bazzoli 1999, p. 128). T. Veblen is both the primogenitor and a pioneering figure of this genealogy (Veblen 1899). He formalized cumulative causation between “prevalent habits of thought” (institution) and “instincts” of humans, which explains why industrial technology is directed toward maintaining the “leisure class.”

However, we cannot know the role of “will” or “volition” in either genealogy.¹⁾ There is nothing wrong with neglecting will in the first genealogy as it is based on macro analysis. The pioneering figure of the second genealogy, Veblen, dared to eliminate will from analytical objects, which may be appropriate in an ultra-long-term analysis. However, when we consider the co-evolution of political and economic behavior, economic value, and institutions, eliminating the performance of will from the analysis may lead the theory to lose touch with reality. This is because, at least in the short term and mid-term, the ingenuity of the actors may influence behavioral and institutional change.

It is well known that John Rogers Commons (1862–1945), who is said to be one of the founders of American institutionalism, constructed “volitional economics,” that is institutional economics with volition as an element (Commons 1927). However, there are few works on the cumulative causation of “institution”²⁾ and the “institutionalized mind” discussed in his masterpiece, *Institutional Economics* (IE) (Commons 1934a) (Bazzoli 1999; Ramstad 1990; Zingler 1974). These two themes, namely, will and cumulative causation, are not appropriately connected. In other words, there is insufficient (Bazzoli 1999; Zingler 1974) or inappropriate explanation (Ramstad 1990) in the previous research regarding how will is placed

1) “Will” refers to the total inner world of an individual. “Volition” indicates active choice, that is, “performance,” “forbearance,” “avoidance,” and “timeliness” (Commons 1934a, pp. 305–306; 1950, p. 149). This strategic choice, including deliberate “withholding,” is intended to control “proprietary scarcity” (Commons 1934a, pp. 198–201). “Timeliness” is the choice of appropriate time and place and degree of performance.

2) In IE, institution, collective action, the working rule of a going concern, and order are different expressions indicating the same meaning.

in the framework of causation, wherein the political and economic behavior of actors, economic value, and institutions causally circulate and co-evolve.

Ramstad (1990) focused on the will of an “authoritative agency” as the driver of cumulative causation that chooses institutions. His opinion seems appropriate, but it fails to convey the essence of IE as the will in IE is the will exercised in social action, that is, will in “*trans-action*.”³⁾

By analyzing Ramstad’s (1990) explanation of cumulative causation, this article clarifies the role of will in the composition of the co-evolution of the political and economic behavior of actors, economic value, and institutions. If we consider the composition of cumulative causation in IE, while keeping our sights on will in *trans-action*, then, the uniqueness of cumulative causation is evident.

The rest of this article is as follows. In Section 2, we critique Ramstad’s (1990) composition of cumulative causation in IE for failing to grasp the role of will in *trans-action*. In Section 3, we demonstrate the role of will in “*trans-action*,” that is, the tree type of “transaction,” which is bargaining, managerial, and rationing transaction, or the ultimate unit of analysis in IE. In Section 4, we connect transactions as units, and indicate the composition of cumulative causation. In Section 5, we highlight the uniqueness of cumulative causation in IE by comparing it to modern institutionalism, that is, regulation theory and historical institutionalism. Section 6 concludes.

2 Institutional and individual causation

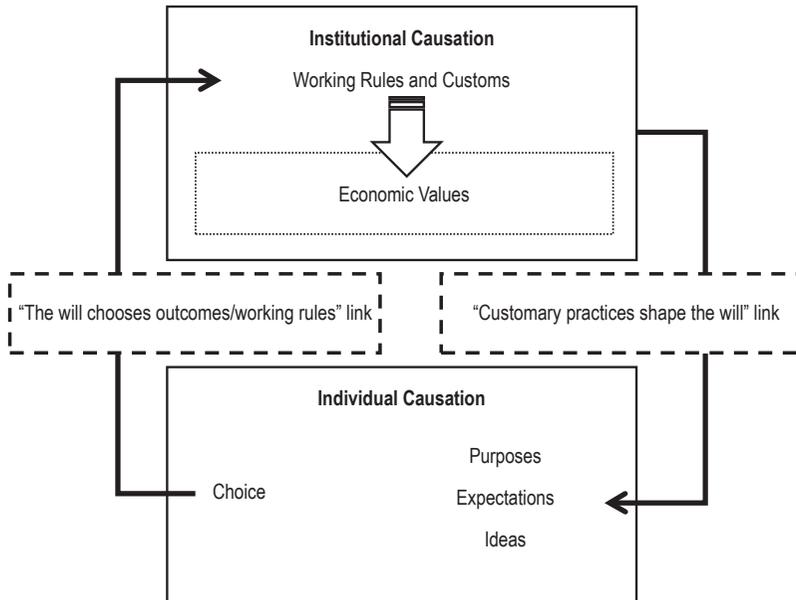
Ramstad (1990) is the sole work that discusses circular and cumulative causation between individuals and society to some extent.⁴⁾ Ramstad (1990, p. 77) asserts that Commons (1934a) contains a framework of circular causation between “institutional causation” and “individual causation” (see Figure 1).⁵⁾

3) The reason we use the term “*trans-action*” (Commons 1934a, p. 73) is to emphasize that it is not related to O. E. Williamson’s transaction-cost theory (Williamson 1986). *Trans-action* refers to a communication process. Hereafter, we use the term *trans-action* and transaction, but both indicate the same meaning, that is, communication in political or economic activity.

4) However, as can be expected from the section title “XVII. A Digression on Institutional Causation,” Ramstad discussed cumulative causation within a space constraint (1990, pp. 77–86).

5) While Hodgson (2003) stressed that circular causation in IE is not perfected, I rebutted his assertions, based on the descriptions in IE. See Kitagawa (2016) for details.

Figure 1 Circular causation discussed in Ramstad (1990)



Source: Author

Institutional causation refers to reciprocal relations that follow two directions: first, institutions (customs and working rules of going concerns) create transactions and economic outcomes and second, the outcome is a cause on which the perpetuation of each institution depends.⁶⁾ Individual causation refers to reciprocal relations between experiences and will. The experiences that come from the outer world create “meaning,” “valuing,” and “choice” in the inner world. These internal activities result in actions⁷⁾ that are conducive of the next experiences (Commons 1934a, p. 95; *cf.*, Dewey 1929, pp. 167–168). In individual causation, the inner and outside worlds are not divided, but interlinked at an interconnection point, namely, action (Albert and Ramstad 1997; Costa and Castro Caldas 2011, p. 675; Dewey 1922; Harter 1963, p. 227).

Institutional causation and individual causation are connected by two links:

6) Following law or causation is involved in institutional causation. According to Ramstad, this is the law of supply and demand, that is, “economic law.” According to Uni and Nakahara (2016, p. 150), it is the cumulative causation of the macro economy. Based on Ramstad (1990), for Commons, “economic law” or “market force” arises from myriad transactions, which are controlled by institutions; therefore, the law does not exist prior to institutions and it does not evolve independently from the institutions. However, this article focuses only on the causation between “institution” and the “institutionalized mind” within “multiple causations” (Commons 1934a, p. 7).

7) A brilliant explanation of the relationship between meaning, valuing, and volition is given in Commons (1934a, pp. 17–20) (*cf.*, Mirowski 1988, p. 127).

“customary practices shaping the will” and “the will choosing outcomes/working rules” (Ramstad 1990, p. 79). The former link indicates the expectations, purpose, ways of recognition, and ways of action converge of a certain type to some extent. When we designate this link as our starting point, institutional causation becomes the “cause” of individual causation as it is expressed in the expectations and purpose of individuals (*cf.*, Biddle 1990a, p. 3). Commons borrowed the term “institutionalized mind” from E. Jordan to express the will internalizing institutional causation (Commons 1934a, p. 697, annotation 72; Jordan 1927).

The latter link, namely, “the will choosing outcomes/working rules,” is the “volitional dimension of action directed to the achievement of future end” (Ramstad 1990, p. 80). Ramstad focused on the volition of “authoritative agency” (especially, courts of law), that is, the purpose.⁸⁾ The authoritative agency chooses new working rules to fit with the purpose, which is the cause of action. The “purposeful thought” and the choice resting on the thought are “artificial selection” and a cause of institutional causation (*cf.*, Ramstad 1994, pp. 109–111).

Thus, individual causation and institutional causation form a circular loop through these two links. “If one is to understand *why* an individual has acted in the way he/she has been observed to act, one must evaluate the significance in the particular case of *both* ‘volition’ (‘individual causation’ as captured by the term ‘methodological individualism’) *and* ‘working rule and custom’ (‘institutional causation’ as captured by the term ‘determinism’)” (Ramstad 1990, p. 97, annotation 54).⁹⁾

Ramstad (1990) asserts that the essence of Commons’ institutional economics is lies in understanding economic values in circular causation. On one hand, in mainstream economics, “the wills of individuals, as limited by their own endowments of resources and the state of technology, are jointly the basic ‘force’ underlying, or fundamental ‘cause’ of, observed economic values” (Ramstad 1990, p. 83). On the other hand, in Commons’ theory, if we dare to set a starting point or cause, it is the purpose of the authoritative agency and accordingly, the agency “chooses outcomes/working rules.” “Orderly transactions” based on the “adopted working rules” create economic values (Ramstad 1990, p. 85, Figure 2). Thus, the realized economic values are observed because of economic coordination.

Supporting this “reinterpretation of the etiology of economic values” implies the following two points (Ramstad 1990, p. 87). First, the amendment of working rules becomes a way of enforcing economic values that come closer to public purposes than economic values realized under the old rules. Working rules are evaluated and reformed based on gaps between public purposes and economic values, which are raised by transactions based on the rules (*cf.*, Biddle 1990b, p. 31). Second, an issue that economists should address is redefined, from defining the goals that

8) The purpose of authoritative agency derives from the collective will of the principals.

9) *Italicized* words are simply reproduced from the original, whereas **bold** font indicates emphasis by the author of this article. [] is a supplement of the author.

principals or authoritative *agents* other than economists ought to pursue to “showing how the existing structure of working rules must be altered if the evolving purposes of the principals’ collective will are to be attained” (Ramstad 1990, p. 87). Therefore, economists should first investigate the meaning of public purpose created historically in cumulative causation before thinking about the instrument of attaining the purpose.¹⁰ Adding to Ramstad (1990), this method of investigation completely differs from the one that considers prescription fitting as a given cause, that is, an *a priori* purpose.

We indicate the following point as a counter to this explanation by Ramstad (1990). The point of view in which individual causation and institutional causation are units of cumulative causation ignores the uniqueness of IE in drawing the politico-economic system from “transactions,” rather than individuals or the whole society (for emphasis, “*trans*-action”). As the analytical starting point of Ramstad (1990) is placed in individual causation with regard to the will, the volition of authoritative agency is stressed. However, the will in IE means “will-in-action” (Commons 1934a, pp. 89, 640), or, to state it clearly, “will in *trans*-action.” The will is exercised during negotiations in each transaction.

As Ramstad (1990) does not begin his analytical starting point with *trans*-action, “social relations” contained in each transaction, that is “conflict,” “mutual dependence,” and “order” do not emerge (Commons 1934a, pp. 57–58, 92, 108). Then, what is the momentum that makes humans reconsider institutions and their habitual assumptions? Ramstad (1990) mainly focuses on “doubt” arising when an unintended consequence occurs, in other words, the motivation that wants to raise the efficiency of a “means” for a certain “end.” However, that is not enough because, as claimed by Vögelin (1995, p. 262), the uniqueness of IE lies in its focuses on “conflict” as a momentum of the “collective investigation” of actors (Commons 1998, p. 326).

3 Role of will in transactions

3.1 Bargaining transaction

A “bargaining transaction” is a transaction between equal participants in law over “proprietary scarcity.” Proprietary scarcity is a collective and objective value arising from joint expectation, which *is* the transaction, under the control of law. This refers to the “price” measured in terms of money. It depends on various

10) When Commons discussed whether draft laws would be effective for certain problems, he considered not only the drafting of the law, but also the existing or attainable belief systems of the participants of transactions that would become norms at a meta-level, supporting the operation of the draft. His view, that it is the norms at the meta-level that underpin the workability of institutional reform, is expressed clearly in his key word “administration.” His method, in which he processes reasoning based on existing or attainable customs, differs completely from the method of economists who deduce from certain assumptions that are not based on experiences (Commons 1934a, p. 847).

factors, such as institution of ownership, efficiency in output, desired output quantity, coercion, and persuasion at a given place and time. However, the “measure” of value is only in terms of money; and not nature, labor-pain, labor-power, or the pleasure or pain of individual psychology. Therefore, “scarcity” in IE is different from physical and objective scarcity or physical and individual scarcity in previous economic theories.

Commons indicated that previous economists, like J. Locke, F. Quesnay, A. Smith, T. R. Malthus, and D. Ricardo, became entrenched in the “substance” of value. In their theories, “real value” differed from “nominal value” based on the substance of value, that is, stable measures like labor and utility. However, property rights that had been extended from “corporeal property” to “incorporeal property” and “intangible property” were eliminated from the real value.¹¹⁾ If we analyze extended property rights, the “nominal value” itself is the sole analytical object of “institutional value.” Compared to classical economics, which eliminates price fluctuations, Commons believed that such fluctuations were “real,” and they affected the everyday economic life of various actors. In the following, the term “value,” that is, proprietary scarcity, is not equivalent to what some substance realizes by itself as value, but is collectively decided by the “price,” thus reflecting the five principles of scarcity, efficiency, custom, sovereignty, and futurity in a certain *trans*-action (Nakahara 2015). Therefore, it is not guaranteed that transaction value consists of “reproduction cost” or “marginal utility” (Commons 1934a, p. 175, Chart 4, pp. 180–181).

Hereafter, we see how the will in *trans*-actions, conflict, and collective action are involved with bargaining transactions.

Commons assumes two buyers and two sellers in his “formula of bargaining transaction” (Commons 1934a, p. 59) for the following two reasons. First, as we see later in this section, he wanted to treat issues of reasonable discrimination, competition, and control of the degree of discrimination and competition by sovereignty as a part of economic theory. This is value theory in the era of big business. Second, he wanted to express the active choice of “finite human will” in transactions (Commons 1934a, p. 318). According to Commons (1934a, p. 320), the human being is not “an infinite being” who “can enjoy all possible alternatives at the same time and place.” Recognizing the best and the second best opportunities, which are immediately executable opportunities in a certain transaction, the human will only chooses from the two alternatives. For example, from the standpoint of B in Figure 2, the practical opportunities among infinite opportunities are \$110 of S and \$120 of S¹.

On the side of B, “higher outgo *avoided*,” that is, the “dis-opportunity-value” (Commons 1934a, pp. 312–313) is \$10, which is \$120 of S¹ minus \$110 of S. In this case, the “volition” of B is to avoid higher expenditure, that is, the choice of

11) With regard to the extension of property rights, that is, evolution of the institution of property, see Tsukamoto (2015).

Figure 2 Formula of bargaining transaction

		Economic Relations			
Buyers (bid)	\$ 100	B	Competition	B ¹	\$ 90
		(Opportunity)			
Bargaining Power (Economic Power) · Moral Power		Power			
Sellers (asked)	\$ 110	S	Competition	S ¹	\$ 120
		(Opportunity)			

Source: Author, based on Commons (1927, Ch. I, p. 15) and Commons (1928, r. 12, s. 762)

the two opportunities. On the other hand, the “opportunity-cost” of S (Commons 1934a, p. 308) is \$10, which is \$100 minus \$90 of B¹.

According to Commons, this “theory of dis-opportunity-value and opportunity-cost” is a conventional way of thinking about the value of courts and businessmen in his era. As we will soon come across in this subsection, courts judge disputed bargaining transactions. This implies that sovereignty attempts to regulate the bargaining transactions under the worldview of the theory of dis-opportunity-value and opportunity-cost. Courts investigate transactions similar to the disputed transaction, and then, explore whether the dis-opportunity-value in disputed transactions is similar to the dis-opportunity-value of other buyers in similar situations or whether the opportunity-cost in the disputed transactions is similar to opportunity-cost of other sellers in similar situations (Commons 1934a, p. 330). If the cases are similar, the considered dis-opportunity-value or opportunity-cost is reasonable. However, if the cases are dissimilar, the value or cost is judged to be unreasonable, and thus, become objects for correction. Such judgments, of course, become rules for future bargaining transactions.

We set transaction value as \$ x. \$ x is the *gross* income of S and gross expenditure of B. This means that in any transaction value, the two interests of the gross income of S and the gross expenditure of B are always in conflict. However, this apparently commonplace conflict is eliminated from classical economics because it makes an individualistic assumption that “we seek the largest possible *net* income regardless of the effect on other people” (Commons 1934a, p. 323). When we see economic activity as *trans*-action, it is brought into sharp relief that arbitration by collective action and negotiation is needed to enable transactions and reach settlements. We can see more concretely that collective action and negotiation relate to bargaining transaction as follows. Bound between the upper limit of the amount asked of the seller (\$120) and the lower limit of the buyer’s bid (\$90) is a “limit of coercion” (Commons 1934a, p. 331). Sovereignty sets this limit by legal control, and the amount has been changed in successive periods. Legal control has been exerted over the following two issues. First, “discrimination” is settled when the prices asked by S of B and B¹ are different. Second, “competition” is regulated to locate it midway between destructive competition and monopoly. To be specific, in

addition to the conservative regulation of unjustly high asking prices of sellers (regulation to S and S¹ in Figure 2), the regulation of competition contains the regulation of price dumping of buyers (regulation to B and B¹).

Now, suppose that “fair competition” and “equal opportunity” are completed (Commons 1934a, p. 63). Nonetheless, based on Figure 2, there is a gap between the asking price of S and the bid of B. In this situation, negotiation becomes important. Negotiation consists of “coercion” based on economic “bargaining power” and “persuasion” based on “moral power.”¹²⁾ Bargaining power is enhanced by collective action. Sovereignty attempts to accomplish the “equality of bargaining power” by approving or regulating the action. When a transaction is concluded based on persuasion, the transaction falls within the bounds of reasonability. At the same time, Commons believed that it is impossible to accomplish complete equality of bargaining power. In this way, compared to the common economic theory, in which income and expenditure are balanced in production cost, reproduction cost, or marginal utility on the condition of free competition, Commons believed that transaction value is decided by coercion and persuasion within the bounds of immediately executable opportunities.

From our discussion on bargaining transaction, we can grasp the elements of the value theory of IE. The elements include the following three points. First, “cause,” “regulator,” and “measure” of value are collective actions, including money as an institution. Why were labor power, labor pain, psychological pleasure and pain, and natural law, among other factors, set as cause, regulator, and measure of value in the classical theories prior to Commons? Commons believed that this was because of historical demands. Further, majority of the people were starting to recognize the persuasive force of the theory (Commons 1934a, p. 197). However, it does not imply that Commons eliminated labor and utility from his value theory. Commons did not view them as substances of value, but as components of value.

Second, the historical evolution of the definition of proprietary scarcity, which refers to the evolution of property rights from corporeal property to intangible property, is seen as the evolution of collective actions, which include changing business customs, changing working rules of private concerns, and the accumulation of the novel decisions of courts.

Third, the will relates to the genesis of value; it chooses opportunities and is exercised in negotiations. Further, in bargaining transactions, negotiation implies coercion and persuasion.

However, we should continue to focus on the core features of this unfamiliar value theory. In addition to the collective actions, the core features include social relationships, which involve conflict, mutual dependence, and order. If we capture

12) Intangible property contributing to persuasion is “good-will.” Examples include “good credit,” “good reputation,” and the “industrial good-will” of wage earners to their employers (Commons 1934a, p. 82). These are moral relationships on the other side of transaction.

the relationships, the starting point of value theory cannot be substance of value, goods, individuals, and exchange, but transactions. We do not presuppose that a stable substance of value really exists, which implies that no equilibrium can be automatically deduced from the assumption, and the value varies under the influence of evolving institutions and changing social, political, and economic situations. Therefore, the value theory of IE is connected directly to the policy implication that the politico-economic world needs coordination by private and public collective actions to realize stable values (*cf.*, Commons 1934a, p. 214; Kitagawa 2015).

3.2 Managerial transaction

Managerial transaction is the horizontal relationship between “command” and “obedience” within product organization with regard to “efficiency.” Broadly speaking, considering the example of a firm, on one hand, bargaining transactions refer to external affairs; on the other hand, managerial transactions refer to the relationships between superiors and inferiors. Efficiency refers to “the *rate of output per unit of [labor] input, the man-hour*” (Commons 1934a, p. 259). Each managerial transaction contains three social elements: advancement of technology (Commons 1934a, p. 294), development of managerial skill,¹³⁾ and change of sovereign control over the “extent of authority” from a legal superior to a legal inferior (Commons 1927, Ch. I, p. 26).

Of course, in addition to these social elements, will in *trans*-action is an important factor of managerial transaction. What kind of negotiation emerges in managerial transactions consisting of command and obedience? In considering this question, the “negotiation” of Commons may mean general communication relating to economic activities. In managerial transactions, examples involve “directing” in order to operate subordinates effectively, “teaching” to establish the understanding of goals, and “inducing” (Commons 1934a, p. 67). These ingenuities of the superiors in communication cannot exist without subordinates. The reason Commons spoke of ingenuities is perhaps because of his confidence that the establishment or promotion of relationships of trust between management and labor, namely, “industrial good-will,” provides strong benefits for promoting efficiency and social order (Commons 1934a, p. 82). We strongly assert that, in managerial transaction, the generation of the value of efficiency is related to negotiations between participants, that is, communication between humans. In summary, the generation of efficiency is related to the technological situation at a given time and place, collective actions, and negotiation between participants.

Now, how does the proprietary scarcity discussed in Subsection 3.1 and efficiency discussed in this subsection relate to each other in a given going concern

13) Examples of managerial skills include the scientific management of F. Taylor, which focus on Commons (1934a, p. 67) and, in the modern world, human resource management (*cf.*, Murakoshi and Yamamoto 2016).

and the entire politico-economic system? A hint is provided in the following question and answer related to government and efficiency by Commons.

“The question of public policy, then, is the question of Reasonable Value: Should his largest selfish gain and least loss to self be secured for him, by the banking system, as a producer, or as a seller, or as a buyer, or as an ultimate consumer? (...) The answer to the political and ethical question would be then seem to be, **Every person seeking his purely selfish increase of profits or wages should get his largest gain as a producer through increasing his efficiency**, not as a seller gambling on the rise of prices, and not as a buyer gambling on the fall of prices.” (Commons 1934a, pp. 799–800)

From above quotation, we can understand two principles of efficiency and scarcity as a combined challenge to sovereignty, not as distinct challenges. From the standpoint of the government, legal control targets the compositeness of the two principles. If we generalize this case, collective actions, which aim for the coordination of scarcity, include actions that also consider the coordination of efficiency.

Hereafter, bearing in mind that Commons defined reasonable value as “a concept of collective action in terms of money,” we focus on proprietary scarcity, that is, price (Commons 1934a, p. 207). Nevertheless, both scarcity and efficiency are factors that determine the value in terms of money as they are mutually related.

3.3 Rationing transaction

Rationing transaction is the establishment or revision of the “working rule” of a sovereign, economic, or cultural going concern (e.g., government, firm, trade union, church, or family). For instance, it refers to taxation, fiscal or financial policy, labor management contracts, trade agreements, and the bylaws inside firms. In relation to bargaining and managerial transactions, rationing transaction is the decision, agreement, or compromise to coordinate the bargaining and managerial transaction institutionally at a given going concern(s). The “order” in IE relates to a continuously improving the dynamic working rule. The going concern is a bundle of the three kinds of transactions.

The process of negotiation toward agreement is the process of collective investigation. Commons saw consequence as an “ethical ideal type,” which implies what the future “*ought* to be,” that is, an ethical goal. This is an investigational process found in existing practices and recognized collectively as workable (Commons 1934a, p. 743). This ideal type provides certain futurity,¹⁴ that is, expectations of gains or losses in future, to members of going concerns. We may say that the formulation of an ethical ideal type is the challenge of actively and deliberatively

14) “Futurity” and “institutional causation” are inseparable concepts in the point of view of Commons. See Gislain (2002) for details.

constituting a collective expectation, that is, a state, firm, or cartel. The creative exercise of will in *trans*-action should be noted as this active constitution of joint expectation. The exercise of will, which attempts to gain a foothold when the challenge arises when undertaking an action in the here and now, creates imaginable order out of a chaotic future.

Based on this collective investigation, we find evidence that Commons strongly believed in collective wisdom as the background of his interest in institutional change (Commons 1913, Ch. 1; 1998, p. 326).¹⁵⁾

“[M]ethods [of administration] are to be contrasted with those of individual investigators. Never can an individual investigator be found who can accurately be distinguished as both an extremist and reasonable within the extremes. **Hence this kind of investigation is a collective investigation by all participants**, typified by a staff of statisticians, and only a spirit of toleration makes it practicable to obtain willingness to cooperate by hearing and giving “due weight” to all augments and all participants in the collective action which always requires concessions on all sides. (...) **These methods of reasoning and investigation are true also of all people and not limited to expert statisticians and economists. They are the plain everyday logic of looking for similarities and differences**; of choosing between accessible alternatives; of avoiding extremes by joining with others in looking for what is reasonable somewhere between the extremes.” (Commons 1998, p. 326)

His confidence in wisdom is certainly not in individual wisdom, but in collective wisdom. This is clear for the following two reasons. First, IE is based on pragmatism, which discusses the improvement of science or rules focusing on *trans*-action (Commons 1934a, p. 153). Second, IE is based on a Malthusian understanding of human beings. Humans are not rational beings, but beings of passion and stupidity. This is the reason why coercion and persuasion of governments and customs are justified (Commons 1934a, pp. 702–703).

4 Composition of cumulative causation in *Institutional Economics*

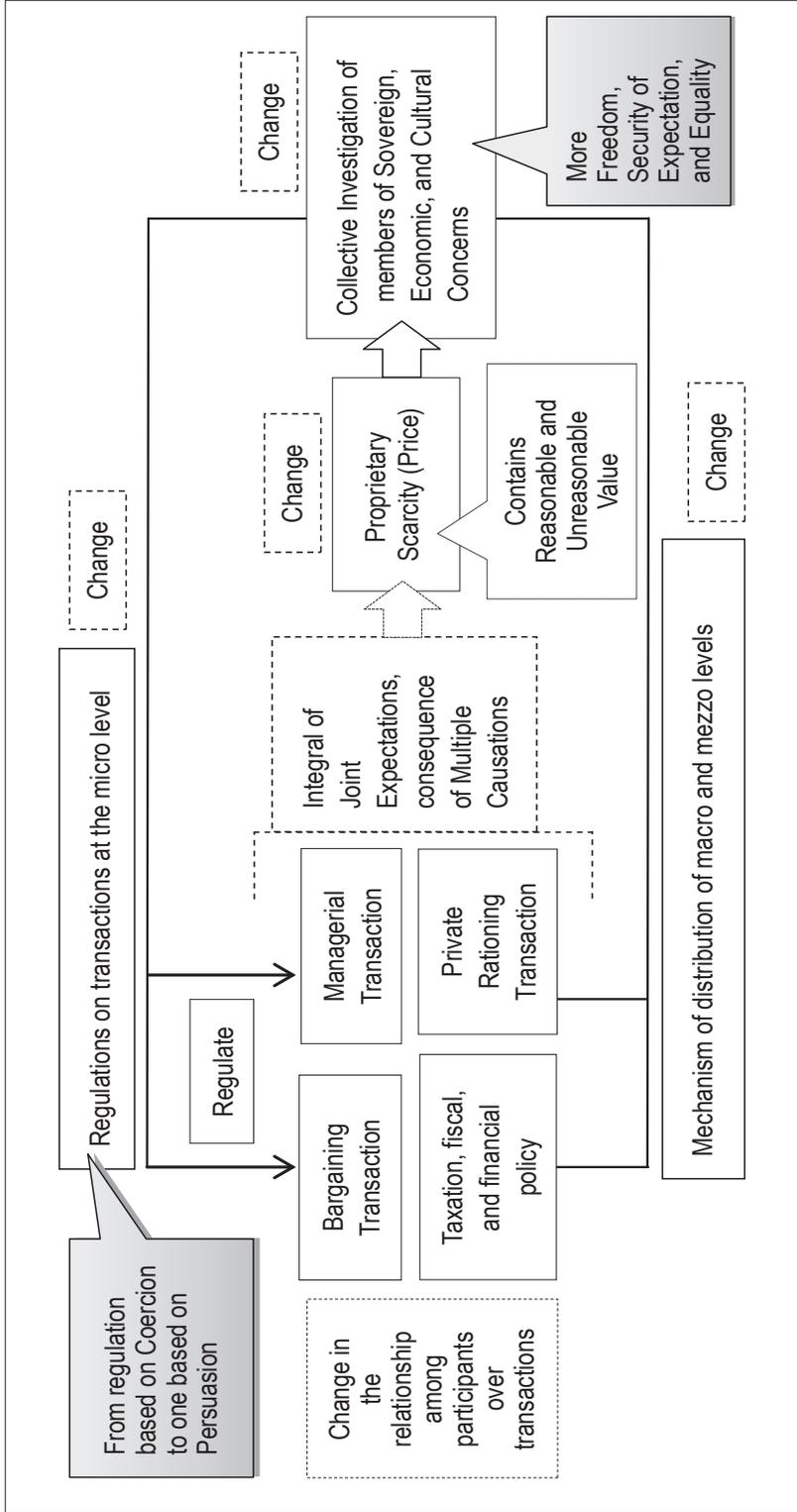
4.1 Mechanism of cumulative causation

By connecting the ultimate units of cumulative causation, that is, bargaining, managerial, and rationing transactions, we can provide the full composition of cumulative causation.¹⁶⁾ Based on the framework depicted in Figure 3, we can

15) This finding belongs to Takao Tsukamoto (Nihon University, Japan).

16) It is clear that this causation is “cumulative” because institution, or working rule, is the “production of cumulative change” (Mitchell 1937, p. 339). This cumulative production is not unambiguous, but is an object of meaning by present actors, depending on their future aims.

Figure 3 Mechanism of cumulative causation in *Institutional Economics*



Note: Capitalized words are derived from IE.
Source: Author, based on IE

clarify the concerted evolution of transactions, prices, and collective thoughts and behaviors.

Bargaining transactions are conducted in markets and managerial transactions are conducted within going concerns. One part of rationing transactions regulates the two types of transaction. This is “regulation of transactions at the micro level.” Another part of rationing sets the “mechanism of distribution of macro and mezzo levels,” in particular, “taxation, fiscal, and financial policy” and “rationing transactions of private concerns.” The three types of transactions compose the politico-economic system through mutual relations, that is, complement or constrain. The dynamics of integration of a myriad transactions, that is, “joint expectations” in monetary terms, is expressed by “widespread general price changes,” for example, wholesale price indexes, debt, and tax (Commons 1934a, pp. 122–124).

The entire concept of proprietary scarcity has the following two features. First, there are unintended consequences for participants. This emerges inevitably because the whole concept of scarcity is a product of multiple causation, that is, it is a product of complexity (Commons 1934a, p. 7). Second, proprietary scarcity includes “reasonable and unreasonable values” (Commons 1934a, pp. 62–63). Reasonable value does not indicate a certain consequence, but a consequence of transactions that comply with certain conditions, namely, “equality of opportunity,” “fair competition,” “equality of bargaining power,” and “due process of law” (Commons 1934a, pp. 62–63). These conditions are not given assumptions but goals to reach by collective action. Therefore, it cannot be said that the entire concept of proprietary scarcity expresses reasonable value.

From the viewpoints of the participants, the entire concept of proprietary scarcity is the compression of unintended consequences, expressed in terms of money in the following five principles: scarcity, efficiency, custom, sovereignty, and futurity. The reduced expression, which can be recognized by the participants, provides a clue for the collective investigation of the next institutional coordination, namely, rationing transactions.

This possible consequence is a cue for members of sovereign, economic, or cultural concerns to start collective investigation because the purpose of gathering members involves providing greater freedom and securing expectations and equality, both inside and outside the concern. To do so, they need to reconstitute their collective hypothesis relating to their way of perceiving things, their mode of behavior, and their way of collective regulation. In other words, a doubt over a habitual assumption and an existing institution becomes a trigger for the reconstitution of assumptions and institutions through collective investigation.

Not only doubt, but also conflict triggers collective investigation. All transactions, *trans*-actions that are targeted by IE, contain conflicts between participants. Conflicts awaken the participants to their common or differing worldviews or interests, which were previously out of their consciousness. When negotiations

A typical example is the mechanism of making decisions by common law courts.

reach agreements, sometimes the agreement is likely to be a “compromise,” while at other times it may be a “synthesis.” The latter is a consequence of the redefinition of interests or a radical change in the worldviews of participants (Commons 1934a, p. 101; Mead 1934; Albert and Ramstad 1998).

This is the negotiation in which the will is exercised actively not only because negotiation is the process of clash of economic and moral powers of the participants, but also because in negotiations, it is possible to overcome dilemmas through mutual understanding and mutual transformation of the participants. By establishing novel ways of regulation or distribution, as described, sometimes the selves of the participants are redefined. Modern research, which sets “actors” and “institutions” as two ultimate units of analysis and attempts to connect actors and institutions, cannot grasp the redefinition of the self in the negotiation process (Boyer 2004; Denzau and North 1994; Mahoney and Thelen 2010; Streeck 2009). In IE, creativity and innovation inhabit the relationship among humans, but modern research fails to grasp this point (Commons 1934a, p. 153; Herrigel 2010).

The result of collective investigation, or rationing transactions, is that the working rules of regulations for transactions and distribution at the macro and mezzo levels are changed. In other words, changes occur in the way in which collective actions coordinate bargaining and managerial transactions and values that are consequences of the transactions. According to the normative discussion in IE, one of the aims pursued by going concerns with sovereign concerns at the top is coordination based on persuasion and inducement and not “oppressive, confiscatory, or exploitative” coercion (Commons 1934a, pp. 4, 672, 706). This aim is important because, it is a requirement for generating reasonable value that bargaining and managerial transactions are undertaken not under coercive regulations but under persuasive regulations. Where this renewed collective action relates to transactions as regulators of value, they should be renewed continuously for subsequent transactions.

In this manner, transactions, prices, and ways of institutional coordination change in mutual relationships. The active driver of this evolution is the will, which is awoken by conflict and doubt. When we refer to causation, it refers to the concerted evolution of myriad horizontal and hierarchical relationships between participants in collective investigation and transactions. Proprietary scarcity is injected in the middle of causation, which is a reduced expression of compromises, synthesis, and uncertainty. According to the normative perspective of IE, “freedom, security of expectation, equality” of institutionalized mind and the persuasive propensity of the regulator of value, which are the collective actions, are increasing (see Figure 3: “More freedom, security of expectation, and equality” and “From regulation based on coercion to one based on persuasion”).

4.2 Mechanism of collective investigation

As indicated in Section 3, all transactions involve negotiation. In IE, the negotia-

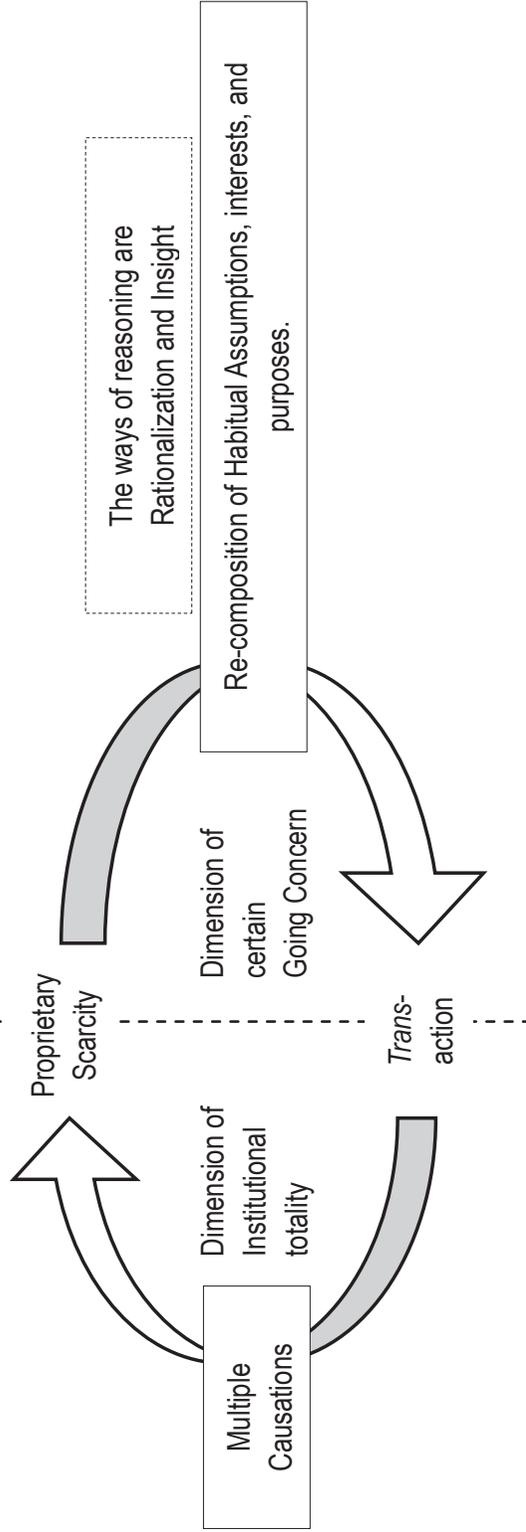
tion process can be viewed as a process of “collective investigation” if we highlight the dimension of the search process of behavioral hypothesis and purpose. As Commons explained at great length in chapter II (I) “John Locke” in IE, a participant is not a “molecule” driven by powers of the external world but, they are “active organizers” (Commons 1934a, p. 153) who give original meaning to their environment and consequence of *trans*-actions. Therefore, institutional totality embracing participants structuralizes the *trans*-actions. At the same time, the participants reinterpret the institutional totality through collective actions. In this world, proprietary scarcity is an intermediary connecting institutional totality and the participants.

We now clarify the role of will as an active driver of cumulative causation by closely analyzing collective investigation. In doing so, we should not forget that no economic *trans*-action or collective investigation ever takes place without a social relationship, that is, a conflict of interest.

The buildup of *trans*-actions, in other words, the consequences of myriad *trans*-actions, is expressed conclusively as proprietary scarcity. Specifically, it is debt, tax, or prices of goods and services (Commons 1934a, p. 122). As discussed in Section 2, this value contains various elements: five principles, namely, scarcity, efficiency, futurity, custom, and sovereignty; consequences that are intended and those that are not intended at the time of *trans*-actions, that is, security or insecurity of expectations, expansion or shrinkage of freedom, and equalization or growing inequality; and compromise or synthesis of economic conflict. As proprietary scarcity, in which these various elements are compressed, must contain unintended consequences, it casts doubt on the collective behavioral hypothesis of participants.

In IE, humans are conventionalized beings, and at the same time, have the ability to review customs carefully. They give meaning to the external world based on their habitual assumptions and continue to take action. However, when doubt and conflict arise, the habitual assumptions, which had not surfaced to the conscious mind previously, should be recognized and become the targets of reflection. Instead of faulty habitual assumptions, a new collective habitual hypothesis and purpose are constructed deliberately. In this collective reasoning, two ways of reasoning are performed, “rationalization” and “insight.” Rationalization is a way of rigorous reasoning, such as deduction or induction. It is divided into “analysis” and “genesis.” The former is a process of classification. The latter is an analysis of change of the classified parts. Insight, like the reasoning of Peirce’s “hypothesis,” refers to “the union of analysis and genesis into a formula of the changing relations of the parts to the whole” (Commons 1934a, p. 99). Insight, rationalization, and habitual assumptions comprise of the institutional mind. These are, in fact, inseparable; however, they are separated for analytical convenience (Commons 1934a, p. 747). This reasoning driven by conflict and doubt is an active performance of will. We emphasize that creativity and innovation in IE is not an attribute of human beings, but that of a *trans*-action.

Figure 4 Mechanism of continuous collective investigation



Note: Capitalized words are derived from IE.
Source: Author, based on IE

Through this reasoning, collective purpose, hypothesis, and interest are recomposed, and then, *trans*-action based on this recomposition is dealt with. In this way, from the start of continuous *trans*-actions, whose quality transforms to some extent, the consequences of *trans*-action, purpose, hypothesis, and interest mutually changes in reciprocal influence. This is the way of continuous collective investigation (see Figure 4).

5 Uniqueness of cumulative causation in *Institutional Economics*

5.1 *Trans*-action as an ultimate unit

A characteristic of Commons' cumulative causation is that the "ultimate unit" composing causation is *trans*-action (Commons 1934a, p. 4). When we understand this characteristic, it is inappropriate to apply familiar categories to it, namely, methodological holism (Aglietta 1976) or methodological individualism (neoclassical economics), that is, micro, *mezzo*, or macro-level analysis. The *trans*-action is not an individual or institution, but a relation *itself* among citizens, between citizens and going concerns, and among concerns. The *trans*-action ubiquitously exists at all analytical levels, that is, micro, *mezzo*, and macro levels. Moreover, IE does not insist on a problem establishment in which a micro-foundation is required for macroeconomics. The analytical starting point is neither micro (assumptions about the individual) nor macro (holism), but *trans*-actions. Therefore, cumulative causation in IE becomes far removed from the viewpoints of the following two works. First, Boyer (2004) provided the micro foundations for regulation theory by employing P. Bourdieu's concept of "habitus." Second, Veblen (1899) viewed the dialectic of instinct as the driving force of the evolution of the socio-economic system. Therefore, Hodgson (2003), who criticized IE for lacking a consideration of instinct that should be at the core of cumulative causation, did not understand Commons' unique attempt to draw the evolution of socio-economics from an analytical starting point, namely, *trans*-action (Commons 1950, p. 75).

We see this causation as the dynamics in which complement, mutual constraint, duplication, imitation, competition, and selection continuously work between *trans*-action, that is, the workings of inter-relationships (*cf.*, Dubouchet 2003, p. 85). One part of the relationships of *trans*-actions comprises of horizontal relationships, while the rest are vertical relationships. Therefore, cumulative causation is composed of pluralism and hierarchy of various citizens and concerns.

However, if we only point out that IE draws its politico-economic system from *trans*-action, we cannot make a judgment stating that IE is a unique study in the field of institutionalism. For example, Théret (1992) discusses the mode of reproduction of severing the economic system from mediators, namely, law, and money. Now, with regard to the viewpoint of *trans*-action, what is the uniqueness of IE? It is that Commons drew a chain reaction of the evolution of institution and value to focus on the will in *trans*-action. In particular, the following two points are

notable. First, he constructed value theory, whose subjects are dis-opportunity-value, opportunity cost, and negotiation. By doing so, Commons succeeded to convey that the human will is exercised not only in the choice of opportunities, but also in negotiation. Second, he clarified that collective actions are closely involved not only with the coordination of proprietary scarcity, but also with the evolution of the content of this value itself. Thus, cumulative causation in IE drew from *trans*-action, the co-evolution of relationships over transactions between participants, value, and ways of coordination among them.

5.2 Conflict as a moment of exercising creativity and innovation

If *trans*-action is set as the starting point of analysis, it means that we start to analyze from social relations, that is, conflict. Modern institutionalism, in which an important theoretical element is conflict, is regulation theory. Boyer (1986) and Amable (2003) demonstrated situations in which a politico-economic system has been stabilized for a certain time period from the perspective of “institutionalized compromise,” which constrains the time period. Contrary to this theory, “conflict” in IE is viewed as the moment in which creative reasoning starts, in other words, it is a moment of generating new order. Conflict causes habitual assumptions, which have not surfaced in the conscious mind in the usual life of actors, to become objects of reflection. For example, through conflict, differences in the motivation of the representatives of interests become clear. Then, a new way emerges that achieves consensus by utilizing the motivation of the opposing side, based on mutual understanding of these differences (Commons 1934a, p. 856). In the collective investigation of IE, this insight in the negotiation process sometimes results in the emergence of an innovative institution that has a novel incentive structure for participants. Then, the interests of participants and workable alternatives are recomposed by the new incentive structure. The uniqueness of causation in IE is that conflict is seen as a moment of “recompositional change” that is closely related to the evolution of habitual assumptions, interests, workable alternatives, and institutions (Herrigel 2010, p. 9). In other words, conflict is a moment of exercising creativity and innovation.

5.3 Role of will in *trans*-action

The uniqueness of IE, particularly based on the discussion in this article, is that “will in *trans*-actions” rather than individual will is the driving force of the evolution of institutions and value. Will performs in the negotiation process of each transaction. For example, the active meaning of an environment, remodeling a behavioral hypothesis, withholding power and production at artificially high prices (see footnote 2), designing institutions that constrain or sublimate conflict, and deliberative collective construction of expectation.

IE is unique in that the composition of cumulative causation contains possibilities in which the will in *trans*-action provides innovative consequences. Of course, human will was not considered by Boyer (1988), whose subject of analysis was the

dynamics of the macro economy, and Veblen (1899), who considered the ultra-long-term cumulative change of human nature and institution. When we depart from the genealogy of cumulative causation and view political economies broadly, to explain “gradual transformation,” historical institutionalism focuses on the strategies of actors; for example, reinterpretation, conversion, and exhaustion (Hall and Thelen 2009; Mahoney and Thelen 2010; Streeck 2009). The focal points of these works are apparently close to pragmatism because they see institutions not as given structures, but as openings for actors’ interpretations. This interpretation of certain institution is apparently related to the will of the actor. However, their discussions are structural for the following reasons.

First, the whole discussion is from a stance that captures and categorizes the structure of changes. This stance itself is highly structural in nature.

Second, it is implicitly assumed that there are external structures outside the relationship between certain actors and institutions (Herrigel 2010, p. 8). Social relationships, such as political and economic power relationships around an actor, limit his/her type of possible strategy. Social relationships that are awkward and structural establish the type of the actor. In an historical institutionalist framework, will is only depicted as a projection of the external structure.

By their nature, these works of historical institutionalism cannot depart from the viewpoint that grasps events structurally. To be specific, Streeck (2009) is highly pessimistic that it is or would be possible for collective action to change the trend of the politico-economy of Germany.

Pragmatists neither presume an external structure and start their analytical description from it nor underestimate the creativity and innovation of actors who seek to open up new possibilities. More radically, historical institutionalism and IE have completely different senses of time. The sense of time that underpins historical institutionalism is from the past to the present, and to the future. In this case, there is an inevitable accentuation of the bondage of past, that is, it is structure or path dependent. However, for the participants of IE, to accomplish future aims, the past is exposed to fresh light from the standpoint of the present situation. This “past” is an accumulated form of the past, that is, history, experiences, and institutions. From this viewpoint, the past is open to interpretation, and is considered as a cumulative resource that expands an actor’s range of motion and possibilities.

In cumulative causation in IE, the focus is on the will in *trans*-action, which is seen as the driving force of evolution. For the role of *trans*-action, structural operation from institutional totality and path dependency are considered. However, this totality and the experiences that have accumulated historically undergo continuous reinterpretations in the process of the *trans*-action of participants (Kirsch *et al.* 2014, p. 220, Figure 9.1; Nakahara 2015). The active meaning of institutional totality and history is the performance of will in *trans*-action. This cumulative causation focusing on the performance of will in *trans*-action stands on the following belief and way of thinking of Commons. First, he strongly believes in

collective wisdom. Second, he sees wisdom and institutions as “means” for the purpose of controlling conflict and uncertainty, that is, “instrumentalism” (Commons 1934b, p. 160; Kitagawa 2014; 2016).

6 Conclusion

This article demonstrates the uniqueness of cumulative causation in J. R. Commons’ *Institutional Economics* (IE). It highlights the following three points. First, it establishes causation from the perspective of *trans*-action as the focus, for both the institutional change theory and the value theory. Second, this article views conflict as a moment of creativity and innovation, that is, a momentum of institutional evolution. Conflict is an inexhaustible force of co-evolution of the relationships of participants across transactions, value, and the working rules that coordinate them. Third, conflict places will in *trans*-action as the driver of the evolution of institution and value. It is well known that will is the element characterizing Commons’ evolution theory. However, in almost all research on Commons, the will is designated as the will of an authoritative agency (e.g., Ramstad 1990). This article emphasizes the will being exercised actively in the process of collective investigation, that is, will in *trans*-action. Collective action is the regulator of value theory in IE. The power that drives collective action is will in *trans*-action. Cumulative causation in IE contains the possibilities that the will in *trans*-action brings innovative consequences, which is institutional evolution.

In recent years, some researchers of global management, multinational enterprises, and welfare states have attempted to describe organizations or politico-economic systems from the viewpoint of *trans*-action (Herrigel 2010; Kristensen and Lilja 2011; Kristensen and Zeitlin 2005). A few researchers of business history, who have attempted to demonstrate the methodological uniqueness of business history using the methodology of other social sciences, have highlighted the viewpoint of pragmatism (Bucheli and Wadhvani 2014).¹⁷ Economists are now expected to apply the pragmatist method to the targets of economics. This article demonstrated that Commons’ cumulative causation provides the starting point for taking the first step in this new direction.

References

- Aglietta, M., 1976. 1997. *Regulation et crises du capitalisme*. Editions Odile Jacob, Paris.
- Amable, B., 2003. *The diversity of modern capitalism*. Oxford University Press, Oxford.
- Albert, A. and Ramstad, Y., 1997. The social psychological underpinnings of Commons’s institutional economics: The significance of Dewey’s human nature and conduct. *Journal*

17) This point of view clearly reveals in series of special lectures of AGSS (Asian Platform for Sustainable Development), Business History Kyoto, Series No. 4, “Organizations in Time: History, Theory, Methods,” R. Daniel Wadhvani, in Kyoto University, March 6–10, 2015.

- of Economic Issues 31 (4), 881–916.
- 1998. The social psychological underpinnings of Commons’s institutional economics II: The concordance of George Herbert Mead’s “social self” and John R. Commons’s “will”. *Journal of Economic Issues* 32 (1), 1–46.
- Bazzoli, L. 1999. *L’économie politique de John R. Commons: Essai sur l’institutionnalisme en sciences sociales*. L’Harmattan, Paris.
- Biddle, J. E., 1990a. The role of negotiational psychology in J. R. Commons’s proposed reconstruction of political economy. *Review of Political Economy* 2 (1), 1–25.
- 1990b. Purpose and evolution in Commons’s institutionalism. *History of Political Economy* 22 (1), 19–47.
- Boyer, R., 1986. *La théorie de la régulation: Une analyse critique*. La Découverte, Paris.
- 1988. Formalizing growth regimes. In: Dosi, G. *et al.*, *Technical Change and Economic Theory*. Pinter Publishers, London and New York, pp. 608–630.
- 2004. *Une théorie du capitalisme, est-elle possible?* Odile Jacob, Paris.
- Bucheli, M. and Wadhvani, R. D. (Eds.), 2014. *Organizations in time: History, theory, methods*. Oxford University Press, Oxford.
- Commons, J. R., 1913. *Labor and administration*. Macmillan, New York.
- 1927. Reasonable value: A theory of volitional economics. Manuscript collection of Kyoto Prefectural Library, Call mark: /331.04/C85/, Material code: 1102508007.
- 1928. Reasonable value: A theory of concerted action. In: Miller, H. L. (Ed.), 1986. *Wisconsin Progressives. The John R. Commons Papers. Microfilm Edition*, The State Historical Society of Wisconsin, Madison.
- 1934a. 1990. *Institutional economics: Its place in political economy*. Transaction Publishers, New Brunswick and London.
- 1934b. *Myself*. Macmillan, New York.
- 1950. *The economics of collective action*. Macmillan, New York.
- 1998. Investigational economics. In: Samuels, W. H. (Ed.). *Research in the History of Economic Thought and Methodology: John R. Commons’s Investigational Economics. Archival Supplement 7*. JAI Press, Greenwich, Connecticut, and London, pp. 39–326.
- Costa, A. N. and Castro Caldas, J., 2011. Claiming choice for institutional economics. *Journal of Economic Issues* 45 (3), 665–684.
- Denzau, A. and North, D. C., 1994. Shared mental model: Ideology and institutions. *Kyklos* 47 (1), 3–31.
- Dewey, J., 1922. 1988. Human nature and conduct: An introduction to social psychology. In: Boydston, J. A. (Ed.). *The Middle Works of John Dewey, 1899–1924. Vol.14*. Southern Illinois University Press, Carbondale and Edwardsville.
- 1929. *The quest for certainty: A study of the relation of knowledge and action*. Minton Balch, New York.
- Dubouchet, P., 2003. *Commons et Hayek: Défenseurs de la théorie normative du droit*. L’Harmattan, Paris.
- Gislain, J-J., 2002. Causalité institutionnelle: La futurité chez J. R. Commons. *Économie &*

- Institutions 1 (1), 47–66.
- Hall, P. A. and Thelen, K., 2009. Institutional change in varieties of capitalism. *Socio-Economic Review* 7 (1), 7–34.
- Harter, L. G., 1963. John R. Commons: Conservative or liberal? *Western Economic Inquiry* 1 (3), 226–232.
- Herrigel, G., 2010. *Manufacturing possibilities: Creative action and industrial recomposition in the United States, Germany, and Japan*. Oxford University Press, Oxford and New York.
- Hodgson, G. M., 2003. John R. Commons and the foundations of institutional economics. *Journal of Economic Issues* 37 (3), 547–576.
- Jordan, E., 1927. *Forms of individuality: An inquiry into the grounds of order in human relations*. Principia Press, Bloomington, Indiana.
- Kapp, W. K., 1976. The nature and significance of institutional economics. *Kyklos* 29 (2), 209–232.
- Kaldor, N., 1966. *Causes of the slow growth in the United Kingdom*. Cambridge University Press, London.
- Kirsch, D., Moeen, M., and Wadhvani, R. D., 2014. Historicism and industry emergence: Industry knowledge from pre-emergence to stylized fact. In: Bucheli, M. and Wadhvani, R. D. (Eds.). *Organizations in Time: History, Theory, Methods*. Oxford University Press, Oxford, pp. 217–240.
- Kitagawa, K., 2014. Reasonable value and sovereignty in J. R. Commons’s institutional economics. Doctoral thesis, Kyoto University, submitted in December 2014, accepted in March 2015 (in Japanese).
- 2015. An analysis of J. R. Commons’s changing views on the role of sovereignty in the political economy. *Kyoto Economic Review* 84 (1–2), 2–28.
- 2016. Cumulative causation in J.R. Commons’s institutional economics from the perspective of instrumental pragmatism. *Cahiers d’économie politique* 70, 75–106.
- Kristensen, P. H. and Lilja, K. (Eds.), 2011. *Nordic capitalisms and globalization: New forms of economic organization and welfare institutions*. Oxford University Press, Oxford.
- and Zeitlin J., 2005. *Local players in global games: The strategic constitution of a multinational corporation*. Oxford University Press, Oxford.
- Mahoney, J. and Thelen, K., 2010. A theory of gradual institutional change. In: Mahoney, J. and Thelen, K. (Eds.). *Explaining Institutional Change: Ambiguity, Agency, and Power*. Cambridge University Press, Cambridge, pp. 1–37.
- Mead, G. H., 1934. 1962. *Mind, self, and society: From the standpoint of a social behaviorist*. University of Chicago Press, Chicago.
- Mirowski, P., 1988. *Against mechanism: Protecting economics from science*. Rowman & Littlefield, Totowa, New Jersey.
- Mitchell, W. C., 1937. Commons on institutional economics. In: Mitchell, W. C., *The Backward Art of Spending Money and Other Essays*. McGraw-Hill, New York, pp. 313–341.
- Murakoshi, K. and Yamamoto, T., 2016. *Device of coaching: Labor management in cognitive*

- capitalism? In: Yamamoto, T. (Ed.). *Cognitive Capitalism: The Political Economy in the 21st Century*. Nakanishiya Publisher, Kyoto, pp. 143–163 (in Japanese).
- Myrdal, G., 1957. *Economic theory and under-developed regions*. Gerald Duckworth, London.
- Nakahara, T., 2015. Translator's afterword. In: Commons, J. R., *Institutional Economics*. Japanese edition, Vol.1, Nakanishiya Publisher, Kyoto, pp. 388–403 (in Japanese).
- Ramstad, Y., 1990. The institutionalism of John R. Commons: Theoretical foundations of a volitional economics. In: Samuels, W. J. (Ed.). *Research in the History of Economic Thought and Methodology*. JAI Press, London, pp. 53–104.
- 1994. On the nature of economic evolution: John R. Commons and the metaphor of artificial selection. In: Magnusson, L. (Ed.). *Evolutionary and Neo-Schumpeterian Approaches to Economics*. Kluwer Academic Publishers, Boston, pp. 65–121.
- Streeck, W., 2009. *Re-forming capitalism: Institutional change in the German political economy*. Oxford University Press, Oxford.
- Théret, B., 1992. *Régimes économiques de l'ordre politique*. Presses Universitaires de France, Paris.
- Tsukamoto, T., 2015. Mitchell's view of Commons's *Institutional Economics*. Paper for Japan Association for Evolutionary Economics, Otaru, Hokkaido, 22 March (in Japanese).
- Uni, H. and Nakahara, T., 2017. The theoretical connection between John R. Commons and regulation and convention theories. In: Uni, H. (Ed.). *Contemporary Meanings of John R. Commons's Institutional Economics: An Analysis Using a Newly Discovered Manuscript*. Springer, Singapore, pp. 141–163.
- Veblen, T. B., 1899. *The theory of the leisure class: An economic study in the evolution of institutions*. Macmillan, New York.
- Vögelin, E., 1995. *On the form of the American mind*. Baton, R. H. translator, Louisiana State University Press, Rouge (Original is 1928. *Über die Form des amerikanischen Geistes*. J. C. B. Mohr, Tübingen).
- Williamson, O. E., 1986. *Economic organization: Firms, markets and policy control*. Harvester Wheatsheaf, New York and Tokyo.
- Young, A., 1928. Increasing returns and economic progress. *Economic Journal* 38 (152), 527–542.
- Zingler, E. K., 1974. Veblen vs. Commons: A comparative evaluation. *Kyklos* 27 (2), 322–344.