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# Uniqueness of cumulative causation in J.R. Commons's *Institutional Economics*

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## ABSTRACT

This article shows the uniqueness of cumulative causation in J. R. Commons's *Institutional Economics* (IE). It highlights the following three points. First, it establishes causation from the perspective that *trans*-action is maintained as the focus of both institutional change theory and value theory. Second, the article views conflict as instances of creativity and innovation, that is, momentum for institutional evolution. Conflict is an inexhaustible force of co-evolution of the relationships of participants over 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. With regard to the evolution presented by IE, this article emphasizes that the will performs actively in negotiation, that is, will in *trans*-action which is not standalone authoritative will. Collective action is the regulator of value theory in IE and the power that drives collective action is will in *trans*-action. Thus, cumulative causation in IE contains the possibilities that the will in *trans*-action brings innovative consequences, which is institutional evolution.

JEL: B25, P16

Keywords: J.R. Commons, Institutional Economics, Cumulative Causation, *Trans*-action, Negotiation.

## 1. INTRODUCTION

Cumulative causation is an important perspective of institutional economics [Kapp: 1976]. Cumulative causation refers to a change of factors progressing cyclically and cumulatively through reciprocal reinforcement of the factors. There are two genealogies of theories of cumulative causation.

In the first genealogy, which is used widely, analytical themes provide the dynamics of the macro economy. This genealogy starts with A. Young [1928] and proceeds to G. Myrdal [1957] and N. Kaldor [1966], among others.

In the second genealogy, analytical themes are the cumulative causation between a society and individuals. This focus on causation enables us to treat “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 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.<sup>1</sup> There is nothing wrong with this removal of will with regard to the first genealogy because its analytical level is macro. The pioneering figure of the second genealogy, Veblen, dared to eliminate will from analytical objects. This may be appropriate in an ultra long-term analysis. However, when we consider co-evolution of political and economic behavior, economic value, and institutions, if we eliminate the performance of will from analysis, the theory may lose touch with reality. This is because, at least in the short term and mid term, the ingenuity of 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 containing volition as an element [Commons: 1927]. However, there are few works on the cumulative causation of “institution”<sup>2</sup> and “institutionalized mind” discussed in his masterpiece, *Institutional Economics* (IE) [Commons: 1934a] [Bazzoli: 1999; Ramstad: 1990; Zingler: 1974]. These two themes, that is, will and cumulative causation, are not connected appropriately. In other words, there is insufficient explanation [Bazzoli: 1999; Zingler: 1974] or inappropriate explanation [Ramstad: 1990] in the previous research about how will is placed in the framework of causation in which 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 a driver of cumulative causation who chooses institutions. Certainly, his opinion is appropriate in a sense but it failed to convey the essence of IE because the will in IE means will performed in social action, that is, will in “*trans*-action.”<sup>3</sup>

By analyzing the explanation of Ramstad [1990] about 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 the 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 will in *trans*-action. In Section 3, we show the role of will in “*trans*-action,” that is, the tree type of “transaction,” which is bargaining,

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<sup>1</sup> “Will” refers to the total inner world of an individual. “Volition” indicates active choice, that is, “performance,” “forbearance,” “avoidance,” and “timeliness” [Commons: 1934a, p.305-6; 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.

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

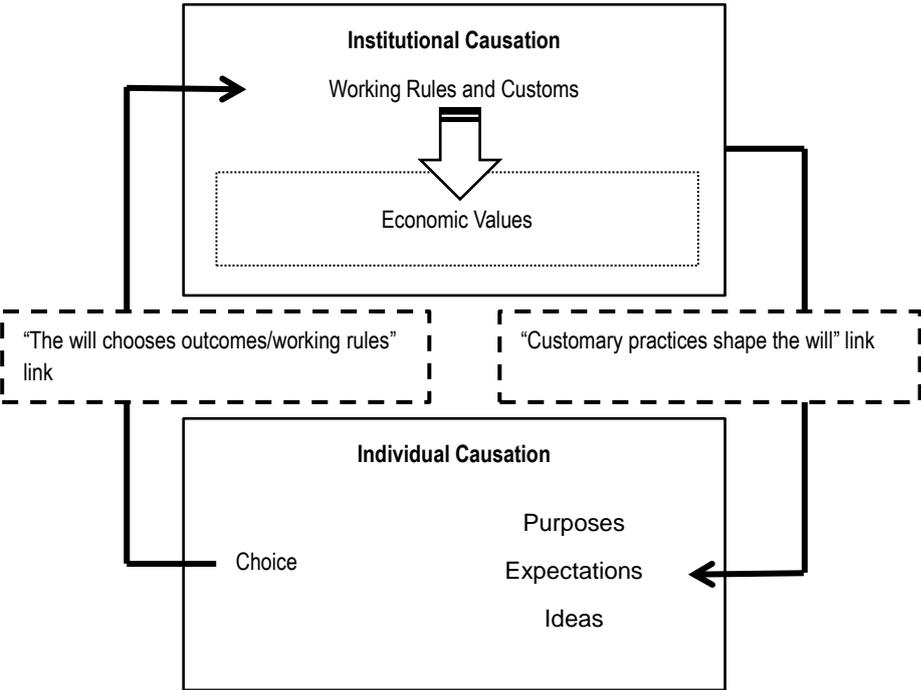
<sup>3</sup> The reason we use the term “*trans*-action” [Commons: 1934a, p.73] is to emphasize that it is not related to O. E. Williamson’s transaction-cost theory [Williamson: 1986]. *Trans*-action refers to a communication process. Hereafter, we use the term *trans*-action and transaction but both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

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 in some depth discusses circular and cumulative causation between individuals and society.<sup>4</sup> Ramstad [1990, p.77] asserts that Commons [1934a] contains a framework of circular causation between “institutional causation” and “individual causation” (see Figure 1).

**Figure 1**  
**Circular causation discussed in Ramstad (1990)**



Source: author

Institutional causation means reciprocal relations that follow two directions: first, institutions

<sup>4</sup> 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].

(customs and working rules of going concerns) cause transactions and economic outcomes; second, the outcome is a cause on which the perpetuation of each institution depends.<sup>5</sup> Individual causation refers to reciprocal relations between experiences and will. The experiences that come from the outside world are the causes of “meaning,” “valuing,” and “choice” in the inner world. These internal activities result in actions,<sup>6</sup> which are conducive of the next experiences [Commons: 1934a, p.95; *cf.*, Dewey: 1929, pp.167-8]. 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: “customary practices shape the will” and “the will chooses outcomes/working rules” [Ramstad: 1990, p.79]. The former link indicates that expectations, purpose, ways of recognition, and ways of action converge, to some extent, to a certain type. When we designate this link as our starting point, institutional causation becomes the “cause” of individual causation because institutional causation 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, n<sup>o</sup>72; Jordan: 1927].

The latter link, namely, “the will chooses outcomes/working rules,” is the “volitional dimension of action directed to the achievement of future end” [Ramstad: 1990, p.80]. Ramstad focused on volition of “authoritative agency” (especially, courts of law), that is, purpose.<sup>7</sup> The authoritative agency chooses new working rules to fit with the purpose that 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.109-11].

Thus, individual causation and institutional causation form a circular ring by 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, n<sup>o</sup>54].<sup>8</sup>

Ramstad [1990] asserts that the essence of Commons’s institutional economics is to understand 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’s theory, if we dare to set a starting point

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<sup>5</sup> 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 [2013], 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 does not evolve independently from the institutions. However, this article focuses only on the causation between “institution” and “institutionalized mind” within “multiple causations” [Commons: 1934a, p.7].

<sup>6</sup> A brilliant explanation of the relationship between meaning, valuing, and volition is given in Commons [1934a, pp.17-20; *cf.*, Mirowski: 1988, p.127].

<sup>7</sup> The purpose of authoritative agency derives from the collective will of principals.

<sup>8</sup> *Italic* font indicates a direct quotation, whereas **bold** font indicates emphasis by the author of this article. [] is a supplement of the author.

or cause, it is the purpose that the authoritative agency has. According to this purpose, the agency “chooses outcomes/working rules.” “Orderly transactions” based on the “adopted working rules” realize economic values [Ramstad: 1990, p.85, Figure 2]. Thus, the realized economic values are seen as a consequence of economic coordination.

Supporting this “reinterpretation of the etiology of economic values” means following two points [Ramstad: 1990, p.87]. First, the amendment of working rules becomes a way to enforce 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 *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 to attain the purpose.<sup>9</sup> Adding to Ramstad [1990], this method of investigation differs completely from that which considers prescription fitting a given cause, that is, an *a priori* purpose.

We indicate the following point counter to this explanation of 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”). Because 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 performs in negotiation in each transaction.

Because 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.57-8, 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, in the line of Vögelin [1995, p.262], the uniqueness of IE is that it focuses on “conflict” as a momentum of the “collective investigation” of actors [Commons: 1998, p.326].

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<sup>9</sup> 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 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 meta-level that underpin the workableness 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].

### 3. ROLE OF WILL IN TRANSACTIONS

#### 3.1. BARGAINING TRANSACTION

A “bargaining transaction” is a transaction between equal participants in law over “proprietary scarcity.” The proprietary scarcity is a collective and objective value arising by joint expectation, which *is* the transaction, under the control of law. This means “price” measured by money. It depends on so many different factors, that is, institution of ownership, efficiency in output, desired output quantity, coercion, and persuasion in a certain place and time. However, the “measure” of value is only money; it is not nature, labor-pain, labor-power, or the pleasure or pain of individual psychology. Therefore, “scarcity” in IE is distinguished from physical and objective scarcity or physical and individual scarcity in previous economic theories.

Commons indicated that previous economists, that is, J. Lock, 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, in other words, 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.<sup>10</sup> If we analyze extended property rights, the “nominal value” itself is the sole analytical object as “institutional value.” Compared to classical economics, which eliminates price fluctuations, Commons thought that such fluctuations were “real” and affected the everyday economic life of various actors. In what follows, the term “value,” that is, proprietary scarcity, is not what some substance itself realizes as value but is “price” decided collectively, 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.180-1].

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 considerations of economic theory. This is value theory in the era of big business. Second, he wanted to express 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.” Cognizing the best opportunity and the second best opportunity, 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 S<sup>1</sup>.

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<sup>10</sup> 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 (Opportunity)	B <sup>1</sup>	\$ 90
Bargaining Power (Economic Power) • Moral Power		Power			
Sellers (asked)	\$ 110	S	Competition (Opportunity)	S <sup>1</sup>	\$ 120

Source: author, based on Commons [1927] ch. I, p. 15 and Commons [1928] r. 12, s. 762

On the side of B, “higher outgo *avoided*,” that is, “dis-opportunity-value” [Commons: 1934a, pp.312-3] is \$10, which is \$120 of S<sup>1</sup> minus \$110 of S. In this case, the “volition” of B is to avoid higher expenditure, that is, the choice of the two opportunities. On the other side, the “opportunity-cost” of S [Commons: 1934a, p.308] is \$10, which is \$100 minus \$90 of B<sup>1</sup>.

According to Commons, this “theory of dis-opportunity-value and opportunity-cost” was a conventional way of thinking about the value of courts and businessmen in his era. As we see soon in this subsection, courts judge disputed bargaining transactions. This means 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 therefore, are objects for correction. Such judgments, of course, become rules for future bargaining transactions.

As an aside, 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 gross income of S and 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 B<sup>1</sup> 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 S<sup>1</sup> in Figure 2), the regulation of competition contains the regulation of price dumping of buyers (regulation to B and B<sup>1</sup>).

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 first, “coercion” based on economic “bargaining power” and second, “persuasion” based on “moral power.”<sup>11</sup> 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 reasonableness. At the same time, Commons thought that it is impossible to accomplish complete equality of bargaining power. In this way, in contrast to the common economic theory, in which income and expenditure are balanced in production cost, reproduction cost, or marginal utility on condition of free competition, Commons thought that transaction value is decided by coercion and persuasion within the bounds of immediately executable opportunities.

From our discussion of bargaining transaction, we can grasp the elements of the value theory of IE. The elements are the following three points. First, “cause,” “regulator,” and “measure” of value are collective action, including money as institution. In the classic theories prior to Commons, why were labor power, labor pain, psychological pleasure and pain, natural law, among other factors, set as cause, regulator, and measure of value? Commons thought this was because of historical demands and because the majority of people were starting to recognize the persuasive force of the theory [Commons: 1934a, p.197]. However, it does not mean that Commons eliminated labor and utility from his value theory. Commons viewed them not 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 performs in negotiation. Again, in bargaining transaction, negotiation means 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 the relationships, the starting point of

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<sup>11</sup> Intangible property contributing to persuasion is “good-will.” Examples are “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.

value theory cannot be substance of value, goods, individuals, and exchange, but transaction. We do not presuppose that a stable substance of value really exists, which means that there is no equilibrium that is deduced automatically 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 in order to realize stable values [*cf.*, Commons: 1934a, p.214, Kitagawa: 2014c].

### 3.2. MANAGERIAL TRANSACTION

Managerial transaction is the horizontal relationship of “command” and “obedience” inside product organization over “efficiency.” Broadly speaking, to take the example of a firm, on the one side, bargaining transactions are external affairs; on the other side, managerial transactions are the relationships of superiors and inferiors. Efficiency means “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;<sup>12</sup> 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. In managerial transaction consisting of command and obedience, what kind of negotiation emerges? 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, means methods, and “inducing” [Commons: 1927, p.67]. These ingenuities of the superior in communication cannot exist without subordinates. The reason Commons spoke of ingenuities may be because he had confidence that the establishment or promotion of relationships of trust between management and labor, that is “industrial good-will”, provides strong benefits for promoting efficiency and social order [Commons: 1934a, p.82]. We strongly assert that, also in managerial transaction, the generation of the value of efficiency is related to negotiation between participants, that is, communication between humans. In summary, the generation of efficiency is related to the technological situation in a certain time and place, collective actions, and negotiation between participants.

Now, how do the proprietary scarcity discussed in Subsection 3.1 and efficiency in this subsection relate to each other in a given going concern and the whole politico-economic system? A hint is provided in the following question and answer of Commons relating to government and efficiency.

The question of public policy, then, is the question of Reasonable Value: Should his

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<sup>12</sup> Examples of managerial skills include the scientific management of F. Taylor focusing on Commons [1934a, p.67] and, in the modern world, human resource management [*cf.*, Murakoshi and Yamamoto: forthcoming].

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 this quotation, we can understand two principles of efficiency and scarcity as a combined challenge to sovereignty, not as distinct challenges. From the standpoint of government, legal control targets the compositeness of the two principles. If we generalize this case, collective actions, whose aim is the coordination of scarcity, contain 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 expressed by money because 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). Rationing transaction is, for example, 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 of a certain going concern or concerns. The “order” in IE relates to a continuously improving 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 means 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, that is, expectations of gains or losses in future, to members of going concerns. We may say that formulation of an ethical ideal type is the challenge to constitute actively and deliberatively a collective expectation, that is, a state, firm, or cartel. Creative performance of will in *trans*-action should be noted as this active constitution of the joint expectation. The performance of will, which attempts to gain a foothold when the challenge arises of undertaking an action in the here and now, creates imaginable order out of a chaotic future.

Based on this collective investigation, we find strong belief by Commons in collective wisdom in the background of his interest on institutional change [Commons: 1913, ch.1; 1998,

p.326].<sup>13</sup>

(...) [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 arguments 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.702-3].

## **4. COMPOSITION OF CUMULATIVE CAUSATION IN INSTITUTIONAL ECONOMICS**

### **4.1. MECHANISM OF CUMULATIVE CAUSATION**

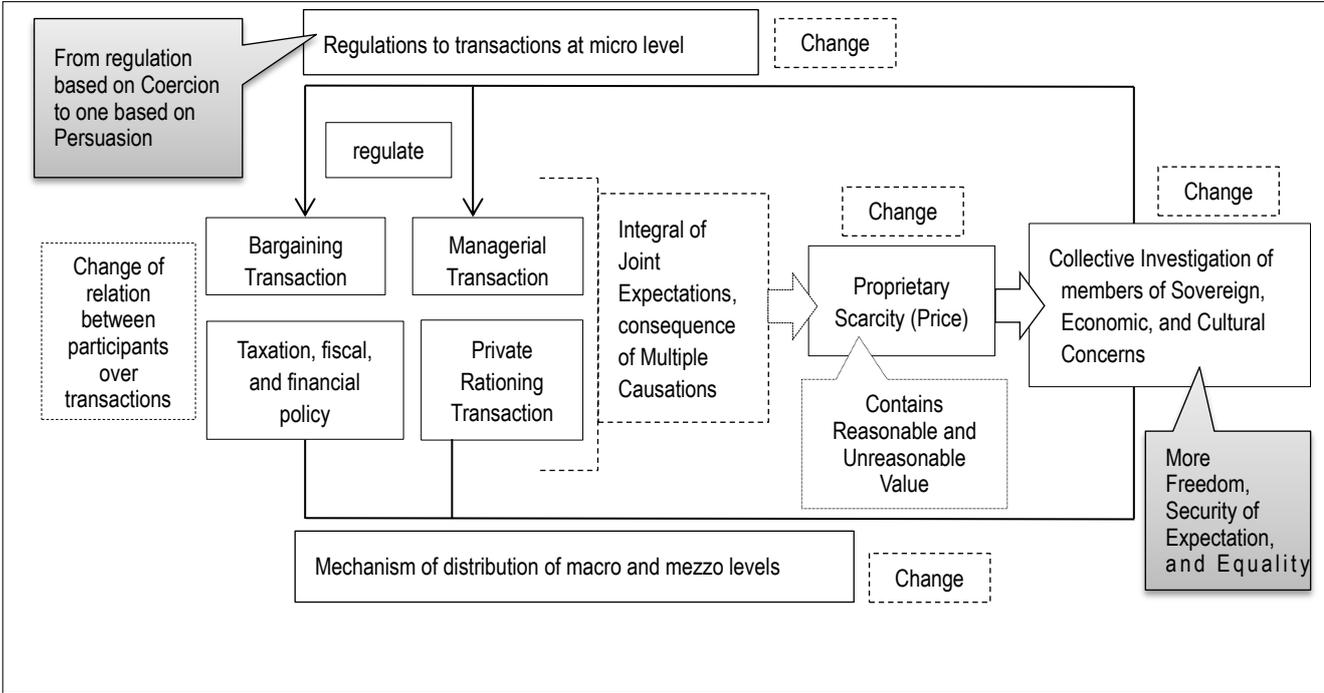
By connecting the ultimate units of cumulative causation, that is, bargaining, managerial, and rationing transactions, we can provide the full composition of cumulative causation.<sup>14</sup> Based on this framework shown in Figure 3, we can clarify the concerted evolution of transactions, prices, and collective way of thinking and behavior.

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<sup>13</sup> This finding belongs to Takao Tsukamoto (Nihon University, Japan).

<sup>14</sup> It is clear that this causation is “cumulative” because institution, that is, 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. A typical example is the mechanism of making decisions by common law courts.

**Figure 3**  
**Mechanism of cumulative causation in *Institutional Economics***



Note: Capital letter words areas instructed from IE.

Source: author, based on IE.

Bargaining transactions are performed in markets and managerial transactions are performed inside going concerns. One part of rationing transactions regulates the two sorts of transaction. This is “regulations to transactions at 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 sorts of transactions compose the politico-economic system through mutual relating, that is, through complement or constraint. 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.122-4].

The whole concept of proprietary scarcity contains 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 value and unreasonable value” [Commons: 1934a, pp.62-3] Reasonable value indicates not 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.62-3]. These conditions are not given assumptions but goals to reach by collective action. Therefore, it cannot be said that the whole concept of proprietary scarcity expresses reasonable value.

From the viewpoints of participants, the whole concept of proprietary scarcity is the compression of unintended consequences, expressed by money in the following five principles: scarcity, efficiency, custom, sovereignty, and futurity. The reduced expression, which is recognizable to participants, provides a clue to investigate collectively the next institutional coordination, that is, rationing transactions.

This possible consequence is a cue for members of sovereign, economic, or cultural concerns to start collective investigation because a purpose of gathering members is to provide greater freedom and secure 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 for a habitual assumption and an existing institution become a trigger to reconstitute assumptions and institutions through collective investigation.

Not only doubt but also conflict triggers collective investigation. All transactions, that is, *trans*-actions 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 reach agreements, sometimes the agreement is like to be a “compromise,” while at other times, the agreement may be a “synthesis.” The latter type is a consequence that results from a redefinition of interests or a radical change of the worldviews of participants [Commons: 1934a, p.101; Mead: 1934; Albert and Ramstad: 1998].

This is the negotiation in which the will performs actively. The reason is not only that negotiation is the process of clash of economic and moral powers of the participants but also because in negotiation, it is possible to overcome dilemmas through mutual understanding and mutual transformation of participants. By establishing novel ways of regulation or distribution, as just described, it sometimes occurs that the selves of the participants are redefined. Modern research, which sets “actors” and “institutions” as two ultimate unit of analysis and attempts to connect actors and institutions, cannot grasp the redefinition of selves in the negotiation process [Boyer: 2004; Denzau and North: 1994; Mahoney and Thelen: 2010; Streeck: 2009]. In IE, the creativity and innovation inhabit the relationship between humans but modern research never grasps this point [Commons: 1934a, p.153; Herrigel: 2010].

The result of collective investigation, rationing transactions, is that the working rules of regulations for transactions and of distribution at macro and mezzo levels are changed. In other words, changes occur to 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 based on “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 relationship. The active driver of this evolution is the will, which is awoken by conflict and doubt. When we refer to causation, it means the concerted evolution of myriad horizontal and hierarchical relationships between participants in collective investigation and transactions. Into the middle of causation is injected proprietary scarcity, 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 is 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 seen in Section 3, all transactions involve negotiation. In IE, the negotiation process can be seen 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; rather, participants 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; in parallel, the participants reinterpret the institutional totality through collective actions. In this world, proprietary scarcity is an intermediary connecting the institutional totality and participants.

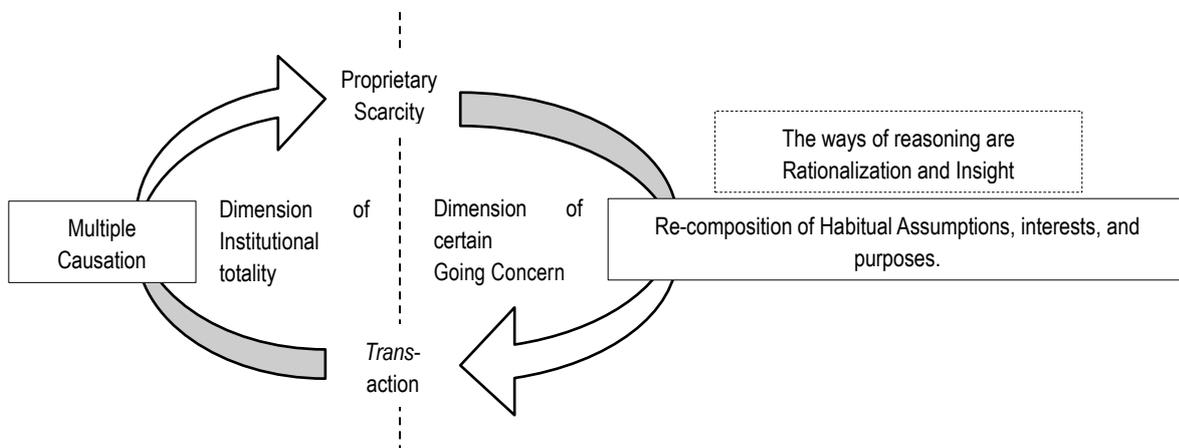
We now clarify the role of will as an active driver in cumulative causation by closely analyzing collective investigation. In doing so, we should not forget that no economic *trans*-action or collective investigation is ever without a social relationship, that is, a conflict of interest.

The buildup of *trans*-actions, in other words, the consequences of myriad transactions, 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, that is, scarcity, efficiency, futurity, custom, and sovereignty; consequences that was intended and no intended at the time of the *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. Because proprietary scarcity, into 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 is, like the way of reasoning of Peirce’s “hypothesis,” “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 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 an attribute of *trans*-action.

**Figure 4**  
**Mechanism of continuous collective investigation**



Note: Capital letter words are as instructed from IE.

Source: author, based on IE.

Through this reasoning, collective purpose, hypothesis, and interest are recomposed, and next, *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 ULTIMATE UNIT

A characteristic of Commons's cumulative causation is that the "ultimate unit" composing the 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* between citizens, between citizens and going concerns, and between concerns. The *trans*-action exists ubiquitously 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], which criticized IE for lacking a consideration of instinct that should be at the core of cumulative causation, did not understand at all Commons's 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 horizontal relationships; other parts comprise vertical relationships. Therefore, cumulative causation is composed of pluralism and hierarchy of various citizens and various concerns.

However, if we point out only that IE draws its politico-economic system from *trans*-action, we cannot make a judgment 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 in order 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 human will performs not

only in the choice of opportunities but also in negotiation. Second, he clarified that collective actions are involved closely 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 PERFORMING 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] showed situations in which a politico-economic system had been stabilized for a certain period of time from the perspective of “institutionalized compromise,” which constrains the time period. Contrary to this theory, “conflict” in IE is seen as conflict as the moment at which creative reasoning starts, in other words, it is a moment of generating new order. Conflict causes habitual assumptions, which have not surfaced to 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, based on mutual understanding of these differences, achieves consensus by utilizing the motivation of the opposing side [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 performing creativity and innovation.

## 5.3. ROLE OF WILL IN TRANS-ACTION

The uniqueness of IE, in particular, based on the discussion of 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. Examples include the active meaning of an environment, remodeling a behavioral hypothesis, withholding power and production at artificially high prices (see footnote 2), design of 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 analytical subject is the dynamics of the macro economy, and Veblen [1899], which 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, in order 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.

Second, it is implicitly assumed that there are external structures outside the relationship between certain actors and institutions [Herrigel: 2010, p.8]. Social relationships, for example, political and economic power relationships around the actor, limit the actor’s type of possible strategy. Social relationships that are awkward and structural establish the type of the actor. In an historical institutionalist framework, there is only will as a projection of the external structure.

By their nature, these works of historical institutionalism cannot depart from the viewpoint that structurally grasps events. 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 in Germany.

Pragmatists neither presume an external structure and start their analytical description from it, nor do they 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, in order 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, of course, 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 the 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 has strong belief 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: 2014a,

2014b].

## 6. CONCLUSION

This article shows the uniqueness of cumulative causation in J. R. Commons's *Institutional Economics* (IE). It highlights the following three points. First, it establishes causation from the perspective that *trans*-action is kept as the focus, for both institutional change theory and 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 over 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's evolution theory. However, in almost all research about Commons, the will is designated as the will of an authoritative agency [e.g., Ramstad: 1990]. This article emphasizes the will performing 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 show the methodological uniqueness of business history from the methodology of other social sciences, have highlighted the viewpoint of pragmatism [Bucheli and Wadhvani: 2014].<sup>15</sup> Economists are now expected to apply the pragmatist method to the targets of economics. This article showed that Commons's cumulative causation provides the starting points for taking the first step in this new direction.

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<sup>15</sup> This point of view was reveal clearly 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.

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