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Spontaneous Order of Relation Exchange as the Integral System of Analytics for the Study of Public Administration

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[Abstracts]

Organization theory is the study of interface between human behavior and organization. The fundamental core of problem arises from the methodological individualism because if we start the analysis from individuals and conducts the analysis in the rationality dimension, we cannot but end up with piecemeal approaches which provide partial explanations. The introduction of sympathy-consent dimension remedies this puzzle because the sympathy-consent dimension is more inclusive analytical dimension which contains rationality dimension as an extreme case. By the introduction of sympathy-consent dimension, the open/indeterminate system is able to be established, which allows the legitimacy of the spontaneous order approach in the study of interface between human behavior and organization. By the merit of the integral system of analytics, the institution as well as entrepreneurship becomes integrated to the analytics in the study of organization, which is not possible in the methodological individualism. Due to the operation of SORX (spontaneous order of relation exchange) model, the private abuse of public authority can be prevented by the use of institution. Also, the entrepreneurship is possibly applied to the territory of public service.

[Keywords]

Public administration, relation exchange, sympathy-consent dimension, spontaneous order, open/indeterminate system, integral system of analytics

[JEL classification code]

H3, H4, L3, P43, M5

I. From Weberian Bureaucracy to Hawthorne Study

The study of public administration appeared from the practical need, which is not filled up by existing fields of disciplines such as economics or politics. In this sense, it shares the same points of question with business management. Both of fields have the same problem of practical need, which is not filled up by existing fields of disciplines such as economics or politics, and borrowed analytical logic from organization theory to explain the operational mechanism of the organization.

Despite the impact of Hawthorne study (Mayo, 1949), which introduces human/element to the scientific management (Taylor, 1903), we cannot repudiate that organization theory is more or less unable to break the bounds of study on the system of hierarchy. Neither Taylor's rational organization system approach nor Hawthorne study presented a theory that will replace the approach of study on the system of hierarchy, although they attempted to modify Weberian bureaucracy theory (Weber 1922) and introduce the scientific management approach with the reflection of human/social elements.

What is the study of public administration? There exists a big gap between theory and policy implementation. Especially, (orthodox) economic theory follows the optimization/equilibrium approach which gives rise to closed/determinate system (Rhee 2013). However, the real life is open/indeterminate system (Rhee 2013). How to navigate this territory of open/indeterminate system to implement the public policy is unable to be addressed by the approaches of traditional economic theory.

Hence, it is not exaggerating to say that the study of public administration is utterly severed from the study of economics. Policy analysis is the study of how to select appropriate policies to attain policy goals. Economics may contribute a little to the steps when to set the policy goals such as heavy-chemical industrialization or the building of urban garbage collection-recycling system. However, economics is unable to provide any guidance to the steps of selecting and implementing policies. The Reason is obvious because the real life story of policy process is the open/indeterminate system, whereas orthodox economics is the closed/determinate system approach.

Two cases of public policy which may illustrate detailed stories will enhance the understanding. One is about an anecdote of POSCO (Pohang Steel Corporation) construction. The other is the urban garbage collection/recycling system in Korea.

Sections II and III will introduce the case stories of POSCO and urban garbage collection program in Korea (UGCPK) respectively. Section IV will disclose that the understanding of the role of public officer is required to address the problem of public administration. Section V will contrast hierarchy approach with spontaneous-order approach. Section VI will

introduce the model of relation exchange and sympathy-consent dimension. Section VII will compare the analytic points of POSCO and UGCPK cases. Section VIII will highlight the merits of the spontaneous-order-of-relation-exchange approach. Section IX will conclude the paper.

II. The Case of POSCO Construction

From the early 1960s, Korean government attempted to build an integrated steel mill plant as a core part of industrialization program of Korean economy. In February of 1962, Mr. Choi, H. S. (CHS in short) director general in the Ministry of Industry and International Trade, who was in charge of the construction of integrated steel mill plant, made an industrial tour to Kobe Integrated Steel Mill Plant of Japan to learn about their experiences (Oh, 1995). After the on-site tour, CHS had a chat with the production manager of Kobe Steel Mill Plant (PM in short).

CHS: we intend to build an integrated steel mill plant.

PM: what is the plant scale?

CHS: 300 thousand tons.

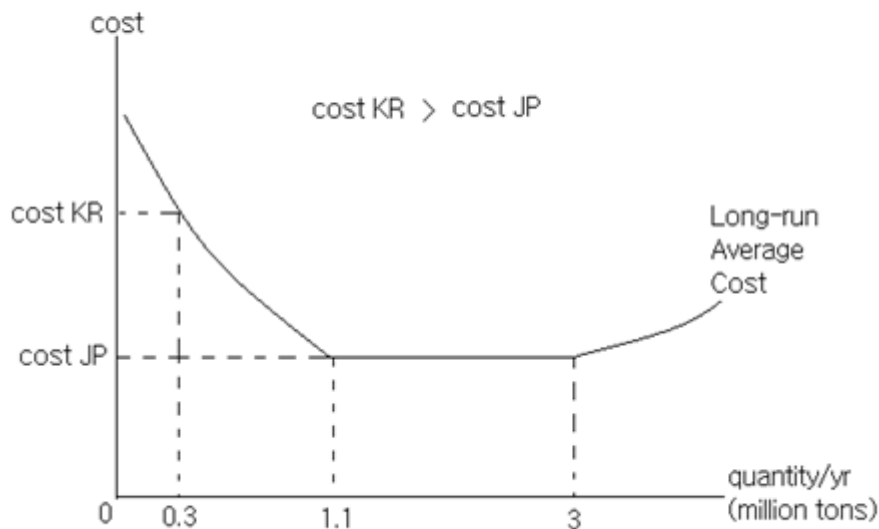
PM: monthly?

CHS: no, yearly.

PM: my goodness, there is no such scale in the world. Recently, competitive scale size has risen up to three million tons. Kobe will increase the scale up to such level.

The following figure illustrates a long-run average cost curve of steel production. Steel production is a typical industry which pertains to the economy of scale. The cost of production declines in accordance with the size of production scale up to the scale of about a million tons. The cost begins to increase after three million tons. Around the production level of 300 thousand tons, the unit production cost is too high to be competitive against rival plants of other countries. The insufficiency of domestic demand was the unbeatable stumbling block to the project. So, the integrated steel mill plant project had to be given up in the first five-years planning (1962-66).

Figure: Economies of Scale in POSCO Project



Although production plant was not built, the legal entity of Pohang Integrated Steel Mill Production (POSCO in short) as project promotion center was established in the April of 1968. The second five-years planning (1967-71) was seriously considering the inclusion of the POSCO project as key component of the planning. However, the key determinant of the project was the domestic demand for steel products as revealed in Figure: Economies of Scale in POSCO Project.

The forecasts of domestic demand for steel products differed among different forecasting institutes. In 1961, the domestic demand in Korea was 116 thousand tons in aggregate. A German forecasting institute (DKG) forecasts the 400 thousand tons of domestic demand for 1970. Another institute Blaw-Knox forecasted 280 thousand tons for the same year. A Japanese institute Overseas Tech Cooperation Group was most optimistic and forecasted 1.14 million tons for 1971. Economic Planning Board of Korea forecasted 700 thousand tons for 1971.

The prospect of project financing for the POSCO project was hopelessly dire. In March of 1967, KISA (Korea International Steel Associates), which is an international syndicate loan brokerage associates, failed to bear any fruit. In 1969, the IECOK (International Economic Cooperation Organization of Korea) stranded. The United States, Germany, and IBRD all objected to the project.

It was about in such timing that Mr. Oh, WonChull (OWC in short) who was high-ranked officer in the Ministry of Industry and International Trade in Korea met with Mr. GoTo (GT in short) of the MITI (Ministry of International Trade and Industry) in Japan, who was in

charge of Iron and Steel industry of the MITI. This is an unconfirmed story which was asserted in the book of Mr. Oh (1995). Who performed the key role of fulfillment in ways to host foreign investors is not important in the story of POSCO case example. What should be underscored in this story is the coincidental nature that happened to determine the decisive step in hosting foreign investors.

OWC: we have an unchanging desire to build POSCO plant. We don't doubt the ability of Japan's technology to build the plant. How about demonstrating your capacity by undertaking the project?

GT: not impossible. But 600 thousand tons are a toy scale.

OWC: we don't insist it. We may raise it to one million tons level and will increase all supports to the according level.

OWC: domestic financing will be provided as shareholders' capital to alleviate the interest payment burden. Japanese War Claim Fund may be used in this case. Then, it is another advantage that not much of interest burden will be levied from foreign investments.

GT after some discussion with his subordinate colleagues: let's do it. You report this meeting to your superior office. I will do to my superior.

Japan and her technology built the POSCO plant with Japanese War Claim Fund. Plant scale was raised from 600 thousand tons to 1.03 million tons. They had used other additional funding from Japan EXIM bank, but with annual interest rate less than 3 percent. From the start, the POSCO was not stressed by the interest payment burden.

POSCO plant construction was completed by 1973. It was the year of the first Oil Crisis. The price of oil was nearly quadrupled by 1974 to nearly \$12 per barrel. It was a big fortune to the POSCO. The POSCO used the state of art technology when constructing plant, which was most energy efficient at that time. However, its rivals overseas were very outdated in technology and were very energy-inefficient. Since steel-making industry is highly energy-intensive industry, the cost-efficiency of the POSCO became doubtlessly outstanding compared to its competitors overseas. The POSCO recorded a sizable profit from the first year of production launch.

III. A Case of Urban Garbage Collection/Recycling Program in Korea

The case of urban garbage collection program in Korea (UGCPK) is introduced to enhance our understanding of the job performance which a civil servant in government organization is committed to execute as a duty of employment in public service.

The volume-rate garbage disposal (VRGD) system was introduced from January 1, 1995. A standard plastic garbage bag has to be used for the disposal of garbage, which can be purchased by the units of 5, 10, 20, 30 liters. Food garbage is disposed in plastic garbage bag in 2 and 5 liter units. Separately from the VRGD system, a recyclable waste processing (RWP) system is put in operation autonomously in every different local governments.

Standard plastic garbage bags are sold in commercial super markets. The fees, paid by city residents, are used for the financing for the operation of the UGCPK. The collection system of garbage and food wastes starts from household units. The residents of local community should follow the stipulations of related ordinances of local government when they dispose.

Recycling waste processing (RWP) system operates autonomously in each individual local government. According to the stipulations of related ordinances of local government, recycling wastes are classified into different categories from the phase of household or apartment; plastic, metal, vinyl, paper, bottle/glass, clothes, burials and so on. Classified recycling wastes are picked up by private traders who are specializing in recycling business.

The kernel problems in such UGCPK and RWP systems are two-folds. One is how to operate a cost-efficient, residents'-welfare-enhancing, environment-friendly system. The other is how to prevent the private abuse of public authority power by public officers such as possible behavior of corruption or embezzlement in the steps of UGCPK public administration of local government.

IV. Public Officer as the Executor of Public Administration

Doubtlessly, it is public officers who are main actors as the executor of public administration for civil service. The performance of their role is the determinant to the success of public services. The success factors are firstly how to attain the high-level job performance as civil servant, secondly how to uphold the public nature of civil service, and thirdly how to prevent the possible corruption or embezzlement in the steps of public administration.

In this conjuncture, the problem of public administration becomes that of organization management. How can we operate a public organization in such a way that will lead to the success of public administration? In this connection, a natural focus of attention turns to the role of public officials. It is public officials who perform the key role as the executor of public administration.

What is the relation between public officer and public administration? It is the territorial domain of organization theory. Here, government organization is the object of our concern. However, the essential logic goes in parallel with the case of private organization. That is, what is the relation between individual and organization? This question is important because the answer to it will illuminate on the answer to the question; how can we operate a public (or private) organization in such a way that will lead to the success of public (or organization) administration?

In the case story of POSCO project, OWC's entrepreneurship was a critical step which excavated the connection point to the source of project financing and discovered Japanese steel maker as the plant constructor with plant-construction technology. How can we perceive the role of OWC in the government in connection with POSCO project? Did OWC follow the hierarchical command from the superior officer of the government organization? Is it possible to interpret OWC's role as entrepreneurship in public administration?

In the case story of urban garbage collection program in Korea (UGCPK), the entrepreneurial performances of public servants matter critically to the successful administration of civil services. Do such public servants fulfill their duties by following the hierarchical order? How can we understand the relation between city government and public servants? The answer to the question is the key point in the pursuit of answer to the successful administration of civil services or the successful administration of organization.

V. Hierarchy versus Spontaneous Order

The question on the operational mechanism of the organization is nothing but the question on the relation between public officials and government organization. In this regard, it is compelling to encounter the question of Hayek, that is, the question of man-made order vs. spontaneous order. In fact, Hayek (1982) used this dichotomy to distinguish market approach from structivist approach. Hayek considered market as the place where the spontaneous order of human behavior emerges and operates. He taught that any attempt to explain the relation between individuals and community from structivist (totalitarian or planning) approach dooms to fail.

There have been confusions when applying this logic to the discussion of organization. Such confusion was unavoidable because the typical man-made order seems to be organization in Hayek. Since the territory of domain where spontaneous order operates is confined to market, the link between organization and spontaneous order became severed in Hayek. Hence, the question of how to explain the relation between constituting individuals and organization pops up.

Organization theory emerged to fill this vacuum. The system of hierarchy was the answer to the question of how to explain the relation between constituting individuals and

organization. The dichotomy of man-made order and spontaneous order seems to be the critical step. A reinterpretation of Hayek seems to strike out totally different outcome. If spontaneous order is the order which comes out from human behavior, man-made order is not natural order because it does not come from human behavior.

In other words, the natural order does not have to be confined by the concept of market. One example is the natural order which is revealed by a team play in team sports games like basketball, baseball, and soccer. The team play in such sports comes out from the plays, that is, behavioral actions, of individual players. These are the behavioral actions of relation exchange. In fact, the spontaneous order comes out from behavioral actions of relation exchange (Rhee, 2012b, 2012c: OSE, 2012d).

This interpretation of Hayek's spontaneous order is different from the traditional interpretation because Hayek himself confined spontaneous action on the territorial domain of market actions (Hayek 1982).

VI. Relation Exchange and Sympathy-Consent Dimension

When Coase (1937) raised the question on the theory of firm, it was the question on the analytical horizon of economics. Coase's question later developed to the question of 'market or organization' (Williamson, 1975; Milgrom and Roberts, 1992). The growing divergence of view between transaction cost approach and property right approach seems to indicate that the root core of the problem starts from much deeper ground (Klein et al, 1978). New institutional economics attempted to understand institution with the analytical structure of economics. However, their attempts attained only a half of the way to success. The doorway to the understanding institution is open only from inside. The outside door to institution is not open yet in economics.

The field of public administration started from practical need; how to operated public organizations to implement public policy efficaciously. No integral analytics is available to put a consistent logic in place to the understanding of this field of public administration. Naturally, the patch-ups, which were borrowed from political science, sociology, economics and management science, were remedied whenever there are needs for the logic by which to explain differing conditions of change. In particular, the integral analytics which penetrate the activities in the market and activities in the organization all together is lacking in the study of economics.

Relation exchange is the concept which integrates the behavioral actions in the market and non-market. The sympathy-consent dimension put forward the extended horizon to the analytics of economics, which can encompass the activities in the market and the activities in the organization together. The salient merit of relation exchange is in its ability to include institution in the analytical reasoning. Institution is no more exogenous parameter in the analytics of reasoning.

To avoid an unnecessary distraction, only a minimum setup of the model will be explained for the introduction of relation exchange economics: necessary definitions and assumptions, core propositions and essential concepts necessary for this research such as open/indeterminate system, business model and spontaneous order of relation exchange. A complete theoretical model is presented in Rhee (2012b, 2012c, 2014).

Assumptions and Definitions:

Assumption ISL (individualistic self-love): Individuals seek self-love, i.e. self-interest.

Assumption BR (bounded rationality): Human cognizance capacity is restrained by physical limit. Hence, their decision-making rationality is bounded.

Definition SF (satisficing): Satisficing is defined as the actions of the sympathy-consent process which seeks self-love under conditions of bounded-rationality.

Assumption RX (relation exchange as reality): Relation exchange is presumed to exist as the reality of human life.

Definition SCP (sympathy-consent process): the sympathy-consent process is defined as the process of drawing out sympathy and consent among the parties concerned in order to fulfill relation exchange.

Definition RX (relation exchange): relation exchange is defined as the exchange of relationship via the sympathy-consent process as the mediatory step.

Definition VX (value exchange): value exchange is defined as exchange in the market, with price used as the medium of exchange.

Definition LVG (leverage): leverage indicates institutional or physical stress conditions which will influence on the behavioral actions of relation exchange.

Definition IPR (imperfect property right): in the sympathy–consent dimension, imperfect property rights are defined as indicating the state where the values–costs of property rights cannot be calculated consistently with the change of paths of the sympathy–consent process.

Fundamentality of Relation Exchange:

Corollary FRX (Fundamentality of Relation Exchange): with Assumption IPR (imperfect property rights) and Assumption BR (bounded rationality), relation exchange is a more fundamental behavior than value exchange.

Corollary FRX discloses the fundamentality of relation exchange compared to value exchange (Rhee 2012b). Without the functioning of relation exchange, the value exchange alone, which is precisely the analytics of orthodox economics, cannot explain the need for the institution in the system operation of economics. In other words, the institution functions to affect the operation of relation exchange, which in turn help work out value exchange.

From Rhee (2012b, 2012c), we understand that leverages, either institutional or physical, affect the shaping of behavioral actions of relation exchange, which in turn help work out value exchanges. Business model is the actions to seek self-interests (self-love) by making use of the actions of relation and value exchanges in given leverage conditions.

Institutional leverages include morality, law, property rights, standards, rule of law, code of conducts for civil service, ethical code of conduct for civil service, code of conducts for job (or position) fulfillment(business) customs, legal tender, bill of credit, institutions in bank and finance, business knowhow, liberal democracy, political party system, tripartite separation of power and so on. Physical leverages include capital, technology, business facilities, productive plants, SOC and so on.

Open/Indeterminate System:

Definition CD System (closed/determinate system): a closed/determinate system is an economic system that consists of determinate states.

Definition OI System (open/indeterminate system): an economic system which is built on indeterminate states is defined as open/indeterminate system.

Proposition OI System of SCD (open/indeterminate system of sympathy–consent dimension): an economic system which is built on the actions of the sympathy–consent process is an open/indeterminate system.

The sympathy–consent process is path dependent (Assumption PDSCP). Path-dependent processes give rise to indeterminate states. Hence, the sympathy–consent dimension constitutes an open/indeterminate system.

Business Model:

Definition BM (business model): business model is the entrepreneurial action in the open/indeterminate system to seek self-interests (self-love).

From the assumption of bounded rationality (Assumption BR) and definition of imperfect property right (Definition IPR), an employee in an organization may be properly considered as individual in the open/indeterminate system. The institutional and physical constraints which hold the attributes of the organizational properties may function through the conditions

of leverages (Definition LVG). For instance, ethical duties of public officers may be imbedded into this model as ethical code of conduct for civil service which influences on the behavioral actions of public officers in public organization.

One trivial question, which may arise to this approach, is what if a public officer seeks private interests in public organization? The obvious answer to this question is “will the public officer seek public interests if any other approach than the approach of business model is followed?” This is the very root core point in social science. Of course, the answer is no. It is unrealistic to assume that any individual, public servant or not, seek public interests and public interests only.

Then, why economics have failed to provide the analytics to the study of public administration or organization theory until now? It is because the current analytical structure of economics can sustain the system of value exchange only. We need an extended dimension of analytics, which is directly linked to the analytic dimensions of orthodox economics, to explain the behavioral actions of relation exchange. That is the sympathy-consent dimension. The sympathy-consent process is the behavioral action in the sympathy-consent dimension. Now, institutions become linked to the behavioral actions of exchange transaction.

VII. Analytic Points of POSCO and UGCPK Cases

The anecdote in the case of POSCO plant construction discloses the story of how critical the entrepreneurial role of a public officer in the public administration. The UGCPK case is a commonplace story of civil services of urban garbage collection and recycling program in a local government in Korea. Regardless of the differences in cases, the common focal point of public administration is two folded. One is how to prevent the behavioral actions of public officer from seeking private interests. The other is how to encourage the entrepreneurship of public officer in implementing public policy.

The analytic point of public administration necessarily encounters the problem of interface between human behavior and organization. Table 1 discloses the story. In case of POSCO construction, OWC’s visit to GT office to find investors from Japan was the story of former

problem. The latter story is about the oversight on the private abuse of public authority power and embezzlement. In case of the UGCPK public administration, the former story is about efficient operation of VRGD (volume-rate garbage disposal) and RWP (recyclable waste processing) public administration. The latter problem is the same.

Table 1: Analytic Point of POSCO and UGCPK Cases

	POSCO construction	UGCPK
Performance	Entrepreneurship point: OWC's visit to GT office to find investors from Japan	Entrepreneurship point: efficient operation of VRGD and RWP
Corruption	Oversight on the private abuse of public authority power and embezzlement	Oversight on the private abuse of public authority power and embezzlement
Analytic point	The interface between human behavior and organization	The interface between human behavior and organization

How to discourage the private abuse of public administration on the one hand and encourage the entrepreneurship of public officer in public administration on the other hand is the gist point of the problem in public administration. Any approach for the solution to this problem has to encounter the interface question between human behavior and organization. It is at this conjuncture that the contrast between two different approaches stands out; hierarchy approach and spontaneous order approach.

VIII. Hierarchical System versus Spontaneous Order

Now, we have established a new analytical model which is able to contain the behavioral action of public officer in a government organization. What is the gain of this approach? It becomes possible to understand the behavior of individuals in the organization as spontaneous action. Before the establishment of this approach, the actions of individuals were

recognized by the logic which pertains to the operation of organization. The logic of hierarchical system was a typical example.

Hayek (1982) confined the territorial domain of spontaneous order to market. It is unclear whether the concept of spontaneous order applies to the system of organization in Hayek. His classification of man-made order seems to be more akin to the system of organization. Organization theories, which were developed by bureaucracy theory (Weber, 1922), scientific management approach, and human relations school, does not go beyond the boundary of hierarchy system approach.

However, the introduction of relation exchange through the establishment of sympathy-consent dimension made it possible to understand the real feature of spontaneous order. Spontaneous order should come from human behavior and cannot be restricted by categorical confinement of environmental condition such as market. Relation exchange is of behavioral action which includes not only the activities in the market but also encompasses the activities in the organization. In contrast with the approach of hierarchy study, the study of relation exchange is an integral approach to the study of organization. Here, the integral approach means to indicate that all the features of analytic question are able to be understood by the one and the same logic, that is, the spontaneous order which is built on the behavior of relation exchange and sympathy-consent dimension.

Table 2 compares two approaches of organization study: hierarchy system versus spontaneous order of relation exchange. The essential difference is the operation of spontaneous order. Spontaneous order stems from the behavioral actions of individuals. Hierarchical system is built on command-subordination system, which is not spontaneous behavior. In other words, the spontaneous behavior of individuals in an organization was unknown before in the literature. The excavation of spontaneous behavior of individuals in the study of organization is attained by the introduction of relation exchange approach.

Table 2: Hierarchy versus Spontaneous Order of Relation Exchange

	Hierarchy	Spontaneous order
Organizational behavior	Organizational psychology	Relation exchange

Analytic dimension	Rationality dimension	Sympathy-consent dimension
Analytic system	Closed-determinate system	Open-indeterminate system
Approach	Methodological individualism	Transcendental domain from methodological individualism
Distinction	Piecewise approach	Integrated system approach
Institution	Exogenous: separated from analytics	Endogenous: integrated to analytics
Shaping of system structure	Man-made system	Determined by institution
System control	Lines of command	Performance of entrepreneurship
Entrepreneur	No role	Entrepreneurship as driver

Transcendental Domain from Methodological Individualism

Most of social science starts with methodological individualism. Decision making should be carried out by the individuals. However, the society consists of multiple individuals. Hence, phenomenal features in the society are necessarily of holistic nature. Typically, institution is of holistic phenomenon. This gap between methodological individualism and holistic phenomena is hardly filled up. The problem essentially originates from the analytical dimension.

Methodological individualism starts from individuals as decision-maker and necessarily built on rational choice approach. Even though bounded rationality is presumed in the model setting, the analytics cannot be separated from the analytics of the rationality dimension of individuals. Constrained optimization is one of such example.

Sympathy-consent dimension is the domain which is transcendental to rationality dimension. The two are not conflicting against each other. Sympathy-consent dimension is the extended dimension of rationality dimension. They are connected by the sympathy-consent-free state. By means of sympathy-consent dimension, the problem of gap between methodological individualism and holistic phenomena is resolved.

Sympathy-consent process is the behavioral action which belongs to the sympathy-consent dimension. Sympathy-consent process is grounded on the relation between multiple individuals, not on one individual. Hence, the problem of methodological individualism doesn't matter in the sympathy-consent dimension. This conundrum of the gap between methodological individualism and holistic phenomena is the problem which belongs to the rationality dimension. The sympathy-consent dimension attains the establishment of transcendental domain which is liberated from the puzzle of methodological individualism.

Institution Being Integrated to Analytics

Institution matters because it enforces its function among multiple individuals. Even if an individual made up mind to establish an institution which operates only to oneself, such determination may unlikely be called as institution because there is no imperative which levies on oneself for the violation or encroachment against the institution. Hence, the methodological individualism is not an adequate analytical structure where to recognize institution. Despite so much of the attempts which are conducted by the new institutional economics, the explanation of institution still remains not up to scratch. Example is the literature in law and economics. Still, transaction cost approach is at odds with property right approach.

In fact, an institution is the instrument which conducts its function in the sympathy-consent process. There is no way to catch such institutional function in the analytical dimension of methodological individualism. The behavioral actions of relation exchange are built on the sympathy-consent dimension. An institution is the instrument which rules on the behavioral actions of relation exchange. Hence, institution becomes integrated to the analytics of economics in the sympathy-consent dimension.

Entrepreneurship and Business Model

The sympathy-consent dimension is of open/indeterminate system. It is not possible to seek determinate solution in the sympathy-consent process. So, we need institution. However, rationality dimension is the sympathy-consent-free state. In the rationality dimension, we seek optimal solution. It is closed/determinate system. In the open/indeterminate system, human beings wishes to seek optimal solution. However, due to the limited intelligence, all they can attain is the satisficing behavior like reliance on trust, brand image, political process and so on. The behavioral actions of individuals engender the spontaneous order of relation exchange.

In the sympathy-consent dimension, there is no essential difference between market and organization. Regardless of the distinction, the behavioral actions of relation exchange function equally. The only attribute which distinguishes market is the establishment of property rights. Of course, due to the establishment of property rights, the exchange transaction becomes incomparably expedited in the market in comparison with the case of relation exchanges due to the failure to establish property rights.

Because it is the open/indeterminate system, different behavioral actions give rise to different spontaneous orders of relation exchange. Precisely, it is the institution that

determines the mode of behavioral actions or the mode of spontaneous orders of relation exchange. This thesis equally applies to public organization such as government, as it applies to private organization like business firm. Now, we are ready to deal with the problem of how to discourage the private abuse of public administration on the one hand and encourage the entrepreneurship of public officer in public administration on the other hand.

The institution deals with the former problem of how to discourage the private abuse of public administration. Institutions include laws, regulation, ordinance, rule books, morality, and ethical code for civil servants and so on. It may include even the patriotic spirit of public servants. Also, ombudsman system may be considered in addition to the oversight by the national audit office.

How can we find ways to encourage the entrepreneurship of public officer in public administration? The merit of SORX approach is that the problem to encourage entrepreneurship of public officer in public administration is not different from the same problem in private business firm. Since the promotion is the goal of public officer in the office, he/she will try best to introduce most desirable business model to attain better performance. It is not different from the players in the sports game like soccer, basketball and baseball. The team of players makes a beautiful play, which is no more than spontaneous order, when each player makes best performance in harmonious relation with other team players, which is the business model of each player, although the players have to abide by rules and the order of referees on the other hand.

The difference of SORX approach between public administration and private business firm is simply distinguished by institutional leverages. Institutional leverages of public administration should take care of the oversight on the possible private abuse of public authority power; bureaucratic authoritarianism, red tape, rent-seeking, corruption, embezzlement, pork barrel and so on. Such simplification of analytic system could be attained due to the availability of integral analytic system which is built on the relation exchange and sympathy-consent dimension.

IX. Concluding Remarks

The study of public administration has been completely separated from the economics. Considering the fact that the field of public administration started from pragmatic need to implement public policy, the blame should properly be directed to the side of economics. The problem is the analytical power of economics. The analytics of economics is far apart from the reality of life. Once the analytical dimension is extended to the sympathy-consent dimension from the narrow domain of the rationality dimension, the open/indeterminate system is rendered eligible. In the open/indeterminate system, the behavioral action of relation exchange gives rise to the spontaneous order. The spontaneous order of relation

exchange (SORX) approach puts in place the integral system of analytics, which allows the use of SORX model in the study of organization behavior.

Despite the impact of Hawthorne study, we cannot repudiate that organization theory is more or less unable to break the bounds of study on the operating system of hierarchy. The organization study is built on the analysis of hierarchy. However, there is no integral analytical system that explains the theory of hierarchy. Only piecemeal approaches provided partial explanations.

Organization theory is the study of interface between human behavior and organization. The fundamental core of problem arises from the methodological individualism because if we start the analysis from individuals and conducts the analysis in the rationality dimension, we cannot but end up with piecemeal approaches which provide partial explanations. The introduction of sympathy-consent dimension remedies this puzzle because the sympathy-consent dimension is more inclusive analytical dimension which contains rationality dimension as an extreme case.

By the introduction of sympathy-consent dimension, the open/indeterminate system is able to be established, which allows the legitimacy of the spontaneous order approach in the study of interface between human behavior and organization. By the merit of the integral system of analytics, the institution as well as entrepreneurship becomes integrated to the analytics in the study of organization, which is not possible in the methodological individualism. Due to the operation of SORX model, the private abuse of public authority can be prevented by the use of institution. Also, the entrepreneurship is possibly applied to the territory of public service.

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