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Individuals in Organization

~Toward Modeling Dynamics of Values and Norms

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The aim of this research is to acquire the key to an understanding of decision-making in organization. To this end, we propose a model of the process of individual decision-making in organization by analyzing the literature in sociology, business administration, psychology, law and so on. Furthermore we examine the relevancy of the model in terms of agent-based-simulation.

We cannot analyze individual decision-making without considering organization, because almost all individuals always belong to some organizations. Individuals belong to an organization sometimes think and act their own way, and sometimes work in accordance with other members in the organization. The interaction of individuals surely arises in the organization.

When we analyze individual decision-making from the view of relation between individual and organization, we must consider influence of value and norm on decision-making. Value is an peculiar individual criteria for judgement and norm is one which is shared in the organization. Both of these them are important for the individual, since, when we make decision, we use property both our own and others' viewpoint according to cases. It is impossible for us to satisfy our desire if we act without considering our own viewpoint. It is difficult for us to belong to an organization and to work in it if we

work regardless of the others' viewpoint.

As a result of analyzing literature, the following model about the process of individual decision-making in organization is.

" An individual has value and norm as criteria for decision-making. The former is the view peculiar to the individual, and the latter is the view shared by organization members. The individual makes decisions on the basis of both value and norm. The norm is determined by recognizing others' act. The value and norm interact with each other in the inside of individual. "

It can be said, from this model, that the norms which individuals believe in an organization not completely the same and are not so various like the values. Then, we examine the validity of the model using multi-agent-simulation. The viewpoint for the examination is whether norms are able to have both diversity and unification.

The simulation-model has the following rules :

- A . An agent has value, norm, and a criterion for judgment as the internal variables.
- B . The criterion for judgment is determined from mixture of value and norm at a certain rate.
- C . Individual action takes the numerical score near criterion for judgment.
- D . The agent updates its norm by recognizing the others action.
- E . The agent updates its value.

We analyzing the following five simulation-models which have different rules to update agents value.

Model-1: Value does not change.

Model-2: Value changes with normal random numbers.

Model-3: Value approaches a norm.

Model-4: Value maintains a certain distance from a norm.

Model-5: Mixture of the agents whose value changes with random numbers(model-2), and ones whose value maintains a certain distance from a norm(model-4).

The behavior of the models represents the diversity and unification of norms which have been expected, though the behavior of the model-3 simulation cannot be found as actual organizational behavior. Therefore, the validity of the model is confirmed.

Moreover, in the model-5 simulation in which two kinds of agents are balanced, we find that the peculiarity and unification of individual norms are balanced. By this result, being some kind of individuals in an organization makes the important nature of norm, peculiarity and unification, in organization possible.