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Where theory and reality meet: using the full potential of QCA by
exploiting the intersection function of the QCA software
International comparison analysis about the occurrence of social movement

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Tsutomu Watanabe
Shinshu University, Japan

1. The problem

We will be able to say that the history of our modern society is a history of citizens' challenges to the government. It starts from the people's revolution, for example the French Revolution, to the socialist revolution, revolutions in Latin America and Africa, Civil Rights Movement, and the ecology movements, etc. They have always clarified social problems of the age. We will recall that the large-scale democracy movements extended to Eastern European nations in 1989, the Berlin Wall collapsed, and the socialistic states of Eastern Europe collapsed. It is said that there is a big wave (for instance, the May Revolution in France and the movement against the U.S.-Japan Security Treaty in Japan and Vietnam anti-war movement in United States) from the latter half of 1960's to the first half of 70's when we see the trend of social movements in the advanced capitalist nations after World War II. We could think that for the advanced capitalist nations this period was a turning point for post World War II politics.

We show the average number of social movements for every one million people in 16 advanced capitalist nations in Figure 1. There is a cycle (a wave of protest), and this cycle has the increase period of the movement (first term), the maximum period (middle term), and the decrease period (latter term). However, why does the wave of protest occur at a specific period? What increases social movements? In the social movement research, many researchers have regarded the factor of social movement occurrence as one of the most important issues. . However, many researches are case studies or quantitative researches that focus on the movement participants (for instance, the analysis of survey research about participants). The research whose unit of analysis is a nation (especially the advanced capitalist nations) is hardly seen. When we pay attention to the wave of worldwide social movements from 1960's to 70's, it is difficult to search for the factor of social movement occurrence by these approaches.

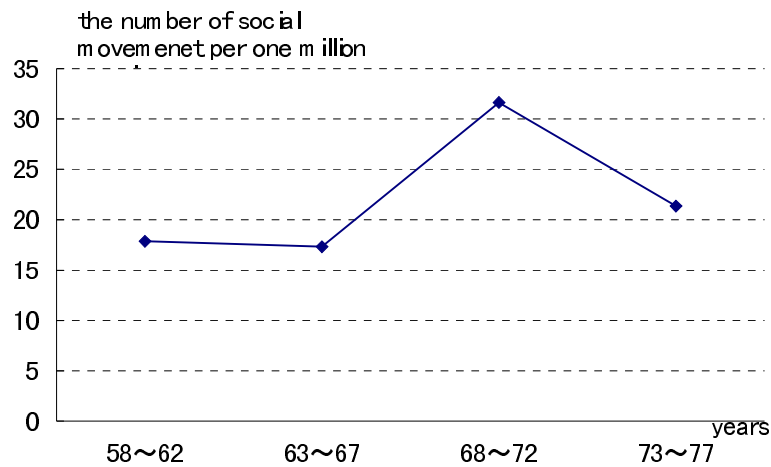


Figure1. The trend of Social Movements in the advanced capitalist nations
(the number of social movements per one million people)

Then, I examine what factors triggered social movements during the 60's and the 70's in the advanced capitalist nations through a Boolean algebra approach whose unit of analysis is a nation. Moreover, I examine what kind of social mechanism generates a wave of protest. In addition, I compare the occurrence factors of social movement at first term of the cycle with the factors at latter term.

Concretely, I present three hypotheses for the occurrence of social movements, and examine them. In section 2, I outline the recent history of social movement research, and then describe the three hypotheses. In section 3, I describe the data and the variables used for this analysis, and in section 4, I actually analyze the data by Boolean algebra analysis, and examine the factors of social movement occurrence. Finally, I discuss the occurrence factors of social movement clarified by this analysis in section 5.

2. Comparative sociology of social movement between nations

2.1. Outline of social movement research

The central theories from the 1960's to the first half of the 70's are the theories which focus on the psychological factor like the collective behavior theory (Smelser 1962) and the relative deprivation theory (Davis 1968; Gurr 1970). However, the resource mobilization theory and the new social movement theory criticize the theories based on people's dissatisfaction in the latter half of 60's, and they come to describe modern social movements well. Both theories abandoned the description based on people's dissatisfaction. They described the social movements after 1960's through concepts like resource or identity, etc. Afterwards, the resource mobilization theory and the new social movement theory evolve distinctively, and both theories connect with the political opportunity structure theory in the 90's.¹⁾ The resource mobilization theory focuses on a political process and the new social movement theory focuses on the relation between the social movement organization and the politics. Because political variables are important in both theories, they are connected to the theory, which focuses on a political opportunity to promote or to control the social movement occurrence.

Recently, the event analysis is a mainstream research method in the comparative research of social movements between nations. The event analysis is a method consisting of taking out social movement events from newspaper articles, and analyzing those event data. Initial researches analyze the relation between the inequality structure and the number of social movement events in a nation. For instance, they include a thorough quantitative research by Hibbs (1973). After Hibbs's

researches, various researches were conducted. In these researches, mainly four hypotheses have been examined. These hypotheses are (1) relative deprivation theory: relation between inequality of income (or property such as land) and a political protest, (2) resource mobilization theory (political process theory): relation between a political opportunity (especially political rights and citizenship), and a political protest, (3) world-system theory (subordination theory): relation between economic (military) dependence on another country and political protest, and (4) Marxist theory.²⁾ And in many of these researches, the factor associated with social movements occurrence is specified by a multivariate analysis, for example a multiple regression analysis.

On the other hand, in the analysis of only the advanced capitalist countries, they especially examine the influence of the political opportunity structure by case studies. Typical researches are Kitschelt (1986) and Kriesi et al. (1995). For instance, the latter make the protest event data of four countries (France, West Germany, Netherlands, and Switzerland) by using the each nation's newspaper as a data source, and analyze protest events by quantitative analysis. However, about the political opportunity structure, they thoroughly examine the political system and political condition in each nation, and only analogize the relation between the structure and the number of protest event.³⁾

This report bases itself on the above-mentioned research and examines three powerful theories (political opportunity structure theory, relative deprivation theory, and resource mobilization theory) that describe the social movement occurrence in advanced capitalist nations.⁴⁾ This report verifies the hypothesis that describes what factors are generated of social movements at the first term and the latter term of the wave of protest.

2.2. Outline of three social movement theories

(1) Political opportunity structure theory

The origin of political opportunity structure theory was the research of Eisinger (1973), and then this theory developed into the political process model of Tilly (1978) and McAdam (1982), and became the main theory of social movement researches in 90's (Tarrow, 1994; Kriesi et al., 1995).

What is political opportunity structure? Tarrow defines that political opportunity is "consistent--but not necessarily formal or permanent--dimensions of the political environment that provide incentives for collective action by affecting people's expectations for success or failure"(Tarrow 1998: 76-77). To discuss it simply, I define the political opportunity structure by one dimension in this report though many researchers have been examining various dimensions of the political opportunity structure up to now.

Meyer (1993) and Gamson and Meyer (1997) proposed the dimension of stability as a dimension that composed the political opportunity structure. They distinguished static and dynamic political opportunity structure by this dimension. The static political opportunity structure is an institutional structure of politics. We call it institutional opportunity structure. For example, it is electoral system and assembly institution. On the other hand, the dynamic political opportunity structure is a structure produced with the character of polity. We call it volatile political opportunity structure. Concretely, it is concentrated level of the power of polity (the head (Prime Minister or president) and political parties) and, for instance, a relation between the polity and the movement (hostility-friendship).

In political opportunity structure theory, it is assumed that these structures influence the occurrence of social movements. Moreover, the structures are characterized by the openness and closeness of political place for the social movement in each dimension. There are actually some discussions about the relation for the openness and closeness of political opportunity structure and the occurrence of social movements. In addition, about the influence of political opportunity structure, a common conclusion to all researchers has not been reached yet but in recent years, there are many researches supporting the openness of political opportunity structure as a generator of social movements in the advanced capitalist nations. Then, the following hypothesis is set in this report.

Hypothesis I-1. When the political opportunity structure is open, social movements frequently occur.
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(2)Relative deprivation theory

The relative deprivation theory is a theory that describes the occurrence of social movements by psychological factors. In this theory, social movements are assumed to occur by dissatisfaction that comes from the comparison between a fulfillment level of people's state and a standard desire level (level of aspiration), that is, the relative deprivation. In other words, it is assumed that the larger the difference between people's level of aspiration and the real fulfillment level is, the stronger their dissatisfaction, and so social movements occur frequently. For instance, Davis's J curve hypothesis (Davis 1962) is a hypothesis that social movement will happen frequently when economic and social development will rapidly retreat after the powerful development in a short term. In this case, the gap between the expectation (the level of aspiration), generated by a stable economic growth, and the reality of an economic crisis creates the dissatisfaction. In short, relative deprivation theory is a hypothesis that many social movements will happen when people's relative deprivation is strong.

Relative deprivation occurs by two mechanisms. That is, relative deprivation is caused by the comparison with a past self and with others. The above-mentioned J curve hypothesis is a comparison model with the past self. In the comparison research between nations, we examine relative deprivation hypothesis by a comparison model with others, because in the comparative research between nations relative deprivation at the same time must be examined. Then, this report will examine the comparison model with others. The following hypothesis is derived from the comparison model with others.

Hypothesis I-2.

When social inequality increases, the social movement happens easily.

(3)Resource mobilization theory

In resource mobilization theory, social movement organization is a unit of the analysis. Therefore, it is actually difficult to describe the amount of social movements in nations. However, a basic mechanism of the resource mobilization theory is applicable in the mechanism of social movement occurrence in nations. Then, this report verifies resource mobilization theory according to not a concrete resource of organization but a macro condition of the organization. In resource mobilization theory, resource is the key concept on the occurrence of social movements. In this theory, people are always assumed to feel dissatisfaction. Therefore, dissatisfaction is not an important cause to participate in social movement (occurrence of social movement), but whether the individual or organization has the resource is assumed to be the key determinant. The resource here indicates human network, academic background, time, money and special ability, etc. It is easy that the person (organization) who has these resources participates in social movement (organize social movement).

Hypothesis I-3.

In the society where there are many people who have resources, social movements will occur more frequently than in the society where there are a few people.

2.3. Hypothesis about a cycle of protest

In addition, this report examines the hypothesis concerning a cycle of protest. Chiefly two hypotheses have been examined for formation of a cycle of protest. The first hypothesis is that the change of political opportunity structure generates the increase and decrease of the social movement (Tarrow 1994). The second hypothesis is that another factor like diffusion generates the increase and decrease of the social movement (McAdam 1995). In the first hypothesis, the same mechanism works in the first half and the latter half of the cycle. In the second hypothesis, two different mechanisms work in the first term and the latter term of the cycle. To examine whether the influence

of the political opportunity structure, the relative deprivation theory, and the resource mobilization theory is different at the first term and the latter term of the protest cycle, the following hypothesis is set.

Hypothesis II.

The factors of social movement occurrence are different in the first period and the latter period of a cycle.

The fact that the factors are the same means the combination of factor and the influence pattern is same. On the other hand, the fact that the factors are the different means the combination of factors is different or the combination is same and the pattern of influence is different.

3. Data and variables

The data used in this analysis is the national data of Taylor and Jodice (1983) that many national comparative researches have used. This data is made from the analysis of newspaper articles. In 136 countries of the world, the number of political protests from 1948 to 1977 is included (see the Appendix for a raw data table).⁵⁾ Therefore, many countries can be analyzed in the time series using this data. This report analyzes the data of 16 advanced capitalist nations from this data. First, we will describe each variable used for the analysis.

(1) Social movement (political protest)... The number of social movement occurrence

There are six variables about social movement in the data set of Taylor and Jodice: protest demonstration, political strike, riot, armed attack, assassination, deaths from political violence. These variables can be divided into two factors (a moderate social movement (demonstration, strike, and riot) and strong social movements (dead by armed attack, assassination, deaths from political violence)) by principal component analysis in 136 countries. In this report, because I think moderate social movement is the main form of social movements in advanced capitalist nations, we analyze the moderate social movements. Moreover, to defuse the influence of the population size of each country, the number of moderate social movements for every 1,000,000 people is defined as a measurement scale of the social movement (dependent variable).

(2) Political opportunity structure

We examine two political opportunity structures previously described.

(2)-1. Institutional opportunity structure (neo-corporatism)

I adopt Neo-corporatism as a variable to measure institutional political opportunity structure. It is thus defined as a political structure that focuses on economic policy, cooperation organization between huge interest groups and government, and in which bureaucrats decide a substantial, definite policy. That is to say, the neo-corporatism nation is a nation in which the claiming channel to the government is being monopolized by a few interest groups. Therefore, we can interpret that the institutional opportunity structure is closed for a lot of citizens and social movement organizations in the neo-corporatism nations (Wallace and Jenkins 1995). We adopt the classification by Nollert (1995) about the level of the neo-corporatism of each nation (refer to the appendix).⁶⁾

(2)-2. Volatile political opportunity structure

I adopt party fractionalization in the assembly as an indicator of volatile political opportunity structure. This variable is the diversity in "the distribution of legislative seats following an election for the national legislature"(Taylor and Jodice 1983: 84).⁷⁾ In short, the higher this rate is, the more political parties compose the assembly. That is, the higher ratio means that the power the government party controls within the assembly is vulnerable, and the political situation is unstable. The unstable political situation implies that the polity cannot help accepting many demands of social movement. In other words, it is shown that the higher the party fractionalization is, the opener the

political opportunity structure is.

(3) Income inequality

The Gini coefficient of income between industries is adopted as an indicator that shows relative deprivation. The Gini coefficient is an index that measures the inequality degree of the income distribution. It is defined by the gap between complete equality and actual state.⁸⁾ An industry with low productivity has low average income and an industry with high productivity has high average income. The higher Gini coefficient is in the society, the more unequal the distribution of the income is. Therefore, we can argue that there are much more people with relative deprivation in the society of high Gini coefficient than in the society of low Gini coefficient. Moreover, in the society with many people who feel a relative deprivation social movements will occur frequently.

(4) Urbanization

When we amplify this mechanism to the whole society, social movement will more often occur in the society that has many resources than in the society that has a little resource. In addition, in the society where many people who have resource reside, social movements will frequently occur. Urbanization is one of the social conditions increasing people's resources.

Urbanization is adopted as a condition accounting for the level of access that social movement organizations have on various resources. Urbanization increases the number of specialists such as doctors and lawyer. Moreover, it increases the income of the citizens. Therefore, many people have the resource in the society where the level of urbanization is high, and the social movements frequently occur.⁹⁾ We define the level of urbanization as the population ratio of people who reside in the city of 100,000 people or more in each nation.

4. Analysis

First, if we examine the trend of social movements since the latter half of 1950 in 16 nations, we find that the occurrence of social movements has increased for the period of 1968-72 years (Figure 1). Moreover, the rate decreases after 1973. We can thus observe a protest cycle with a peak around 1970.

Next, the following is examined about the protest cycle. First, what is the factor of social movement occurrence during the first term and during the latter term of protest cycle? Second, is the occurrence factor different at both times? First of all, the truth tables of the movement occurrence at the first term of protest cycle (1963-67 years) and latter term (1973-77 years) are built respectively (Table 1 and Table 2). When we make the truth table, the following aspects are considered.

- (1) "Number of social movement occurrence" (dependent variable) is the total value of the five years for each period of time, and "Party fractionalization", "Income inequality", and "Urbanization" are the values for 1975 and 1965 (in a few countries, the values are for the year before and behind). Moreover, we assume that "Neo-corporatism" is a stable structure, and do not change through 1960's and 1970's. We adopt the classification of Nollert (1995).
- (2) The cutoff value of the dependent and the independent variables is assumed to be a median of the combined data of 1963-67 and 1973-77 years. There are two reasons why we adopted not the mean value but the median. First, there are some outliers (Ireland, United Kingdom). Second, we do not find a clear standard by which we decide 1 and 0.
- (3) When the cases conforming to some of the combinations of causes do not exhibit clear tendency toward presence or absence of the phenomenon of interest, the cutoff percent is assumed to be 50%. When the number of cases is equal, the value of the output value is assumed to be zero.
- (4) We code the cases where no social movements were observed as zero (the social movement is few).

In contradictory cases, there are several ways to approach these cases, and we choose the following way to approach this problem. That is, "if no clear tendency is apparent among the cases conforming to a certain causal combination, then the output should be coded conservatively"(Ragin

1987: 116).

Moreover, we used the following signs about each variable.

A ... Neo-corporatism

A: the degree of corporatism is low

a: the degree of corporatism is high

B ... Party fractionalization

B: large (instability)

b: small (stability)

C ... Income inequality

C: inequality is high

c: inequality is low

D... Urbanization

D: the level of urbanization is high

d: the level of urbanization is low.

Table.1 Truth Table (1963~67years)

Causal Condition				Number of Total Instances	Number of Instances of Social Movement	Output Code Social Movement
A	B	C	D			
0	0	0	0	0	-	-
0	0	0	1	0	-	-
0	0	1	0	0	-	-
0	0	1	1	3	1	0
0	1	0	0	0	-	-
0	1	0	1	3	1	0
0	1	1	0	3	1	0
0	1	1	1	0	-	-
1	0	0	0	0	-	-
1	0	0	1	3	3	1
1	0	1	0	1	1	1
1	0	1	1	1	1	1
1	1	0	0	0	-	-
1	1	0	1	0	-	-
1	1	1	0	2	0	0
1	1	1	1	0	-	-

(1) Analysis of 1963-67 years

At first, we will analyze the factor of the occurrence of social movements in 1963-67 years, and the result is the following.

$$R_1 = AbcD + AbCd + AbCD$$

$$= Ab(C+D)$$

Under the following sets of conditions many social movements occur. They show that the institutional opportunity structure is open and there is an absence of a volatile opportunity structure, and at the same time, relative deprivation is high or urbanization is high. In other words, social

movements occur when the partial opening of political opportunity structure combines with a relative deprivation or with high access to resource.

(2) Analysis of 1973-77 years

Next, 1973-77 years are analyzed.

$$R_2 = AbcD + AbCd + AbCD + ABCd$$

$$= Ab(C+D) + ABCd$$

This result means the following. Social movements frequently occur when partial opening political opportunity structure is combined with relative deprivation or urbanization, or when both political opportunity structures are opened and are combined with high relative deprivation or low urbanization.

Table2. Truth Table(1973~77years)

Causal Condition				Number of Total Instances	Number of Instances of Social Movement	Output Code Social Movement
A	B	C	D			
0	0	0	0	2	1	0
0	0	0	1	0	-	-
0	0	1	0	0	-	-
0	0	1	1	0	-	-
0	1	0	0	4	1	0
0	1	0	1	0	-	-
0	1	1	0	2	0	0
0	1	1	1	1	0	0
1	0	0	0	0	-	-
1	0	0	1	4	3	1
1	0	1	0	1	1	1
1	0	1	1	1	1	1
1	1	0	0	0	-	-
1	1	0	1	0	-	-
1	1	1	0	1	1	1
1	1	1	1	0	-	-

In addition, we can systematically examine the fitness between the prediction of each hypothesis and the actual data. By doing this, it is possible to identify subnations that conform to both the predictions of the hypothesis and the equation of data. This set is identified from the intersection of H (the hypothesis in Boolean terms) and R (the Boolean formula from the analysis of the observed cases). Each hypothesis is as follows in Boolean form.

- (1) Political opportunity structure theory H1=AB+Ab+aB
- (2) Relative deprivation theory H2=C
- (3) Resource mobilization theory H3=D

In the political opportunity structure theory, when either "Neo-corporatism" (A) or "Party fractionalization" (B) is present, social movements occur frequently. In the relative deprivation theory, when "Income inequality" is high (C), social movements occur frequently. Moreover, in the resource mobilization theory, social movements occur frequently when "Urbanization" is high (D).

The result of the intersections is shown in Table 3.

Table 3. Verification of three hypotheses

	1963~67years	1973~77years
Political opportunity structure theory	$(H_1)(R_1)=Ab(C+D)$	$(H_1)(R_2)=Ab+ABCd$
Relative deprivation theory	$(H_2)(R_1)=AbC$	$(H_2)(R_2)=AbC+ABCd$
Resource mobilization theory	$(H_3)(R_1)=AbD$	$(H_3)(R_2)=AbD$

From Table 3 the intersection of H and R is the subset of Boolean equation of each hypothesis. In other words, this result shows that one hypothesis completely does not describe the data but each hypothesis partially describe under certain sets of conditions. For instance, the intersection of Boolean equation of the relative deprivation theory of 1963-67 years and R_1 is AbC , it is shown that the relative deprivation theory fits the actual data when combined with conditions Ab . In short, social movements occur frequently when the relative deprivation is high (C) combined with the condition that political opportunity structure is partially open (Ab). In addition, we examine the fitness of each hypothesis and the actual data by similarly analyzing each hypothesis. We counted the number of nations that agreed with four cases. It is as follows with four cases.

Case 1[(H) (R)]: the hypothesis predicts that social movements occur frequently and actually social movements occur frequently.

Case 2[(H) (r)]: the hypothesis predicts that social movements occur frequently but actually social movements do not occur frequently.

Case 3[(h) (R)]: the hypothesis predicts that social movements do not occur so much but actually social movements occur frequently.

Case 4[(h) (r)]: the hypothesis predicts that social movements do not occur so much and actually social movements do not occur frequently.

Table 4 and Table 5 show the result. The value in brackets is the number of nations including the contradictory cases, which had been re-coded into "0". If the number of fits for each row is added, it naturally adds up to 16 nations.

Table 4. Fitness of three hypotheses (1963~67years)

	①(H)(R)	②(H)(r)	③(h)(R)	④(h)(r)	①+④
Political opportunity structure theory	5(8)	6	0	2	7(10)
Relative deprivation theory	2(4)	6	3(4)	2	4(6)
Resource mobilization theory	4(6)	4	1(2)	4	8(10)

Table 5. Fitness of three hypotheses (1973~77years)

	①(H)(R)	②(H)(r)	③(h)(R)	④(h)(r)	①+④
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Political opportunity structure theory	6(7)	7	0(1)	1	7(8)
Relative deprivation theory	3	3	3(4)	5	8
Resource mobilization theory	4	1(2)	2(4)	6	10

In Table 4 and Table 5, the number of nations of ①+④ shows the numbers of corresponding nations to the forecast of each hypothesis. From the number of ①+④, we can find out the fitness of hypotheses, and then the resource mobilization theory fits our data better than others do. However, if we compare the resource mobilization theory with other theories (hypotheses) for the number in ①, there is not much difference of fitness between hypotheses. The result indicates that these theories are incomplete. We will suggest that it is not important to find which theory describes this data best, but it is important to find which combination of theories describes it best. It seems to be natural to describe this result from the combination of theory. That is, when opening political opportunity structure combines with relative deprivation or resource, social movements occur. In another interpretation, relative deprivation and resource can influence the occurrence of social movements by opening political opportunity structure. Even if a nation has only high dissatisfaction or much resource without opening political opportunity structure, social movements do not occur because social movement is a political behavior.

Following this, the difference between the two periods in the cycle of protest is examined. We cannot find a big difference in the occurrence condition of 1963-67 years and 1973-77 years. The hypothesis about a cycle of protest (Hypothesis II) is as follows. That is, the factors of social movement occurrence are different in the first period and the latter period of a cycle. Then, it does not seem that hypothesis II suits this data. Particularly, 1973-77 years' analysis results are complex. In 1973-77 years', when both dimensions of the political opportunity structure are opened and relative deprivation is high, and resource is scarce (ABCd), social movements occur frequently. But, in this case, like in the results for 1963-67, it is when an opening in the political opportunity structure and a high relative deprivation are combined that social movements occur frequently. Therefore we cannot declare that the mechanism of the movement generation is different between the first period and latter period from this result.

5. Conclusion

In this report, to examine what factors generate social movements, we tested three theories: political opportunity structure theory, relative deprivation theory, and resource mobilization theory. First, the finding of this report is that each theory influenced the occurrence of social movements partially. In other words, an opening in the political opportunity structure is a necessary condition for the social movement occurrence but is not sufficient. When relative deprivation is high (C) or abundant resource (D) is combined, social movements occur frequently. Social movements do not occur if the political opportunity structure is not open even if the relative deprivation is high or the resources are abundant. Excluding Boolean algebra analysis, it will have been difficult to find the effect like interaction effect. Second, the factors of social movement occurrence are not so different at each period of the protest cycle. However, social movements have not been generated by exactly the same factors during the first period and the latter period.

Desire and opportunity trigger an act according to the rational choice theory (Elster, 1990). The results might suggest that social movements occur by the act mechanism that the rational choice theory assumes. A mobilization to social movement is caused when desire (relative deprivation) and opportunity (political opportunity structure and resource) are combined. In the earlier social movement researches, there were not a lot of researches that examined two or more theories at the same time.¹⁰⁾ Therefore, the relations between theories are not so often examined. Neither desire nor opportunity of social movement had been so examined together. In this analysis, social movements mechanisms have been described more inclusively by examining the desire (dissatisfaction) of people and the opportunity at the same time.

We hope to see some advances in the following researches in the future. When a social movement occurs, it is necessary to clarify what social conditions influence desire, resource, and chance. In this report, the political opportunity structure was defined as a variable that chiefly influenced the opportunity. Actually, it seems to be natural to think that the political opportunity structure influences desire (for example, dissatisfaction with a policy), resource (for example, subsidy from a government) and opportunity. Then, we should consider how a political variable, an economical variable, and a social variable influence potential participant's (social movement organization's) desire, resource, and opportunity. In addition, it is necessary to examine the combination at desire, resource, and chance more strictly.

【notes】

- 1) Both theories are related to a cultural research, for example, the Framing theory.
- 2) Many are researched for the verification of four theories. For instance, refer to Muller(1985), Boswell and Dixon(1990), and Boswell and Dixon(1993).
- 3) Watanabe (2000) analyzes the relation of social movement occurrence and political opportunity structure in the advanced capitalist nations by Boolean algebra analysis.
- 4) We omit world-system theory and the Marxism in this analysis.
- 5) Refer to Kurita (1994).
- 6) The reason to adopt the classification of Norart is as follows. First, many nations have been treated at the same time. Second, the research of Schmitter and Lehbruch who are the authority of the neo-corporatism research is followed. In the classification of Nollert, neo-corporatism is measured by the influential, concentration and monopoly level of interest group in the policy formation and the execution.
- 7) The party fractionalization in the assembly is defined by the following equation. N is the number of all seats and ni is the number of seats of political parties i.

$$F = 1 - \sum_{i=1}^n \left(\frac{n_i}{N} \right) \left(\frac{n_i - 1}{N - 1} \right)$$

- 8) The Gini coefficient is defined by the following expressions. Xi and Yi are accumulation percent, and n is the number of industries.

$$Gi = \left(\sum_{i=1}^n X_i Y_{i+1} \right) - \left(\sum_{i=1}^n X_{i+1} Y_i \right)$$

- 9) There can be a psychology influence about urbanization, for example, the mass society theory, too. Therefore, a strict verification of the resource mobilization theory only of urbanization is difficult. However, McAdam et al. (1995) describe that a structural, systematic influence is larger than a psychological one about the influence of urbanization. It is thought that urbanization is effective as the variable of the resource mobilization theory.

INCORPORERINCORPORER10) Exceptionally, Opp (1989) verifies two or more theories like the reasonable selection theory, the relative deprivation theory, and the resource mobilization theory of the analysis of the movement in an anti-nuclear power plant, etc.

【appendix】

Table A. Data of 16 nations

	CORP	1963~67years				1973~77years			
		FRACL	GINI	URBAN	PROT	FRACL	GINI	URBAN	PROT
ARI	0	0.535	16.7	38	2.8	0.551	7.9	31	10.6
BEL	0	0.725	7.7	43	17.5	0.740	2	28	6.1

DEN	0	0.752	4.4	39	2.2	0.818	5.2	27	13.9
FIN	0	0.803	16.6	19	0	0.819	11.4	23	4.3
GEW	0	0.582	9.7	48	17.5	0.569	8.2	35	7.1
JPN	0	0.586	23.1	47	3.1	0.666	16.9	58	1.5
NET	0	0.830	0.3	43	5.2	0.735	4.7	28	10.3
NOR	0	0.720	14.8	22	33.5	0.764	8	20	7.5
SWE	0	0.693	14.7	25	9.4	0.751	9.7	28	7.2
ARA	1	0.625	4.3	57	14.5	0.605	4.8	69	14.5
CAN	1	0.616	9.8	45	19.5	0.582	5.7	55	4.8
FRA	1	0.668	15.3	26	8.3	0.646	12.7	45	33.1
IRE	1	0.624	12	27	49.4	0.584	9.5	23	86.2
ITA	1	0.734	23.1	24	10.4	0.685	15.3	29	25.8
UNK	1	0.507	1.3	59	11.2	0.558	2.3	63	93.9
USA	1	0.491	3.1	62	73	0.494	1.7	72	14.8

ARI: Austria, BEL: Belgium, DEN: Denmark, FIN: Finland, GEW: West Germany, JPN: Japan, NET: Netherlands, NOR: Norway, SWE: Sweden, ARA: Australia, CAN: Canada, FRA: France, IRE: Ireland, ITA: Italy, UNK: United Kingdom, USA: United States of America

CORP: neo-corporatism, FRACL: party fractionalization in the assembly, GINI: Gini coefficient of income between industries, URBAN: Urbanization, PROT: The number of social movement occurrence per one million people
the source: Taylor & Jodice(1983), Nollert(1995)

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