

# The Relationship between Attitude and Activity Regarding Nuclear Disarmament in Japanese Adolescents

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Japanese adolescents' political indifference and the decrease in their social participation has repeatedly been reported in the 1980s. In order to find out determinants of their real political behavior, adolescents' socio-political attitudes were surveyed. We focused on the relationship between socio-political attitudes and real political activity regarding nuclear disarmament and peace movement issues by a questionnaire presented to 247 Japanese undergraduate students. The questionnaire consisted of SD Scales for the affective component, Belief Scales for the cognitive component, Activity Motivation Scales for the action tendency component, and Activity Experience Scales to measure the degree of involvement in the peace activity. Factor analysis and discriminant analysis were conducted. As predicted, a strong relationship between high motivation and frequent experience of participation in the collective peace movement was found. Cognitive attitudes toward the doctrine of nuclear deterrence were significantly correlated with peace activity. A contradictory relationship between active participation in the collective peace movement and the lower affective evaluation of peace activity was found. This can be explained because the active participants might have experienced a number of difficulties while participating the peace movement.

## Japanese political situation and the Japanese adolescent in the 1980s

This study intends to clarify Japanese university students' attitudes toward nuclear arms and the peace movement while examining the relationship between these attitudes and the real activities experienced by the

students.

Total disarmament of nuclear weapons is an urgent issue for all mankind. Nuclear weapons and human beings cannot co-exist, and the abolition of nuclear weapons is the most reliable means to prevent nuclear war. Japanese people have strong feelings against nuclear weapons because the Japanese have experi-

enced nuclear destruction twice. There are more than three hundred sixty thousand Hibakusha (nuclear survivors), including the second generation. Learning a lesson from those experiences, Japan was reborn as a country with a Peace Constitution which ensures the right to live in peace. Article 9 renounces the right of belligerency and prohibits the establishment of any military force. In addition, we now have a national policy of the three non-nuclear principles which prohibit the production, stockpiling, and introduction or transferring of nuclear weapons.

Contradictory to the choice of the direction of peace, the Japanese government has developed the Self Defense Force, which consumes the third largest military expenditure in the world. The Japan-US Security Treaty ensures the existence of 105 US military bases, including nuclear weapon facilities, on Japanese territory. Moreover, the Japanese government, has discouraged peace movements.

Under this complex political situation, the peace movement in Japan has several characteristics: (1)total nuclear disarmament has been one of the most important aims in Japan and has been accepted by most Japanese (more than 1/4 of total Japanese population, i.e. about 30,000,000, have signed an Appeal from Hiroshima and Nagasaki), (2)among various peace movements there are complex and serious conflicts and struggles based on their varied political backgrounds, (3)the student movement has taken an important role in the peace movement.

## Peace Studies in Japanese Adolescent Psychology

From the viewpoint of adolescent psychology, attitudes toward peace issues, especially nuclear arms and the peace movement, are important items in adolescents' acquisition of political autonomy. Akiba (1969) pointed out that the acquisition of political autonomy is an important developmental task for adolescents.

Akiba's (1969) attitude study was limited to the cognitive domain of political attitudes. Harada (1982, 1984) investigated Japanese adolescents' political attitudes by revealing the relationship between a cognitive component and an action tendency component, and found that these two components have a strong correlation. Although he developed a framework to explain adolescents' political activities, he himself did not examine their actual political activity. An attitude is, in its definition, a preparatory state for the real action; the relation between *attitude* and the real *action* must be studied.

The present study concerns this relationship in Japanese undergraduate students in the 1980s. Using a three component analysis of attitude by Krech *et al.* (1962), we developed a three component attitude scale toward issues of "nuclear arms" and "peace movements".

The purpose of the present study is to measure the three components of attitude of university students toward nuclear weapons and peace movements, to measure their actual

participation in peace related activities, and to examine the relationship between attitude and real experience.

## METHOD

Subjects were 247 (179 male, 68 female) Japanese undergraduate students, and the questionnaire was conducted in November, 1984.

The questionnaire consisted of the following three main parts:

### (1) Overall interest and evaluation of importance

Two items were prepared to measure overall interest and evaluation of importance assigned to peace issues (see Table 1).

### (2) Attitude Scales

Scales (2-1), (2-2), and (2-3) are measures for three components of attitude.

**(2-1) SD (Semantic Differential) scales:** To measure the affective component of attitudes toward peace issues (nuclear weapons and peace movement), there are eighteen pairs of adjectives for the two stimulus words: "nuclear weapons" and "peace movement". The eighteen items are shown in Fig. 1.

**(2-2) Belief scales:** To measure the cognitive component of nuclear weapon issues, there are ten question items on beliefs concerning the two issues. Items on each topic in the questionnaire are shown in Fig. 2 and Fig. 3.

**(2-3) Activity motivation scales:** To measure the action tendency component of a person's attitude toward the peace movement, an in-

ventory including eighteen items pertaining to the peace activities is used.

### (3) Activity Experience Scales

The same eighteen items as in the Activity Motivation Scale were rated according to the degree of involvement. This scale measures the real activity experience.

Items used in scales (2-3) and (3) are shown in Fig. 4.

## RESULTS

### Overall interest items

The results of overall interest and evaluation of importance of peace issues are shown in Table 1, where the numbers represent the percentage of students according to each rating category. Nearly 70% of the students are interested in peace issues and more than 78% of them regard peace issues as important to them. Those who are indifferent to the issue are less than 20% and those who evaluate peace issues as unimportant are as little as 10%. The majority of the students investigated are interested in peace issues and regard them as important issues, in spite of the misleading image of youth created by the mass media which characterize them as socially indifferent and politically conservative.

### Three components of attitude toward nuclear weapons and peace movement

#### Affective component of the attitude: the results from SD scales.

Fig. 1 shows the affective component of

attitudes toward nuclear arms and toward the peace movement according to the average rating score for each pair of adjectives. There are salient responses in most of the scales toward nuclear arms, especially in STUPID, BAD, UNEASY, UNPLEASANT, DANGEROUS, which are classified as the evaluative factor and in LARGE, STRONG which are classified as the dynamic factor. However, the responses toward the peace movement have no such salient tendencies except for the adjective GOOD.

Comparing the two issues in each pair of adjectives, the profile of nuclear weapons and that of the peace movement are often contrastive, *i.e.* divided on different sides by the center line in Fig. 1. Students generally hold an

anti-nuclear arms feeling and they also hold a pro-peace movement feeling, although the tendency toward support for the peace movement was somewhat less strong in the rating. The common feeling toward nuclear arms and the peace movement appeared as FAR, UNFAMILIAR, INACCESSIBLE, UNFRIENDLY, CLOSED, BIASED and TENSE.

Cognitive component of the attitude: the results from belief scales

Fig. 2 shows the cognitive component of the students' attitudes toward nuclear weapons by the average group profile, based on the ten items in the Belief Scale which asked the students their opinions. High scores on items 2, 3, 4, 8, and 10 indicate that students are aware of the negative effects of the use and existence

TABLE 1 Interest and evaluation on peace issues such as nuclear weapons and peace movement.

	1	2	3	4	5
Interest (%)	Not interested ←————→ Interested				
	2.8	15.8	12.1	57.5	11.7
Evaluation (%)	Not important <————> Important				
	2.4	8.5	10.9	45.7	32.4

Interest : How much interest do you have in the issues such as "nuclear weapons" and "peace movement" ?

Evaluation : How important do you think these issues for yourself?

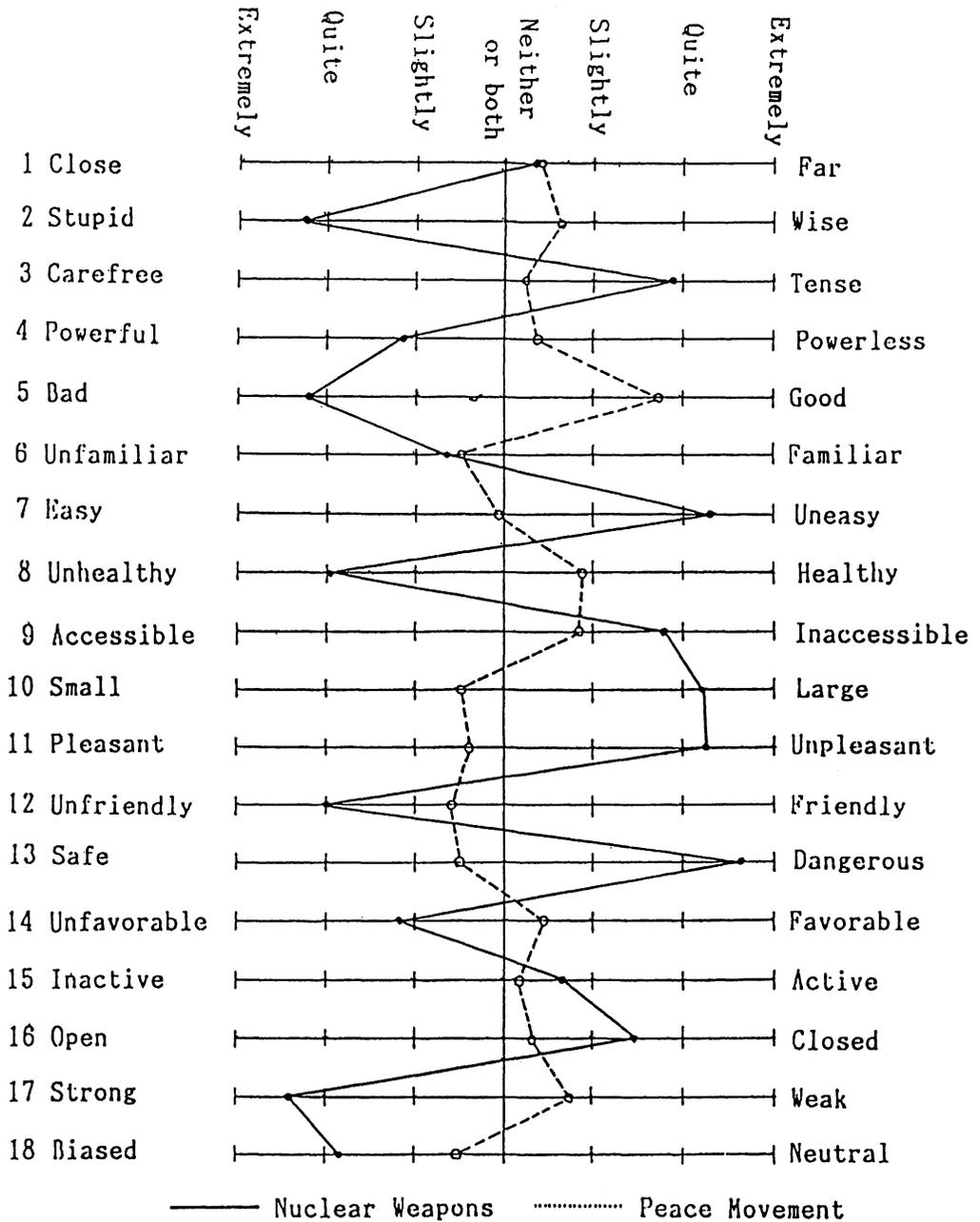


FIG.1 Affective component of attitude toward nuclear weapons and peace movement (SD Scale)

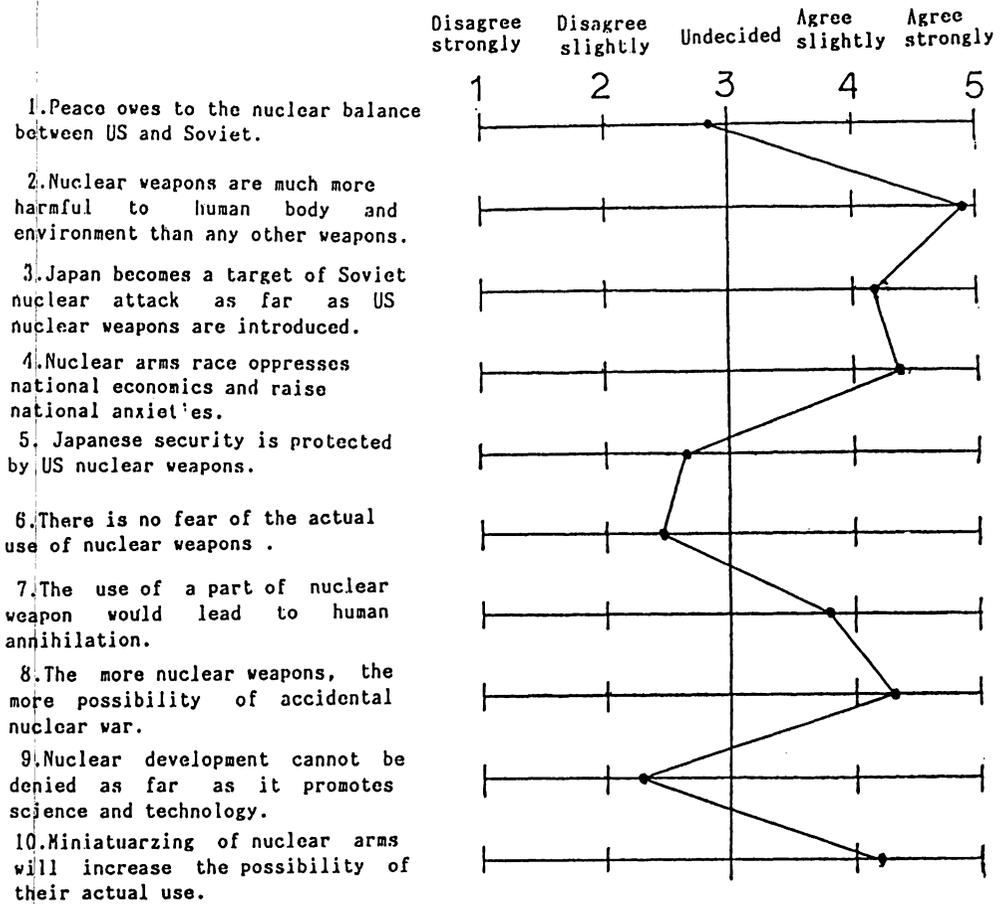


FIG.2 Cognitive component of attitude toward nuclear weapons (Belief Scale)

of nuclear weapons. Relatively low scores on items 1, 5, 6, and 9 show, in general, a negative belief against nuclear deterrence, and non-acceptance of nuclear arms development and maintenance. Our data indicates that students does not support the philosophy of nuclear deterrence and demonstrate a non-acceptance of a nuclear arms build up. There is a clear indication of the students' awareness of the dangers of nuclear weapons.

Fig. 3 shows the cognitive component of

attitudes toward the peace movement in the overall average group profile for ten items in Belief Scales. The results of the Belief Scale on the peace movement are not as strongly evident as that toward nuclear weapon shown in Fig. 2. Relatively positive responses were shown in items 7 and 8, which shows that the students regard the peace movement as a part of human rights. The importance of human rights has been taught in post-war education in Japan. In the other eight items, the cognitive

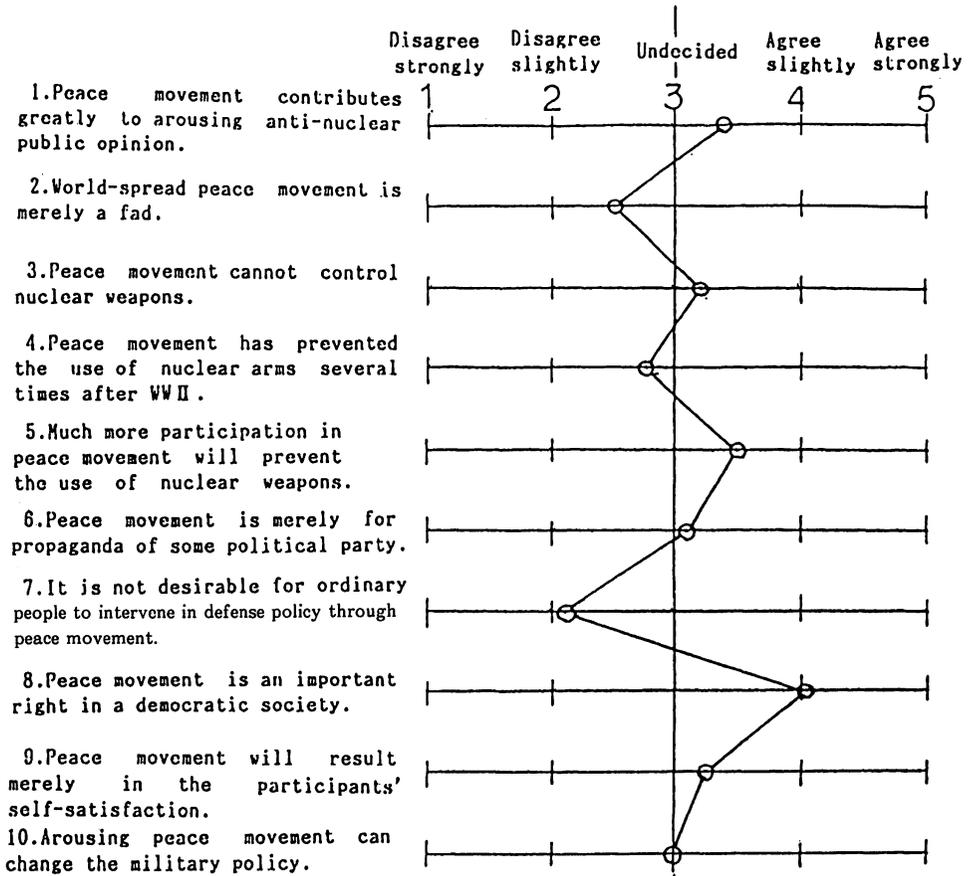


FIG.3 Cognitive component of attitude toward peace movement (Belief Scale)

component of attitude for the average profile is neither affirmative nor negative, but hovers around the center. The students admit the peace movement as an important human right, but its effectiveness is not well acknowledged. This may reflect a lack of information about the history and the role of the peace movement. The importance of the peace movement is not encouraged in Japanese formal education. The result may be also affected by the complexity of the Japanese peace movement.

#### Action tendency component of the attitude toward peace related activities

Fig. 4 shows the overall average profile of the action tendency component of attitudes toward peace related activities by 18 items of Activity Motivation Scale. This scale asked students' willingness or unwillingness to get involved in various kind of activities, including the issues of nuclear weapons and the peace movement. The items, in order of higher scores, 11, 10, 7, 15, are individual and infor-

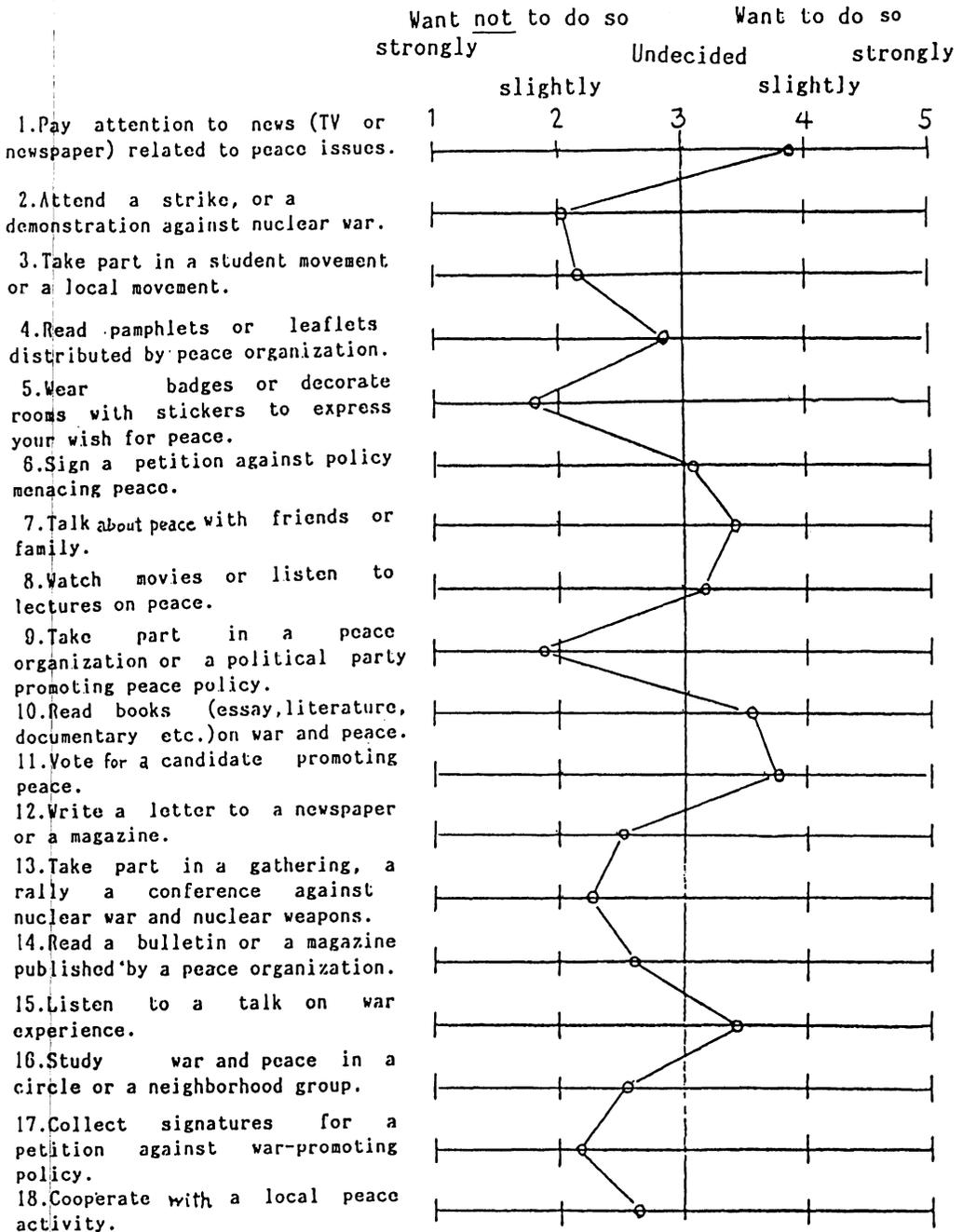


FIG. 4 Action tendency component of attitude toward peace related activities (Activity Motivation Scale)

TABLE 2 Actual experience of peace related activities. (%)

Items of experienced activity	Never	At least once	Several times	Continually
	1	2	3	4
1. Paid attention to news	5.7	11.7	65.6	17.0
2. Attended a strike or a demonstration	96.4	2.0	1.2	0.4
3. Took part in student movement etc.	95.1	2.4	2.0	0.8
4. Read pamphlets or leaflets	26.7	22.7	47.0	3.2
5. Wore peace badges etc.	96.0	1.2	1.6	1.2
6. Signed a petition	54.5	30.5	13.8	1.2
7. Talked about peace with friends etc	16.2	21.1	56.7	6.1
8. Watched movies; listened to lectures	48.8	26.0	23.2	2.0
9. Took part in a organization or a party	96.7	2.0	0	1.2
10. Read related books	16.3	20.3	58.1	5.3
11. Voted for a peace-promoting candidate	91.0	5.7	0.4	2.8
12. Wrote letter to newspaper etc.	98.8	0.8	0	0.4
13. Took part in a gathering, rally etc.	96.0	1.6	1.6	0.8
14. Read bulletin or magazine	67.8	19.6	10.6	2.0
15. Listened to talk on war experience	32.8	21.9	43.7	1.6
16. Studied in a circle or a group	87.0	5.3	6.5	1.2
17. Collected signatures for a petition	95.1	3.2	0.8	0.8
18. Cooperated with local peace activities	95.5	3.6	0.4	0.4

mation-acquiring activities, which are relatively easy to perform. On the other hand, the low volition score items such as 5, 9, 2, 3 and 13 are those activities which are collective and participatory.

The results reflect the tendency of students to have relatively high interest in acquiring information relating to peace, while having less volition or relative unwillingness

toward actual participation in the peace movement.

#### Measurement of actual experience in peace related activities

Table 2 shows actual experience of peace related activities by questioning the degree of involvement in each activity. The content of 18 activity items used here is identical to the

action tendency components of attitude shown in Fig. 4. The items 1, 4, 10, and 15 are highly (more than 60%) experienced items, while the items such as 2, 3, 5, 9, 11, 12, 13, 17, and 18 are experienced by less than 10% students. The low involvement in the item 11 is due to a non-controllable factor; many of the students were too young to vote. The other low participation items are either highly organized activities or activities requiring strong motivation.

Attitudes with a high rate of participation are mostly related to acquisition of information concerning peace issues, such as paying attention to the news, informal conversation, and listening to the war experience. In summary, the students experience Information-Learning Activities frequently, but less than 10% of them have participated in an organized consciousness-requiring activity.

### The relationship between the components of attitude and the actual experience

#### Factor analysis of three attitude components

For preparation of discriminant analysis to reveal the relationship between the three components of attitudes and actual experience, a factor analysis was done on each of the attitude components toward nuclear weapons and the peace movement in order to confirm their linearity. Varimax rotation was used to extract factors from non-linear scales.

SD scales of the affective component were linear for both of the issues *i.e.* "nuclear weapons" and "peace movement". The factors were

named *Hatred of Nuclear Weapons* and *Friendly Feeling for Peace Movement*.

Varimax rotation was used for the belief scales of the cognitive component and three factors extracted respectively for each of the two issues. For the issue of the nuclear weapons, we found F1 as the factor of *Belief in Nuclear Deterrence*, F2 as the factor of *Belief in Possible Occurrence of Nuclear War*, and F3 as *Recognition of Effect of Nuclear Weapons*. For the peace movement issues, we call F1 as the factor of *Belief in Power of Peace Movement*, F2 as the factor of *Biased Recognition of Peace Movement*, and F3 as the factor of *Recognition of Peace Movement as Democratic Right*.

By using Varimax rotation, two factors were extracted from the Activity Motivation Scale of the action tendency components: F1 as the factor of *Collective-Commitment Volition* and F2 as the factor of *Individual-Learning Volition*.

#### Grouping of the students by their degree of actual experience

According to the answers to the Actual Experience Scale, students were categorized into either the Active Group or Non-Active Group in Collective-Commitment Experience and in Individual-Learning Experience respectively. The Active Group members in Collective-Commitment Experience consisted of students who answered "several times" or "continually" two or more times among the items 2, 3, 5, 6, 9, 13, 16, 17, 18 in Table 2. The Active Group members in Individual-Learning Experience were those who answered "several

times" or "continually" two or more times among the items of 1, 7, 8, 11, 15 in Table 2. The Non-Active Group in each domain was the rest of the Active Group.

There were 19 students in the Active Group and 228 students in the Non-Active Group in Collective-Commitment Experience domain. There were 195 students in the Active Group and 52 students in the Non-Active Group in Individual-Learning Experience domain.

#### The relationship between the attitude components and the actual experience

In order to clarify the relationship between attitudes and actual activity, a discriminant analysis was done by using SPSS for each of the attitude factors to predict the two experience groups *i.e.* Active or Non-Active. The summary of statistically significant discriminant function coefficients is provided in Fig. 5.

In relation to Collective-Commitment Experience, Collective-Commitment Volition (action tendency component) is the strongest predictor, Friendly Feeling for Peace Movement (affective component) the second strongest, Belief in Nuclear Deterrence (cognitive component) the third, and Hatred of Nuclear Weapons (affective component) the fourth. In relation to Individual-Learning Experience, Individual-Learning Volition (action tendency component) is the strongest predictor, Belief in Possible Occurrence of Nuclear War (cognitive component) is the second strongest.

Among the three components of attitudes,

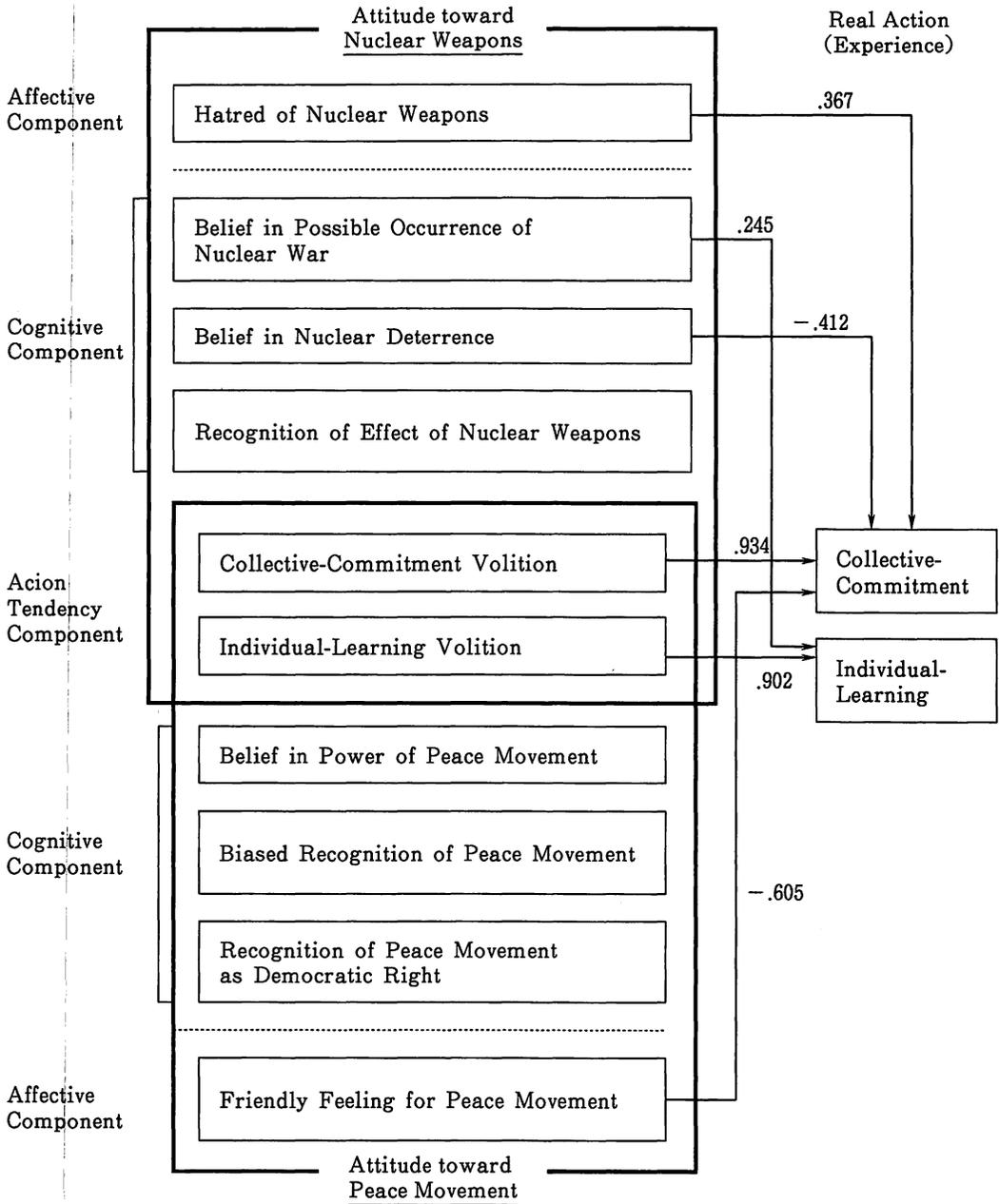
the action tendency component had the highest discriminant function coefficient. Affective component factors have a significant relationship to Collective-Commitment Experience, but not to Individual-Learning Experience.

The factor of Hatred of Nuclear Weapons relates to Collective-Commitment Experience positively, but, interestingly, the factor of Friendly Feeling for the Peace Movement has a negative relationship to the Collective-Commitment Experience.

Cognitive component factors toward nuclear weapons work as predictors not only to Collective-Commitment Experience but also to Individual-Learning Experience. Belief in Nuclear Deterrence is the significant blocking factor to Collective-Commitment Experience. Belief in Possible Occurrence of Nuclear War is the promoting factor to Individual-Learning Experience.

## DISCUSSION

In spite of image of Japanese students formed by the mass media which claims that students are socially indifferent and politically conservative, the result of the overall interest scales shows that the students are concerned about peace issues seriously. According to the results of the activity experience scales, Information-Learning activities such as paying attention to news or talking about peace with friends are commonly experienced by the students. However, more than 90% students



\* Factors used in discriminant analysis are shown in boxes  
 \*\* numbers are discriminant function coefficients

Fig. 5 Prediction of Real Action by Attitude (Results of Discriminant Analysis)

had never experienced a Collective-Commitment Experience such as participating in a rally or collecting signatures for peace.

The students have strong negative feeling against nuclear weapons. The harmful effect of nuclear weapons to human beings and society is widely acknowledged. Affirmative opinion for nuclear deterrence is not as strong as that of the students in the United States (Asahi Shinbun 1988). Most of the students believe that the introduction of nuclear arms to Japan will make Japan a potential target of Soviet nuclear attack.

Japanese students think the peace movement is an important part of human rights assured by the Japanese Constitution, but their affectional attitude toward peace movement is not necessarily positive; some of them believe in the effectiveness of the peace movement, while others do not.

The belief in nuclear deterrence seems to prevent the students from engaging in peace activity. Asahi Shinbun (1988) showed that Japanese students (33%) believe in nuclear deterrence less than students in West Germany (66%), US (60%), Korea (48%). There are criticisms against the deterrence theory in the perspective of behavior analysis (Nevin, 1988), of Carl Rogers' counseling theory, and of social psychology, etc. Further studies on the mechanism of acquisition of the belief concerning nuclear deterrence must be conducted.

There was a contradictory relationship between Friendly Feeling for Peace Movement in affective attitude and the Collective-

Commitment Experience in the actual activities. Those who participated in peace activities tend to have negative feelings toward the peace movement. One possible explanation is the complexity and conflict among the various peace organizations and groups in relation to the political confrontation among the political parties in the 1980s. Those students who responded with negative feeling towards the peace movement might have experienced a number of difficulties while participating in the peace movement and have avoided being viewed as associated with left-wing stances and organizations. Those students who had very low scores in the items of Friendly Feeling for Peace Movement often answered affirmatively in the cognitive attitude item, "Peace movement is merely for propaganda of some political party". This kind of response is an example of political cynicism. Although this study has not yet analyzed the relationship among the three attitude components, the cross-item analysis showed the effect of this kind of cynicism regarding the political situation involvement in peace activity.

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