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Strong, Quasi and Weak conformity Among Japanese in the Modified Asch Procedure

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Strong, Quasi and Weak conformity

Among Japanese in the Modified Asch Procedure

The present study was conducted to shed light on the cross-cultural discrepancies previously reported about the Japanese conformity behavior in the Asch type situation. By virtue of the controlled group cohesiveness and the stringent definition of conformity, we were able to confirm the contextual effect of the general collectivity orientation facilitating conformity, whereas the reverse was believed to hold in the past. Moreover, the effect of group cohesiveness was found to vary depending on the schedule of information feedback and judgment revision. Our hypothesis about the effects of group cohesiveness and "amae" motive was supported when the chances for both social comparisons and reevaluation were deprived in the noncritical trials.

Table 1

Conformity Shifts Reported in the Selected Studies

Study	Condition	Average shifts per subject	Proprotion of shifts in total reponses
Asch (1951)	standard	3.84	32.0(%)
Asch (1956)	standard	4.41	36.7
Deutsch &	standard	3.00	30.0
Gerard (1955)	standard[a]	2.77	23.1
	group incentive[a]	5.60	46.7
	in private[b]	.92	7.7
	in private[a,b]	.64	5.3
Frager (1970)	standard	2.50	50.0
	group incentive	3.53	70.6
Sako (1975)	standard	2.18	18.2
	group incentive	2.00	16.7
	in private[b]	1.04	8.7

Note. the number of critical trials were 12 in all studies except for Frager's which used 5 trials.

a) Responses were made in the non-face-to-face situation.

b) Initial judgments were written on sheets of paper in private.

hand, to either assert or disclaim the contextual effect of the collectivity norms and, on the other, to accept Deutsch and Gerard's claims concerning the effect of group incentives.

Additional threat to the theory of conformity stemming from Sako's analysis is a relative ineffectiveness of a treatment which led to a sizable reduction in conformity errors in America: contrary to Deutsch and Gerard's explanations, writing down initial judgments in private did not motivate the Japanese subjects to maintain their own decisions. Their final judgments still shifted toward the majority, thought not greatly.

Group coherence.

The inconsistencies in the past researches seem attributable to a) the cultural differences in the individual's readiness to interact with others in transient relationships as a significant reference group, and, relatedly, b) failure to effectively control its degree in the experimental settings. More specifically, indifference which characterizes the Japanese behavior in the transient 'soto' relations (Doi, 1973, chap. 2) promotes independent judgments and, as a result, helps the subject bypass what Ross, Bierbrauer and Hoff (1976) called the attribution crisis. Informed of obviously incorrect choice by the majority, they maintain, the subjects inevitably encounter with the problems of accounting for the causes and consequences of judgment discrepancies. Although their interpretations appear viable in light of the accumulted evidence (see Mann, 1980), it certainly needs due modification to explain the Japanese behavior in the conformity experiments. We suggest here to alter it conditional upon the significance of the social nexuses, 'uchi,' 'seken' and 'soto,' pointed out by Inoue (1977). The significance of others to an individual decreases in this order as the reference group.

Strong, Quasi and Weak conformity
Among Japanese in the Modified Asch Procedure

Asch's (1951, 1956) classical experiments on conformity clearly demonstrated the susceptible nature of human judgments in a group setting: faced with unanimous but objectively incorrect opinions of the rest of the group members, the critical subject yielded to the majority in approximately one out of three trials on the average. Despite the absence of explicit pressure, most subjects thus valued social reality over the physical one even in the simple perceptual tasks. Interestingly, when they were not asked to announce their judgments before the group, the error rate decreased by two-thirds. The effect of anonymity in this form was confirmed by Deutsch and Gerard (1955) who also found that awarding the performance on the group basis facilitated conformity. These results indicate the flexibility of the subject's strategy for solving cognitive conflicts to avoid negative sanction or to receive positive appraisal by the group (Gerard & Conolley, 1972; Ross, Bierbrauer & Hoffman, 1976). Whichever motive is operative, the final judgment reflects the subject's commitment to the group's standard. Then, to the extent that cultural norms regulating individual's behavior in collectivity exert influence in the experimental settings as well, we may expect greater conformity in a society where collectivity orientation is generally emphasized.

This expectation led Frager (1970) to conduct a comparative study in Japan, assuming that the strong norm of group coherence (e.g., Benedict, 1946) would lead Japanese subjects to exhibit substantial circumspective behavior as compared with American subjects. But, when the Deutsch and Gerard's design was applied to Japanese college students, the results, as

reported by himself, sharply contradicted his predictions in three respects: first, the average number of conformity errors was less than those of both Asch's and Deutsch and Gerard's; second, the group-prize incentive had only a minor facilitatory effect as compared to the Deutsch and Gerard's experiment; and, finally, over one-third of the subjects made anticonformity errors despite the unanimous correct response of the majority. His "findings," however, must be critically evaluated for the reasons explained below.

Insert Table 1 about here

First of all, in comparing his results with those of the past studies, Frager did not correct them for the difference in the number of critical trials: he used only 5 critical trials, while in both Asch's (1951, 1956) and Duetch and Gerard's (1955) works there were 12 of them. According to the adjusted results shown in Table 1, the proportion of conformity shifts among the Japanese is 1.36 to 1.67 times as large as the American subjects'. The same holds for the effect of group incentive. Although the results cannot be directly compared due to the difference in the other conditions, the incentive increased the propotion to 70.6 percent in Japan but only to 46.7 percent in America. These facts were unnoticed in the past (e. g., Mann, 1980)

Secondly, but no less importantly, Frager's first two "findings" were confirmed 15 years later in a relatively unknown work of Sako (1975). To be more accurate, the group-prize incentive had a small but negative effect on conformity. (He reported no incidence of anticonformity.) The contradictory results of the two studies make it impossible, on the one

Our argument is consistent with Kinoshita's (1964) finding of the extraneous influence of the social ties among group members on the value judgments. She observed that the intimate 'uchi' relations facilitated conformity as compared with the 'soto' groups. Hence, collectivity orientation or devotion which Frager believed to be the general norm pertain to the 'uchi' relations. Here arises some complication, however, as to the intensity of conformity within the 'uchi' group due to the confounding factor of another norm knwon as 'amae' or dependence (Doi, 1973): 'amae' allows a certain degree of deviance, resulting in possible attenuation of the drive for conformity.

In the present context, suffice it to say, first, that in the 'uchi' relations both collectivity devotion and 'amae' operate concomitantly in forming a judgment in light of the group's standard, whereas such a comparison is unimportant in the 'seken' relations. Secondly, for an individual placed in the nexus of 'seken', information comparison is also an integral part of his behavior, but with little room for 'amae.' As a concequence, argues Inoue (1977) in line with Doi (1973), it is in this context where circumspective behavior is most pronounced. Accordingly, we hypothesize that conformity is most prominant in the "seken" relations followed by "uchi" and "soto." Judging from the relative levels of conformity, it seems likely that the "seken" or "uchi" relations were predominant in the Frager's study and "soto" in Sako's. However, the lack of control on the mutual relationships among their subjects prevents us from drawing any firm conclusion.

The purpose of the present study is to test the generality of the group effects found in the value judgment by Kinoshita (1964) to the

simple visual tasks of the Asch type. Besides the additional group coherence condition, we will introduce the following factor which seems of interest to students of the social comparison theory.

Information feedback.

A major weakness of Inoue (1977) and Doi's (1973) work is in their deterministic view about the social comparisons within a given nexus. In this regard, Takata's (1974) work provides a remedy, pointing out the contingency of the behavior on the certainty of own judgments (see also Takata & Hayashi, 1981). Supplementing Festinger's theory (1954), he demonstrated that individuals would try to make comparisons with others not only when they were left uncertain, but also when assured about the correctness of their judgments. Unfortunately, his experiments were not designed to investigate the consequence of such information search in terms of conformity.

Provided that Takata's findings from audio perception tasks apply to the visual perception experiments of the Asch type, it will be of interest to study how judgments will be affected if information search is suppressed by the experimenter. We assume, after Takata, that self-enhancement motive (Latané, 1966) underlies social comparisons in the Asch type experiments, where objectively correct choice is evident, and, that attribution crisis (Ross, Bierbrauer & Hoff, 1976) results, if the motive is not fulfilled. Then, to the extent that conformity to the group is a practical solution of the crisis, we may expect the hypothezised effect of group cohesiveness to become salient by the occasional suppresion of social comparisons. The present experiment is designed to examine this expectation as well.

Measure of conformity.

The present study differs from the previous ones in the measure of conformity in order to quantify judgment shifts rather than mere agreement with the spurious majority. This can be done by asking subjects to express the likelihood of correctness of each comparison figure instead of requiring them to choose a single alternative. The difference of the likelihood evaluation before and after the feedback of group's information reveals the shift resulting from the social comparison. The procedure thus enables us to discern three types of conformity: strong, quasi and weak conformity.

For convenience of exposition, let us refer to the incorrect choice by the spurious majority as the spurious choice. Strong conformity is, then, defined as assignment of the highest likelihood to the spurious choice by a critical subject. This appears akin to the conventional notion of conformity. However, we are more restrictive in the sense that the subject must have made a correct choice in the initial evaluation, while this has been only assumed by many researchers. Quasi conformity occurs when a subject judges both the correct and spurious choices equaly likely. Finally, weak conformity is the judgment shift in the manipulated direction but to a lesser extent than strong and quasi conformity. As is clear in these explanations, quasi and weak conformity cannot be measured by the conventional designs.

METHOD

Subjects.

The subjects were female students enrolled in an introductory psychology course at the University of Tsukuba. Among them 84 students were selected for the experiment and divided into groups of size four on the basis of sociometric choice. To each of the three cohesiveness conditions (i.e., 'uchi,''soto' and 'seken'), 7 groups were assigned.

The most cohesive 'uchi' groups consisted of mutually selected members, while there was no uni- or bilateral choice within 'soto' and 'seken' groups. To create moderate cohesiveness in the 'soto' groups, members were asked to make some in-depth self-presentation before their groups. They were also instructed that they would work together in the subsequent experiment. The 'seken' groups did not receive any such instructions prior to the experiment.

Apparatus.

The subjects were seated before display terminals of a mini-computer, Data General's NOVA 4. They were separated by partitions so that they could not see responses of each other. The stimuli (standard and comparison figures) were projected on a central screen. Presentation of stumili, feedback of group's information and response recording were all controlled by the computer.

Stimuli.

Two kinds of stimuli were prepared for comparisons of line length and areas. In every trial, a standard figure, shown on the left-half of the screen, was paired with three comparison figures on the other half. In disguise of a perception test, some background lines (or circles) were superimposed in dark colors on the screen like the Ponzo illusion figures.

Procedure.

The task in the basic procedure was to evaluate three comparison figures in terms of their likelihood of being equal to the standard. The subjects entered the likelihood scores by integers ranging from 0 to 5 at the terminals. After all four members of the group finished evaluation, the group's average likelihood for each comparison figure was shown on the terminal. Then, the subjects were asked to make evaluation for the second time.

Comparisons of line length in the first 9 trials were followed by 8 area comparisons. the first trial in each series of comparison was a practice trial to familiarize the subjects with the equipments and the task. Of the total 17 trials, trials 4, 6, 12 and 17 were critical trials in which the feedback information was manipulated. For example, line A in a critical trial equals the standard line in length. Hence, its likelihood should be the greatest. However, in the feedback information, the likelihood for line B was manipulated to be greater than the other two: .21, .72 and .07 for lines A, B and C, respectively. The information of the group's average in the noncritical trials was computed a priori from our pilot study.

Crossed with the cohesiveness condition was the schedule of information feedback and evaluation. Three schedules were designed: Intermittent I, Intermittent II and Constant. The constant schedule strictly followed the basic procedure explained above throughout the experiment. Under both intermittent schedules, the second evaluation was suppressed in the noncritical trials. The difference between the two schedules was the absence (I) and presence (II) of the feedback of the group's average in these

trials. The critical trials, however, were run according to the basic procedure under all schedules. By virtue of the above procedure, anonimity of judgements will be guaranteed. Hence, we may use as a bench mark the result of Deutsch and Gerard's (1955) obtained from the equivalent condition in which the initial judgments were privately recorded in the non-face-to-face situation, i.e., 5.3%.

Conformity.

Conformity was defined as a judgment shift in the manipulated direction. Let A_1 and B_1 denote the initial likelihood assigned by a subject to figures A and B. Similarly, let A_2 and B_2 denote the likelihood in the second evaluation. In order to infer conformity, the initial likelihood B_1 must not be greater than A_1. Also, the ratio of B_2 to A_2 must be greater than that of B_1 to A_1. That is,

$B_1 \leq A_1$; and,

$B_2 / A_2 > B_1 / A_1$.

We then let $\underline{R}$ denote the ratio of B_2 to A_2 and distinguish strong, quasi and weak conformity depending on its valus as;

strong conformity, if $\underline{R} > 1$;

quasi conformity, if $\underline{R} = 1$; and,

weak conformity, if $\underline{R} < 1$.

Statistical analysis.

For the analysis of group and schedule effects on the frequencies of conformity and nonconformity shifts, log-linear models will be used. The definition of effects in log-linear analysis is similar to that of analysis of variance (Bishop, Fienberg & Holland, 1975). Let $\underline{G}$, $\underline{S}$ and $\underline{C}$ denote the variables for group, schedule and conformity shifts (strong,

quasi and weak conformity as well as nonconformity), respectively. The categories of the variables will be indexed by i, j and k (i=1, 2, 3; j=1, 2, 3; and, k=1, 2, 3, 4).

Let m_{ijk} denote the expected frequency in the ijkth cell of the three-way table. For instance the effect of Group 1 is defined as;

$$u_1^G = 1/12 \left(\sum\sum\sum \log m_{1jk} / m_{ijk}\right) - u,$$

where u is the grand mean of the table, i.e.,

$$u = 1/36 \sum\sum\sum \log m_{ijk} .$$

Similarly, the effect of Schedule 1 is.

$$u_1^S = 1/12 \left(\sum\sum\sum \log m_{i1k} / m_{ijk}\right) - u.$$

The interactions between Group i and Conformity k and between Schedule j and Conformity k are, respectively,

$$u_{ik}^{GC} = 1/3 \sum\sum\sum \log m_{ijk} - (u_i^G + u_k^C) + u . \qquad (1)$$

$$u_{jk}^{SC} = 1/3 \sum\sum\sum \log m_{ijk} - (u_j^S + u_k^C) + u . \qquad (2)$$

Our first model to serve as the baseline model is [G][S] which assumes no difference in the conformity (or nonconformity) shifts due to the group and schedule conditions. In other word, the model asserts interactions u^{GC} and u^{SC} are nil for all ik and jk. Additionally, no difference is assumed among the three types of conformity and nonconformity. Models that we are truely interested include the interactions as follows;

[GC][S], [G][SC] and [GC][SC].

A viable competing model assumes all the main effects but no interactions at all, i.e., [G][S][C].

As is clear in the preceding explanations, log-linear analysis tests interactions among the variables globally over the entire table. Hence, even when the three interaction models fail to fit the data well, it is

still possible that some local interactions are nonnegligible in size. The tests of local interactions can be done by odds ratios, or log odds ratios (Goodman, 1969).

Since we are concerned with the odds of conformity shifts (k=1, 2, 3) against nonconformity (k=4), the odds can be computed by

$$m_{ijk} \; / \; m_{ij4} \; .$$

To examine the difference of the odds, for example between Group 1 and 2 under shedule 1, we take the ratio of the corresponding odds as follows,

$$(m_{11k} \; / \; m_{114}) \; / \; (m_{21k} \; / \; m_{214}).$$

Actually the interactions (1) and (2) are the averages of the log odds ratios pertaining to the reference categories. To illustrate the point, we specify interaction (1) with nonconformity (k=4) of Group 1 as the reference category.

$$u_{14}^{GC} = 1/36 \sum\sum\sum \log \; (m_{1jk}/m_{1jk}) \; / \; (m_{ijk}/m_{ij4})$$

Model selection criteria.

In the absence of a single standard criterion in log-linear analysis, use of multiple criteria is recommended (e.g., Bishop, Fienberg & Holland, 1975, chap. 4). From our past experiences, we will employ the significance level (p), the ratio of likelihood chi-square (LR^2) to the degrees of freedom (df) and reduction in chi-square over the baseline model (RC). The following criteria seem reasonable;

$$.100 < p < .600, \; .800 < LR^2/df < 1.20 \text{ and } RC > 85.0\%.$$

RESULTS

Shown in Table 2 are the average frequencies of strong, quasi and weak conformity (as well as nonconformity) by Group and Schedule. The average number of strong conformity shifts per subject is less than one under all conditions except for Group 2 in Schedule 1 (1.13) and Group 3 in Schedule 3 (1.17). Of the three kinds of conformity shifts, quasi conformity was least frequently observed whithin the same schedule conditions. Only exception was observed between quasi (.33) and weak (.25) conformity for Group 3 in Schedule 3. The frequencies of weak conformity were low with the maximum of 1.00 (Group 2 and Schedule 1). However, it is not mean that weak conformity occurred less frequently than strong one across all conditions like the case of quasi conformity. The usual ANOVA was not performed to test the differences of the averages on account of the highly significant heteroscedasticity ($p < .001$). The interaction of the effects can be inferred from analyses of log-linear models and the related odds ratios the results of which will be explained shortly.

Insert Tables 2 and 3 about here

For the comparative purposes the average frequencies were adjusted for the number of critical trials to obtain the proportion of conformity shifts to the total number of responses. The cumulative proportion is shown in Table 3. (See also Table 1.) Even the smallest proportion of strong conformity recorded by Group 1 in Schedule 3 (8.3%) exceeds the bench mark of 5.3% adopted from Deutsch and Gerard's result (1955) in the non-face-to-face, private situation. The highest proportion within each

Table 2

Average Frequencies of Strong(S), Quasi(Q), Weak(W) and Non(N)-Conformity Shifts by Group x Schedule

Conformity	S			Q			W			N		
Schedule	1	2	3	1	2	3	1	2	3	1	2	3
Group 1	.50	.75	.33	.13	.50	.33	.38	.63	.50	3.00	2.13	2.83
	(4)	(6)	(4)	(1)	(4)	(4)	(3)	(5)	(6)	(24)	(17)	(34)
Group 2	1.13	.63	.50	.25	.13	.25	1.00	.88	.58	1.63	2.38	4.00
	(9)	(5)	(6)	(2)	(1)	(3)	(8)	(7)	(7)	(13)	(19)	(32)
Group 3	.38	.50	1.17	.38	.38	.33	.75	.88	.25	2.50	2.25	2.25
	(3)	(4)	(14)	(3)	(3)	(4)	(6)	(7)	(3)	(20)	(18)	(27)

Note. The frequencies are shown in the parentheses. The number of subjects assigned to each group was 8, 8 and 12 under Schedules 1, 2 and 3, respectively.

Table 3

Proportion of Conformity to the Total Number of Responses

Conformity	S			S & Q Combined			S, Q & W Combined		
Schedule	1	2	3	1	2	3	1	2	3
(T)	(32)	(32)	(48)	(32)	(32)	(48)	(32)	(32)	(48)
Group 1	12.5	18.8	8.3	15.6	31.3	16.7	25.0	46.9	29.2
Group 2	28.1	15.6	12.5	34.4	18.8	18.8	59.4	40.6	33.3
Group 3	9.4	12.5	29.2	18.8	21.9	37.5	37.5	43.8	43.8

Note. (T) is the number of total responses within each group condition.

schedule is greater than the Sako's result of the standard standard procedure (18.2%); 28.1% (Group 2 in Schedule 1), 18.8% (Group 1 in Schedule 2) and 29.2% (Group 3 in Schedule 1). Except that of Schedule 2, the levels are higher than the Deutsch and Gerard's observation (23.1%) in the standard but non-face-to-face procedure. The overall proportion of strong conformity, across all conditions, is 16.4% approximately equal to the Sako's result (16.7%) when group incentive was used.

Our hypothesis concerning the group effect is consistent with the data only in Schedule 1: the proportion of strong conformity decreased in order of Groups 2 (28.1%), 1 (12.5%) and 3 (9.4%). Different order of the effect can be found in the other schedules. The respective order is Groups 1 (18.8%), 2 (15.6%) and 3 (12.5%) in Schedule 2, and, Groups 3 (29.2%), 2 (12.5%) and 1 (8.3%) in Schedule 3.

The cumulative proportion of strong and quasi conformity informs the extent of the hypothetical conformity in the conventional sense on the following assumption: the subjects would have conceded to the group's average had they been required to select a single alternative. The performance of Group 2 in Schedule 1 (34.4%), Group 1 in Schedule 2 (31.3%) and Group 3 in Schedule 3 (37.5%) are comparable in size to those resulted from the standard procedures in Asch's (1951, 1956) and Deutsch and Gerard's (1955) works.

Our hypothesis is no longer congruent with the data under any schedule as long as the order of two kinds of cumulative proportion (S + Q and S + Q + W) is concerned. Nevertheless, in Schedule 1 Group 2 remains to be the most powerful condition in inducing conformity when strong and quasi conformity are combined (34.4%) and, also, when three conformity types are combined (59.4%). The same holds for Group 1 in Schedule 2

types are combined (59.4%). The same holds for Group 1 in Schedule 2 (31.3%, 46.9%) and Group 3 in Schedule 3 (37.5%, 43.8%).

As to the proportion of the total conformity shifts (in which strong, quasi and weak conformity are combined together), the subjects changed their judgments at least one out of four trials (Group 1 in Schedule 1) in the manipulated direction but no more than 60 percent of the time. On the average, across all conditions, 39.3 percent of the responses were under the influence of the information about the group.

Shown in Table 4 are the fit of the log-linear models to the frequencies (S, Q, W and N) in Table 1. when the differences of judgment shifts are ignored in the baseline model [G][S], the fit is poor; $\underline{LR}^2$ (31) = 232.253, $\underline{p}$ = .000. The models that include the interaction effects of Group, [GS][C], and Schedule, [G][SC], on the responses substantially improve the fit by approximately 90% with $\underline{LR}^2$ (22) = 21.546, $\underline{p}$ = .487 and $\underline{LR}^2$ (22) = 22.920, $\underline{p}$ = .406, respectively. Both models reduced more than 90% chi-square of the baseline model. However, we may not strongly assert the group or schedule effects, since a simpler, mutual independence model, [G][S][C], also meet our criteria ($\underline{LR}^2$ (28) = 27.289, $\underline{p}$ = .503) with a comparable reduction in chi-square (88.3%).

Insert Tables 4 and 5 about here

Under these circumstances, we then examine local group and schedule effects in terms of log odds-ratios between pairs of conformity and nonconformity shifts within each schedule. Among them only four contrasts shown in Table 5 significantly differ from zero at the 5% level. As was expected, strong conformity is more likely to occur in Group 2 than in

Table 4

Fit of Log-Linear Models

Model[a]	LR^2	df	p	LR^2 / df	Reduction in LR^2
[G][S]	232.253	31	.000	7.492	(baseline model)
[G][S][C]	27.289	28	.503	.975	88.3%
[GC][S]	21.546	22	.487	.979	90.7
[G][SC]	22.920	22	.406	1.042	90.1
[GC][SC]	17.177	16	.374	1.074	92.6

Note. a) G, S, C refer to the effects of Group, Schedule and Conformity.

Table 5

Significant Log Odds Ratios and Standardized Values

Group 2 vs. Group 1	Contrast	Log Odds	Std. Odds
Schedule 1	S vs. N	1.42 (.69)	2.06
Schedule 1	W vs. N	1.59 (.76)	2.10
Group 1 vs. Group 3			
Schedule 3	S vs. N	-1.48 (.62)	-2.38
Group 2 vs. Group 3			
Schedule 1	S vs. N	1.53 (.76)	2.02

Note. Numbers in the parentheses are standard deviations.

S, W and N stand for strong, weak and non-conformity shifts.

Group 1 (1.42) and Group 3 (1.53). But this is limited to schedule 1. In this schedule, Group 2 condition also tends to elicit weak conformity more frequently than Group 1 (1.59). The difference between Groups 1 and 3 can be found in schedule 3 as a negative function of group cohesiveness: strong conformity is relatively less frequent in Group 1 as compared with Group 3 (-1.48).

DISCUSSION

The fruits of the present study are threefold. Firstly, it provided evidence suggesting the extraneous, contextual effect of the general, cultural norms of collectivity orientation on the Asch type conformity. Although Frager (1970) also obtained more marked effect, he as well as Sako (1975) who tried to replicate the Frager's work did not recognize it. Even if they did, the lack of addequate control of group cohesiveness makes their conclusion less persuasive than ours. The levels of strong conformity exhibited by our subjects are somewhat strinking, given the rather unfavorable conditions as conventionally believed; anonimity of responses, non-face-to-face situation and recording of initial judgments in addition to the stringent definition of conformity. Not only the proportion of strong conformity exceeded, under all conditions, the bench mark previously reported from the similar condition by Deutsch and Gerard (1955), but the highest proportion produced by Group 3 in Schedule 3 virtually reached those established in the standard procedures by Asch (1951) and Deutsch and Gerard (1955).

Secondly, some variation was found in the conformity levels among groups with different cohesiveness. Yet, the observed effects were not uniform but showed somewhat complex patterns depending on the schedule of

information feedback and reevaluation. As a result, our hypothesis was not fully supported. More specificaly, group cohesiveness in Groups 1 and 2 enhanced (strong) conformity in the two intermittent schedules as compared with Group 3. However, the hypothesized attnuation due to the motive of "amae" was limited to Schedule 1, while in Schedule 2 conformity increased as a positive function of cohesiveness in line with the Kinoshita's (1964) conclusion. In contrast to the intermittent schedules, inhibitory effect of the group cohesiveness, in the relative sense, was observed in Schedule 3: the conformity in decreased in order of Groups 3, 2 and 1. Interestingly, these patterns varied as quasi and weak conformity were added cumulatively to the analysis. Intriguing as it may, close investigation of the nonuniform effect must be restricted to local interactions in view of the accepted log-linear model of mutual independence. The identified local interactions in terms of odds ratios are discussed below.

The effect on conformity due to occasional suppresion of social comparison and revision of judgments scarcely received attention in the past studies. Given the relative unambiguity of the tasks, we may safely assume that the observed judgment shifts were mostly the results of the normative comparisions in the sense Deutsch and Gerard (1955) and Takata and Hayashi (1981) argued. The need for normative comparisions, as we postulated in introduction, is most salient in the intermediate relations, i.e., "seken." The significant odds ratios found in Schedule 1 between Group 2 against Groups 1 and 3 lend support to this postulation with the following revservation: it requires suppresion of <u>both</u> social comparisons and judgment revision for the group cohesiveness to take effect. (With the given degrees of freedom, additional analysis of the between-schedule

differences was not permissible.) The lack of the group effect in Schedule 2 seems to indicate that the knowledge of being different from the majority do not pose a significant threat to the self-enhancement motive for the social comparisons.

In lieu of conclusion, we will present a provisional interpretation about the results of Schedule 3 which appears to contradict our hypothesis of the effect of group cohesiveness. It must be recalled here that in this schedule social comparisons and judgment revision were always permitted. Then, it will not be totally implausible to explain that the repeated exposure to the same tasks provides a sufficient condition for transforming initially nonsignificant others into the significant ones but not to the extent of the "uchi" relations. The lack of significant difference between Groups 2 and 3 is congruent with this explanation. The underlying premise is the unstable nature of the "soto" relations which was not fully protrayed by Inoue (1977) in his model of the Japanese behavior. Nonetheless, further confirmation of such transition requires time series analysis of data from more suitable experimental designs.

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