INDIVIDUALISTIC STRIVING AND GROUP DYNAMICS OF FIFTH- AND EIGHTH-GRADE JAPANESE BOYS

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What are the developmental roots of Japanese cooperative, individualistic, and competitive behavior? Social scientists have investigated the Japanese "economic miracle" for decades, and the psychological keys to Japanese success include their workers' group-centered identity, sense of self, and dedication to task productivity (Lincoln & Kallenberg, 1990). As international rivals marvel at the remarkable balance between individual and collective effort by Japanese workers, it is important to consider how such an effective work force is brought up. The present study focuses on the development of social- and task-related behavior in the transition to adolescence, and suggests that experiences in school may promote a unique Japanese blend of cooperation, individualism and competition.

Observations of adult Japanese behavior indicate above all a "social preoccupation," by which the individual is subordinated to the group and sees everything in life in terms of one's relationships with others (Lebra, 1976). At the same time the Japanese have a strong sense of individuality. This individuality differs from Western-style individuality in that the Japanese stress self-control and perfection of the self rather than uninhibited self-expression of one's uniqueness (Smith, 1983). At any rate, the group-centered Japanese value their individuality, and even Western-style individualism has begun to appear in surveys of Japanese national character (Hayashi & Suzuki, 1981). Japanese social preoccupation and individuality are compatible with the intense dedication to one's work, termed "role narcissism" by DeVos (1973). Exhibiting such role narcissism, no matter what role any Japanese individual plays, he must (the masculine pronoun is used throughout this article because the sample students were all male) strive for absolute perfection in that role. This commitment of effort is usually directed in adulthood toward group goals, but is a means by which the individual can strive for role perfection, that is, expressing individuality in service to the group. In sum, Japanese adults simultaneously center their thinking on groups, and strive to do their individual best. Japanese are also highly competitive, because one often must outdo others to reach individual perfection and achieve group success.

The present study of children and adolescents may suggest why and at what ages the Japanese adopt the social and task orientations described above. Methodologically, it employed a task related most specifically to the social psychological study of "social striving" and "social loafing," by which people exert more or less effort in groups or when working alone. These phenomena are useful in light of the above discussion because they concern how one's orientations toward tasks are affected by one's identity with and behavior within a group, and how people perform when working for a group or alone. Because Eastern collectivist goals are thought to supersede individual achievement (Hsu, 1983), one might expect Japanese to show greater effort in groups, and therefore no social loafing. But two reports (Shirakishi, 1985; Williams, Kawana, & Latane, 1984) clearly demonstrated social loafing (less effort when in a group) among Japanese adults.
Meanwhile, in a developmental study of American and Taiwanese youth, Gabrenya, Wang and Latane (1985) found that Americans exhibited social loafing whereas Taiwanese showed the opposite tendency of social striving. This difference was apparent among ninth-grade pupils but not sixth graders. These results indicated that the cultural differences in interpersonal and task orientations may be found only in certain age groups and may emerge in early adolescence.

Following the traditional social loafing paradigm, we looked at how Japanese behave as group members and as individuals. To extend the study to the phenomenon of Japanese competitiveness, instructions to compete were added during half the trial conditions of the experiment. Although most studies demonstrate that collective reward structures produce better school achievement than individual reward structures (Pepitone, 1980), it is also a popular credo that people work harder when they compete. There has been little research or theory concerned with how cooperative, individualistic and competitive behavioral patterns combine, and this study considers how the Japanese blend these three tendencies.

The data presented address three main questions: (a) Do fifth- and eighth-grade Japanese boys work harder or more effectively for group goals or individual goals? (b) How is the task productivity of subjects working as groups or individuals related to their social interactions? and (c) Does competition affect task productivity or social behavior in individualized versus group task settings?

The first question is important because it considers the developmental origin of Japanese individuality and group orientation, and tests the trans-cultural generality of social loafing. Because Japanese appear to be both strong individuals and loyal group members, it was difficult to predict which setting (group or individualized) would facilitate better performance. The second question asks how social interaction affects task productivity. One might expect that social preoccupation (J€ebra, 1976) would lead to a high degree of social interaction in Japanese groups, making them less efficient when performing the tasks as a group. In addition, it was predicted that role narcissism would lead to more intense effort and productivity when subjects were able to strive for individual perfection on the task. Finally, because competitiveness and individualism are commonly confused conceptually and in experimental designs which study cooperation and competition (Knight & Kagan, 1981), the influences of individualism and competition on task orientations and behavior were tested separately. Competition between groups is usually encouraged at Japanese schools rather than competition between individuals (Shwalb, Shwalb, & Nakazawa, 1987), which would lead us to expect the greatest effort when subjects compete as groups. However, because isolated competition also appears to develop in Japanese secondary schools (Singleton, 1982), it was also possible that our adolescents sample might work hardest competing as individuals.

METHODS

SUBJECTS

Participants were 84 boys from a school complex affiliated with a national university, in central Tokyo. All fifth-grade boys (n = 42) and all boys from two (of four) eighth-grade classrooms (n = 42) participated. Their mean ages were 11 years 5 months and 14 years 6 months, respectively. Only males were sampled because of scheduling restrictions and the unavailability of several female pupils.

At this university-attached school complex many students attend continuously from kindergarten through high school. However, elevation to junior high school and high school are marked by a selection process including entrance examinations. This process of advancement results in the same competitive and individualized struggle that marks education in typical urban Japanese schools. As such, the social and academic experiences of the Tokyo boys observed here are much like those of most urban public school pupils. In both public and university-attached schools, the curriculum is tightly controlled by the national Education Ministry, and is geared toward the entrance exam selection process. Relationships with classmates and social experiences in and outside the
classroom are quite similar in the two types of schools. The senior author spent one day each week
informally observing students at public schools and at the school complex at which the experiment
was conducted, and found over the course of a full year that life in the two school settings was
remarkably equivalent. For instance, the transition during junior high school to intensive preparation
for high school admission was dramatic in both types of schools.

EXPERIMENTAL PROCEDURES

To reduce social demand effects, (a) subjects were told that nobody at school would ever see
their taped behavior, and (b) pupils' names were not recorded. Boys were randomly assigned to
same-grade, same-homeroom triads, and were videotaped constructing card houses with playing
cards during two experimental sessions. The task was similar to the block-stacking task used by
Graziano, French, Brownell, and Hartup (1976) and to the puzzle-like construction task of
Pepitone (1980), but was more appropriate than the other tasks for older-aged subjects. Each boy
was given a deck of 52 standard-size playing cards and told to build houses with them, a task with
which none of the 84 subjects reported any prior experience. The experimenter demonstrated lining
up five cards perpendicularly to one another, and instructed subjects to line up or stack as many
cards as possible, in any configuration.

The experimental design crossed group and individualized conditions with instructions to "pile
up the most cards" (i.e., to compete) or "do your own best" (i.e., work without regard to others'
performance). Specifically, all boys performed under the following 8-minute conditions, randomized
for order within and between two sessions (at each session one group and one individualized
condition was performed):

Condition 1: Individual Noncompetitive ("Work separately to do the best you can.") Condition 2: Individual
Competitive ("Work separately to see who is the best in
your group.")
Condition 3: Group Noncompetitive ("Work together as a group to do the best you can.") Condition 4: Group
Competitive ("Work together as a group to outperform other
groups.")

Other experimental design features were also considered to assure that data were reliable and
valid. Anonymity of individual contributions, frequently cited as a cause of social loafing
(Williams, Harkins, and Latane, 1981) was not a factor in this research because subjects' performance under all conditions was visible to all and was videotaped. To encourage social interaction, boys were told "It's okay to talk" at 2-minute intervals during each condition. Encouraging boys to talk even during individualized conditions was a control for the effects of noninteractiveness on social loafing. Informal questioning revealed that the task was engaging and challenging for both fifth and eighth graders, and self-report measures indicated that subjects clearly understood that difference between both competitive/noncompetitive instructions and instructions to work as a trio/individually.

CODING AND ANALYSES

Two main types of data are presented here. In the first type of coding, each of the 84 boys was
coded separately for the incidence of the following behavioral categories (frequencies averaged
within each trio):
1. Peer-directed acts: a verbalization or act directed toward one's peers either when working alone or with a group.
2. Experimenter-directed acts: a verbalization or act directed toward the experimenter.
3. Outcome-concerned: behavior indicative of a concern with one's own or others' productivity.
4. Errors: one's own cards are knocked over or collapse.
5. Gazing: looking at a partner or his cards without speaking.

These categories were based on pilot data and assessment of several other codes. "Peer-directed acts" and "experimenter-directed acts" were indicative of boys' degree of social interactiveness in the task setting. "Gazing" has been regarded by some researchers as a sign of both social cohesion, and by others as indicating competitive interest in social comparison (Pepitone, 1980). "Outcome-concerned" behavior could be interpreted as showing an interest in task productivity or simply as another form of social interactiveness. Finally, "errors" could reflect intensity of effort, as in Gabrenya et al. (1985).

Interrater reliability was conducted on 15% of these data by assistants unfamiliar with the purpose of the study, and averaged .80 for the onset of behavioral categories. The data were treated with an $n$ of 28 (groups). Frequencies of each behavioral category were calculated for the effects of one between-subject factor (age) and two within-subjects factors (group/individualized conditions and competitive/noncompetitive conditions).

In addition, the number of cards stacked by each boy was counted during each 2-minute segment of each condition. The reliability coefficient of raters' counts was .93, determined on 15% of these data. Because each boy was completely free to place as many cards as he desired regardless of his partners' efforts (boys did not take turns stacking and their efforts were not obstructed physically by partners), analyses of productivity used an $N$ of 84 (individuals). Productivity per minute for each condition was the measure of task effectiveness.

RESULTS

INDIVIDUALS' BEHAVIOR

Main effects from a three-factor repeated measures model analysis of variance for age and group versus individual conditions are reported in Table 1. Given the relatively small number for groups ($n = 28$), and the unlikelihood of multivariate normality, univariate procedures (with $df_o = 1, 26$) were most appropriate for the present data. Because frequencies of the five dependent variables were probably intercorrelated, the Bonferroni adjustment (Harris, 1985) was applied to the significance tests, and univariate tests were made at the .01 criterion level. The means and standard deviations for each age group and for group versus individual conditions are also included in Table 1. There were no main effects for competitive versus noncompetitive conditions, and no interaction effects reached the adjusted criterion of significance $ofp < .01$. The lack of effects for competitive instruction is best explained by the fact that subjects perceived all four conditions as diagnostic in nature, so much so that subjects stayed on-task over 95% of the time under all conditions. This also reflects the strong emphasis in Japanese child rearing on effort and task orientation (Holloway, 1988). So although boys reported an understanding of the competitive aspect of task instructions, this did not affect their group's dynamics.

Main effects for age. Analyses of variance revealed main effects for age on four of the five behavioral categories, demonstrating basic differences in social behavior between Japanese adolescents and preadolescents. Fifth graders exhibited significantly more (a) peer-directed acts (discussing the task); (b) experimenter-directed acts (asking a procedural question); outcome-concerned acts (applauding one's own accomplishments); and errors (accidentally knocking over cards). Because these four effects indicate that younger subjects are more socially interactive,
the single stance in which an age difference did not emerge, gazing, is noteworthy. This might also indicate that the meaning of gazing changes with age from being indicative of social interactiveness in fifth graders to indicative of competitive interest among eighth graders.

**Main effects for group/individual conditions.** When subjects worked as trios, they exhibited more peer-directed acts, suggesting that being in a group has a significant effect on boys' interactions. Gazing was more frequent under individualized conditions, which probably indicated that boys attempted to maintain social contact even when told to operate individually. If gazing had reflected competitiveness, as suggested above, it would have occurred more on competitive conditions, which was not the case. The findings of equal numbers of errors in both group and individualized conditions shows that despite the delicacy of the task it was no more difficult to perform in close contact with partners than when working alone.

**TABLE 1**

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<thead>
<tr>
<th>Individuals' Behavior: Effects of Age Level, Group/Individual Conditions, and Competitive/Noncompetitive Conditions</th>
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<tr>
<td><strong>Fifth Grade</strong></td>
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<td>Mean</td>
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<tr>
<td>Peer-directed acts</td>
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<td>Experimenter-directed acts</td>
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<td>Outcome-concerned acts</td>
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<td>Errors in stacking</td>
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<td>Gazing at other's work</td>
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**NOTE:** Frequencies are numbers of acts per 8-minute condition; n.s. = not significant; dfs = \(26\), \(72\); \(p < .01\); \(**p < .001\); \(***p < .0001\).

**TASK PRODUCTIVITY**

On a three-way analysis of variance, there was no main effect for age level on the numbers of cards stacked. This suggests that the difficulty of the task was similar across age levels.

Overall, pupils stacked more cards working alone than as a group, \(F(1, 82) = 45.89, p < .001\). This finding was dependent on subjects’ age level and instruction to compete. A two-way interaction (group/individual condition x age) indicated that only eighth graders stacked more cards on individualized than on group conditions, \(F(1, 82) = 24.95, p < .001\). Separate group/individual condition comparisons for productivity confirmed that eighth graders were more productive under individualized conditions, \(t(41) = 8.58, p < .001\) (Means: individualized = 17.23 cards/min; group = 13.98 cards/min), whereas fifth graders performed equally well on individualized and group conditions, \(t(41) < 1\) (Means: individualized = 14.55 cards/min; group = 14.05 cards/min). It is the higher productivity of eighth graders in individualized conditions (17.20 cards/min) that stands out among these data.

In another two-way interaction (group/individual condition x competitive/ noncompetitive conditions), productivity was highest on individualized-competitive and lowest on competitive-group conditions, \(F(1, 82) = 5.39, p < .05\). Paired \(t\) tests confirmed that boys stacked about the same numbers of cards under individual and group noncompetitive conditions, \(t(81) = 1.61, p = .11\) (Means: individual noncompetitive = 15.78 cards/min; group noncompetitive = 14.85 cards/min), but they stacked significantly more cards under individual competitive than group competitive conditions, \(t(81) = 5.35, p < .001\) (Means: individual competitive = 16.56 cards/min; group competitive = 13.51 cards/min).

Further examination of means suggest that, although a three-way interaction involving grade
level did not reach a significant level, eighth graders were mainly responsible for the difference in productivity between individualized versus group competitive conditions. Paired *t* tests showed that fifth-grade boys are equally productive under the two conditions (*t*(41) = .084, *p* = ns (Means: individual competitive = 15.3 cards/min, group competitive = 14.3 cards/min), whereas eighth graders performed very differently, (*t*(41) = 3.55, *p* < .001 (Means: individual competitive = 17.8 cards/min, group competitive = 12.9 cards/min).

**DISCUSSION**

In contrast to Williams et al.’s (1984) findings of Japanese social loafing, eighth graders in this study evidenced individualistic striving whereas fifth graders were equally productive as trios and as individuals. These age differences in productivity coincided with greater sociability on the part of fifth graders, and were clearest on competitive conditions. Methodologically, these findings are inconsistent with previous data on social loafing, showing the value of tasks which facilitate social interactions, and of research designs which distinguish task demands for both individualism and competition. Theoretically, these data bear on the transcultural and developmental generality of social loafing.

**AGE DIFFERENCES**

The observation that only eighth graders are more productive on individualized than group conditions may be attributed to the norms and values socialized in Japanese primary and secondary schools. Sakamoto (1985) characterizes primary school pupils' study behavior as "active and group-centered" and secondary school pupil behavior as "passive and individualized," and these tendencies were evidenced in the data on task productivity and interpersonal dynamics.

*Fifth graders.* Elementary school socialization instills egalitarianism, group-centeredness, and dependency on adult authority. Boys may have been very interactive with one another to give the appearance to partners that they were friends and not rivals (Berndt, 1982). Because equality is stressed in primary school (White, 1987), boys may use sociability to avoid outdoing friends, when working alone or competing.

Japanese children are also taught to be group centered and loyal school and classroom members, contrasting with the common American stress on individuality at all levels of schooling (Lewis, 1989). As a result of an emphasis on peer relations, such as committees and small-group learning, fifth graders evidenced sociability, which probably limited their individual efficiency. Fifth graders were also more interactive with the experimenters, compared with older boys, reflecting Japanese norms concerning peer-authority relations. Elementary school teachers dominate and control classroom processes, including group activities. Thus it is understandable that the younger boys here drew the adult experimenter more into their interactions.

*Eighth graders.* In contrast to the socially preoccupied experiences of fifth graders, Japanese eighth graders are socialized to compete and to work individually. Generally in Japan, secondary school competition centers on grades and preparations for entrance examinations for placement in high schools, which is not compulsory or free. For instance, at the school complex studied here, there are four junior high schools all attached to the same national university. All four feed into a single high school, so that many individuals fail to gain entry into the high school. This arrangement results in the same "examination hell" that characterizes many public and private Japanese schools (Rohlen, 1983).

Eighth graders performed best under individual-competitive conditions, indicative of their emerging competitiveness and individualistic role commitment. Fifth graders view competition as contrary to egalitarian norms, whereas eighth graders compete to demonstrate individual competence. In other words, competition is acceptable behavior in eighth grade. But why was this competitiveness not evidenced when subjects worked as a group? Ethnographic evidence has
consistently shown that Japanese like to compete as groups and not as individuals. But this stereotype
probably understates the prevalence of individualistic competition in Japan. “Individualistic striving”
is probably a more socially acceptable term in Japan than individualistic competition, which
connotes selfishness and immodesty. Thus students are told that striving for grades and high school
or college placement reflects primarily on one's group, and that one's rivals are not his/her
classmates, but instead anonymous contenders such as other schools, or the rivalry is with one's
personal standards. This redefines individualistic competition as either intergroup competition or as
individualism, but the net effect is training adolescents to be “the best,” that is, to compete. That is why
instructions to compete individually produced the maximum effort among the eighth graders.

In addition, the image of Japanese intergroup competition is furthered by the high visibility of
school team sports and the dedication of adults to their work groups. Adolescence may be a brief but
intense deviation from the Japanese pattern of group centeredness, when individuals strive to place
as high as possible in the academic hierarchy of schools. In others words, intergroup competition
may still be the general norm in Japan, but not in the adolescent world of academic achievement.
The pattern of social preoccupation changes form in adolescence, and reappears after high school. In
secondary school, the two goals which supersede cooperation are individuality and competition, in
dedication to the role of "becoming the best."

Like Western adolescents, Japanese youth are concerned with their emerging identity, and in
Japan self-worth is determined by total dedication to one's role, which for adolescents is shown in
individual, competitive achievement (Singleton, 1982). Given the diagnostic nature of the stacking
task, eighth graders concentrated on their individual performance. Compared to the more sociable
fifth graders, eighth graders exhibited social inhibition and self-control in relation to partners. Their
role was to perform the task to perfection, and this role commitment and strong social control
facilitated individualistic striving. In addition, their lack of interaction with the experimenters
reflected autonomy from authority and their training in independent effort.

**IMPLICATIONS FOR THE STUDY OF SOCIAL LOAFING**

Rather than social loafing, individualized-competitive striving more accurately describes the
tendency of eighth graders to perform better as individuals than as trios. Neither individual
striving nor social loafing was evidenced by fifth graders, and it is theorized above that differences
in the climate of primary and secondary schools explains this finding, which is at variance with
previous data on Western and non-Western youth.

Most previous explanations of social loafing are confined to factors within the experimental
laboratory, but individualistic, competitive and group behavior take place in various contexts,
influenced by cultural norms and values. The extensive cross-cultural replications of the social
loafing phenomenon may be due to restricted social interaction on the tasks, and to the
overrepresentation of adults in the studies. In their study of Japanese social loafing, Williams et al.
(1984) found that 12- and 13-year-olds evidence social loafing when shouting or clapping in
pseudopairs, but their tasks were insensitive to social influences. Further cross-cultural work ought to
employ a variety of tasks which allow contextual influences to be discussed.

Age differences in social loafing behavior, between elementary versus middle school pupils,
have previously been reported for American and Taiwanese subjects (Gabrenya et al., 1985). In
their study, cultural differences emerged for ninth but not sixth graders, with striving evident
among the Taiwanese and social loafing among the American subjects. They attributed this result to
the cultural norms of group centeredness and individualism. In American, Taiwanese, and Japanese
cultures secondary school peer relations are more adult-like than those in primary school, and social
loafing, social striving, and individualistic striving, respectively, may reflect the dominant
social orientations of adolescents in the three societies. In sum, social loafing was not generalizable
to our sample, and appears to be related to subjects' level of schooling, the competitive nature of
the task and sociability with peers and authorities.
CONCLUSIONS

In addition to replications of this study on females and in other cultures, subsequent research should focus on the antecedent conditions (e.g., task experiences at different school levels) which may lead Japanese eighth graders to work hardest when competing individually. Because empirical measures of everyday behavior/experiences at school were not made, the relationship between behavior on our card-stacking task and cultural antecedents is admittedly tentative. The manner in which interpersonal behavior and orientations influence task productivity (i.e., social interactiveness as impeding individual effort) must also be investigated further.

In terms of cultural socialization, this study provided some evidence of how Japanese adults come to be socially preoccupied, strong as individuals, and effective competitors. The roots of social preoccupation probably extend back even beyond preschool (Peak, 1989; Tobin, Wu, & Davidson, 1989), to earliest family experiences (Hara & Wagatsuma, 1974). By elementary school, the foundation for this adult pattern is clearly established, and was seen in the interactive group dynamics of our fifth graders. Individuality is perhaps submerged until Japanese adolescence, or at least is secondary to group dedication in childhood. Among the eighth graders studied here it was clear that individualistic striving was their basic behavioral pattern, as they worked intensely alone toward perfection on the diagnostic task. The expression of this individuality in adolescence, striving for perfection in the role of the student, may have as a byproduct a strong tendency to compete. Adolescents clearly compete as individuals in Japan, although they are told they are not competing as such. As a result, competition is rated negatively by Japanese adolescents on attitude surveys (Shwalb & Shwalb, 1985). But in the present study, the greatest task performance resulted from instructions to compete as individuals. Developmentally, social preoccupation appears to be followed by individualism, and competition may be a byproduct of the first two behavioral patterns. Further research is of course needed to study this proposed sequence of development.
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