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# CULTURAL DIFFERENCES IN SELF-APPRAISAL OF GROUP TASK: USAGE OF

## GROUP VS. INDIVIDUAL FEEDBACK

A thesis

Presented to the

Department of Psychology

## And the

Faculty of the Graduate College

University of Nebraska at Omaha

In Partial fulfillment

of the Requirements for the Degree

Master of Arts, Psychology

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by

Mamiko Fujita

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# CULTURAL DIFFERENCES IN SELF-APPRAISAL OF GROUP TASK: USAGE OF GROUP VS. INDIVIDUAL FEEDBACK

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University of Nebraska, 2001

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The present study focused on differences in using group and individual feedback in self-evaluation of performance when engaging in a group task. Based on an established category of cultural differences, collectivistic-individualistic, Japanese and American students participated to represent each culture. The current study tested a hypothesis that Japanese students would use group feedback more heavily in evaluating their individual performances than would American students. The results did not support the hypothesis. Interestingly, the assumption that Japanese students represent collectivistic culture, and American students represent individualistic culture was not supported. According to the scale used in the study, the American participants were more collectivistic than the Japanese sample. Possible explanations for the unexpected results and suggestions for future research are discussed.

# Table of Contents

# Chapter I: Introduction

Collectivism-individualism cultural differences 1	
Cultural diversity and workplace 8	F B
Popularity of team and appraisal system for team performance 1	3
Individual value differences 1	.5
Earley, Gibson, and Chen's (1999) study 1	.6
Present Study and Hypotheses 1	7
Chapter II: Method	
Participants	20
Materials and Task 2	21
Design and Analysis 2	24
Procedure 2	26
Chapter III: Results	
Manipulation Check	29
Group Variances	29
Cultural Value Measure	30
Test of Hypothesis	30
Exploratory Analysis	32
Chapter IV: Discussion	
General	35
Collectivistic-Individualistic Difference	36

Possible Explanations for the Current Result 38
Limitations of the Current Study and Suggestions for Future Research 40
Conclusion 40
Chapter V: References
References 43
Chapter VI: Tables
Table 1: Descriptive Statistics of Cultural Value Score and Self-Evaluation 50
Table 2: Analysis of Variance for Hypothesis Testing
Table 3: Means Self-Evaluation Scores for Each Condition
Chapter VII: Figure
Figure 1: Mean Self-Evaluation Scores for Condition x Country 53
Chapter VIII: Appendix
Appendix A: Parking Problem 55
Appendix B: Assigned Roles 56
Appendix C: Self-Evaluation Items 57
Appendix D: Cultural Value Measure 58
Appendix E: Manipulation Check Questions 59
Appendix F: Scoring Sheet 60
Appendix G: Instructions 61
Appendix H: Biographical Data Questionnaire 62

#### Chapter I: Introduction

#### Collectivism-Individualism Cultural Differences

As our society becomes more diverse, and more people interact with others from different cultural backgrounds, it has become necessary to study psychology from diverse points of view. As a basis of cultural diversity, the concept of individualism-collectivism has been used widely in terms of interpersonal relationships (Earley, Gibson & Chen, 1999; Hofstede, 1991; Markus & Kitayama, 1991; 1994; Schwartz, 1990; Triandis, 1989, 1995). The concept guides researchers to understand why people from the East and West behave differently in the same situation. It gives us a map to think about cultural differences.

The individualism-collectivism categorization of culture existed within the context of an organization as early as the late 20's (Weber, 1947). Self-oriented vs. group-oriented interest and motivation were important aspects that differentiated collectivists and individualists within the context of a world economy (Weber, 1947). The main focus of behavioral differences in organizations and the economy was that collectivists behave based on group-oriented interests, whereas individualists behave according to self-oriented motives and interests.

In recent years, as diversity has become an everyday issue, Markus and Kitayama (1991) presented an in-depth understanding of individualistic and collectivistic cultures. Many scholars (Markus & Kitayama, 1991; Triandis, 1989, 1995) consider Eastern countries, such as China, Japan, Korea, and South American countries, as having a collectivistic culture. An individualistic culture is prevalent among Western countries, such as the United States and Western European countries (Markus & Kitayama, 1991; Triandis, 1989, 1995; Triandis et al., 1993).

Markus and Kitayama (1991) focused particularly on how these cultures differ in the concept of self. In their study, they explained two distinct concepts of self. Individualists hold the concept of independent self, whereas collectivists hold concepts of interdependent self. Independent self is considered as an entity which is separate from others and social contexts. Even within a family, an individual's self will stand out as an independent entity in an individualistic culture (Markus & Kitayama, 1991).

Another characteristic of independent self is consistency. The independent self tends to be relatively consistent across social contexts. In other words, it is expected for a person to hold his or her own opinion and express it almost regardless of contexts. Markus and Kitayama (1991) believe that the development of the concept of self is shaped by one's own culture and customs. For example, in the United States, it is highly recommended that a child should have his or her own room from an early age. It is rare for a child to sleep in the same bed as his/her parents. This type of custom encourages an individual to develop independent self from an early age (Hess et al., 1986).

On the other hand, interdependent self is always attached to others. Individuals with interdependent self consider themselves as part of others, or social context. It is not uncommon for an interdependent self to act differently depending on social context. The self is expected to be flexible within a collectivistic culture. Unlike individualistic cultures, self-consistency is not valued. It is better to sense the surroundings and change accordingly (Kitayama & Markus, 1995; Markus & Kitayama, 1991, 1994).

Markus and Kitayama (1991) and Smith (1983) claimed that interdependent self tends to have more need for belongingness to others. Others define the self. The interdependent self is developed through culture as independent self is developed in the same way. For instance, in Japan it is not uncommon for a child to sleep in the same bed as his/her parents. In fact, it is considered a great way to develop the bond between parents and child. Through this custom, it is natural for a child to develop a sense of self that is strongly attached to parents (Hess et al., 1986; Smith, 1983). The concept of "ie" contributes to the interdependency (Moon, 1998). "Ie" in Japanese means family and a house for a family. Moon (1998) argued that Japanese people have a strong tie to family. The strong tie, in turn, develops a sense of interdependent self. It not only ties to the family, but a traditional housing style also furnishes interdependency. Rooms in traditional Japanese housing are connected to each other. There is usually no hallway that separates rooms. This housing style discourages an individual from being independent from family members (Moon, 1998).

These examples merely highlight a few parts of cultural differences. Markus and Kitayama (1991) and Kitayama and Markus (1995) presented an extensive list of characteristics distinguishing independent and interdependent self. Independent self values autonomy, stability of self, and uniqueness. Interdependent self values harmony, flexibility, and relationship to others. It is to say that interdependent self is shaped by others. In particular, the importance of harmony among collectivistic cultures is very strong. Among collectivistic cultures where interdependent self is dominant, harmony is considered to be a very important aspect of a happy life and self-esteem (Kitayama & Markus, 1995; Markus & Kitayama, 1991; Triandis, 1995).

Other studies have shown that workers in collectivistic cultures are motivated to improve performance for a group mostly because their sense of self is related to others and the group to which they belong (Erez & Earley, 1993; Wagner & Moch, 1986). On the other hand, individualistic workers are motivated because they want to be recognized as good workers. The core of motivation for individualistic workers is within self, whereas collectivistic workers' motivation stems from the groups' interest (Earley et al., 1999).

Studies by Taakata (1987) and Wada (1988) demonstrated the importance of harmony among collectivistic cultures. In their studies, Japanese college students were given false information about their performance on a task. When they were given a negative evaluation about their performance relative to others, they accepted the evaluation with no attempt to seek more information. On the other hand, when they received a positive evaluation compared to others, they were reluctant to accept it and sought more information to judge if the information was true. Both Takata (1987) and Wada (1988) concluded that this phenomenon is due to the strong need to "fit in" to a group, and not to disturb harmony with others. It is not desirable to disturb harmony by outperforming others. As a Japanese saying expresses, "The nail that sticks out will be hammered down", Japanese students preferred not to stick out. They would rather "stick down" to sink into the group. These studies showed the importance of harmony among people with interdependent self. In a similar vein, Bond, Wan, Leung, and Giacalone (1985) found that Chinese students were influenced by group members in evaluating insulting comments. When Chinese students evaluated their own perceptions, they used the nature of the group that they were in and the status being held. The study indicated that Chinese students were highly conscious of others in evaluation processes (Bond et al., 1985).

A study by Endo (1995) highlighted another aspect of interdependent self. In her study, Japanese students were asked to rate their self-esteem in relative terms. There were three different types of others against which students compared themselves: most others, reference others, and close others (Endo, 1995). Close others are others that are very closely tied to an individual such as family members and significant others. Reference others are those with whom a person has some contact, such as classmates or coworkers. Most others are strangers. Her study showed that Japanese students high in original self-esteem lowered their ratings of self-esteem when they compared themselves against reference others (Endo, 1995). For example, those who were high in original self-esteem reduced their rating when asked to compare one's self-esteem against his or her classmates. She concluded that Japanese tend to be modest about themselves when they have knowledge about where reference others stand (Endo, 1995). In addition, this study indicates that Japanese students tend to avoid superiority to others with whom they interact. Endo (1995) suggested that this phenomenon is due to the pressure to fit into a group. Japanese students did not want to "stick out". From this study, it can be concluded that an individual's characteristics, emotions, and personality vary depending on social context and others.

As seen by these studies, the differences between two types of self call for reexamination of established theory about human behaviors. For instance, it is often assumed that "self" is a fairly stable entity among Western countries (Kitayama & Markus, 1995; Markus & Kitayama, 1991; Shamir, 1991). However, self is expected to change dramatically across contexts in an interdependent culture because the concept of interdependent self does not exist without connection to others. However, there are theories such as attribution theory and decision making style that assume characteristics of independent self and ignore interdependent self.

For example, attribution theory is based on independent self. Attribution theory indicates that people attribute good outcomes to internal sources whereas bad outcomes are attributed externally (Davis & Stephan, 1980; Greenberg, Pyszczynki & Solomon, 1982; Weiner, 1986). This is not the case among cultures with high interdependent self. Shikanai (1983, 1984) studied how Japanese college students attributed their success or failure on an anagram task. The two studies showed that Japanese students attributed their positive outcomes to external causes such as luck. This is not what attribution theory suggested. This can be explained by the concept of interdependent self. When self is strongly tied to others and social context, it is logical to attribute outcomes to external causes. Because self is not separated from context, what an individual does depends heavily on others and context. Attribution theory would not support Shikani's (1984) results in which Japanese students attributed their failure to internal causes such as their ability or effort. Shikanai (1984) suggested that Japanese students' internal attribution of their failure was to downplay their importance. This is a modesty bias about one's own ability so that they do not have to stand out in a group (Markus & Kitaytama, 1991; Shikanai, 1984). Another example is demonstrated by Chu, Spires, and Sueyoshi (1999). In their study, Japanese students and American students showed a difference in decision making strategies. In their choice task (purchasing a new car), Japanese students tended to avoid using compensatory decision making strategies because the strategies involve choosing one alternative through the evaluation of tradeoffs among alternatives (Bond et al., 1999). On the other hand, American students used a more compensatory decision process. The American students were more willing to search for alternatives and compare them until they found the best choice. Bond et al. (1999) claimed that the difference in making a choice is due to the tendency to avoid conflicts in Japanese culture. Japanese people tend to avoid conflicts because conflicts are considered to be a source of disturbance in the society (Markus & Kitayama, 1991).

As these examples show, important psychological theories assume that self is an independent entity. Therefore, in many cases theories do not apply to collectivistic cultures where self is interdependent. It is not appropriate to assume that psychological theories apply to all cultures. This is especially true in a real world setting, such as a workplace. Practices such as a self-appraisal system may actually harm individuals who do not hold the concept of individual self. Attention needs to be paid to individualistic-collectivistic differences as our society is expected to expand diversity in the workplace in the years to come.

#### Cultural Diversity and Workplace

As globalization of the economy progresses, and information technology advances, diversification of workplaces is inevitable. As Kline and McGrath (1998) and Daniels and Radebaug (1989) indicated, more and more organizations have diverse populations. It is predicted that non-Westerners will be a significant portion of the American labor force by the year 2010 because of the growing economy of the U.S. (U.S. Department of Labor, 2000). As people from various cultural backgrounds work at the same place, it is inevitable to face problems when applying strategies and theories to people with different concepts of self.

There is a potential danger of applying what Western scholars advocated to non-Westerners. A study by Farh, Dobbins, and Cheng (1991) found a difference in selfappraisal between Chinese workers and U.S. workers. In their study, close to 1,000 pairs of supervisor-subordinate performance ratings were compared. Their results showed that Chinese incumbents rated themselves lower than supervisors rated them. It is often assumed that self-evaluation of work performance will be higher than supervisor rating. A meta-analysis by Harris and Schaubroeck (1988) showed that self-evaluations were consistently higher than evaluations done by supervisors. The leniency bias among American workers was explained in terms of individualistic cultural characteristics. This is because an individualistic culture emphasizes self-achievement. Expressing how well an individual did on a job is very important for individualists. In addition, expressing their good performance is expected and respected in an individualistic culture as the saying, "The squeaky wheel gets grease" suggests (Markus & Kitayama, 1991). Therefore, American workers feel the need to express their values and even exaggerate their performance in order to be recognized and succeed. On the contrary, Farh et al. (1991) found opposite results among Chinese workers. Chinese workers rated themselves lower. They showed modesty bias in evaluating their own work performance. This result was not supported in a replication study by Yu and Murphy (1993). They suggested that the reason for modesty bias among Taiwanese workers obtained by Farh et al. (1991) may not be collectivistic-individualistic difference. Rather, Yu and Murphy (1993) claimed that the results by Farh et al. (1991) may be due to differences in values of work among workers. The sample used in the study by Farh et al. (1991) was mostly white-collar workers. On the other hand, Yu and Murphy (1993) used mostly blue-collar workers in their study. Yu and Murphy (1993) suggested that the failure to replicate the study by Farh et al. (1999) may be due to the difference in status held by workers in their studies. Because Chinese society values hierarchical status in a workplace, differing status might have a strong impact on their self-ratings.

Although Yu and Murphy (1993) failed to replicate the results, modesty bias observed by Farh et al. (1991) is consistent with collectivistic-individualistic cultural explanations. That is, group achievement and group cohesion are more valued in collectivists (Farh et al., 1991). As Markus and Kitayama (1991) indicated, harmony and others' perceptions of self play important roles in creating a sense of self among collectivistic cultures. Chinese workers were able to monitor their own performance from a supervisor's point of view. In addition, Chinese workers may have tried to "fit in" the group. As mentioned earlier, studies showed that people with interdependent self tend to avoid being different from others (Endo, 1995; Takata, 1987; Wada. 1988). Those workers in China may have lowered their self-evaluation in order to avoid "sticking out" in the group (Farh et al., 1991).

If administrative personnel do not know the impact of cultural differences on selfevaluation of performance, self-appraisal done by a non-Western worker may be treated the same as a Western worker's self-appraisal. Without knowledge that non-Western workers tend to show modesty bias, administrative personnel may judge the evaluation incorrectly. The lack of awareness of the impact of collectivistic-individualistic differences can be harmful in the workplace (DeCieri & Dowling, 1995; Farh et al, 1991; Kitayama & Markus, 1994).

Self-evaluation of performance has raised another question in terms of cultural differences in the concept of self. Studies showed that workers from collectivistic cultures evaluate their performance based on information about their group outcome, not their own (Triandis, 1989; Wagner & Moch, 1986). In a study, Triandis (1989) argued that in collectivistic countries, values and norms of groups and how others behave in situations determine how an individual behaves. In other words, the intention of a collectivistic person is largely influenced by what others do and think rather than what s/he thinks. Triandis (1989) concluded that collectivists use the information about other team members' behaviors and feelings in determining and expressing their own behavior. Relating to the points made by Triandis (1989), Atsumi (1980) suggested that it is necessary to understand the nature and relationship of people that Japanese people are associated with in order to understand or predict a person's behavior. The suggestion

made by Atsumi (1980) is based on the importance of others in determining one's behavior. Triandis (1989) introduced sampling probability theory to explain this phenomenon. The sampling probability theory argued that people always have a referent group and reference information when evaluating their own performance or situation. In his theory, individuals from collectivistic cultures search for information concerning collective self. That is, information is sought about one's own role or performance in terms of other people's perceptions. The collective theory is related to interdependent self in that the individual is highly aware of others' opinions and acts accordingly (Triandis, 1989). He called the information about others group-referenced information. On the other hand, in his study, individualists used information about personallyreferenced information. Their focus was on what s/he as an individual does and feels, and not on others' behaviors or emotions.

This phenomenon may be due to high self-monitoring among collectivistic people. Markus and Kitayama (1991) suggested that collectivistic cultures require individuals to self-monitor constantly. However, high self-monitoring is not a strong explanation for the results obtained by Atsumi (1980) or Bond et al. (1985). A study by Gudykunst, Yang, and Nishida (1987) showed collectivists – Japanese and Korean participants – scored significantly lower in self-monitoring scales than individualists – American participants. They claimed that although characteristics of collectivism seemed to reinforce high self-monitoring, it was not true. Gudykunst et al. (1987) explained that low self-monitoring among Japanese and Koreans was because collectivists must behave according to relationship to others in a specific situation. This is not what self-monitoring suggests. People who are high in self-monitoring behave according to how a prototypic person will act in a given situation (Gudykunst et al., 1987). Collectivists do not use a prototypic person as a guide; rather, they act according to the relationship with others in a given situation (Gudykunst et al., 1987). Gudykunst et al. (1989) showed the same results using students in Japan, Taiwan, Hong Kong, and the United States. American students scored significantly higher in self-monitoring scales than Asian students.

High self-monitoring does not explain changed behaviors based on others' expectation in order to fit into a group. High self-monitors may change their behaviors, but they do so not because they need to fit into a group or society (Gudykunst et al., 1987). Rather, they alter their behaviors for better presentation of themselves (Gudykunst et al., 1987). The concern is focus on how "I" can look good (Gudykunst, et al., 1987). Fitting into a group is not a concern for high self-monitors. Multidimensionality of self-monitoring complicates the explanation of differences between collectivists and individualists in self-monitoring (Gangestad & Snyder, 2000; Gudykunst et al., 1987; O'Cass, 2000). One of the dimensions of self-monitoring, "other-directed", is similar to the concept of "fitting-in" in a collectivistic culture (Gudykunst et al., 1987). However, measuring only one dimension of self-monitoring does not provide enough information about self-monitoring (O'Cass, 2000). High self-monitoring does not seem to explain why collectivists act according to others' expectations.

The theory by Triandis (1989) should lead to a question of a relationship among work teams, team performance and self-evaluation of individual performance within a

12

work team. Many organizations now utilize multi-cultural work teams (Kline & McGrath, 1998). If the theory of sampling probability is true, then collectivistic workers will use information about how the team as a whole performed in evaluating individual performances within the team. On the contrary, individualistic workers will evaluate their own performance based on information about their own performance. The current study will focus on the relationship between work team, team and individual performance, and self-evaluation of performance.

#### Popularity of Team and Appraisal System for Team Performance.

Utilization of teams has gained popularity over recent years (Lawler, 1986; Levy & Steelman, 1997). Team based work emerged in the U.S. during the 1960s (Lawler, 1986). Since then, the popularity of team work has increased (Lawler, 1986), and more organizations utilize teams in various functions (Levy & Steelman, 1997). The fields that utilize work teams are not limited to production or special projects. A team can be seen at middle managerial levels as well as executive levels of organizations. As the trend of work teams increases, how the team performance should be evaluated becomes an issue (Lawler, 1986; Levy & Steelman, 1997).

Lawler (1986) argued that there were problems with how employers recognize and reward team based performance. Kline and McGrath (1998) claimed that performance appraisal should focus on evaluation of team performance. They argued that it is important to have a concrete idea of what is being measured for team performance evaluation (Kline & McGrath, 1998). As these researchers suggested, popularity of teams has brought new issues in performance evaluation.

Incorporating the trend of teams in the workplace, there is another trend in appraisal: use of 360 degree feedback systems, which has become increasingly popular (London & Beatty, 1993). Often, the focus of study tends to be on congruency of evaluation among different raters and factors that contribute to incongruency (London & Beatty, 1993). In particular, congruency between one crucial part of 360 degree feedback, self-appraisal vs. other raters, has gained attention. Furham and Stringfield (1993) found that the congruency of self-rating vs. manager, peer, and consultant ratings was very low. The study also showed that there were leniency biases in self-rating. The leniency bias is supported by a meta-analysis by Harris and Schaubroeck (1988). They found that workers tend to have higher evaluations of their own performance than evaluations done by others. However, this did not hold true among Chinese workers. As mentioned earlier, Farh, Dobbins, and Cheng (1991) found modesty bias in selfevaluation among Taiwan and Chinese workers. Farh et al. (1991) analyzed the performance evaluation of more than 2,000 workers in China and Taiwan. The analysis showed that employees rated themselves unfavorably while their supervisors rated the employees favorably. Farh et al. (1991) concluded that the discrepancy between results of a majority of studies of self-ratings and their results is due to differences between collectivist-individualistic cultures. As this study shows, self-rating within a 360 degree feedback system seems to be sensitive to cultural differences because it deals with the sense of self. This should hold true for appraisal of team-based performances. As mentioned earlier, workers in collectivistic and individualistic cultures use feedback about their performance as a group differently. This difference should influence selfevaluations of own performance by collectivistic and individualistic workers (Farh, et al., 1991; Triandis, 1995).

#### Individual Value Differences

There is a possibility that differences in how individuals self-evaluate performance may derive from individual differences within one culture. For instance, Moorman and Blakely (1995) treated individual-collectivism as individual differences. In their study, American workers differed in values based on an individual-collectivism continuum (Moorman & Blakely, 1995). The difference in values resulted in various probabilities of engaging in organizational citizenship behaviors (Moorman & Blakely, 1995). They concluded that even within an individualistic culture such as the United States, there are individuals who hold collectivistic values (Moorman & Blakely, 1995). The individual differences reflected their interpersonal relationship within an organization (Moorman & Blakely, 1995).

Strunk and Chang (1999) investigated relationships between political beliefs and attitude and individualism-collectivism among American college students in order to establish construct validity of The Individualism-Collectivism Scale. They found that the difference in individualism-collectivism related to students' beliefs and attitudes about politics (Strunk & Chang, 1999). As these two studies show, there are individual differences in individualism-collectivism within one culture. However, in the present study, the focus is on cross-cultural differences in individualism-collectivism as in previous studies by Earley et al., 1999 and Farh, 1991. In the current study, individualism-collectivism will be measured at an individual level as a manipulation check.

#### Earley, Gibson, and Chen's (1999) Study.

Considering the concerns regarding appraisal systems for team based performance and the mixed results of self-evaluation, it is important to understand how workers from different cultural backgrounds evaluate their performance when they perform as a team. With a similar interest, Earley, Gibson, and Chen (1999) studied how workers in collectivistic cultures and individualistic cultures used feedback to rate their self-efficacy for a task. Based on Triandis' (1989) sampling-probability hypothesis, they studied how feedback for team-based performance and for individual-based performance would influence workers' self-appraisal of their own performance as individuals (Earley et al. 1999). Two hundred and twenty-eight managers from the United States, China, and the Czech Republic participated in the study. The participants were assigned to one of the following four conditions: high individual and high group feedback, high individual and low group feedback, low individual and high group feedback, and low individual and low group feedback.

The study used a task that was performed individually (Earley et al., 1999). Participants engaged in a performance evaluation task. They were given 20 performance descriptions to evaluate using a 5-point scale. Upon completion of the task, experimenters "scored" how many evaluations were correct. Participants were given information as to the percentage they evaluated correctly as well as the collective score as a group with two other members. After the information was distributed, participants

16

rated their self-efficacy for the task based on the feedback. Earley et al. (1999) analyzed the results using hierarchical regression and analysis of variance. They concluded that individual feedback influences the self-efficacy rating among individualists regardless of group feedback. Among collectivists, self-efficacy was influenced by a combination of group and individual feedback. Collectivistic managers scored highest in self-ratings of self-efficacy when they were high in both group and individual feedback. The results partially supported Triandis' (1989) sampling-probability hypothesis. Triandis (1989) suggested that collectivists would use information about group performance more heavily than information about individual performance. Earley et al. (1999) found that collectivistic managers used both group and individual feedback whereas individualistic managers used solely individual feedback.

The authors admitted that there was a flaw in their study (Earley et al. 1999). The task was not performed as a group. Participants were able to perform the task individually, and required no team effort (Van de ven & Ferry, 1980). The task did not require interdependency. In other words, the task was biased toward individuality. In addition, the study did not ask participants group-based questions such as assessing each individual's contribution to the task. This is a circular argument; because the task did not require any team effort, it would be difficult to ask group-based questions.

#### Present Study and Hypotheses

The present study differed from the study by Earley et al. (1999) in terms of the participants. Previous studies such as Bond et al. (1985), Earley et al. (1999), Endo (1996), and Farh et al (1991) recruited participants and conducted a study in collectivist

countries in order to compare their results against American participants who participated in a study in the United States. The current study recruited collectivistic participants (Japanese students) who are in the United States. In order to ensure collectivism and individualism, all participants answered the collectivist-individualist scale developed by Earley et al. (1999). It is possible that the Japanese participants for the present study had more exposure to individualistic culture than participants in previous studies. These Japanese students intentionally came to the United States. The purpose of the selection of the collectivistic participants is to examine if results from previous cross-cultural studies hold true for collectivistic people who come to an individualistic country by choice. This should have more applied significance. As the U.S. Department of Labor (2000) predicted, the American work force will consist of more minorities and immigrants from various countries than majority White Americans in the near future. When immigrants work in an American organization, they are likely to face the issues of self-evaluation of performance, possibly as a part of 360 degree appraisal system. Using collectivistic participants in the United States should more closely simulate the situation that many organizations in the United States face compared to studying participants in collectivistic countries.

Learning from the previous study, the current study used a more interdependent task to be performed by a group. The task should insure that individuals could feel their efforts contributed to a completed task at the end. The current study focused on selfevaluation of performance – how well did I do – instead of self-efficacy as Earley et al. (1999) studied. Because self-evaluation of performance and self-efficacy share factors (Bandura, 1989; Wood & Bandura, 1989), the focus of this study was on self-evaluation, of performance. Because the prevalence of 360 degree feedback requires self-evaluation which directly affects workers' pay and promotion, the relationship between group and individual feedback and self-evaluation of performance was studied.

Based on research by Earley et al. (1999), the present study examined the following hypothesis using Japanese students, who are studying English in the United States, and American college students.

Hypothesis: Group feedback will have more impact on self-evaluation of Japanese students than it will on self-evaluation of American students. This tendency should be especially true when individual feedback is superior to group feedback for Japanese students.

The last part of the hypothesis is based on studies by Endo (1996), Takata (1987), and Wada (1988). Their studies suggested that Japanese people try to fit into a group they belong to when they feel that they "stick out" (Endo, 1996; Takata, 1987; Wada, 1988). Japanese participants will lower their self-evaluation in order to fit in when they find the group score is low.

#### Chapter II: Method

#### Participants

Thirty-seven Japanese students and 61 American students participated in the current study. Four Japanese students and eight American students were excluded from the study due to failure to follow the instructions, or not believing the manipulation, making the final numbers 33 Japanese and 53 Americans. Out of the eligible participants, there were 14 male and 19 female Japanese participants and 21 male and 32 female Americans. They were divided into groups of three or four. There were a total of 27 groups (nine groups of four, and 18 groups of three). The Japanese sample was composed of two groups of four and nine groups of three. The American sample was composed of seven groups of four and nine groups of three. The average age for Japanese participants was 21.82 ranging from 19 to 34, and American participants' mean age was 22.53 ranging from 19 to 40. Japanese students were recruited from an intensive language program at a Mid-western university. All of the Japanese students had come to the United States in order to study English. Any Japanese students who were enrolled in an English acquisition course at the university were qualified for the study. The Japanese participants had stayed in the United States for the average of 7 months (M = 7.12, SD =2.57). The experimenter recruited students by visiting their classrooms. Some of the Japanese participants used participation in the experiment as a point for a community service requirement. Japanese students were chosen to represent collectivists. As Gudykunst et al. (1989), Markus and Kitayama (1991, 1994), Kitayama and Markus

(1995), and Triandis (1989) repeatedly demonstrated, Japanese people are believed to possess strong collectivistic traits even with recent changes in their culture.

American students who were enrolled in a psychology course at the university participated in the study for extra credit for their course. Participation was limited to students whose native language is American English. This was to ensure the individualism of the American sample. The American students represented individualists as in many previous studies (Farh et al., 1991; Markus & Kitayama, 1991, 1994; Earley, Gibson, & Chen, 1999).

Japanese students and American students were tested separately. However, conditions were the same except that materials and instructions were expressed in either Japanese or English.

#### Materials and Task

Task. The participants performed a problem-solving task. The task required a group to generate a solution for a problem: a shortage of parking at the university (see Appendix A). The task was chosen for the following two reasons. First, the problem with parking is relevant to all students. Although not all Japanese students drive a car, ESL teachers often use the parking problem to facilitate conversations (L. Arias, personal communication, August, 2000), so, Japanese students should be familiar enough with the parking issue. Second, the task is ambiguous so that participants will not be able to sense their performance level. A study by Potter (1998) showed numerous solutions generated to the parking problem by her 296 participants. The wide variety of solutions supported the ambiguity of the parking problem. It is important to assign a task in which

participants cannot detect how well they are doing, in order to give false feedback (Earley et al., 1999). In the current study, the total number of solutions generated was 275. The Japanese sample generated an average of 2.727 solutions, and the American sample generated an average of 3.426 solutions. Within groups, each participant was assigned one of the following university roles: finance department, admissions, student senate, or public relations. Each participant was required to represent the role using information that described concerns from the perspective of each role (see Appendix B). Participants created as many solutions as possible alone, then circled their best solution. After participants chose the best solution individually, they generated a unanimous solution as a group. Participants were asked not to use an individual solution as a group solution to make the feedback more believable. For instance, if a participant knows that the group solution and individual solution are identical, s/he would not believe the conflicting feedback.

Self-evaluation scale. Participants used a 4-item scale with seven response options (1= strongly disagree, 2= disagree, 3= slightly disagree, 4= neutral, 5= slightly agree, 6= agree, 7 = strongly agree) to rate their own performance on the problem-solving task. In addition, participants scored their overall individual performance based on a single 7-point scale (see Appendix C). The five items were tailored to the specific task used for the current study so that the scale would represent the small task performed by participants. Unlike scales that Earley et al. (1999) used to measure self-efficacy with a strong emphasis on individual work, the current study asked each individual how well they contributed to the group. Coefficient alpha was calculated for Japanese and American versions of the scale. Both showed a good reliability; the Japanese version coefficient alpha was .8645, and the English version was .8394.

Cultural value measurement. This 11-item scale measured the collectivismindividualism of each participant. The scale was originally developed by Wagner and Moch (1986) (see Appendix D). Using 832 college students, Wagner and Moch (1986) established construct validity of this scale. Wagner and Moch (1986) showed that the scale had reliability (Cronbach's alpha) of .75. Participants responded using a 7-point scale (1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = Neutral, 5 = slightly agree, 6 = agree, 7 = strongly agree). The items are shown in Appendix D. There was a minor change in wording of the items. The original items stated, "My group...", instead of, "A group". The change was made in order to minimize confusion. "My group" could have led participants to think that they needed to focus on the group that they just worked with, but that was not the intention of this measure. This scale measured the general attitudes and beliefs about working as a group. Items numbered 6, 7, 8, 10, and 11 were reverse-scored items. The higher summed score indicated collectivism, and the lower score indicated individualism. All materials were back-translated - translation from English to Japanese, and Japanese to English – by English-Japanese bilinguals. First, the Japanese bilingual translated from Japanese to English. Then, the materials were translated from Japanese to English by the American bilingual. The translators then compared the English and Japanese versions of the materials and came to consensus.

After the minor changes were made, the reliabilities for both Japanese and English versions were obtained using participants data. The reliabilities were somewhat low for both Japanese (Coefficient alpha = .6115) and English (Coefficient alpha = .6746).

Manipulation check. Participants were asked about believability of the scores they received. Participants indicated whether they believed the scores were true or not. Participants provided reasons why they did or did not believe the scores (See Appendix E).

#### **Design and Analysis**

A 2 (positive group/negative individual feedback vs. negative group/positive individual feedback) x 2 (American vs. Japanese students) factorial design was used to test the difference between groups. The unit of analysis was individuals. Participants in each culture were randomly assigned to one of the following conditions: positive individual and negative group feedback, or negative individual and positive group feedback. The number of participants was determined by power analysis. Because the current study used new methodologies and scales, its effect size was unknown. Therefore, as suggested by Murphy and Myors (1998), small to medium effect size was used to determine the sample size using power analysis. Based on the power analysis, each condition should ideally consist of 20-25 participants (Murphy & Myors, 1998). However, due to the limited pool of Japanese participants, Japanese conditions were composed of 17 (individual positive and group negative) and 16 participants (individual negative and group positive). American conditions were composed of 24 (individual positive and group negative) and 29 participants (individual negative and group positive).

The responses on the performance self-evaluation scale were added. Because of the interdependent nature of the task, it was expected that each group's characteristics should have an impact on the result. In other words, a participant's self-evaluation of the task may well be influenced by the specific nature of the group in which the participant was placed. A previous study controlled gender of members in a group due to possible influences of gender on individual performance in a group setting (Barr & Conlon, 1994). However, due to limited participant availability, gender was not controlled in the current study. Analysis showed that there was no difference in their self-evaluation scores based on gender,  $\underline{F}(1, 85) = .786$ , <u>ns</u>.

Some variance may be due to group differences, not necessarily by the treatment difference. Although the difference in the numbers of group members was not a problem in Earley et al.' s (1999) study, there was a concern that the difference in number in each group may influence evaluations in this study. Therefore, group was treated as a factor. Analysis tested whether there was significant variance due to groups. The analysis found that there was not a significant group difference in self-evaluation scores,  $\underline{F}$  (26, 60) = 1.187, <u>ns</u>. Please see the results section for more detailed description of the analysis. Because there was no significant difference due to groups, the group variance was not removed from further analyses.

#### <u>Procedure</u>

Participants were assigned to a group of 3-4 members by drawing numbers that were assigned to them as they entered a room. The Japanese experimenter ran all Japanese and American sessions. Participants were also assigned an ID number. There were 1-2 groups per session. In order to decrease any confusion, the experimenter preassigned each participant to one of four conditions using ID numbers that were assigned to each participant as they entered a room. Groups were not allowed to talk to each other. The experimenter explained to students that the purpose of the study was to examine how people with conflicting views would generate solutions. The experimenter told participants that all solutions they generated would be scored against standardized sample answers already established based on previous experiments (see Appendix F). The experimenter gave each group the description of "a shortage of parking" problem (Appendix A). At the same time, each member was assigned one of the following roles: 1) admissions, 2) finance department, 3) public relations, or 4) student senate governor. When there were three people in a group, one of the roles was systematically omitted. The role to be omitted was rotated (e.g. admission will be omitted first, then finance department for the second time, etc).

Participants had five minutes to generate solutions based on their individual role. Based on pilot testing using 25 American and three Japanese students, it was determined that the 5-minute period was adequate to generate solutions. Even when the pilot test participants were given 10 or 15 minutes, they could not generate more solutions than those who were given five minutes. Written instructions (Appendix G), a description of the problem, and a description of issues specific to the assigned role were provided. Participants wrote solutions on the paper. When the 5-minute period was over, participants circled the best solution from the solutions they generated. After the individual problem-solving period, the experimenter prompted participants to discuss and generate a final solution as a group. Participants had ten minutes to do so. The time length was determined based on the pilot test. The participants in the pilot test concentrated on the task the best when they had only ten minutes to work on their group solutions. When other pilot test participants were provided more time, they tended to divert from the task and started to have conversations. The experimenter collected their individual solutions and the group solution after the 15-minute period.

The experimenter scored the solutions using a "standardized scoring book". She pretended to match the collected answers to the answers provided in the book. In fact, the experimenter provided pre-assigned scores. The experimenter circled either 8 as a positive score or 3 as a negative score on a 10-point scale (see Appendix F). The positive and negative score were established through feedback from pilot testing. The participants in the pilot test indicated that they felt they did poorly when they received 3 points out of 10. On the other hand, when other participants received 8 points out of 10, they said they felt good and that they did very well on the task. Meanwhile, students responded to a demographic questionnaire as a filler task (see Appendix H). When the experimenter finished scoring, scores for individual solutions and the group solution were given to each participant confidentially. The experimenter folded a piece of paper with scores so that scores could not be seen. The folded pieces of paper were given to the participants.

Participants were instructed not to share the information with others. As soon as the scores were given, the experimenter distributed the 5-item self-evaluation scale to the participants. They rated their own performance as an individual according to the scale.

Upon completion of the rating, participants answered the cultural values measure developed by Wagner and Moch (1986). The degree of collectivist-individualist was measured after participants evaluated their performance so that the collectivistindividualist measurement would not contaminate the evaluation. As a manipulation check, participants answered two questions about believability of the scores they received (Appendix E). Finally, participants were debriefed. After the debriefing, the proof of participation was provided for extra credit for their psychology course or community service requirement.

American and Japanese participants were treated the same except for language use. Due to a low level of English proficiency, Japanese participants were given instructions in Japanese. Japanese participants used Japanese when they engaged in the problem-solving task. American and Japanese participants were never in the same room at the same time.

#### Chapter III: Results

#### Manipulation Check

Appendix E shows the manipulation check questions. Fourteen American students said they did not believe that their scores were based on the standardized scoring book. Three of them believed that the experimenter was randomly assigning the numbers without using the scoring book. Eleven of them did not believe the scoring book because they knew their answers were right, indicating that they were confident about their own solutions. Therefore, only the three participants who actually detected the manipulation were excluded from the data. As for the Japanese participants, one participant indicated that she did not believe that the scoring book was used because she saw the experimenter randomly circling the number. As mentioned earlier, the total number for Japanese participants was 33 and 53 for American participants.

#### Group Variances

In order to ensure that there was no influence of group characteristics on selfevaluation scores, group variance was tested. In a study using various groups, Bushe and Coetzer (1995) used one-way ANOVA to test any pattern due to group characteristics regardless of conditions. The present study used the same technique. When group was treated as a factor, there was no pattern across groups,  $\underline{F}$  (26, 60) = 1.187,  $\underline{ns}$ . Because there was no difference among groups, group characteristics did not have a significant impact on the self-evaluation. Removing the group effect when there is not a significant influence will weaken the power of the analysis. Therefore, group effects were not removed from the analysis.

#### Cultural Value Measure

Prior to conducting one-way analysis of variance, homogeneity of variance and normality of the variables were tested. Because the current study has unequal cell sizes, violation of assumptions of ANOVA severely influences results (Keppel, 1991), homogeneity of variance and normality were tested using the SPSS program. Homogeneity of variance was examined for the cultural value measure using Levene's statistics of equality of error variance,  $\underline{F}(1, 85) = .085$ , <u>ns</u>. This demonstrates that homogeneity of variance was obtained. Normality for the Japanese and Americans' cultural value score distributions was tested using a test for skewness. Skewness for Japanese sample was -.871 (SE = .409), and for American sample was -.223, (SE = .327). This indicates that there was not significant skewness among variables for each sample. Therefore, ANOVA was used to test the difference in cultural values between Japanese and Americans.

There was a significant difference between Japanese and American participants,  $\underline{F}$ (1, 85) = 10.828, p < .001; however, it was in an unexpected direction. Japanese students scored significantly lower ( $\underline{M} = 48.5758$ ,  $\underline{SD} = 7.42$ ) than American students ( $\underline{M} =$ 54.0000,  $\underline{SD} = 7.44$ ). Table 1 summarizes the means and standard deviations for each condition. This result indicates that for the current study, American participants exhibited more collectivistic values than Japanese participants. The result was opposite from what previous studies have found.

#### Tests of Hypothesis

Homogeneity of variance and skewness of variables were tested for selfevaluation scores prior to conducting analysis of variance. As noted earlier, this is to ensure that there was no violation of assumptions for ANOVA. Because this study used unequal cell sizes, it was important not to violate assumptions. Homogeneity of variance was examined using Levene's test of equality of error variance, <u>F</u> (3, 83) = .520, <u>ns</u>. This shows that homogeneity of variance was obtained. The skewness for each condition was examined. Skewness for each condition (Japanese with positive individual feedback, with negative individual feedback, American with positive individual feedback, and with negative individual feedback) were the following: .957, <u>SE</u> = .550, .036, <u>SE</u> = .564, .272, <u>SE</u> = .456, and -.610, <u>SE</u> = .434 respectively. This indicates that there was not a significant skewness among the variables for each condition. Because homogeneity of variance and normality were obtained, ANOVA was conducted.

Two-way Analysis of Variance showed that there was not a significant interaction between culture and conditions,  $\underline{F}(1, 83) = 2.127$ , <u>ns</u>. Observed power was .303. Eta square indicated that 2.5 % of variance in self-evaluation scores was explained by the interaction between culture and conditions. Therefore, that hypothesis was not supported.

Only the effect for country was significant, <u>F</u> (1, 83) = 4.901, <u>p</u> < .05. Observed power was .590. Eta square showed that 5.5% of the variance in self-evaluation score was explained by country. Table 2 summarizes the ANOVA results. The results indicate that there was a significant difference in self-evaluation scores between Japanese and American participants regardless of conditions. Mean scores indicated that Americans (<u>M</u> = 26.7818, <u>SD</u> = 4.0901) evaluated their performance higher than Japanese (<u>M</u> = 24.5455,  $\underline{SD} = 5.1786$ ). Table 3 describes means and standard deviations for each condition. Figure 1 shows the graph describing the results.

The other main effect, the effect of conditions, was not significant,  $\underline{F}(1, 83) = 3.165$ ,  $\underline{p} = .079$ . Observed power was .420. Eta square indicated that 3.6 % of the variance in self-evaluation score was explained by conditions. For the current study, the conditions did not account for any difference in self-evaluation scores.

Even though the interaction was not significant, the two conditions within Japanese participants were compared using one-way ANOVA. The analysis showed that there was a significant difference between conditions within the Japanese sample, <u>F</u> (1, 83) = 3.144, p < .029. Japanese students who received positive group feedback and negative individual feedback scored themselves higher than Japanese students who received negative group feedback and positive individual feedback. On the other hand, American sample did not differ between feedback conditions. The result indicated that the hypothesis was partially supported.

#### Exploratory Analyses

Because the hypothesis was not supported, and the test for collectivismindividualism value did not show the expected result, a new question arose: What other variables accounted for the differences in self-evaluation scores besides the group size and the country. In order to test the question, multiple regression analyses were used.

First, the effect of the interaction between conditions and collectivismindividualism value was tested while gender, age, group size, and country were controlled. The interaction variable was entered last in order to examine the effect. The result showed that the interaction between conditions and cultural value did not significantly account for variances in self-evaluation scores,  $\underline{R}^2$  change = .021, <u>ns</u>. Only 2.1 % of variance in self-evaluation scores was explained by the interaction between condition and cultural values.

Second, the amount of variance in self-evaluation scores accounted for by culture was examined using a simple regression. Only 0.6 % of variance in self-evaluation score was explained by the collectivistic-individualistic value ( $\underline{\mathbf{R}}^2 = .006, \underline{\mathbf{ns}}$ ).

Third, the effect of age on the self-evaluation scores was examined while gender, group size, country, and cultural values were controlled. Age explained 5.8 % of variance in self-evaluation scores ( $\underline{R}^2 = .058$ ,  $\underline{p} < .022$ ). Therefore, only age significantly explained differences in self-evaluation scores among other variables listed above.

Fourth, the experimenter analyzed difference in self-evaluation due to their assigned roles. Each participant was assigned one of four roles: a) finance department, b) admissions, c) student senate, or d) public relations. The analysis showed that there was no significant difference in self-evaluation due to their assigned roles,  $\underline{F}(3, 84) = .989$ , <u>ns</u>. The role did not seem to influence how participants evaluated their own performance.

Although there was no significant difference in self-evaluation scores due to groups, the possible effect of group size was tested. Because 7 groups of 4 came from the American sample and only 2 groups from the Japanese sample, the effect of country was controlled in order to test the effect of group size using step-wise multiple regression analysis. In addition to the country effect, age was found to influence self-evaluation. Therefore, both country and age effects were entered first in a regression equation. Then, group size was entered to test the effect of the group size. The effect of group size accounted for significant variance in self-evaluation,  $\underline{R}^2$  change = .043,  $\underline{F}$  change (1, 84) = 4.052,  $\underline{p} < .047$ . The participants who were in groups of four evaluated their own performance significantly higher ( $\underline{M} = 27.4571$ ,  $\underline{SD} = 4.1681$ ) than the participants in groups of three ( $\underline{M} = 24.9434$ ,  $\underline{SD} = 4.6839$ ). Even though a test for the significant difference due to each group as a factor did not yield any significant results, when group size was considered as a factor, there was significant difference. The difference in self-evaluation due to the size of groups may cast possible problems (see the Discussion section for more detailed discussion of the problem).

#### Chapter IV: Discussion

#### <u>General</u>

The current study focused on a difference in concept of self between two distinct cultures. Cross-cultural difference in conceptualization of self has attracted attention over years as our society has become more diverse (Markus & Kitayama, 1991, 1994; Triandis 1989). Based on the study by Earley et al. (1999), the present study investigated how conflicting group and individual feedback would be used for self-appraisal of performance within a framework of teamwork. Specifically, Japanese and American students were compared in terms of how they would evaluate their own performance based on conflicting group and individual feedback.

It was hypothesized that the Japanese students would use group feedback more heavily in evaluating their performance than Americans. This hypothesis was not completely supported. American and Japanese students did not differ in usage of feedback in self-appraisal. Even though in general, American participants scored significantly higher than Japanese participants, the difference was not accounted for by the usage of group or individual feedback. The results simply indicated that American students tended to evaluate own performance higher than Japanese students regardless of feedback. It is tempting to say that generally speaking, Japanese participants showed modesty bias in evaluation of their own performance as a study by Farh et al. (1991) demonstrated using Chinese workers. However, caution must be taken in drawing this conclusion because the present study did not support that Japanese students were more collectivistic than American students. Even though the hypothesis was not fully supported, post-hoc analysis showed that there was a difference among Japanese students due to conditions. Japanese students who received positive group and negative individual feedback rated themselves higher than Japanese with negative group and positive individual feedback. The post-hoc results suggested that the usage of group feedback indeed influenced Japanese self-evaluation. On the other hand, American students tend not to be influenced by group feedback in self-evaluation. The results showed that American students seemed not to pay attention their group feedback in evaluating their performance.

The exploratory analyses found that age and group size significantly contributed to differences in self-evaluation scores. The older a participant was, the higher score s/he gave. There were two different sizes of group in the current study: groups of three and groups of four. The analysis showed that the participants who were in groups of four evaluated themselves significantly higher than those who were in groups of three regardless of the conditions. It is possible that difference in group dynamics might have influenced how the participants perceived their performance. Other variables such as gender and cultural values did not affect self-evaluation scores.

#### Collectivistic-Individualistic Difference

The current study found that American participants identified with collectivistic values more than Japanese participants. The result was striking. Previous studies (e.g., Chu et al., 1999; Kitayama & Markus, 1995; Markus & Kitayama, 1991; Triandis, 1989) used Japanese individuals as a collectivistic sample and showed that Japanese hold characteristics of collectivism. Despite strong support from previous studies, the current

36

study showed that American students were significantly more collectivistic than Japanese students. There are several possible explanations as to why the present study showed reverse collectivistic-individualistic characteristics between the two cultures.

The first possible explanation is the scale used to measure the collectivismindividualism cultural values. Wagner and Moch (1986) originally developed the scale. They were able to establish decent construct validity and reliability (Wagner & Moch, 1986). For the current study, the reliabilities for the scale for both English and Japanese versions were relatively low. There was only one minor change made to the English version; the wording, "My group..." was changed to "A group...". The more serious possible problem was the translation problem as the scale was back-translated to Japanese. It is possible that the translation process contaminated the scale and changed the meaning of items in Japanese. As Nunnally and Bernstein (1994) and Pedhazur and Schmelkin (1991) suggested, translating a scale from one language to another often invites contamination of the scale. The measurement used for Japanese participants may have been contaminated. Thus, the contamination of the scale might be one of the possible reasons for the unexpected results of the present study.

The second possible explanation is the view that advocates weakened collectivistic-individualistic cultural differences. Theories presented by Kagitchibasi (1995), Sampson (1985), Sampson (1988), and Minami (2000) argue that the distinctions between collectivistic and individualistic cultures have been diminished due to the global economy and rapid development of technology. Sampson (1988, 2000) stated that the simple collectivistic-individualistic difference would not be able to explain cultural differences well because there are other variables such as religion and history that contribute to cultures. This point of view may be valid for the current study. In a similar vein, the trend that values teamwork in the workplace in the United States (e.g., Manz, 1992) might have influenced how American participants responded to the cultural value scale. It is possible that the social desirability of showing "team-orientation" among American students affected accuracy of the measurement. On the other hand, lately, Japanese youths tend to desire to be more individualistic (Minami, 2000). The blurring distinction between collectivism and individualism might have been a factor that contributed to the surprising result in this study.

The third point is implied by a study by Minami (2000). More young Japanese individuals tend to show more individualistic characteristics (Minami, 2000). In addition, the Japanese sample in the current study consisted of young individuals who had decided to come to the United States to study. They might have demonstrated individualistic characteristics because of being in the United States for a few months. As American participants may think it is socially desirable to be more collectivistic, Japanese participants might think it is socially desirable to appear to be more individualistic in responding to the scale.

#### Possible Explanations for the Current Result

It was clear that one of the independent variables, collectivistic-individualistic cultural difference, was not established in the study. The other independent variable, conditions, was not implemented well either as there was limited difference due to conditions. The question is what factors may have contributed to the results. As mentioned in the collectivistic-individualistic difference section, there were possible explanations for the unexpected finding in terms of the cultural difference in values. Aside from the value difference, there are other possible explanations for why the study did not fully support the hypothesis.

First, the power for statistical analysis of the interaction was low. As noted in the results section, the observed power for the interaction term was .303. Because the study used a convenience sample, it was difficult to obtain a large number of participants. This was particularly true for Japanese participants. The total number of eligible Japanese participants was 33, resulting in having a small number of people in each condition. If there were more participants in the study, the results could have been different.

The second issue is related to using a convenience sample. Because the number of Japanese students was limited, it was necessary to vary the number of people in each group. Although the number was kept between 3-4 and statistical testing showed no difference between groups, the same number of people in each group may be very important for a study which uses a group task. The issue of the constant treatment of participants leads to the next explanation, the language difference.

The last explanation deals with translation. As many other cross-cultural studies (e.g., Chu, et al., 1999 Earley et al., 1999; Farh et al., 1991) have struggled to keep everything constant when using different groups with different language use, the same issue was present in this study. Because two groups received instructions expressed in a different language, there might be subtle differences in instructions. These small

differences between two cultural groups might have affected manipulations in the present study.

#### Limitations of the Current Study and Suggestions for Future Research

There are several drawbacks/limitations in the present study. First, the power for testing the hypothesis was low. This was primarily due to small sample size, particularly for the Japanese sample. Relating to the small sample size, cell sizes were unequal. When using ANOVA, assumptions of ANOVA must be met. However, if there are equal cell sizes, problems associated with the violation of assumptions become less severe. On the other hand, if there are unequal cell sizes, assumptions must be met. Although the assumptions were met for the current study, for future studies, I suggest the use of a larger sample size and if possible, the use of equal cell sizes.

The second drawback was the difference in group sizes. There were groups of three and groups of four in this study. The distribution of the two sizes of the groups was not equal across conditions; the Japanese sample had only two groups of four, whereas the American sample had seven groups of four. Even though the effect of group size was confounded with culture, it is possible that the group size influenced self-evaluation scores. Future studies should use the same number of group sizes to minimize extraneous variables.

The third problem is that there were times in which two groups engaged in the task at the same time in the same room. Even though those groups that were placed in the same room did not generate the same group solutions, and the two-group or one-group condition did not influence the self-evaluation ( $\underline{F}(1, 85) = .118, \underline{ns}$ ), it is possible

that each group somehow influenced self-evaluation. Because the experimenter of the current study dealt with a limited sample, two groups were tested in the same room. However, this could trigger a spillover problem between groups in the same room. Therefore, future researchers should test one group at a time.

The fourth possible problem was the task. Even though Potter (1998) demonstrated that individuals could generate a variety of solutions to the parking problem, it was not the case in the current study. Compared to the average number of solutions 2.8 in Potter's (1998) study, the current study showed the average of 3.16 solutions. However, the Japanese participants generated significantly smaller number of solutions ( $\underline{M} = 2.73$ ,  $\underline{SD} = 1.206$ ) than American participants ( $\underline{M} = 3.43$ ,  $\underline{SD} = 1.25$ ), F (1, 85) = 6.55, p < .01. The choice of task may not have been appropriate for the Japanese sample. Even though Arias (2000) indicated that Japanese students have familiarity with the parking problem, they may not have faced the problems because many of them do not drive to school. In fact, only three of the Japanese participants said they drove to school, whereas all the American participants claimed that they drove to school at least twice a week. Future research must use an appropriate task for both samples when engaging in cross-cultural study.

Fifth, the process of translating experimental materials might not be optimal. Even though the current study utilized back-translation by English-Japanese bilinguals, it is possible that certain meanings might not translate accurately. If a researcher has access to a published translated scale, one should use the established scale. In any cross-cultural study using different languages, extra caution must be taken in translation processes. Lastly, other suggestions for the future studies stem from measuring possible variables that may influence usage of feedback in self-evaluation. It may be useful to measure whether individualists and collectivists differ in desire to "fit in" a group. The measurement will give more information about difference in collectivistic and individualistic culture beyond what the scale measured in the current study. In addition, if researchers use the field setting, how the self-evaluation of job performance will be used in the organization need to be measured. The purpose of the self-evaluation may make a difference in how workers approach the process.

#### **Conclusion**

Even though the study did not support the hypothesis, there was a difference between the two cultures. Despite previous findings, the collectivistic-individualistic did not match the traditional notion that Western country means individualistic, and Eastern country means collectivistic. The results may suggest that the difference may not stem from the collectivistic-individualistic differences. Beyond the traditional categorization, there may be something that can explain the difference in two cultures. It would be interesting to conduct an exploratory study to investigate what else may contribute to differences and what influences behaviors of people in two distinct cultures.

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# Chapter VI: Table

# Table 1

## Descriptive Statistics of Cultural Value Score and Self-Evaluation Score

	American		Japane	se	Total		
	M	<u>SD</u>	<u>M</u>	<u>SD</u>	M	<u>SD</u>	
Cultural Value	54.00	7.44	48.58	7.42	51.92	7.85	
Self-Evaluation	26.78	4.09	24.55	5.18	25.94	4.59	

Note: The possible maximum cultural value score was 35. The possible maximum selfevaluation score was 77. The total number of participants was 86 (33 Japanese and 53 Americans).

# Table 2

# Analysis of Variance for Hypothesis Testing

Source	<u>df</u>	<u>F</u>	р
Country	1	4.901	.030
Condition	1	3.165	.079
Country x Condition	1	2.127	.148
Error	83	NA	NA

	Individual +/Group -		Individual -/	Group +	Total	
	M	<u>SD</u>	M	<u>SD</u>	M	<u>SD</u>
Japanese	23.00	5.06	26.19	4.93	24.55	5.18
Americans	26.62	4.04	26.93	4.20	26.78	4.09
Total	25.19	4.76	26.67	4.31	25.94	4.63

Mean Self-Evaluation Scores and Standard Deviations for Each Condition

Note. The interaction between country and condition was not significant. The main effect of country was significant at p < .03. The main effect of condition was not significant.

# Chapter VII: Figure

# Figure Caption

Figure 1. Mean self-evaluation scores for conditions x country.



#### Chapter VIII: Appendix

## Appendix A

## Parking Problem

It is difficult to find a parking space at UNO. There is approximately one parking space for every two people on campus, and although this doesn't sound too bad, anyone who has tried to find a spot at 10 a.m. knows there is a problem. The park just south of the university provides additional spaces, but it is also filled during peak hours. The university would like to hear from representatives of various departments about concerns and needs in order to come to one solution to this parking problem.

#### Appendix B

#### Admissions

We understand that there is not enough parking space for students, especially during the peak hours. However, we cannot agree with any solution that requires a decrease in the number of students because we need the growth of the student body at UNO.

#### Finance department

UNO cannot financially afford to provide any more services to students regarding the parking problem. It is expensive enough to operate the shuttle bus services. Anything that demands the university's money is not an option.

#### Public relations

Anything that disturbs the surrounding neighborhood triggers complaints from the area residents. We need to decrease the complaints from area residents in order to maintain a good relationship between the university and the community.

#### Student senate governor

We understand that it is better to park at Ak-Sar-Ben and take the shuttle bus to the campus. However, it is very time consuming. As most of students work outside of the campus, convenience is our biggest concern.

#### Appendix C

Please answer following questions about your performance on the problem-solving task **using the feedback** you just received. Please use the following scale and mark your answers on the answer sheet provided.

5 7 1 2 3 4 6 Slightly Strongly Disagree Slightly Neutral Agree Strongly disagree disagree agree agree

- 1. I was able to generate a good solution based on my assigned role.
- 2. My contribution to the group's final solution was significant.
- 3. I played a critical role in the group's final solution.
- 4. I was effective in presenting the point of view in my assigned role.
- 5. Using a 7-point scale, with 7 being VERY GOOD, what score would you give your performance as an individual? Please <u>mark your answer on the answer</u> <u>sheet</u> provided.

1	2	3	4	5	6	7
Very	Poor	Somewhat	Neutral	Somewhat	Good	Very
poor		poor		good		good

Appendix D

Cultural Values Measure

This section asks about <u>your beliefs about working as a group</u>. Please answer each question using the following scale and <u>mark your answers on the answer sheet</u> provided.

2 5 7 1 3 4 6 Slightly Strongly Strongly Disagree Neutral Slightly Agree disagree disagree agree agree

- 6. A work group is more productive when its members do what they want to do rather than what the group wants them to do.
- 7. A work group is more productive when its members do what they think is best rather than what the group wants them to do.
- 8. A work group is more productive when its members follow their own interests and concerns.
- 9. I prefer to work with others in a work group rather than work alone.
- 10. Given the choice, I would rather do a job where I can work alone rather than do a job where I have to work with others in a work group.
- 11. I like it when members of a work group do things on their own, rather than working with others all the time.
- 12. People in a work group should be willing to make sacrifices for the sake of the work group.
- 13. People in a work group should realize that they sometimes are going to have to make sacrifices for the sake of the work group as a whole.
- 14. People in a work group should recognize that they are not always going to get what they want.
- 15. People should be aware that if they are going to be part of a work group, they are sometimes going to have to do things they don't have to do.
- 16. People in a work group should do their best to cooperate with each other instead of trying to work things out on their own.

# Appendix E

1.	Did you think the scores you received were accurate?	Yes	No
	Tell us why.		

2. Did you believe the scores were based on the previous solutions? Yes No Tell us why.

# Appendix F

## Scores

Based on the standardized scoring system established through previous solutions, the score for your individual solution was:

1	2	3	4	5	6	7	8	9	10
Poor									Excellent

Based on the standardized scoring system established through previous solutions, the score for the group solution was:

1	2	3	4	5	6	7	8	9	10	
Poor									Excellen	t

Appendix G

## Instructions

Please read the parking problem and the description of concerns/needs your position holds.

Your task is to 1) generate as many solutions as possible based on the description of concerns/needs specific to your assigned position, and circle the best solution, and 2) represent your position in a group discussion in generating one master solution as a group.

You will have 5 minutes to generate a solution according to your assigned position. You MUST work independently.

You will have 10 minutes to generate a master solution as a group. You MUST generate one solution as a group.

You MUST generate a unanimous solution as a group.

Appendix H Demographic Data				ID#
Age:				
Gender: Male	Female			
Race: Caucasian	African-American	Asian	Latino	Other:
Year in College: 1	2 3 4	<sup>6</sup> 5 or m (For A	ore merican pa	urticipants only)
Months in the United States	s: months	(For Ja	apanese par	ticipants only)
Major:				
Occupation:				
Have you engaged in a simi	lar group task before	e? Yes	No	
If yes, did you enjoy	vit? Yes	No		
Do you drive to UNO?	Yes No	,		
If yes, how often?	days per w	eek		
Have you experienced any	parking problem?	Yes	No	)
What do you think about the	e parking issue at UI	NO?		