

IMPACTS OF SOCIAL IDENTITY, IMAGE MISPERCEPTIONS, AND UNCERTAINTY IN
CHINA-JAPAN CONFLICT: POLITICAL-PSYCHOLOGICAL ANALYSES

BY

ASAKO BROOK STONE

A dissertation submitted in partial fulfillment of
The requirements of the degree of

DOCTOR OF PHILOSOPHY

WASHINGTON STATE UNIVERSITY
Department of Psychology

August 2006

© Copy right by ASAKO BROOK STONE, 2006
All rights Reserved

© Copyright by ASAKO BROOK STONE, 2006

All Rights Reserved

the Faculty of Washington State University:

The members of the Committee appointed to examine the thesis of Asako Brook Stone find it satisfactory and recommended that it be accepted.

Chair

ACKNOWLEDGEMENTS

This work was completed with the support of many individuals. First I would like to acknowledge my committee chair of experimental psychology Dr. Craig Parks and of political science Dr. Martha Cottam, and the other committee members Dr. Noriko Kawamura and Dr. Thomas Preston. Each committee had provided me with distinct yet inter-related knowledge. I am very much appreciative of them.

I also would like to acknowledge two amazing individuals who made my dissertation so much more manageable: Cory Lancaster and Mark Stone. While I taught myself ASP.NET to develop a computer program for data collection, they have supported me both technically and emotionally throughout the development. My success in creating a website for this dissertation research depended on their help. For translation of English texts into Mandarin and Japanese, I would like to thank Man Lee (Mandarin), Zhiqiong Hou (Mandarin), and Yuko Sudo (Japanese). Data collection in China and Japan was possible with their generous help.

I also thank my research assistants Chris Haguwood and Maria-Alicia Kelly. Chris helped me with gathering governmental documents for content analyses, while Maria coded those documents as a blind coder. Both of them also helped me with a pilot study for the experimental study in this dissertation to examine whether the experimental manipulation worked.

Lastly I would like to show my gratitude to my family and friends, especially to my husband Mark for his existence, my dear sister Shoko for her unconditional love, my dear friends Jutta and Shel Llee for their tremendous support, and my companion Jackie for her undivided attention. They all make my life so much more meaningful, and I am very blessed to have them in my life.

IMPACTS OF SOCIAL IDENTITY, IMAGE MISPERCEPTIONS, AND UNCERTAINTY IN
CHINA-JAPAN CONFLICT: POLITICAL-PSYCHOLOGICAL ANALYSES

Abstract

by Asako Brook Stone, Ph.D.

Washington State University

August 2006

Chair: Craig D. Parks

This paper describes a study that attempts to show how detrimental effects of psychological errors can underlie international conflict. Relations between the People's Republic of China and Japan have been officially normalized since 1972 (Rose, 2005). Despite positive rhetoric that has occurred in Chinese and Japanese exchanges, a series of political conflicts has shown how the history between these two countries continues to affect the way in which they relate to each other. With China's rising economic power and cooperation with Japan, diplomatic relations between China and Japan became highly relevant to the United States. As an attempt to better understand the root causes of Sino-Japanese conflict and to suggest ways to alleviate such conflict, the present research extends intergroup relations and conflict resolution research using both qualitative and experimental methods.

For the qualitative analysis, image theory was used to reveal images of decision makers in China and Japan and its influence in their decisions. The results showed that there are three distinct image-relevant relations between China and Japan: economic, political, and historical relations. Further analyses confirmed that misperceptions in their historical relations were a

cause of China-Japan conflict, and their nature of relations changed from the early 1930s because of China's recent growth.

For the experimental study, social identity theory and the concept of social dilemmas were utilized in order to examine choice behavior of Chinese and Japanese in a mixed-motive setting. The results showed that their social identity and situational uncertainties were root causes of their conflict. Because of their ethnic similarities, the clarity of their distinction was threatened and ultimately led to hostility between Chinese and Japanese. Uncertainties also created a situation in which Chinese and Japanese became more susceptible to misperceive each other's intentions and behaviors. In other words, they became more susceptible to escalation of conflict spirals.

This study identified image misperceptions, social identity, and uncertainty as root causes of China-Japan conflicts. Based on the information gathered from this study, several suggestions to alleviate their conflict were offered and future studies were suggested. Even though further research is necessary, this study provided valuable information about China-Japan relations.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS.....	iii
Abstract.....	iv
TABLE OF CONTENTS.....	vi
LIST OF FIGURES	x
CHAPTER 1: INTRODUCTION.....	1
Overview.....	1
Chapter Summary	4
CHAPTER 2: CHINA-JAPAN RELATIONS.....	10
Overview.....	10
Economic Relations	10
U.S.-Japan Security Alliance	12
Historical Disputes.....	14
The East China Sea Islands.....	15
Japanese History Textbooks	17
Yasukuni Shrine.....	18
Summary.....	19
CHAPTER 3: PSYCHOLOGICAL FRAMEWORKS.....	20
Overview.....	20
Social Identity	20
Social Identity theory.....	21

Subjective Group Dynamics	22
Images	23
Image theory	24
Social Dilemmas	27
Relevant Findings in Social Dilemmas	28
Resource Dilemmas	30
Summary	33
CHAPTER 4: CONTENT ANALYSIS	35
Overview	35
Hypotheses	36
Image Misperception	36
The Complexity of the Relations	37
Data Sources	39
Methods	40
Results	41
Economic Relations	42
Political Relations	47
Historical Relations	52
Discussion	58
Japan's Pre-war Image of China (1931-1933)	59
Data Sources	60
Results	60
General Discussion	64

CHAPTER 5: EXPERIMENTAL STUDY	67
Overview.....	67
Hypotheses.....	68
Hypothesis 1 (Social Identity)	68
Hypothesis 2 (Uncertainty).....	69
Hypothesis 3 (Nationality).....	70
Method	70
Design	70
Participants.....	71
Apparatus and Stimuli.....	71
Procedures.....	74
Results.....	75
Hypothesis 1 (Social Identity)	75
Hypothesis 2 (Uncertainty).....	80
Hypothesis 3 (Nationality).....	84
Discussion.....	85
Limitation and Future Directions.....	86
Conclusion	89
CHAPTER 6: IMPLICATIONS AND SIGNIFICANCE.....	91
Overview.....	91
Content Analyses	93
The Experimental Study	97
Summary.....	100

REFERENCES	101
RESEARCH DOCUMENTS.....	115
Chinese Image of Japan	115
Japanese Image of China	117
Appendix A: Image Indicator	120
Appendix B: Conceptual Analysis Summary Sheet	123
Information	123
Summary	123
Appendix C: Programming Code for the Website Used in This Study	124

LIST OF FIGURES

Figure 1: Seven Images.....	26
Figure 2: China-Japan Economic Relations.....	47
Figure 3: China-Japan Political Relations.....	52
Figure 4: China-Japan Historical Relations	58
Figure 5: Effects of Social Identity on Intergroup Bias	76
Figure 6: Effects of Social Identity on Perceived Similarities.....	77
Figure 7: Effects of Social Identity on Harvest Points	78
Figure 8: Effects of Uncertainty on Harvest Points	82
Figure 9: Effects of Uncertainty on Intergroup Bias	83
Figure 10: Nationality and National Identities.....	85

CHAPTER 1: INTRODUCTION

Overview

This study was conducted in order to examine the causes of China-Japan conflict from a political psychological perspective. Officially, China-Japan relations have been normalized since 1972 (Rose, 2005). Despite positive rhetoric exchanged between them, a series of political events showed how their relation was still influenced by their past. Those events could be as cultural as booing Japanese soccer players by Chinese fans during the soccer championship Asian Cup 2004, and as political as controversies with regards to the Yasukuni Shrine, Japanese history textbooks, and Diaoyu Islands / Senkaku Islands.

China-Japan relations should be of interest to the U.S. for several reasons. Economically, China became the third largest trade partner for the U.S. in 2004 (Wayne, 2005). The ratio of China's exports to the U.S. to the U.S. exports to China reached 5 to 1 (U.S.-China Economic and Security Review Commission, 2005). This U.S.-China economic partnership accelerated debates amongst the press and Capitol Hill with regards to China's positions on political issues such as human rights, religious freedom, intellectual property rights (IPR), North Korea issues and Taiwan issues (U.S.-China Economic and Security Review Commission, 2005; Wayne, 2005).

In addition, China's political rival, Japan, is a U.S. security ally. The recent security collaboration between the U.S. and Japan also worsened China-Japan conflict by heightening perceived threats between the two countries. Today, China and the U.S. maintain their economic partnership, but there is no guarantee that their relations will be stifled by the negative nature between China and the U.S. such as the U.S.-Japan security collaboration or China-Japan

conflict. Such negativity between the U.S. and China also affects the U.S.-South Korea alliance, because of the China-South Korea alliance. Thus, it is important to better understand Northeast Asia in order to improve international relations amongst the U.S. and Northeast Asian countries.

Even though the ultimate goal of this line of research is to suggest modifications of U.S. foreign policy in Northeast Asia, this paper focused on China-Japan relations as the first step toward better understanding of the region. Understanding China-Japan relations and developing ways to alleviate their conflict is highly relevant to Northeast Asia as well as to the U.S. because China and Japan are the most powerful nations in Asia. Thus, it is an essential first step toward improving the U.S. foreign policies in the region.

As an attempt to better understand China-Japan relations, the present research extended intergroup relations and conflict resolution research using both qualitative analyses and an experimental study. Using a series of qualitative analyses based on the image theory, China-Japan relations at the governmental level were examined from a political-psychological perspective. Using an experimental study based on the subjective group dynamics and social dilemmas, China-Japan relations at the public level were examined from a social-psychological perspective. The results of the two studies were used to identify root causes of China-Japan conflict and determine possible ways to alleviate their conflict.

It is rather clear that the Sino-Japanese War II (1937-1945) is highly relevant to today's China-Japan conflict. There is a controversy over the fact with regards to their history. Japanese Prime Minister Junichiro Koizumi's repeated visits to the Yasukuni Shrine and Japanese history textbooks serve as examples for Chinese accusations that Japan has not faced up to its war crimes and for overlooking the atrocities they committed. The U.S.-Japan security collaboration and Japan's keenness toward becoming a permanent member of the United Nations Security

Council created further controversies between China and Japan. At the superficial level, those issues seem independent. However, there seems to be common threads from a psychological perspective.

Even though China-Japan conflict has been escalating, little research has been conducted to investigate a political-psychological aspect and a social-psychological aspect of their conflict. The objectives of this study were to address the following three elements of China-Japan conflict: 1) root causes of China-Japan conflict and of the Sino-Japanese War II; 2) why China and Japan have been successful economically while their political relations were stifled; and 3) why China-Japanese conflict has been difficult to resolve.

Two types of research methods were used to examine the three specific objectives. In order to achieve the first objective, this study investigated whether image misperceptions between China and Japan were a root cause of their conflict. Past research has shown the importance of identifying the root causes of conflict in order to facilitate conflict resolution, and has identified misperceptions as a common cause of conflict (Baron, 1990). Misperceptions could lead interacting groups to misunderstand each other and to make inaccurate assumptions about each other's intentions of their behavior (Jones & Harris, 1967). This becomes particularly problematic when decision makers base their decisions on their distorted perceptions.

The second objective was to examine how China and Japan managed to have both positive and negative relations simultaneously. Decision makers in China and Japan seemed diplomatic on one issue, while they clearly exchanged negative rhetoric on another. Even at citizen levels, both positive and negative interactions between Chinese and Japanese were observed very easily. Even though it is widely accepted that the Sino-Japanese War II was the underlining cause for many of the current China-Japan conflicts, it did not explain the complexity of today's China-

Japan relations and how their relations could be both negative and positive. Understanding the complexity of China-Japan relations was crucial to identify the root causes of their conflict.

Consequently, it would be essential for suggesting ways to alleviate their conflict.

The third objective was to examine whether their social identity could explain the reason why resolving China-Japan conflict has been a challenge. Past research has suggested that two groups that share some commonalities tend to be more hostile towards each other in order to maintain distinctions between them (Abrams, Marques, Bown, & Dougill, 2002). It is possible that this tendency exists in China-Japan relations as well. A series of content analyses were conducted to address the first and second objectives, while an experimental study was conducted to address the third objective.

Chapter Summary

In order to successfully address the objectives, this paper discussed each segment of the present study in six chapters: 1) Introduction; 2) China-Japan Relations; 3) Psychological Framework; 4) Content Analyses; 5) Experimental Study; and 6) Contributions and Significance. Each chapter focused on a specific aspect of the present study. Brief summaries of the chapters follow.

In order to establish foundations of the present study, chapter 2 briefly describes the China-Japan relation and justifies how the present study would contribute to understanding of their relations. This chapter first demonstrates that China and Japan face their security and historical issues while their economic relation grows rather rapidly and maintain their positive relations. Their security concerns have been heightened especially by the U.S.-Japan security alliance. The

issues of the Taiwan Strait concern all the relevant parties, and China feared Japan's possible remilitarization.

Their political relation with regards to their history has also been stifled. The East China Sea disputes are unresolved, and the situation is further complicated by the presence of natural gas in the area. Japanese history textbooks heighten tensions between China and Japan with regards to their unfortunate history, and Japanese Prime Minister Junichiro Koizumi's repeated visits to a controversial Yasukuni Shrine negatively affect China-Japan relations.

These examples establish that alleviating their tensions is necessary and calls for immediate attentions. As a summary, the chapter justified why those issues between China and Japan must be investigated scientifically and addressed properly. In short, this chapter provides contextual information about China-Japan conflict and the importance of examining the China-Japan relation. With China's growing economic power and Japan's alliance, their conflict should be a U.S. interest as well.

Chapter 3 describes the psychological frameworks used in the present study. The chapter consists of three concepts: social identity, images, and social dilemmas. Social identity, specifically the social identity theory and the subjective group dynamics, are described in order to demonstrate how categories based on Chinese or Japanese nationalities create tensions between them. The root causes of China-Japanese conflict was investigated in the experimental study by applying the frameworks of these two theories.

The image theory describes how images are formed and how political-psychological properties would affect decision makers' decision processes. It is an established way to investigate the linkage between decision makers' image perceptions and their resulting behavior, and it is often used to examine U.S. foreign policy processes. The present study extends image

theory by applying it to China and Japan, in order to identify both image perceptions and misperceptions. The image theory is traditionally used to identify images, but the present study expands its usage to identify misperceptions that exist in international relations.

In addition, the concept of social dilemmas was described. By creating a situation in which a decision between cooperation and competition would be difficult, the concept of social dilemmas would simulate the China-Japan relations psychologically and enable the examination of Chinese and Japanese behavior in a controlled setting. The present study was conducted in order to extend past research on these psychological frameworks as well as to investigate China-Japan relations. Specifically, the sequential resource dilemma game (RDG) was used in the present study to optimize simulations of China-Japan relations.

Lastly, this chapter briefly describes the two distinct studies conducted in this paper: 1) the content analyses that were based on the image theory and 2) the experimental study that used the subjective group dynamics theory, uncertainty, and the social dilemmas. This chapter justified the use of these research methods to investigate the China-Japan conflict, and how using these two methods complemented each other and benefited to achieve the goals of the present study.

Chapter 4 describes the content analyses applying the image theory in the present study in detail. For the analyses of images in the recent China-Japan relations, the research documents were collected from governmental websites. A series of books published from the Ministry of Foreign Affairs of Japan were used to analyze Japanese images of China before the Sino-Japanese War II. All the documents were coded by two researchers in order to maximize the inter-coder reliability (Tinsley & Weiss, 1975). There were two specific research hypotheses in the content analyses. One was that there would be image misperceptions between China and Japan. The

other was that the complexity of China-Japan relations would necessitate more than one set of images toward each other.

The results of those analyses revealed detrimental effects of image misperceptions between China and Japan as well as the complexity of their relations. As the hypotheses of this study predicted, image misperceptions in China-Japan relations affected their relations for better or for worse. The study suggested minimizing the misperceptions with detrimental effects to alleviate tensions between China and Japan.

China-Japan relations were found to be very complex indeed. In order to manage the complexity, Chinese and Japanese decision makers compartmentalized their relations into three independent categories: economic, political, and historical. This compartmentalization of their relations enabled them to maintain both positive and negative relations between them. Thus, hypothesis 1 was confirmed.

In order to examine why the war occurred and why their relations have not been resolved, a historical analysis was conducted using statements from the Ministry of Foreign Affairs of Japan in the 1930s. The results suggested that the Japanese image of China changed over time, as China became economically and militarily more capable.

Chapter 5 described the experimental study in the present study in detail. Unlike the content analyses, this experimental study revealed how one's social identity and situational uncertainty affected his/her attitudes and behaviors in a social dilemma setting. There were three sets of hypotheses in the experimental study: social identity, uncertainty, and nationality. These three concepts were examined through a variety of scales that accessed attitudes and behaviors of the participants.

The results of the experiment revealed that ethnic similarities between Chinese and Japanese contribute to their conflict. Their ethnic similarities made their distinctions rather ambiguous and threatened the clarity of their social identity based on their nationality. As a result, Chinese and Japanese evaluated each other more negatively than other outgroup members (i.e. Americans) who did not threaten their social identity.

In addition, uncertainty was identified as a contributor to conflicts between China and Japan. In an uncertain situation, Chinese and Japanese evaluated others more negatively and behaved more competitively than in a certain situation. Because the trial outcome was not relevant in an uncertain situation, it was suggested that uncertainty might heighten susceptibility of Chinese and Japanese participants to misperceive each other. Further studies are necessary, but the results provide insightful information about the root causes of the China-Japan conflict.

Compared to Japanese participants, Chinese participants were found to have stronger identity based on their nationality. This was also evident from their intergroup bias, which showed that Chinese participants evaluated other Chinese people more positively than Japanese participants evaluated other Japanese people. Lastly, this chapter suggests follow-up studies to achieve the ultimate goal of providing applicable policy suggestions to alleviate the China-Japan conflict.

As the closing chapter, chapter 6 summarizes the importance and contributions of the present study. Inferences are drawn from the studies and possible methods to alleviate tensions between China and Japan are suggested. Relevance to U.S. foreign policy is also discussed, in order to suggest future steps in policy.

The two studies identified the root causes of the China-Japan conflict from a social-psychological perspective as image misperceptions and their ethnic similarities. The research also found that sensitivity to perceived threats and situational uncertainties escalated their

conflict. In order to improve their relations, minimizing image misperceptions and salience of their ethnicities were suggested.

In addition, salience of ethnic similarities between Chinese and Japanese could be minimized by introducing a new identity, such as a superordinate identity. The effect of a superordinate identity on alleviating international conflict is evident in their economic relations. Through international organizations like the Asia-Pacific Economic Cooperation (APEC) and the Association of Southeast Asian Nations (ASEAN) + 3 (China, Japan, and South Korea), China and Japan interact with each other in multi-national settings rather than in bilateral settings. This enhances their ingroup-ness, and their ethnic similarities become less salient.

Lastly, this study suggested that the ethnicities of a third-party mediator should be considered in order to avoid creating a certain SGD. It is because tensions originated from Chinese and Japanese ethnicities are heightened by the presence of Americans. The study suggests that the ethnicity of a third-party mediator should trivialize ethnic similarities between Chinese and Japanese.

CHAPTER 2: CHINA-JAPAN RELATIONS

Overview

In 2005, China and Japan marked the 60-year-anniversary for the end of the Sino-Japanese War II and World War II. While U.S. and Japan re-established cooperative relations, China-Japan relations have remained problematic. Recent Chinese economic growth has fostered a positive economic relation between China and Japan, but the positivity does not seem to extend to their overall relations. It is apparent that unresolved historical issues between China and Japan stifle their relations, but the root causes of these issues are still unidentified. Among many events that have heightened frictions between China and Japan, the following examples are reoccurring issues in the recent years.

Economic Relations

China and Japan are major trade partners. China is the largest exporter to Japan, while Japan was the largest market for China (Ministry of Foreign Affairs of Japan, 2004c). In 2000, the trade volume between China and Japan was US \$ 83.166 billion (Ministry of Foreign Affairs of Japan, 20001). Both China and Japan serve important roles in the regional economy, and their active roles are observable in organizations such as the Asia-Pacific Economic Cooperation (APEC) and the Association of Southeast Asian Nations (ASEAN) + 3 that includes Japan, China, and South Korea (Ministry of Foreign Affairs of Japan, 2002c).

With regards to China-Japanese bilateral economic relations, the Chinese government stated, "...positively appraised the achievements of the cooperation" and their economies were "getting increasingly interdependent." (Ministry of Foreign Affairs of the People's Republic of China,

2004k). The Japanese government recognizes the importance of cooperative relations with China as well. The Ministry of Foreign Affairs of Japan stated, “It is desirable from Japan's perspective to have a more open and more stable society in China that is willing and able to fulfill its responsibilities as a member of the international community.” (Ministry of Foreign Affairs of Japan, 2001). Japan expressed their expectation for China to become more involved in the international community, and Japan’s willingness to support China in that direction. Japan provides financial support through Official Development Assistance (ODA), to “build broad, multi-layered relations with China, through bilateral cooperation in the political, economic, and cultural spheres, grass-roots level human interaction and stronger academic exchanges, and thus to increase the mutual understanding and trust of the two countries” (Ministry of Foreign Affairs of Japan, 2001).

Since 1979, Japan has provided ODA to China and the total amount of the financial support up to 2005 was “approximately 3.1331 trillion yen in loan aid (yen loans), 145.7 billion yen in grant aid, and 144.6 billion yen in technical cooperation have been implemented.” (Ministry of Foreign Affairs of Japan, 2005c). As China became increasingly strong and independent in its economy, Japan reduced the ODA to China in 2002 (Japanese Ministry of Foreign Affairs, 2004c).

Today, economic ties between China and Japan are stronger than ever. With mutual benefit from their cooperation, interdependence, and superordinate identity such as APEC and ASAN+3, China-Japan economic relations have good foundations for cooperative relations

U.S.-Japan Security Alliance

The U.S.-Japan alliance has lacked in military/strategic relations since World War II. Evoked by the incident of North Korean ballistic missile testing in 1998, the U.S. and Japan moved forward on security collaboration. The Bush administration shifted the emphasis of U.S. - Japan relations from economy to security issues. Pressured from the U.S., Japan moved forward to change its interpretation of peace, especially to reinterpret Article 9 that unconstitutionally 'militarizes' and 'collective defense' (Gershman, 2002; Xinbo, 2005).

Their successful security alliance has come at cost, especially the U.S.-China relations and China-Japan relations. China's main concerns raised from the U.S.-Japan security alliance are the Taiwan issues and Japan's possible remilitarization. This is because the Taiwan Strait was included in the parameters of their defense cooperation guidance in 1996-1997, and because Japan reconsidered the interpretation of their constitution Article 9 (Xinbo, 2005). Regarding China's concerns, the U.S. Department of State stated, "The United States well understands China's position on Taiwan, just as China understands ours. U.S. policy remains consistent and will not change. The United States is committed to its "one China" policy, as well as to longstanding obligations under the Taiwan Relations Act. We do not support Taiwan independence. We have an abiding interest, above all else, in the peaceful resolution of cross-Strait differences. China should share this interest. The extraordinary growth of economic interchange across the Taiwan Strait – between Taiwan's tremendously entrepreneurial people and their counterparts across the Strait – ought to show us all just how important it is to preserve the peace. Both China and Taiwan have an interest in economic growth, and in fashioning a peaceful and cooperative future. Yet China's deployments of missiles and its military acquisitions directed at Taiwan only deepen tensions and suspicion. As Secretary Powell said in

a speech last June, "whether China chooses peace or coercion to resolve its differences with Taiwan will tell us a great deal about the kind of relationship China seeks, not only with its neighbors but with us." (U.S. Department of State, 2002). This section will briefly describe these two issues.

Taiwan Issues

The U.S.-Japan security alliance intensified the tension in Asia, especially between China and Japan. China raised its concerns toward the Taiwan Strait (Huntley & Brown, 2001; Nolt, 2000). Taiwan's hope is to become independent by gaining support from the U.S. militarily. For China, independence of Taiwan leads not only to an immediate instability in China but also to fostering other non-nationalistic populations such as Tibet and Xinjiang to be "...unleashed by actual Taiwan independence" (Huntley & Brown, 2001).

Article 3 of the Sino-Japanese Joint Statement signed on September 29, 1972 states "The government of the People's Republic of China reiterates that Taiwan is an inalienable part of the territory of the People's Republic of China. The government of Japan fully understands and respects this position of the government of the People's Republic of China, and shall firmly abide by the principles under Article 8 in the Potsdam Proclamation." (Ministry of Foreign Affairs of the People's Republic of China, 2002). As Taiwan is a part of China, the Chinese government opposes any Japan-Taiwan relations at the official level. This so-called "one China policy" of the Chinese government calls for Japan's active role to exclude Taiwan from the U.S.-Japan security cooperation (Ministry of Foreign Affairs of the People's Republic of China, 2002). China also stated, "The Chinese side emphasized that Taiwan is an inalienable part of the territory of China. Any action of including Taiwan into the scope of US-Japan security cooperation, either directly or indirectly, will be strongly opposed and unacceptable to the Chinese government and people.

The Japanese side should take concrete actions in honoring its solemn commitments so far it had made and dispel, in a convincing manners, the doubts and worries on the orientation of the Japanese military from the neighboring countries, including China.” (Ministry of Foreign Affairs of the People’s Republic of China, 2002).

Even though China claims Japan’s policy toward Taiwan is against their agreement, the Deputy Press Secretary Tomohiko Taniguchi stated the following during a press conference on January 31, 2006: “...Japan's longstanding position that we would not want any status quo to be broken by any unilateral action from both sides and that no military or political confrontation should happen. It has been Japan's longstanding position that we will uphold our positions expressed in the Joint Communiqué between Japan and China. We do not take a policy of two Chinas or one China and one Taiwan.” (Ministry of Foreign Affairs of Japan, 2006a).

Japan’s Remilitarization

The U.S.-Japanese security cooperation also led China to be concerned about Japan’s possible remilitarization. “With the introspection of the past, Japan would take the road of a peaceful country under the peaceful situation. Japan would adhere to the "the Policy of Defense Limited to its Own Territory and Coastal Water" and abide by the Three Principles of Non-Nuclearization, and insist on the policy of not seeking for a military power”. (Ministry of Foreign Affairs of People’s Republic of China, 2002).

Historical Disputes

China-Japan relations are often stifled by their negative history. There are many unresolved issues from the Sino-Japanese War II. “Comfort women” who suffered through forced labors by Japanese military and abandoned chemical weapons in China are some examples. A

deterioration of China-Japan relations escalated as the U.S.-Japan security collaboration preceded. China was increasingly concerned about the way Japan dealt with issues regarding their unfortunate history (Xinbo, 2005). In this section, some issues related to histories between China and Japan will be briefly described.

The East China Sea Islands

The East China Sea Islands are eight uninhabited islands. Their sovereignty is disputed and both China and Japan claimed these oil-rich islands. Japan claimed that they discovered the island in 1895 and incorporated them when they were unclaimed. According to the claim, based on the evidence that showed no trace of habitation, the Government of Japan incorporated the Islands (named Senkaku) into Japanese territory on January 14 1985. Because the islands were not a part of Taiwan, they were not affected by the treaty of Shimonoseki in 1895. The US took control over the Senkaku Island under Article III of the San Francisco Peace Treaty after WWII, and the Islands were returned to Japan with the US-Japan agreement.

On the other hand, China claims that these islands were discovered by China in 1403. Since then, the Islands were administrated as a part of Taiwan and were used as operational bases for Chinese fishermen. The Islands (named Diaoyu) were transferred to Japan with Taiwan under the treaty of Shimonoseki in 1895. Consequently, the islands, along with Taiwan, were returned to China under Potsdam Proclamation in 1945. To this, Japan addressed, “The Senkaku Islands have been placed under the administration of the United States of America as part of the Nansei Shoto Islands, in accordance with Article III of the said treaty, and are included in the area, the administrative rights over which were reverted to Japan in accordance with the Agreement Between Japan and the United States of America concerning the Ryukyu Islands and the Daito

Islands signed on 17 June 1971. The facts outlined herein clearly indicate the status of the Senkaku Islands being part of the territory of Japan. The fact that China expressed no objection to the status of the Islands being under the administration of the United States under Article III of the San Francisco Peace Treaty clearly indicates that China did not consider the Senkaku Islands as part of Taiwan.” (Japanese Ministry of Foreign Affairs, 2006b).

The disputes over the Islands deepened in 1969, when the UN Economic Commission for Asia and the Far East (ECAFE) reported the possibility of large oil reserves around the Islands (Cheng, 1974). Regarding this matter, the Chinese government stated, “In view of the different positions on Diaoyu Islands from the Japanese side, the Chinese government, proceeding from the development of the Sino-Japanese relations and on condition of adhering to the Chinese consistent positions, reached an understanding with the Japanese government: (1) The issue of the Diaoyu Islands shall be shelved for future settlement, (2) neither sides should take unilateral actions and (3) The two sides should try to prevent this issue from becoming an disturbing factor in the overall bilateral relations.” (Ministry of Foreign Affairs of People’s Republic of China, 2002).

Regarding this issue, Japan stated, “It was not until the latter half of 1970, when the question of the development of petroleum resources on the continental shelf of the East China Sea came to the surface, that the Government of China and Taiwan authorities began to raise questions regarding the Senkaku Islands. Furthermore, none of the points raised by the Government of China as "historic, geographic or geological" evidence provide valid grounds, in light of international law, to support China's arguments regarding the Senkaku Islands.” (Japanese Ministry of Foreign Affairs, 2006b). The dispute is still ongoing.

Japanese History Textbooks

Japanese junior high school history textbooks are a volatile political issue in Asia, especially in China, South Korea, and even within Japan. It is because the contexts of those textbooks are believed to be inaccurate and/ or overlooking the seriousness of the atrocities. The Chinese government stated, “The correct understanding of history is a sensitive political issue in the bilateral relations.” (Ministry of Foreign Affairs of People’s Republic of China, 2002). The Joint Statement between China and Japan in 1972 is often brought up in this context as the basis for their bilateral relations. Even though both Chinese and Japanese leaders agree that correctly perceiving their history is essential for their relations, China still has not seen any changes from Japan (Ministry of Foreign Affairs of People’s Republic of China, 2002).

On the other hand, the Japanese government released the procedure to examine school textbooks. Under the current system, enacted in 1947, the Ministry of Education approves school textbooks based on the recommendation by the Textbook Approval Research Council (Ministry of Foreign Affairs of Japan, 2005b). According to the statement from the Ministry of Foreign Affairs of Japan, the procedures were simplified in 1989. Since then, the examination procedures only require textbooks to fit the set curriculum standards and give private publishers more freedom in how they deliver the material (Ministry of Foreign Affairs of Japan, 2005b). Upon the approval of textbooks by the Ministry of Education, the public ultimately decides which textbooks are appropriate, as “the final decision on which books to use rests with local boards of education in the case of public schools, and with the schools themselves in the case of private institutions.” (Ministry of Foreign Affairs of Japan, 2005b). The Japanese government did not state its position on the content of those textbooks, however.

Yasukuni Shrine

Chinese decision makers perceive the Japanese Prime Minister's repeated visits to Yasukuni Shrine utterly damaging to China-Japan relations. The Chinese government stated, "since the beginning of 2001, the issues of Japanese history textbook and the paying of homage to the Yasukuni Shrine take place continuously, severely disturbing the development of the Sino-Japanese relations. The Chinese side fought firmly against them in a timely manner and urged the Japanese government to abide by the statement and promise to strictly restrain the right wings with concrete actions and educate its people with the correct perception of history. During a working visit to China in October 2001, Japanese Prime Minister Junichiro Koizumi visited the Museum of Chinese People's War of Resistance Against Japan. He expressed his apology and condolence over the Chinese people who lost their lives in the Japanese invasion. He also stressed that Japan would review the history and no longer launch any war." (Ministry of Foreign Affairs of People's Republic of China, 2002).

On the other hand, the Japanese government's position on this issue supports Koizumi's decision. The Ministry of Foreign Affairs of Japan states, "Prime Minister Koizumi is of the firm conviction that Japan's present peace and prosperity are founded on the noble sacrifices made by those who lost their lives in the war. He visits Yasukuni Shrine to mourn and offer his respect and thanks to those who had to lay down their lives on the battlefield against their will; to reaffirm the importance of ensuring the present peace and prosperity of Japan, which those who died in the war were unable to witness; and to uphold Japan's pledge not to engage in a war. He makes the visits as an individual citizen, not in an official capacity. It is erroneous to view that Prime Minister Koizumi's visits to Yasukuni Shrine are an attempt to glorify Japan's past militarism. The Prime Minister has stated clearly that the purpose of his visits to the shrine is to

express respect and gratitude to the many people who lost their lives in the war, that he does not visit for the sake of the Class-A war criminals, and that Japan accepted the results of the International Military Tribunal for the Far East.” (Ministry of Foreign Affairs of Japan, 2005a).

To commemorate the 60th anniversary of the end of the war, Koizumi said, “In the past, Japan, through its colonial rule and aggression, caused tremendous damage and suffering to the people of many countries, particularly to those of Asian nations. Sincerely facing these facts of history, I once again express my feelings of deep remorse and heartfelt apology, and also express the feelings of mourning for all victims, both at home and abroad, in the war. I am determined not to allow the lessons of that horrible war to erode, and to contribute to the peace and prosperity of the world without ever again waging a war.” (Ministry of Foreign Affairs of Japan, 2005c).

Summary

This chapter described several issues that impact China-Japan relations. While China and Japan have maintained positive economic relations, they have not improved their negative political relations. From the security issues surrounding the U.S.-Japan security alliance to the historical issues such as Koizumi’s repeated visits to Yasukuni Shrine, there are a number of problems that China and Japan have encountered. These problems appear to be mostly independent on the surface, but common threads to these issues should exist at the psychological level.

CHAPTER 3: PSYCHOLOGICAL FRAMEWORKS

Overview

The previous chapter described the contexts of China-Japan conflict. In order to understand the psychological aspects of the conflict, this chapter lays-out the psychological frameworks that are essential for the present study.

Psychological frameworks can help explain some of the root causes of conflict. There are three models that can potentially explain elements of China-Japan conflict: social identity, images, and social dilemmas. Social identity describes how people distinguish between ingroup and outgroup and how this distinction leads to social conflict; images describe possible root causes of social conflict by revealing how foreign policies are made; and social dilemmas, and in particular, sequential resource dilemmas, provides a research paradigm that can simulate the current state of China-Japan relations.

Social Identity

We have a fundamental need to reduce uncertainty in our social world (Hogg, 2000a), so we constantly draw inferences from social information. However, such information is often so complex that it exceeds our cognitive ability to process them all. Thus, people use cognitive categories to simplify incoming information and to process it efficiently. Ingroup and outgroup are two of the most fundamental categories in our social life. Those categories provide valuable information about others' behavior and characteristics, which in turn reduces uncertainty in our social world (Hogg, Abrams, Otten, & Hinkle, 2004). While this is a highly effective process, they can also contribute to intergroup conflict by sustaining simpler images (e.g. Fisher, 1990).

For the purposes the present study, there are two important mechanisms that relate ingroup/outgroup distinctions to conflict: Social identity theory and subjective group dynamics.

Social Identity theory

Social identity theory (Tajfel & Turner, 1979, 1986) argues that individuals have a fundamental desire to positively evaluate themselves to maintain or heighten their self-esteem. This desire can be fulfilled by positively evaluating an ingroup (Brewer, 1979; Tajfel & Turner, 1986; Turner, 1975) and/ or by discrediting an outgroup (Abrams & Hogg, 1990; Brewer, 1999; Hogg, Abrams, Otten, & Hinkle, 2004). The former is called ingroup favoritism, and the latter is called outgroup derogation. Even though both contribute to intergroup conflict, outgroup derogation is more problematic between those two, because it can lead to maintenance of preexisting views toward outgroup (Brewer, 1999; Brewer & Miller, 1996; Hogg & Abrams, 1985). Such views are highly problematic because those who rely upon them to make judgments become less open to other perspectives. Once established, people only seek information that supports those views and they become even more committed to their viewpoint. Consequently it becomes more and more difficult to change those views (Brewer & Miller, 1996; Forsyth, 1999).

Social identity theory is an important psychological framework for understanding China-Japan relations because it describes the processes in which Chinese and Japanese reduce uncertainty in their social world and maintain their self-esteem. Social identity theory thus identifies a possible psychological precursor to the Sino-Japanese War II II: Anti-Chinese sentiment. Anti-Chinese sentiment has long been imbedded in Japanese culture. Especially after Japan became an imperialist country, Japan claimed its superiority over other Asian countries (Frank, 1992). This is a classic example of a downward comparison of outgroup, and some

literatures suggest that such sentiment contributed to the Sino-Japanese conflict during the war. The question is why and how anti-Chinese sentiment was imbedded in Japanese culture.

Subjective Group Dynamics

Subjective Group Dynamics describes more detailed intergroup dynamics based on social identity theory and self-categorization theory, and argues that evaluations of others depend on how deviant they are from the group norm. Group members evaluate those who exemplify the norm (i.e., are positively deviant) positively, and those who deviate from the norm (are negatively deviant) negatively, because these latter individuals threaten the clarity of the boundaries between ingroup and outgroup (Hogg, 1992). The magnitude of those evaluations depends on the magnitude of people's identification with their ingroup (Hutchison & Abrams, 2003), such that people with strong ingroup identity evaluate prototypical ingroup behavior more positively and deviant ingroup behavior more negatively than those with weak ingroup identity.

Subjective group dynamics differentiates deviant behavior in two main directions: anti-norm and pro-norm. While anti-norm deviants behave in opposite ways from their group norms, pro-norm deviants follow the group norms more so than the normative group members (Abrams, Marques, Bown, & Henson, 2000; Marques & Paez, 1994; Marques, Abrams, Paez, & Hogg, 2001). Thus, subjective group dynamics ends up with six basic social categories: ingroup pro-norm, ingroup normative, ingroup anti-norm, outgroup pro-norm, outgroup normative, and outgroup anti-norm.

According to social identity theory, the ingroup will be evaluated more positively than outgroup. However, studies on subjective group dynamics suggest that outgroup deviants are preferred to ingroup-deviants when the outgroup-deviant behavior is similar to ingroup-

normative behavior, because such outgroup behavior maintains ingroup values while ingroup behavior against such values and norms reduces clarity of distinctiveness (Abrams, *et al.*, 2002). For example, an outgroup member who values one's social norm is more attractive than an ingroup member who violates such social norm. In such situations, outgroup members are deviant towards one's social norm while ingroup members are deviant away from the norm. The subjective group dynamics model is capable of explaining some aspects of intergroup process that social identity theory cannot.

Applying subjective group dynamics to the China-Japan conflict, there is some evidence that the Japanese might have perceived the Chinese as a deviant ingroup, and as such wanted to be more clearly differentiated from the Chinese by the rest of the international community. Japan became modernized during the Meiji restoration in 1868 and that led to cultural ethnocentrism in Japan, in that Japan developed an ambition to join "Western cultures" by gaining power in Asia (Pyle, 1996). A Japanese desire to be distinct from other East Asian countries is evident from their series of acts in East Asia, and thus their negative attitude toward the rest of East Asia can be explained via subjective group dynamics. Because positive evaluations of ingroup are crucial for maintaining high self-esteem, anything that disturbs it is ostracized. Thus, the present study will examine whether Chinese and Japanese perceive each other as deviant ingroup rather than mere outgroup in an international setting.

Images

The relevance of perception in international relations is based on its contribution to conflict escalation. Perceptions are interpretations of reality, and thus perceptual errors or misperceptions create distorted reality (Herrmann, 1985). Without correcting those misperceptions, intergroup

interactions only lead to misunderstanding and ultimately lead to intergroup conflict. Image theory describes how a decision maker's perceptions of opponents can affect the ways in which foreign policies are implemented.

Image theory

Images are often used to process incoming information fast and to make fairly good judgments without overwhelming our cognitive capacity. Images, like stereotypes, are interpretations of reality. Because such images influence our actions, it is important to understand them and how they affect behavior. Image theory takes a political-psychological approach to the issue and draws a connection between policy makers' images of other countries and the behavior that results from such images (Herrman, Schopler, & Sedikides, 1997). These images tend to have multiple dimensions: Capability (superior, equal, or inferior), Culture (superior, equal, inferior, or weak-willed), Intentions (good, benign, or harmful), Decision-Making (by many, a few groups, small elite, or confused), and Perception (threats or opportunities). The combination of these dimensions results in one of seven images: Ally, Barbarian, Colonial, Degenerate, Enemy, Imperial, and Rogue (Cottam, Dietz-Uhler, Mastors, & Preston, 2004).

Ally Image

Ally image reflects equality in others' capability and culture. Their intentions are interpreted as good, and the complexity of decision-making processes is perceived (Cottam, 1986). However, because they are equally capable, they are perceived as a threat. Thus, maintaining alliance is important. Because of equality in capability and culture, diplomacy is an effective strategy to maintain peace amongst allies.

Barbarian Image

Barbarian image reflects superiority in capability while culture is perceived as inferior to a perceiver. A threat is perceived as a result because of lack of ability to reason and to think rationally. Unlike countries with the enemy image, a barbarian country is particularly threatening because diplomacy is not an effective way to resolve issues. In order to deal with threats posed by a barbaric country, perceivers form coalitions in order to gain power and security (Cottam *et al.*, 2004).

Colonial Image

A colonial country is believed to be inferior in their culture and capability, and their intentions are benign (Cottam, 1994). Because of this, they are perceived as opportunities (Cottam, 1994, Cottam & Cottam, 2001). This is a flip side of the imperial image, which is described later in this section. A colonial country is often patronized by an imperialist country, and citizens tend to feel powerlessness due to forceful behavior from an imperialist country (Cottam *et al.*, 2004).

Degenerate Image

While capability is perceived either equal or superior to a perceiver, a degenerate country is associated with opportunity rather than threat because of its culturally weak-willed nature. Decision makers of a degenerate country are seen as confused, and thus it seems impossible for a degenerate country to become successful politically (Cottam *et al.*, 2004).

Enemy Image

The enemy image also reflects equality in others' capability and culture like the ally image. Because of their capability, a threat is perceived (Cottam, 1994). However, their intentions are interpreted as harmful, unlike the ally image. Because they are not considered as ingroup,

decisions are made by small numbers of elite. In other words, complexity of their decision making process is not perceived.

Imperialist Image

The imperialist image reflects superiority in both capability and culture. Intention of an imperialist country is perceived as harmful, and thus a threat is perceived. Actions of an imperialist country are interpreted as very patronizing, which often leaves little room for negotiation from a colonial country.

Rogue Image

The rogue image is the latest addition to the images, which was created after the Cold War to describe former allies of Soviet Union (Cottam *et al.*, 2004). Despite its perceived inferiority in capability and culture, a country with Rogue image poses a threat to a perceiver because of its harmful intention. Strategies such as economic sanctions are often used to deal with a rogue country, as perceivers refuse to negotiate with inferior existence.

Images	Capability	Culture	Intentions	Decision-Makers	Threat/ Opportunity
Ally	Equal	Equal	Good	Many groups	Threat
Barbarian	Superior	Inferior	Harmful	Small elite	Threat
Colonial	Inferior	Inferior	Benign	Small elite	Opportunity
Degenerate	Superior/ Equal	Weak-willed	Harmful	Confused	Opportunity
Enemy	Equal	Equal	Harmful	Small elite	Threat
Imperialist	Superior	Superior	Harmful	A few groups	Threat
Rogue	Inferior	Inferior	Harmful	Small elite	Threat

Figure 1: Seven Images

Summary

The relevance of the image theory in the present study is based on its effects on conflict escalation. Perceptions are interpretations of reality, and thus perceptual errors or misperceptions create distorted reality. Without correcting those misperceptions, intergroup interactions can only

lead to misunderstanding and ultimately to intergroup conflict. Thus, assessment of existing misperceptions between China and Japan is essential for further understanding the root causes of the China-Japan conflict.

Even though the present study does not primarily concern China and Japan's nationalistic characteristics, one characteristic of nation states is worthy of mentioning: sensitivity to threats. Nation-states tend to view others' intention as hostile, even though no such intention exists. It is because people create a very simplified and stereotyped image of the threatening (Cottam & Cottam, 2001). This presumptuous image leads to conflict spiral, which in turn leads to misperception (Holsti, North, & Brody's, 1968).

Conflict between nationalistic states is highly emotional because of intensity in perceived threats. When threats are perceived, the threatened forms very simplified image of the threatener. The concept of nationalism is most relevant to image theory during analysis. Intention of others is measured partially by perceived flexibility of the target government.

Social Dilemmas

Social dilemmas are a situation in which individual benefits and collective benefits are in conflict, in that maximizing individual outcomes harms the collective, and vice versa (Dawes, 1980; Komorita & Parks, 1994; Wrightsman, O'Connor, & Baker, 1972). Those with a short-term focus will be drawn to competition, and those with a long-term focus to cooperation. It is always better off to compete when we focus on the short-term outcome, but cooperation is a better choice when we look at the long-term results. The social dilemma framework has been used to model a number of cross-national conflicts. For example, past research on social dilemmas have demonstrated applicability of social dilemmas to real life international security

conflicts including deterrence (Brams & Hessel, 1984), Cuban missile crisis (Brams, 1977), and arms race (Brams, 1985; Brams, Davis, & Straffin, 1979). Because of the range of applicability, social dilemmas should well describe the current Sino-Japanese conflict as well. Thus this research will examine psychological aspects of the conflict by an experiment using the concept of social dilemma.

Relevant Findings in Social Dilemmas

The prisoner's dilemma game (PDG) is the original paradigm for analyzing conflict (Gifford & Gifford, 2000; Luce & Raiffa, 1957; Rapoport & Chammah, 1965; Richards, 2001; van Lange, Liebrand, & Messick, 1992). As noted earlier, the current state of China-Japan relations is influenced by history, social identity, and perceptions. I have argued that history affects expectations, and social identity affects interpersonal perceptions. There is also evidence in the social dilemma literature that perceptions of one's opponent can cause misunderstandings and induce competitive behavior. If China-Japan relations can be modeled as a social dilemma, it follows that these factors may be playing a role in the conflict between China and Japan. This may occur in a number of ways.

Effects of History on Social Dilemmas

Past research has shown effects of history in 2-person social dilemmas (Liebrand, Messick, & Wilke, 1992). For example, Rapoport and Chammah (1965) showed that the history of the players' interactions with each other matters, in that people tend to take advantage of the other player's cooperative behavior. It is because people assume the other's behavior is invariant. Thus, it takes time for people to notice the change in the other's behavior (from cooperation to

competition) and to change their behavior from competition to cooperation. This exploiting occurs especially when there is lack of trust between the players (Pruitt & Kimmel, 1977).

Histories of interaction provide valuable information about others, and such information creates expectations about them. Past studies also show that expectations affect choice behavior in social dilemmas (Dawes, MacTavish, & Shacklee, 1970; Kelly & Stahelski, 1970; Kuhlman & Wimberley, 1976). Messe and Sivacek (1979) suggest that people tend to amplify the other's positive traits when interactions between them are expected. This leads to a positive choice behavior.

These findings are relevant to the current China-Japan relations because both China and Japan had acquired so much information about each other to confirm their biases toward each other. Thus, it is possible that negative history between China and Japan contributes to detrimental effects of misperceptions in their relations.

Effects of Social Identity on Social Dilemmas

Past studies of social dilemmas show effects of social identity on cooperative behavior. For example, people cooperate more frequently with ingroup members than with outgroup members (Brewer, 1979; Dion, 1973; Kaufman, 1968; Kramer & Brewer, 1984; Stephan & Stephan, 1999) and toward anti-norm outgroup than anti-norm ingroup (Abrams, *et al.*, 2000; Abrams, *et al.*, 2002). These findings are relevant to the present study because social identity of Chinese and Japanese is not entirely clear. It may be possible that Chinese and Japanese categorize each other as deviant ingroup rather than outgroup, because of their ethnic similarities. Thus, the present study examined Chinese and Japanese social identity empirically.

Effects of Social Perception on Social Dilemmas

Perceptions of each other in social dilemmas also affect the way people behave. For example, people tend to cooperate more with cooperators than competitors (Wrightsman, Baxter, Bilsky, & Nelson, 1969), with perceivably moral people than immoral people (van Lange & Liebrand, 1989), and with people who have similar attitudes than people who do not (Kaufman, 1967; Tornatzky & Geinitz, 1968). The importance of these findings is best tied to images. Because of the negative history between China and Japan, they are more prone to misperceive each other. Thus, it is possible that a positive intention is perceived as negative in China-Japan relations. Thus, the present study will identify image misperception between China and Japan, which affects perceptions toward each other.

Resource Dilemmas

Resource dilemmas are a type of social dilemma that mimics a situation in which pursuit of self-interest and of collective-interest for resources are in conflict. “The Tragedy of the Commons” (Hardin, 1968) first described the resource dilemma by using the example of an open space in which citizens share to graze their animals. The commons will sustain as long as there is enough space and grass for all the animals. However, each citizen faces dilemmas between pursuing his or self-interest (i.e., use more grass) and pursuing a collective interest (i.e., sustain the commons) (Dawes, 1973). This concept is widely used in experimental research to examine human behavior of resource managing, and is known as the Commons Dilemma (Hardin, 1968) or the Common Pool Resource Problem (Gardner, Ostrom, & Walker, 1990). In the present study, it will be referred to as a Resource Dilemma (Budescu, Rapoport, & Suleiman, 1992; Budescu, Suleiman & Rapoport, 1995).

In order to empirically examine human behavior in resource dilemma settings, the resource dilemma game (RDG) was developed (Messick, Wilke, Brewer, Kramer, Zemke, & Lui, 1983). The goal for players is to maintain a commons while harvesting from it. A pool of points is made available to players, and they may harvest from it. A portion of the total points taken from the pool is typically replenished on a per-trial basis. The players can either maximize their intake and exhaust the pool, or maintain the balance between their intake and the pool of points. This also simulates the reality of natural resources, because most of natural resources regenerate themselves at some degrees.

Even though past research on intergroup conflict tend to use the PDG, a variation of the RDG is more suitable than the PDG for the present study for the following reasons. First, besides obvious shared resources between China and Japan such as oceans, fish, and air, they are facing a serious conflict over oil and natural gas near Senkaku/ Diaoyu. Thus, the concept of the RDG better suits the current Sino-Japanese conflict. Second, the RDG depicts several dimensions simultaneously: temporal dilemmas (short-term vs. long-term benefit), spatial dilemmas (domestic vs. international benefit), and social dilemmas (ingroup vs. intergroup benefit) (Vlek & Karen, 1992). Third, uncertainty seems to play a major role in the Sino-Japanese conflict, and the RDG is capable of examining effects of uncertainty in a conflict situation. Lastly, most of interactions between China and Japan are not simultaneous. In other words, one has knowledge about the other's behavior before one makes his/ her move. The sequential protocol used in the RDG depicts this situation, and the protocol is well established. Thus, the present study will examine Chinese and Japanese behavior using a variation of the RDG. Further discussion of uncertainty and sequential protocol follow.

Uncertainty in the RDG

Uncertainty is an essential part of resource dilemmas (Northcraft & Neale, 1994), thus one of the key arena in resource dilemmas is to understand the relation between uncertainty and decision making processes (Messick, Allison, & Samuelson, 1988; Rapoport, Budescu, Suleiman, & Weg, 1992; Rapoport, Budescu, & Suleiman, 1993). Past research has shown that when the resource pool size is uncertain, people overestimate the pool size (Budescu, Rapoport, & Suleiman, 1990), they request more to harvest (Budescu, Rapoport, & Suleiman, 1992; Gustafsson, Biel, & Garling, 1999; Budescu, Suleiman, Rapoport, 1995; Hine & Gifford, 1996; Samuelson, 1993, 1999; Samuelson & Messick, 1986; Suleiman & Budescu, 1998), and they expect others to request more to harvest (Budescu *et al*, 1990). This phenomenon of over consumption was described as the result of overestimation of the resource pool size (Rapoport et al, 1992) due to outcome desirability bias (Wilke, 1991). However, more recent research proposed anchoring heuristics as an explanation of such phenomenon (Posey & Parks, 2005). If anchoring heuristics explain over consumption better, then uncertainty may add vulnerability to misperceive others in intergroup conflict settings. In order to test this hypothesis empirically, the present study will examine the effects of uncertainty on perceptions. Details will be described later in Chapter 5.

The Sequential Protocol in the RDG

In the present study, the sequential protocol is used in order to better simulate China-Japan relations. Two distinct characteristics are added to the RDG under the sequential protocol. First, participants are assigned to a position in the sequence. Thus, participant do not harvest simultaneously with other players. In China-Japan relations, few decisions are made simultaneously. Rather, the other's attitude and behavior seem apparent before decision-making

takes place. This leads to the second characteristic of the sequential protocol. In the sequential protocol, participants are informed of the total requests of players before them (for review, Budescu & Au, 2002). In other words, choice behavior in the sequential protocol is that of reactions rather than of intentions.

The present study focuses on measurements of reactions to the other's choice behavior in order to examine whether preexisting image affects behavior of Chinese and Japanese participants. Specifically, the present study will use the model for the sequential resource dilemma game reviewed by Budescu and Au (2002). Because the primary concern for the present study is Chinese and Japanese behavior toward each other in general, the sequential RDG is standardized. Chapter 5 will discuss the game more in details.

Summary

This chapter discussed the importance of psychological frameworks to understand China-Japan relations and to suggest ways to alleviate such conflict. Both social identity theory and image theory describe psychological foundations of Chinese and Japanese attitude and behavior toward each other. While social identity theory focuses on cognitive aspects of categorizations and attitude and behavior derived by such categorizations, image theory extends social identity theory literatures by applying those phenomena in politically relevant contexts. Image theory is capable of explaining foreign policies of the Chinese and the Japanese government by revealing decision makers' images toward each other. Specificities of images exist between China and Japan would be apparent through context analysis of decision makers. Its method and results would be discussed in Chapter 4.

Social dilemmas are an established way to examine competitive and cooperative behavior in intergroup settings. The sequential resource dilemma game in this study is most suitable to explore attitude and behavior of Chinese and Japanese, for its similarities in settings. In order to simulate the current China-Japan relations, the game was modified such that decisions are made according to their reactions to others rather than to their intentions. In addition, uncertainty would be introduced to some participants in order to examine the effects of environmental uncertainty on their decisions. This study utilizes an experimental study to examine those phenomena in China-Japan relations. Its method and results will be discussed in Chapter 5.

CHAPTER 4: CONTENT ANALYSIS

Overview

Conducting content analyses is very beneficial for studying decision makers who are not directly accessible to researchers (Hermann, 1977; Holsti, 1969, Shimko, 1991). Unlike experimental methods, a content analysis enables researchers to unveil cognitive processes of decision makers from a distance by transforming decision makers' speeches and interviews into interpretable and useful information. Images are one of such useful information, and they are widely used to understand international relations and foreign policies (Cottam & Cottam, 2001). They provide insights to how decisions are made, and how perceptions of decision makers influence their decision processes (see chapter 3 for details). Because images affect ways in which decision makers form policies, understanding images in the China-Japan relation is important.

In this study, a series of content analyses were conducted in order to identify images between China and Japan. Ultimately, the resulting images would be used to determine the root cause of their conflict and to suggest ways to improve their relations. Images were identified by drawing inference from decision makers' words, phrases, and themes in their speeches. Resulting images from China and Japan were compared, and perceptual differences between them were identified as image misperceptions. Besides images between China and Japan, the presence of misperceptions was examined in order to identify the root cause of the China-Japan conflict from a political-psychological perspective. This is important because misperceptions are known to have detrimental effects on intergroup relations (see chapter 3 for details).

The results of the content analyses showed that Chinese and Japanese decision makers compartmentalized their relations into three unique and distinct categories: economic, political, and historical. Such a compartmentalization allowed the two countries to maintain its positive economic relations while struggling with their political relations. The results also suggested that image misperceptions existed in the China-Japan relation, and they had both positive and negative effects depending on the contexts. In the economic context, the image misperceptions minimized their perception of threats between the countries and consequently fostered positive interactions. On the other hand, image misperceptions had detrimental effects on the China-Japan relation in the historical context by heightening their sensitivity to threats. This study provided valuable information about the China-Japan conflict. Further studies are necessary to strengthen any suggestions based on this study; however, the root cause of their conflict was identified and it was deeper than the Sino-Japanese War II.

Hypotheses

There were two specific research questions to be investigated, besides identifying images between China and Japan. One was with regards to image misperceptions and the other was with regards to the complexity of the China-Japan relation. Both hypotheses were examined by the resulting images between the two countries.

Image Misperception

China and Japan faced several negative events that worsened their relations in the past years: Prime Minister Koizumi's repeated visits to the Yasukuni shrine, disputes over the East China Sea Islands, and disputes over Japanese history textbooks to name a few. However, it does not

seem as though Chinese and Japanese decision makers perceive their problems in a similar manner. The gaps in their perceptions were apparent in decision makers' speeches. For example, Koizumi stated at a Press Conference after the APEC Leaders' Meeting on November 19, 2005 "I believe it is important not to allow overall relations to be hindered by one issue or by the difference of views over one issue." (Prime Minister of Japan and His Cabinet, 2005). Meanwhile, Hu stated "to push forward China-Japan relations we cannot and it is impossible for us to evade historical problems. To treat history appropriately is the only way to translate historical burden into power of moving ahead." (Foreign Ministry of the People's Republic of China, 2004h). Even from those passages, it is rather clear how the leader of China and Japan perceived their historical issues differently. In order to further understand this gap in their perception, the following hypothesis was tested.

Hypothesis 1: There would be image misperceptions in China-Japan relations, such that there would be perceptual gaps between China's images of Japan and Japan's images of China. An image misperception in this study was operationally defined as a perceptual difference in dimensions of an image. For example, if one perceives another as equal in capability, one also assumes that the other perceives one as equal in capability as well. If there is no misperception in the China-Japan relation, the following combinations of images would be present: Enemy-Enemy, Ally-Ally, and Imperialist-Colonial. An image misperception; therefore, is a situation in which this assumption is incorrect.

The Complexity of the Relations

Cultural interactions between China and Japan have been more frequent and positive in recent years. In addition, their economic relation has been very successful and still developing.

As China's economy has grown, Japan has increasingly expressed its interest in the Chinese market. For example, regarding the China-Japan economic relations, Koizumi said, "I believe a rising economic tide and expansion of the market in China will stimulate competition and will prove to be a tremendous opportunity for the world economy as a whole. Since there are differences in our industrial structures, Japan and China can strengthen their mutually complementary bilateral economic relations. I see the advancement of Japan-China economic relations, not as a hollowing-out of Japanese industry, but as an opportunity to nurture new industries in Japan and to develop their activities in the Chinese market." (Minister of Japan and His Cabinet. 2002).

Meanwhile, their attitudes toward each other are unmistakably negative at times. There are several reoccurring issues between the two countries and either side seems to make a move forward. For example, Koizumi has not changed his view on the Yasukuni shrine nor accepted China's view on the issue. He stated "As I have been saying all along, I visit the shrine to offer sincerely the heartfelt mourning to the war dead, and, with the reflection on the war, to pledge not to wage a war again." (Prime Minister of Japan and His Cabinet, 2005).

Similar attributes can be observed from the Chinese side as well. For example, "China and Japan both attach great importance to that (their economy) and it also drew extensive attention from the international community. The leaders of both countries confirmed the importance of the development of China-Japan friendly relations and stressed that both sides should proceed from the overall interest of China-Japan friendship as well as peace and development in Asia and properly handle some major issues, especially the history issue and Taiwan question, so as to jointly promote the sound development of China-Japan friendly relations." (Embassy of People's Republic of China in the United States of America, 2005). Unlike speeches regarding the

economic relation with Japan, Japan was portrayed rather negative. In order to examine this co-existence of their positive and negative relations with each other, the following hypothesis was tested as well.

Hypothesis 2: Complexity in China-Japan relations necessitates more than one set of image of each other. By having more than one set of image, Chinese and Japanese decision makers are able to compartmentalize their relations and maintain their positive economic relations without the influence of their negative political relations. This hypothesis was based on stable growth of economic relations between China and Japan despite apparent political hostility between them. In order to have more than one relation between China and Japan, they must have compartmentalized their relations based on its contexts.

Data Sources

Two sets of data were used for analyzing images in this study: documents from the Chinese government and those from the Japanese government. Data sources included press releases, press conference, official statements, and interviews. No articles or newspapers were used in this study in order to maintain the authenticity of the original statements as well as to maintain the same styles of translations. In order to maintain the consistency between Chinese and Japanese data source, all the documents were all retrieved from the following governmental sites. They were available in English and accessible from the websites: Foreign Press of Japan (<http://www.fpcj.jp/>), Ministry of Foreign Affairs of Japan (<http://www.mofa.go.jp/>), and Ministry of Foreign Affairs of the People's Republic of China (<http://www.fmprc.gov.cn/eng/>).

All available English documents in the past ten years (January 1995-March 2005) were collected in order to maximize the power of analyses. This particular timeline was chosen

because most of recent conflicts between China and Japan arose during the period or sustained to be problematic during the period. The most recent document collected was released in March 2005, when the analysis was conducted.

Documents in English rather than in their native languages were used in this study for two reasons. First, it was to ensure inter-coder reliability (Tinsley & Weiss, 1975). There were two coders in this study, and both were sufficient in English but not in Japanese and Mandarin. The other was to eliminate any potential errors due to language differences and translations. The codebook for this study was written in English, and translating it to Japanese and Mandarin would have potentially created noises in the analyses. In addition, coders would need to be fluent in both Japanese and Mandarin in order to fully understand cultural nuances of the documents. Thus, in order to optimize the results of the content analyses, English language was selected throughout the process.

Methods

The codebook for this study was created based on Cottam's (1994) image indicators. A few changes were made in order to specifically assess images of Chinese and Japanese decision makers (see Appendix A). The image indicators included 1) perception of capability, 2) culture, 3) intention, 4) opportunities/ threats perception, and 5) decision-making, 6) event scripts, and 7) response alternatives. Based on the codebook, words and phrases in the documents were highlighted in the following fashion: capability in yellow, culture in green, intention in blue, event scripts in pink, and response alternatives in orange.

Two coders, a blind coder and the researcher, separately coded each document to optimize inter-coder reliability (Tinsley & Weiss, 1975). Both made notes on what each highlighted word

or phrase indicated and how representative the indication was to the speaker. Once all the documents were coded, each set of the coded documents was compared to optimize the quality of coding for this study. There was little disagreement on coding. Each set of the document was then stapled with an analysis summary sheet on the top (see Appendix B). Using notes written in the documents, each set of documents was reported in the following fashion: the title of the document, reference (the document's URL), date, the name of the speaker, the speaker's position, the occasion of the speech, the summary of the documents, and the results of analyses for capability, culture, intention, decision-making, threats/ opportunities perception (see Appendix B). There were documents that did not have some indicators. In those cases, they were left blank. Once all the information was filled, the final image was inferred on each set of document. It then became clear that there was more than one strong image from each government. The documents were sorted by images to examine a common thread.

Results

Three distinct images became apparent in the analyses of both China and Japan. Because of the complexity of their relations, the nature of their relations was first divided into their economic and political relations. Political relations were further divided into their war-irrelevant relations and war-relevant relations. The war-relevant political context would be referred as the historical context in order to distinguish from the war-irrelevant political context from this time forth. However, it has to be noted that the historical context is highly political. Even though military context was an important aspect of China-Japan relations, the present study did not separate its context from the others for the following reasons. First it required more elaborate analyses due to its complexity. Second, some of military issues were derived from historical

issues between China and Japan. Thus, rather than creating an independent category, those documents regarding their military issues were sorted depending on its relevance to China-Japan history. Of course, it would be an obvious follow-up study to conduct a content analysis on their military relations.

In order to argue that those images were context-dependent but not perceiver-oriented, individual differences in images were also examined. Results suggested that there were no distinct patterns in images depending on decision makers, but there were clear patterns in images depending on the contexts. The detailed results and discussions of the content analyses follow.

Economic Relations

Economic relations between China and Japan were very positive in spite of the political conflicts between them. It was because both Chinese and Japanese decision makers perceive opportunities rather than threats from each other. Thus, image misperceptions in their economic relations did not have detrimental effects. Instead, this perceived opportunities minimized the threats between them and fostered positive and stable economic relations between China and Japan.

China's Colonial Image of Japan

Across situations, time, and topics, Chinese decision makers perceived Japan as Colonial in the economic context. In other words, for Chinese decision makers, Japanese economic capabilities as well as culture were inferior to those of China. They also perceived that Japanese intentions were benign and Japan's political complexity was overlooked. Because of its perceived inferiority, Chinese decision makers perceived opportunities rather than threats from Japan.

China's Colonial image of Japan was most apparent when Chinese decision makers discussed international economic relations in front of Asian countries. For example, H.E. Wu Hongbo, Ambassador of PRC in the Philippines, spoke at the National Defense College of the Philippines on June 2nd, 2004 (Foreign Ministry of the People's Republic of China, 2004i). During the speech, Wu predicted that China would overtake economically in the near future while naming China, Japan, and South Korea as the key states for the success of ASEAN (the Association of the Southeast Asian countries) +3 (China, Japan, South Korea). Mr. Hu perceived Japan as a sidekick to China's economical success, and expressed how confident he was.

On November 29, 2004, Wen Jiabao, Premier of China, spoke during the 8th ASEAN +3 Summit in Vientiane (Foreign Ministry of the People's Republic of China, 2004j). He suggested conducting cooperative research projects among China, Japan, and South Korea, as a way to stimulate economic integration. Throughout the speech, Wen Jiabao insinuated that China would be the leader of this economic cooperation in Asia. For instance, he said, "China stands ready to promote regional development through cooperation. Asia is facing both development opportunities and severe challenges. With increasing international competition and the widening gap between the North and the South, the task of ensuring economic and financial security has become more onerous. Asian countries need to raise the awareness of win-win cooperation and push forward the process of regional cooperation and economic integration. China is willing to see common development through cooperation with other Asian countries." (Foreign Ministry of the People's Republic of China, 2004j). His communication style showed that he perceived opportunities rather than threats from other Asian countries (namely Japan and South Korea), and that he perceived China as superior to Japan economically.

In addition, Zhang Qiyue, Foreign Minister of China, spoke at a regular press conference on December 7, 2004 (Foreign Ministry of the People's Republic of China, 2004g). During the press conference, he mentioned that the meeting between Chinese Premier Wen Jiabao and Japanese Prime Minister Junichiro Koizumi during the ASEAN +3 meeting in Laos would be a great opportunity to improve and develop bilateral relations between China and Japan. She stated, "Regarding China-Japan relations, Premier Wen Jiabao and Prime Minister Koizumi held a bilateral meeting on the sideline of the 10+3 meeting in Laos. This is another important high-level contact since the previous meeting between President Hu Jintao and Prime Minister Koizumi on the sidelines of the APEC meeting in Chili. We think such high-level meetings are of great importance to the improvement and development of our bilateral relations. We hope both sides can cherish the fruits of the meeting between leaders of two countries and promote further improvement and development of bilateral relations." (Foreign Ministry of the People's Republic of China, 2004g). Unlike discussions of China-Japan meetings in more political settings, her statement only showed positive lights for Hu and Koizumi's meeting. This indicated that she perceived Japan as opportunity rather than threat.

In all of those examples, Chinese decision makers made clear that China was leading the rest of Asian countries. Making suggestions to Japan assertively and taking initiatives to foster China-Japan economic relations suggested China's Colonial image of Japan. This apparent Colonial image of Japan, especially in front of other Asian countries, suggested that Chinese decision makers perceived China as a leader in Asia. Successes in expanding economic influences as well as in initiating some meetings confirmed their perception. Thus, as an economic leader of Asia, it was only natural to perceive Japan as inferior to them.

Japan's Colonial Image of China

Similar to China, Japanese decision makers perceived China as Colonial in their economic relations across situations, time, and topics. In other words, Japanese decision makers perceived China as economically less capable than Japan and its culture was less sophisticated. China was perceived as benign in its intentions, and Japanese decision makers believed that a small group of elite made decisions in China. Because of China's perceived inferiority to Japanese economy, Japanese decision makers perceived opportunities in China.

Like China's image of Japan, Japan's Colonial image of China was most vivid when Japanese decision makers discussed international economic relations in Asian countries. For example, on November 4th, 2002, regarding trilateral economic relations among China, Japan, and South Korea, Prime Minister Junichiro Koizumi stated that research on economic cooperation was necessary before implementing establishment of a free trading area among the three countries (Ministry of Foreign Affairs of Japan, 2002b). He stated, "In the area of joint research on economic cooperation, the three countries will study the economic effects of a possible free trade area among Japan, China and ROK." (Ministry of Foreign Affairs of Japan, 2002b). Koizumi's use of the word "will" in this statement, and that he "would like to observe the progress of the research." (Ministry of Foreign Affairs of Japan, 2002b) were interpreted as perceived inferiority of China (and South Korea).

Regarding ASEAN, Hirotugu Koike, the moderator for the meeting, spoke about common issues and challenges for ASEAN-Japan media on November 26, 2003 (Foreign Press of Japan, 2003). During the speech, Koike mentioned how rapidly China's economy was growing and that Japan focused on China-Japan economic development since 2000. He added that many Japanese companies were interested in China's economy. China's economic growth led to Japan's new

hope to fully cooperate economically with China and that both countries would maintain their positive relations. He recognized that the history between China and Japan had not been particularly positive, and that there were many things that Japanese people must do to reconcile. However, he hoped that Chinese people would understand that China-Japan economic cooperation was not only beneficial to China and Japan, but also to other countries in the region. Throughout his speech, he focused on how positive China-Japan economic relation was and how benign their historical issues were compared to the benefits from their economic relations. In a way, he dismissed China's concerns regarding their negative past because he did not perceive threats. He did not perceive China as equal in its capability, either.

As those examples demonstrated, Japanese decision makers suggested interacting with China as an equal in the future, even though recognizing China's rapid economic development. In other words, Japanese decision makers believed that China still needed Japan's assistance and guidance for its economical growth, before China catches up with Japan in its economical development.

Summary for Economic Relations

It is important to note that an economical success between China and Japan in spite of their stifled political relation could be explained by their images of each other. Because both Chinese and Japanese decision makers perceived each other as Colonial, there were no perceived threats originated from each other. Because of perceived inferiority toward each other, communications were direct and orderly, which might even fostered their economic relations by minimizing miscommunications in their relations. Even though decision makers of Chinese and Japanese both mentioned about their historical conflict, they both had tendencies to leave the issues aside and focus on what was positive about their relations. In short, image misperceptions in their

economic relations fostered positive relations between them by minimizing assumption and miscommunication. Ultimately, misperceptions in their economic relation were not harmful to them.



Figure 2: China-Japan Economic Relations

Political Relations

Unlike economic relations, political relations between China and Japan had been unstable and often negative even after the normalization of their relations in 1972. However, both Chinese and Japanese decision makers were diplomatic to each other because of perceived equality in their political capability and cultural equality. Due to the perceived equality, both Chinese and Japanese decision makers communicated rather frankly, which minimized miscommunications. In addition, image misperceptions were not apparent in their political relations irrelevant to historical issues between China and Japan.

China's Enemy Image of Japan

Aside from the war-relevant issues, Chinese decision makers perceived Japan as Enemy. For them, Japan was equal to China both politically and culturally. Intentions of Japan were harmful and thus Chinese decision makers perceived threats from Japan. Because of the emotional distance between China and Japan, China believed that decisions were made by a small group of elite in Japan. Diplomacy was kept between China and Japan for the same reason. In other

words, perceived equality in their political capability and their culture kept China-Japan relations from escalating their conflict.

China's Enemy image of Japan was very apparent across situations in the political relations between China and Japan. For example, during a regular press conference on October 12, 2004, Foreign Minister Zhang Qiyue stated that China emphasized the importance of Japan and treated Japan diplomatically (Foreign Ministry of the People's Republic of China, 2004d). She stated, "...we have emphasized many times that the Chinese government attaches importance to developing the relations with Japan in various aspects. Japan is an important neighbor of China. It can be said that both the old and new generations of China's national leaders all attach importance to developing friendly relations with Japan. The two countries have laid a good foundation for development. We hope that the Japanese government can 'take history as a mirror and look forward into the future'. We also hope that the Japanese government can make actual efforts and promote sound and stable development of the relations between the two countries." (Foreign Ministry of the People's Republic of China, 2004d). The phrase "take history as a mirror and look forward into the future" was often used by Chinese decision makers in the political context. Unlike in the economic context, she perceived Japan as politically and culturally equal. She mentioned how Japan should make efforts to foster their positive relations, but she stated in a way that was not aggressive or demanding. Overall, she maintained the diplomatic atmosphere, which is a strategy used for a country with an Enemy image.

On March 3, 2005, Liu Jianchao talked at a regular press conference. During the conference, Liu stated regarding the Japanese government's plan to end its loan to China, that Japan's loan to China benefited both Japan and China monetarily. He suggested that China and Japan should deal with this issue properly and responsibly through a bilateral negotiation (Foreign Ministry of

the People's Republic of China, 2005b). Even though his speech style was more assertive than Zhang Qiyue's, he emphasized China and Japan's mutual benefit to loan and how they were interdependent. It was because he perceived Japan as equal in capability and culture, which led to his assertion while Japan provided monetary support to China.

Those examples showed that Chinese decision makers constructively criticized Japan when conflicts arose between them. Expressions of their emotions were minimized in their speeches, and their criticisms were often followed by statements of their hopes for their future. It was evident that Chinese decision makers perceived Japan as harmful yet equal. Because of the perceived equality, Chinese decision makers employed diplomatic strategies in order to minimize escalation of conflict between China and Japan.

Japan's Enemy Image of China

Japanese decision makers also perceived China as Enemy in the political context. Thus, Chinese political capabilities as well as culture were perceived as equal to those of Japan. Japanese decision makers believed that Chinese intentions were harmful. As a result, threats were perceived. Because of perceived equality between China and Japan, Japanese decision makers often utilize negotiation and diplomatic strategies while interacting with Chinese decision makers.

Japan's Enemy image of China was visible across situations. For example, on September 9 1997, Foreign Ministry spokesman Nobuaki Tanaka held a press conference to discuss Prime Minister Ryutaro Hashimoto's visit to China (Ministry of Foreign Affairs of Japan, 1997b). Tanaka Stated that enhancing diplomatic relations between China and Japan was important. He said, "...this year marks another step toward an enhanced relationship between the two countries based on dialogue and cooperation...we ironed out the basis for further cooperation between the

two countries. We agreed that at least once a year either of the two sides should visit the other side at the head-of-state or government level.” to show how their relations were improving (Ministry of Foreign Affairs of Japan, 1997b). He added, “...we (China and Japan) have achieved certain results in deepening the understanding of the Chinese side on the current exercise of the Japan-U.S. Guidelines for Defense Cooperation.” (Ministry of Foreign Affairs of Japan, 1997b). His speech focused on actual political process and achievement between China and Japan rather than plans, hopes, or demands. Both China and Japan maintained their equality even when deciding who would visit whom, and that perceived equality was reflected in his speech.

Shigeki Sumi, Japanese Deputy Director-General of Multilateral Cooperation Department, spoke on April 21 2004 at the 22nd session of the United Nations Group of Experts on Geographical Name (Ministry of Foreign Affairs of Japan, 2004b). Regarding the name “Sea of Japan”, Sumi argued that it was not imposed by anyone but accepted naturally by the international community and thus Japan should not be accused of using its power to influence other Asian countries including China. He stated, “If an internationally established sea name were to be changed for political reasons for no valid reason, such an action would not only sow confusion in the world's geographical order but also set a terrible and dangerous precedent for generations to come.” (Ministry of Foreign Affairs of Japan, 2004b). His speech focused on legitimizing a controversy around the name “Sea of Japan”, rather than on blaming other Asian countries such as China. His speech was also emotionally neutral and logical. The use of logic shows his perception of equality in both capability and culture. His speech also showed his perception of threat, which resulted in inferring his perception of the Enemy image.

On September 22 2004, Japanese Prime Minister Junichiro Koizumi spoke at the Press conference following the 59th session of the UN general assembly. To answer the question regarding China's position of Japan's bid for a permanent seat in UN, Koizumi stated that China was influential country in deed and that China was aware how UN reform was important to the international community (Ministry of Foreign Affairs of Japan, 2004a). He stated, "I believe that China shares the awareness that the United Nations requires reform so it can reflect the world's voices more accurately. I believe there is a need for continued cooperation with China in the area of UN reform. We will work to carry out close consultations and build cooperative relations with China and other neighboring countries. This is of course a very difficult task, and it is not yet clear which countries will raise their hands as candidates for permanent membership in the UN Security Council."(Ministry of Foreign Affairs of Japan, 2004a). In his speech, he laid out plans while he acknowledges its difficulties. No emotional expressions were present, even though China was opposed to Japan's bid for a permanent UN seat. China is perceived as a threat, but he maintained his diplomatic manner because he perceived China as equally capable and as a country with an equally sophisticated culture.

It was apparent from those examples that Japanese decision makers were sensitive to China's reactions to Japan's actions. Japanese decision makers perceived equal capability and culture from China, as well as threats. Thus, diplomacy between China and Japan was kept in the political context. While pursuing their interests, Japanese decision makers expressed that maintaining manageable China-Japan relations was important to Japan.

Japanese decision makers' Enemy image of China was also apparent from their containment policies. Japan's containment policies against China were often led by the U.S. For example, the security collaboration between the U.S. and Japan, which conducts research and develop

National Defense Program, identified China as a major security concern. As a result, China names Japan as the Asia's headquarter of the U.S. Another Japan's containment policy against China, regarding Taiwan, is also the U.S.-led. While China claims Taiwan as a part of China, Japan maintains relations with Taiwan independent from China.

Summary of Political Relations

Even though political relations between China and Japan were not positive by any means, each other's perceived equality prevented conflict spiral by communicating straight-forwardly, and by interacting diplomatically. Both Chinese and Japanese decision makers perceived each other in similar manners as a result. Consequently, there was no apparent image misperception in China-Japan political relations in general. This suggested that their political relations would be very stable and sustainable.



Figure 3: China-Japan Political Relations

Historical Relations

Apart from the political context, China and Japan had a distinct image of each other when the Sino-Japanese War II was a relevant topic. Image misperceptions in this context escalated conflicts between China and Japan, and it had become more and more difficult to manage and/or prevent reoccurrence of conflicts between them. It was because both China and Japan perceived threats from each other, while diplomacy was not believed as an option. Because of undiplomatic

situations, both Chinese and Japanese decision makers discredited statements that were released from each other.

China's Imperialist Image of Japan

Chinese decision makers perceived Japan as Imperialist in the war-relevant context. For Chinese decision makers, Japan seemed superior to China in their political capabilities and in their culture. Intentions of Japan were harmful and thus Chinese decision makers perceived threats from Japan. By perceiving Japan as Imperialist, Chinese decision makers also perceived China as Colonial in the China-Japan relation in this context. Consequently, Chinese decision makers experienced powerlessness over Japan's imperialistic attitudes.

China's Imperialist image of Japan was most apparent when Chinese decision makers discussed war-related political issues such as Prime Minister's visits to the Yasukuni Shrine, forced sex slavery during the war, and Japanese history textbooks. For example, Foreign Minister Tang Jiaxuan discussed Prime Minister Junichiro Koizumi's visit to the Yasukuni Shrine at press conference during the 1st session of the 10th NPC (Foreign Ministry of the People's Republic of China, 2003a). During the conference, Tang expressed how detrimental it was for China-Japan relations. He stated, "Japan is an important close neighbor of China. The Chinese government has all along attached importance to the good-neighborly and friendly relations and cooperation with Japan. We are going to continue to attach importance to our relationship with Japan in the future. We stand ready to work with the Japanese side to make sure that our relations develop in a healthy and steady manner as guided by the three important documents including the Sino-Japanese Joint Statement and in the spirit of drawing lessons from history and being forward-looking. Regarding high-level exchange of visits, we in China have always been positive. Of course, to conduct important exchange of visits at the top level

successfully and effectively requires necessary conditions and these conditions need to be created. I have said for many times that to visit the Yasukuni Shrine in one's official capacity is no small matter. To say the least, it reveals the attitude Japan's political figures have on the history of Japan's invasion against its Asian neighbors including China. We have all along maintained that historical facts should be respected, useful lessons should be drawn from history and we should have a forward-looking attitude in developing the good-neighborly and friendly ties and cooperation between our two countries." (Foreign Ministry of the People's Republic of China, 2003a). Unlike in the political context, his speech showed his strong and negative emotions against Koizumi's repeated visits. The fact that Koizumi did not reconsider his visits led to his perception of Imperialist image of Japan. Powerlessness interpreted from his speech reflects his perception of superiority in Japan's capability and culture.

Foreign Minister Liu Jianchao spoke at a regular press conference regarding Taiwan's leader, Li Teng-hui's visit to Japan on December 16 2004 (Foreign Ministry of the People's Republic of China, 2004a) and again on December 30 2004 (Foreign Ministry of the People's Republic of China, 2004c). Liu said that Li's purpose of visit to Japan was to spread the idea of Taiwan independence. He stated, "Lee Teng-hui is the top representative of the drastic 'Taiwan independence'. He racked his brains to find his way to Japan, just in order to seek his backing there and create favorable external conditions for the pro-'independence' and splittist activities in Taiwan. Regardless of China-Japan relations, the Japanese Government gave a green light to Li's visit. It constitutes a connivance at and support for the splittist activities of the pro-"independence" forces in Taiwan, thus making a provocation at the great cause of China's peaceful reunification. The Chinese Government has made solemn representations to the Japanese side through the diplomatic channel, strongly requiring the Japanese Government to

immediately annul its permission for Li's activities in Japan.” (Foreign Ministry of the People’s Republic of China, 2004a).

He also stated, “The Japanese Government's permission to Lee Teng-hui's visit is the biggest problem and a grave mistake in the first place. We have been keeping a close watch on the development of the issue. We require the Japanese side to carry out its commitments by not allowing Lee Teng-hui to engage in any political activities and taking measures to remove the bad impact of permitting Lee Teng-hui's visit to Japan.” (Foreign Ministry of the People’s Republic of China, 2004c). China had little power to encounter Japan’s relation with Taiwan, which was independent from China. Japan’s disregard towards China’s “One China Policy” led to the speaker’s perception of threats and superiority in capability of Japan.

Foreign Minister Liu Jianchao spoke again at a regular press conference on March 8 2005 (Foreign Ministry of the People’s Republic of China, 2005c). Regarding Japanese Foreign Minister Nobutaka Machimura’s comment that he thought Japan should improve its history education and his plan to bring this issue up in the meeting with Chinese Foreign Minister, Jinchao, showed his dissatisfaction and criticized Japan’s accusation to China’s anti-Japanese sentiment. He added that a proper view of history and their future were essential for maintaining their relations. He clearly perceived threat by Japan’s approval to several history textbooks that would lead to misinforming of the public. This issue has been discussed for over 20 years. His dissatisfaction over this issue reflected his perception of Japan’s superiority in capability. Thus, his Imperialist image of Japan was inferred from the speech.

These examples demonstrated how Chinese decision makers perceived powerlessness about injustice pursued by the Japanese government. Because of the perceived superiority of Japan to China, Chinese decision makers did not criticize Japanese actions the way they did in other

contexts. China's Imperialist image of Japan was confirmed by the inefficacy of the Chinese government to prevent the Japanese government to act harmfully to China and to persuade the Japanese government to change its course. From frustration over Japanese history textbooks to a Taiwan leader's visit to Japan, Japanese decision makers did not show any meaningful considerations to China's concerns and protests. Chinese decision makers therefore perceived Japan as Imperialist, largely influenced by the perceived superiority of Japan in political capability.

Japan's Barbarian Image of China

Japanese decision makers had Barbarian image of China, such that they perceived superiority of China in its political capability and perceived inferiority in its culture. China was perceived as dangerous because it was capable to be aggressive without being rational and reasonable. As a result, Japanese decision makers perceived threats from China differently from the way they perceive China in the political context. Unlike the political context, Japanese decision makers believed that diplomacy was not an effective way to interact with China due to their perception of China's cultural inferiority.

Japan's Barbarian image of China was most apparent in speeches by Japanese decision makers about current issues that related to the Sino-Japanese War II. For example, on November 14 2004, Tsutomu Takabe, Liberal Democratic Party Secretary General, discussed the nuclear submarine that intruded Japanese territory (Foreign Press of Japan, 2004c). Takabe demanded an apology from the Chinese government and said that it was only natural for Japanese to demand it. Prime Minister Junichiro Koizumi discussed this matter with Chinese President Hu Jintao on November 23 2004 during APEC meeting in Santiago, Chile (Foreign Press of Japan, 2004b). Koizumi demanded Hu to prevent a future occurrence of incidents like

the nuclear submarine intrusion in Japan's territory and urged China to restrain the issue of natural gas exploration in the East China Sea. Regarding his visits to the Yasukuni shrine, he explained he visits were to pledge peace. In both cases, the speakers perceived a serious threat from China's nuclear submarine. At the same time, they both accused China of being barbaric and intruding Japan's territory and demanded apology. Their perception of threat by their superior capability and their perception of cultural inferiority resulted in their Barbarian image of China.

Those examples showed that Japanese decision makers believed that China was militarily more capable than Japan. At the same time, China was perceived as culturally less sophisticated than Japan. In short, Japan's perceived threats in this context were stemmed from China's military capability. Physical evidence of threats like a nuclear submarine maintained Japan's Barbarian image of China.

Summary of Historical Relations

Unlike China-Japan relations in other contexts, image misperceptions in the historical context had detrimental effects in their relations. Both Chinese and Japanese decision makers perceived superiority in the other's capability, which increased their sensitivity to threats. This in turn led to acerbating their conflict spirals.

To make the matter worse, Chinese decision makers did not misperceive Japan's perception of Chinese cultural inferiority. Both Chinese and Japanese decision makers believed that diplomatic strategies won't work, because there was no perceived cultural equality. Japanese decision makers feared China due to China's what appeared to be illogical threats, while Chinese decision makers feared Japan due to Japan's what appeared to be unnecessary threats. Because

neither Chinese nor Japanese decision makers were aware of their misperceptions, they escalated their conflict simply by reacting to each other.



Figure 4: China-Japan Historical Relations

Discussion

Due to the complexity of China-Japan relations, there were three sets of unique and distinct images between the two countries. Economic relations were very positive because of mutually perceived opportunities. Thus, economic relations kept growing without a major conflict. Image misperceptions in the economic context did not interfere with their positive relations. Rather, they fostered the growth of their economic relations by minimizing perceptual threats between China and Japan. Even mutually perceived cultural inferiority did not interfere with their positive economic relations. Because of the perceived opportunities in their relations, condescending attitudes toward each other was not interpreted negatively and were not issues between China and Japan.

Political relations in general were negative yet manageable because of the mutually perceived equality between China and Japan. As a result, diplomatic strategies such as bilateral negotiations were effective between China and Japan. In the political context, there were no

obvious image misperceptions between China and Japan. Diplomatic and straightforward interactions between China and Japan in political settings prevented miscommunication and thus forming image misperceptions was prevented.

However, image misperceptions were detrimental in the historical context in China-Japan relations. While Chinese decision makers perceived Japan as Imperialist, Japanese decision makers perceived China as barbaric. In other words, they mutually perceived superiority in each other's capability without mutually perceiving equal cultural sophistication. This image misperception negatively affected the relations between China and Japan by heightening threats perception. Consequently, both Chinese and Japanese decision makers became more and more sensitive to threats from each other, and escalated the conflict spirals. Because they had pre-existing bias toward each other, it was inevitable for Chinese and Japanese decision makers to interpret each other's intentions as harmful.

Japan's Pre-war Image of China (1931-1933)

Those three sets of distinct images necessitated analyzing Japan's image of China before the Sino-Japanese War II to examine whether Japan invaded China because of perceived threats or opportunities. This question was a natural one because many of history texts mention opportunities for Japan to unite Asia, rather than perceived threats from China (Hsing & Levine, 1992; King, 1965; Lary & MacKinnon, 2001; Wilson, 1989). The objective of a follow-up content analysis was to understand Japan's image toward China before its invasion of China and to examine if Japan's image toward China changed over time.

Data Sources

Published by The Ministry of Foreign Affairs of Japan, a number of documents on Japanese foreign policy are available. Within those documents, documents written in English between 1931 and 1933 were used for the analysis. The time restrictions were applied for the following two reasons. One was that there were few documents that discussed China prior to the Manchuria Incident in 1931. The other was that documents on Japanese foreign policy regarding the Manchuria Incident end in 1933. Thus, rather than using documents from diverse sources, published documents from the Ministry of Foreign Affairs of Japan regarding the Manchuria Incident were used. There are six books published on the Manchuria Incident by the Ministry of Foreign Affairs of Japan, and the amount of documents available in English was limited. In addition, some scholars may argue the effects of English documents as propaganda in the early 1930s. However, translation of original documents into English was avoided for the same reasons as the previous study. The results of the study suggested that those accessible documents were sufficient to achieve the objective of the present study.

Results

Unlike Japan's clear and apparent Barbarian image toward China today, there were two distinct images interpreted from documents between 1931 and 1933: Barbarian and Colonial images. These two images will be described and then reasons for the existence of two competing images will be argued.

Japan's Barbarian Image of China

Throughout time, Japan consistently presented its Barbarian image of China in their statements. One of the earliest statements from the Japanese government about the Manchuria Incident

was released on September 24, 1931 (The Ministry of Foreign Affairs of Japan, 1977a). Japanese Government Press stated that China failed to reciprocate Japan's friendly treatment of China, and Manchuria Incident was a result of China's hostility toward Japan. The statement stressed that Japan stood for peace, and that the Japanese government had treated China as a friend for a long time (The Ministry of Foreign Affairs of Japan, 1977a).

Two days later, another statement was released and claimed that the attack by the Chinese Army of the Railway Zone caused Japan to act on self-defense (The Ministry of Foreign Affairs of Japan 1997b). The statement concluded that Japan's action was necessary to protect Japanese people in Manchuria and to maintain the power balance between China and Japan (The Ministry of Foreign Affairs of Japan 1997b).

On October 27, 1931, Japanese Prime Minister, Reijiro Wakatsuki, released his statement to the United Press. In this statement, he argued that Chinese blew up the track of the South Manchuria Railway Zone, which was protected by Treaty. He added that Chinese troops exceeded its number (220,000) to that of Japanese (15,000), and the counter-attack was reasonable (The Ministry of Foreign Affairs of Japan 1997c). He repeatedly stated that Japanese's action was solely a counter-attack against China and that it remained within the reasonable level.

Japan's strong Barbarian image of China suggested that Japanese decision makers perceived threats from China. It seemed as though their preexisted perceived threats toward China made them more sensitive to threats, which resulted in the encounter on September 18, 1931.

Japan's Colonial Image of China

While Japanese decision makers showed its barbaric image toward China, they also presented China as Colonial elsewhere. For example, Japanese decision makers argued that the Japanese supervision of Manchuria would benefit China in the same statement that describes superiority of

Chinese army to Japanese army (The Ministry of Foreign Affairs of Japan, 1977b). On November 15, 1932, Minister for Foreign Affairs, Kousai Uchida, stated that Japanese presence in Manchuria was essential to its stability because the Chinese government misled Chinese people. He added that policing of Japanese in Manchukuo stabilized conditions of the region (The Ministry of Foreign Affairs of Japan, 1977b). It was also stated that the Japanese government expanded peace in Japan and China, especially by saving Manchuria from Russia in 1905 and by respecting Manchuria's independence from China (The Ministry of Foreign Affairs of Japan 1977a, 1977c).

On February 25, 1933, Uchida stated that China was highly disorganized and disunited (The Ministry of Foreign Affairs of Japan, 1977b). Uchida argued that a revolution of the nationalist in a communist government as a cause of conflicts in the Far East. He argued that Manchuria incident was justifiable because Japan had been patient toward China for more than twenty years even though China did not show any sign of improvement in organization. When Manchuria incident occurred, he added, it was only natural for the Japanese army to act on self-defense and create an independent state from China. Regarding Manchukuo, Uchida argued that people in Manchuria were ethnically different from those in the rest of China (The Ministry of Foreign Affairs of Japan, 1977b). He stated that people in Manchuria were pushed away from the rest of China and thus suffered from famine. Founding Manchukuo was a natural process of revolutionary movement and it was coincidence that it happened soon after the Manchuria incident (The Ministry of Foreign Affairs of Japan, 1977b).

Interestingly, Japan's Colonial image of China was most apparent when Japanese decision makers discussed Japan's involvement in Manchuria and foundation of Manchukuo. Their

perceived inferiority in China was apparent from the way they discussed what Manchuria would have been without Japanese involvement.

Conclusion

The context of these documents revealed relevance of these two images, even though these two images seemed to be distinct and unrelated on the surface. First, Japan consistently perceived cultural inferiority in China. It was especially evident when Japanese decision makers argued the need to supervise China and that China did not value diplomacy and used military force (The Ministry of Foreign Affairs of Japan, 1997a, 1997b, 1997c, 1997d). Among all the dimensions of images, the only strong difference between Japan's images toward China was its perceived capability. A further analysis revealed that Japanese decision makers presented their different images of China depending on the context. Most of the statements that Japanese decision makers presented China as Barbaric were intended for foreign governments. In reality, they most likely perceived China as Colonial.

It is arguable that Japanese image of Barbarian China in 1930s was created for international consumption. First, new arguments and justifications for the Manchuria Incident were added each time the Japanese government released official documents. Those additions further supported the Japanese government's argument that the Japanese army acted on self-defense only after the Chinese army engaged in offense first. Most of the additions occurred when those statements were released outside of Japan. This increase in information to justify its offense, and an increase in strength to express their barbaric images of China led to a conclusion that Japan's barbaric image of China was created to convey an international perception that Japan's offense against China was just.

Second, there was a clear pattern to the way Japanese decision makers presented their images of China. A further analysis revealed that Japan's Barbarian image toward China was stronger when statements were intended for foreign governments than for the Japanese government. Simultaneously, Japan's Colonial image toward China was projected stronger when statements were not intended for foreign ministries. While their Barbarian image of China increased in strength over time, their Colonial image of China remained stable. One could argue that there was no need to convey Japanese public the way Japanese decision makers perceived China. Perception of Chinese inferiority was deeply imbedded in Japanese culture in 1930s, and Japanese public did not have an easy access to governmental documents to discover a conflicting image of China. Existence of two images for different audience led to a conclusion that Japan's Colonial image of China was the true image in 1930s.

General Discussion

This section discussed a new insight in China-Japan relations today and in the early 1930s. A series of content analyses based on the image theory were conducted. The results suggested that the complexity of China-Japan relations necessitated three distinct and independent images.

In the economic context, China and Japan enjoyed positive relations due to their mutually perceived opportunities. Chinese and Japanese decision makers both successfully compartmentalized their economic relations from other contexts, and thus positivity of their relations was maintained. In this context, image misperceptions fostered positive relations between China and Japan.

In the political context, China and Japan kept their diplomatic relations even when conflicts arose. Because of their mutually perceived equality in capability and culture, Chinese and

Japanese decision makers employed negotiations in order to minimize conflict spirals. In this context, there were no apparent image misperceptions because of direct and straightforward communications between China and Japan.

In the historical context, interactions between Chinese and Japanese decision makers negatively affected their relations. Because of their mutually perceived superiority in capability, threats perceptions in their relations were heightened. This image misperception in the historical context had detrimental effects in China-Japan relations, which led to the escalation of their conflict spirals.

Because Japan's historical image of China contradicted with a generally accepted view that Japan invaded China because Japan felt superior to China, a further analysis using the documents between 1931 and 1933 was executed. The results showed that Japanese decision makers presented their Barbarian image of China for international consumption while perceiving China as Colonial in reality.

The results of this study confirmed both hypotheses, and provided a useful piece of information about China-Japan relations. The Chinese-Japanese conflict was stemmed from a deeper cognitive property than the Sino-Japanese War II. Japanese Colonial image of China in 1930s indicated that the perceived political and cultural inferiority of China to Japan and perceived opportunity led to Japan's invasion of China. Long time has passed since then, but the issues surrounding the Sino-Japanese War II have not been properly resolved. Consequently, any mention of those issues today brings up a serious tension between the countries. Thus, in order to alleviate their conflict, it is crucial to change the present images between China and Japan.

The content analyses concluded that minimizing misperceptions in their historical relations is essential to alleviate their conflict. Japan must clearly state that security collaboration between the U.S. and Japan does not threaten China. They also need to re-affirm their decisions with regards to Taiwan – which they won't interact with Taiwan at the governmental level. Most importantly, they have to directly face their history and war atrocities. They must find a common ground in specific issues such as their junior high school history textbook and the Yasukuni Shrine issues. China, in return, has to stop perceivably aggressive acts and recognizing that their acts can be perceived as aggressive without China's intention. China also needs to follow through with their bilateral meetings with Japan. At the governmental level, China must take actions to control citizens' anti-Japanese sentiment and acts.

This study focused on the first step to the ultimate goal of alleviating the China-Japan conflict. The next step should be to develop ways to minimize the image misperceptions in the historical context and to correct the images between China and Japan. Further studies are absolutely necessary to develop applicable policy suggestions. However, the results of this study will be a great basis for future research on the China-Japan conflict.

CHAPTER 5: EXPERIMENTAL STUDY

Overview

An experimental study is a scientific method which utilizes random sampling and manipulation of independent variables (Cottam *et al.*, 2004). By controlling the environment, it is possible to identify cause and effect relationships. It is a valuable method for examining underlying psychological processes in intergroup relations, and thus it is a standard procedure in social psychology.

The experiment in the present study was conducted with citizens of China and Japan to investigate their perceptions of, attitudes about, and behavior toward each other. Specifically, perceptions of social identity, similarity, cooperativeness, and intergroup bias were measured. Cooperative and competitive behavior in a resource dilemma setting was also measured. All the materials were back-translated into Mandarin and Japanese, so participants played the game in their native language.

The results of the experimental study suggested that the SGD could explain China-Japan conflicts. Both Chinese and Japanese participants perceived each other as an anti-norm ingroup, and evaluated each other more negatively than they did an outgroup member. Even though social category was unrelated to degree of competitiveness, participants evaluated their opponents more negatively under uncertainty. This suggests that people not only become more competitive but also evaluate others more harshly under uncertainty. The experimental study explained some of the psychological aspects of the China-Japan conflict and provided new insights into a possible way to alleviate such conflict. Details of the experiment follow.

Hypotheses

There were three sets of hypotheses. The first examined the effects of social identity on perception of similarities, attitudes toward others, and cooperative/ competitive behavior towards others. The second examined the effects of pool size uncertainty on attitudes, intentions, and cooperative/ competitive behavior towards others. The third examined the effects of nationality on the dependent variables, as secondary analyses to better understand China-Japan relations.

Hypothesis 1 (Social Identity)

Participants' perceptions of the other player usually affect their attitude and behavior (Hogg, 1992; Rapoport & Chammah, 1965; Pruitt & Kimmel, 1977; Wrightsman *et al.*, 1969). People are more competitive toward members of an outgroup than toward members of their ingroup (e.g. Brewer, 1979; Dion, 1973; Kaufman, 1968; Kramer & Brewer, 1984) unless the ingroup member is deviant with respect to ingroup norms (e.g. Abrams, *et al.*, 2000; Abrams, *et al.*, 2002). The present study examined the following hypotheses within the context of China-Japan relations.

- a) Intergroup Bias: There would be a significant difference in intergroup bias between conditions. It was predicted that participants would evaluate prototypical members of their ingroup significantly more positively than members of their outgroup, who should in turn be evaluated significantly more positively than deviant ingroup members.

Confirmation of this hypothesis would support past research on social identity theory and subjective group dynamics, and extend those claims to real-world international relations.

- b) Perceived Similarity: There would be a main effect for social identity on perceived similarity. It was predicted that participants in would evaluate prototypical ingroup

members as being more similar to themselves than deviant ingroup members, who in turn would be seen as more similar than outgroup members. Confirmation of this hypothesis would contribute to the argument that the China-Japan conflict stems in part from their social identities, in that their perceived similarities induce a form of subjective group dynamics.

- c) Harvest Points: There would be a significant difference in the harvest points between conditions. It was predicted that participants with prototypical ingroup members would receive significantly more points than those in the outgroup condition, who in turn would receive significantly more points than those with a deviant ingroup member. Confirmation of this hypothesis would support past research on cooperative and competitive behavior.

Hypothesis 2 (Uncertainty)

Past research suggests that people behave more competitively under uncertainty by requesting more points (Budescu, *et al.*, 1992; Gustafsson, *et al.*, 1999; Budescu, *et al.*, 1995; Hine & Gifford, 1996; Samuelson, 1993, 1999; Samuelson & Messick, 1986; Suleiman & Budescu, 1998). This may be because, when there is uncertainty, people tend to overestimate the total points available (Rapoport *et al.*, 1992; Wilke, 1991). The present study also examined effects of uncertainty on intergroup bias in order to investigate whether negativity of intergroup interactions would heighten under uncertainty situations.

- a) Intergroup Bias: There would be a significant difference in the post-game intergroup bias between conditions. It was predicted that participants in the high uncertainty (HI) condition would evaluate their opponents significantly more negatively than those in the

low uncertainty (LO) condition after the game. If this hypothesis is confirmed, it would aid the argument that uncertainty fosters misperception and a conflict spiral.

- b) Intention Points: It was hypothesized that there will be a significant difference in the intended request points between conditions. Participants in the LO condition should request significantly lower points than those in the HI condition. Confirmation of this hypothesis would support past research on uncertainty in social dilemma settings and extend the past claim to the real world international relations between China and Japan.
- c) Harvest Points: There would be a significant difference in the harvest points between conditions. Participants in the LO condition should receive more points than those in the HI condition, because participants in the LO condition would have information useful for maximizing received points, while those in the HI condition would not. Confirmation of this hypothesis would contribute to the argument that people behave more competitively under uncertainty.

Hypothesis 3 (Nationality)

There was no *a priori* hypothesis regarding participants' nationality. However, it is possible that there will be a main effect of nationality on dependent variables. Thus, as a secondary analysis, a main effect for nationality was examined.

Method

Design

The design was a 2 (Nationality: Chinese vs. Japanese) x 3 (Social Identity: Ingroup [IN] vs. Deviant Ingroup [DI] vs. Outgroup [OUT]) x 2 (Uncertainty: Low [LO] vs. High [HI]) factorial

study. A criterion variable was nationality of participants, and independent variables were social identity and uncertainty. Dependent variables were a) intergroup bias, b) perceived similarity, c) intention points, and d) harvest points.

Participants

A total of 150 participants (75 Chinese and 75 Japanese) were involved in the study. They were randomly assigned to one of 6 conditions (IN-LO, IN-HI, DI-LO, DI-HI, OUT-LO, and OUT-HI). Twenty-two individuals (8 Chinese, 14 Japanese) were excluded, because of failure to complete the questionnaire, failure to identify a native language, failure to enter the correct pool size in the LO condition, or because of a low score in the identity scale. Thus, the analyses were conducted on 128 people.

Apparatus and Stimuli

The Resource Dilemma Game

A web-based 2-person sequential resource dilemma game, a variation of the paradigm by Budescu & Au (2002), was used (for the website design, please see Appendix C). There was one game trial in which the mean total pool size was 500. In order to induce uncertainty, participants in the HI condition were informed that the total pool size was between 0 and 1000. In the LO condition, the total pool size was shown as 500. Participants were asked to request between 0 and 500 during the trial. Because the present study's primary concern was the reaction of participants toward the same behavior by prototypical ingroup, outgroup, and deviant ingroup members, participants were assigned to the second position in the sequence. Across all conditions, the first position in the sequence was programmed to request 300 points. In order to

standardize the outcome across conditions, the following rules were applied: If points requested from participants were more than 200, participants received no harvest points. If points requested from participants were less than 200, participants received their requested points.

Three deceptions were applied in the experiment. First, all participants were led to believe that they played a game against another participant, while in fact responses were pre-programmed. Next, participants were always assigned to the second of the sequence, even though they were led to believe that the sequence of the protocol was 'first come, first served'. Finally, participants were led to believe that there would be multiple trials, when in fact they played only one trial. This last deception was designed to simulate long-term relations, as it is known that people behave differently in one-shot games than in multi-trial games (Parks & Sanna, 1994; Samuelson & Messick, 1986). These deceptions were applied in order to simulate China-Japan relations as well as to standardize the experimental procedures.

Social Identity

Social identity in this study was categorized in the following fashion. In IN condition, participants played the game against opponents with the same nationality. In OUT condition, they played with Americans. In DI condition, Chinese participants played with Japanese and Japanese participants played with Chinese.

Estimation of Resource Pool Size

In order to compare participants' perceptions of the other player's cooperativeness against their expectation, participants were asked to estimate the size of the resource pool before the game (Budescu *et al.*, 1995). While people in the HI conditions estimated the pool size, those in the LO conditions only needed to enter the correct pool size in the game (=500). Data from participants in the LO condition who did not enter the correct value were excluded.

Intention Points

Intentions often differ from reactions, because reactions depend on others' behavior prior to one's behavior is initiated. Thus, measuring intentions was as important as measuring reactions. In order to investigate participants' intention on the amount of harvesting, they were asked to request points before the game.

Harvest Points

In addition to the reaction points, the received points were measured. Participants received received points requested if their reaction points were less than 200. They did not receive any points otherwise.

Induction of Salience

In order to make nationality salient, participants read a paragraph about cultural and ethnic similarities among China, Japan, and America. The statements were the following: 'Both Chinese and Japanese are Asian, but Americans are not', 'the staple food in China and Japan is rice, but bread is the staple food in America', 'Many of Chinese and Japanese are Buddhists, but most Americans are Christians.', 'Both China and Japan share many cultures, but America doesn't.', and 'Both Chinese and Japanese languages share some characters, but English doesn't.'

Intergroup Bias Scale

The intergroup bias scale (Gaertner, Mann, Murrell, & Dovidio, 1989) was used to measure intergroup bias toward prototypical citizens of their ingroup, outgroup, and deviant ingroup. The statements 'I like them', 'they are cooperative', 'they are trustworthy', and 'they are valuable' were rated on 1-7 scales, with 1= 'not at agree' and 7= 'very much agree.' The scale was also used to measure bias toward the opponent before and after the game.

Identification

The identification scale (Hutchison & Abrams, 2003) was modified and used to determine the magnitude of participants' identification with their nationalities. The statements, 'Being a Chinese/ Japanese is important to me,' 'I would use the term Chinese/ Japanese to describe myself,' 'I am proud of being Chinese/ Japanese,' and 'I identify with Chinese/ Japanese as a group' will be rated on a 7-point Likert scale, with 1='not at all' and 7= 'very much' before the RDG. Participants with low identification (<3.5) was removed from the study.

Perceived Similarity Scale

The perceived similarity scale was used to measure how similar participants perceive their opponents before and after the game. The question "how similar do you think is the other player to you?" was rated on a 7-point Likert-type scale, with 1= 'not at all' and 7= 'very much' before the RDG.

Procedures

Participants accessed the website (www.dilemmagame.net) in order to participate in the experiment. The website was securely protected by security codes. There were four security codes to track how participants learned about the website: mixi.jp (a Japanese website), email.us (an English email sent from the U.S.), email.jp (a Japanese email sent from Japan), and email.ch (a Chinese email sent from China). Participants were randomly assigned to one of 6 conditions when they accessed to the website. Once they logged in, they filled out the questionnaire that assessed their demographic information (gender, age, nationality, residency, experiences and knowledge relevant to China, Japan, and the U.S.), perception (similarities with their opponent), and attitudes (intergroup bias). Then they played the sequential RDG. All participants played the

game against computerized players. In the IN condition, participants were led to believe that their opponent was of the same nationality. In the OUT condition, they were led to believe they played the game against Americans. In the DI condition, Chinese participants were led to believe that their opponent was Japanese, while Japanese participants were led to believe that their opponent was Chinese. After the game, participants filled out the post-game intergroup bias scale and perceived similarities. Participants then read the debriefing with the contact information and logged off from the website.

Results

Hypothesis 1 (Social Identity)

Intergroup Bias (H1a):

A one-way ANOVA with 3 levels (Social Identity: IN vs. OUT vs. DI) was conducted to examine Hypothesis 1a. The results show that there was a main effect of social identity on intergroup bias, $F(2, 384)=10.11, p<.05$. Post-hoc analyses showed that participants evaluated their ingroup ($M=4.93$) significantly more positively than their outgroup ($M=4.52$), $t(384)=3.21, p<.05$, and more positively than their deviant ingroup ($M=4.25$), $t(384)=4.97, p<.05$. Participants also evaluated their outgroup significantly more positively than their deviant ingroup, $t(384)=2.45, p<.05$.

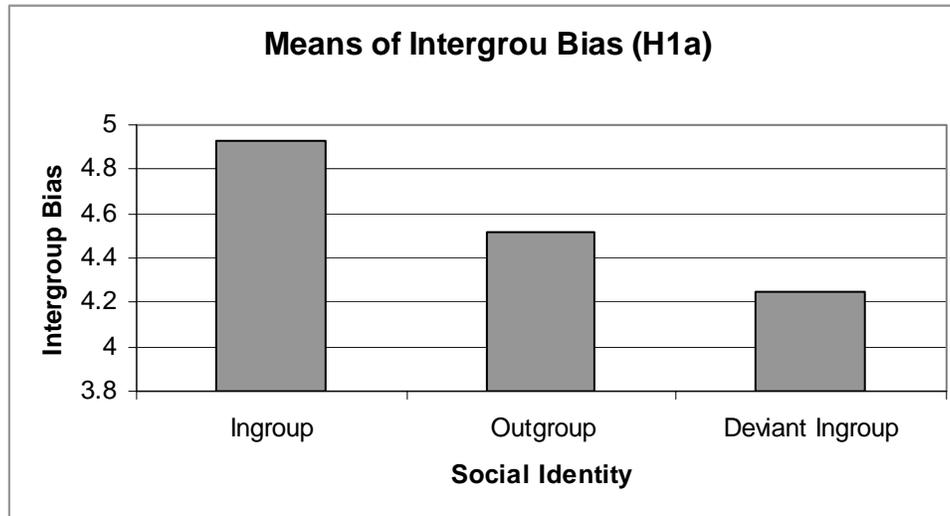


Figure 5: Effects of Social Identity on Intergroup Bias

The hypothesis was confirmed, and the results supported past studies of the SGD. Chinese and Japanese participants perceived each other to be an anti-norm ingroup. These subjective group dynamics may thus partially explain the hostility between China and Japan.

Perceived Similarities (H1b)

A one-way ANOVA with 3 levels (Social Identity) was conducted to examine Hypothesis 1c. The results show that there was a main effect of social identity on perceived similarities, $F(2, 125)=7.68, p<.05$. Post-hoc analyses showed that participants evaluated their ingroup ($M=4.52$) significantly more similar than their outgroup ($M=3.72$), $t(83)=2.29, p<.05$. The difference between the evaluation of ingroup and deviant ingroup ($M=3.91$) was not statistically significant, $t(87)=1.71, p=.092$. There was no statistical significance between the evaluation of outgroup and deviant outgroup, $t(80)=0.50, p=.62$.

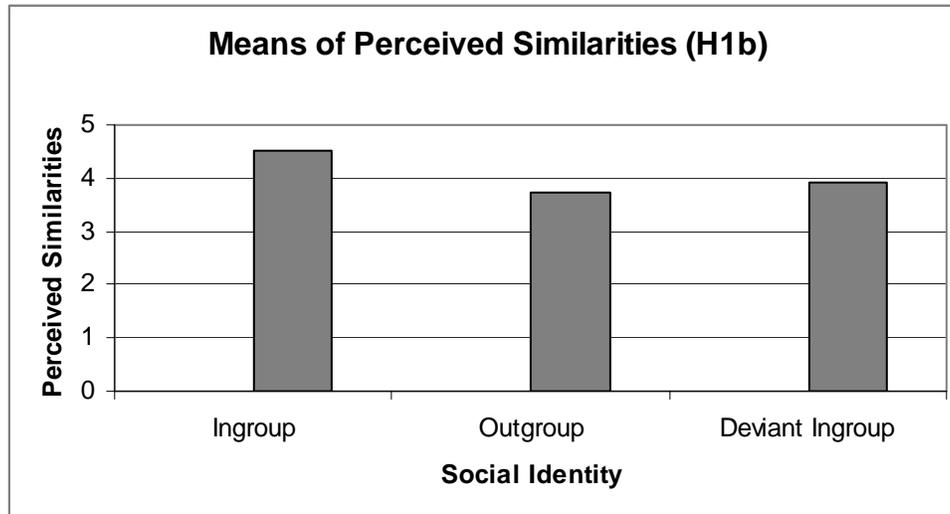


Figure 6: Effects of Social Identity on Perceived Similarities

The hypothesis was only partially confirmed. Even though there was no significant difference between participants' perception of their outgroup and deviant-ingroup, participants perceived their outgroup as significantly dissimilar to their ingroup while they perceived similarities to their deviant-ingroup. Their perceived similarities are a piece of evidence regarding their social identity--because of them, subsequent disagreement on social norms creates tension.

Harvest Points (H1c)

A one-way ANOVA with 3 levels (Social Identity) was conducted to examine the hypothesis that there would be a significant difference in participants' cooperative/ competitive behavior toward others depending on the opponents' social identity. The result showed that there was no significant difference in the harvest points among conditions, $F(2, 126)=.47, p=.63$. The mean

harvest point for each condition was as follows: IN ($M= 59.15$), OUT ($M= 79.69$), and DI ($M= 53.49$).

The hypothesis was not confirmed and the results did not support past studies on cooperative/competitive behavior across different conditions. A series of analyses was conducted to examine whether the demographic factors of participants such as their locations, exposure to the relevant countries, or their perceptual knowledge about the relevant countries. However, no result was significant.

High standard deviation (IN=91.84, OUT=95.88, and DI=88.23) suggests that it may have been a partial reason why the results were not consistent with past studies. Past studies showed that people cooperate more frequently with ingroup members than with outgroup members (Brewer, 1979; Dion, 1973; Kaufman, 1968; Kramer & Brewer, 1984; Stephan & Stephan, 1999) and toward anti-norm outgroup than anti-norm ingroup (Abrams, *et al.*, 2000; Abrams, *et al.*, 2002).

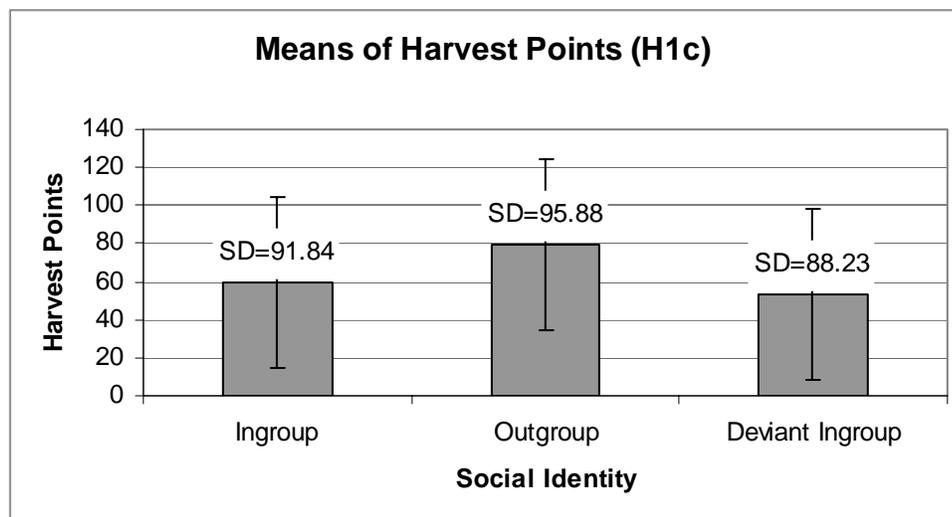


Figure 7: Effects of Social Identity on Harvest Points

Summary

Hypothesis 1 was tested in order to examine the effects of social identity on intergroup bias (H1a), perceived similarities (H1b), and harvest points (H1c). The results of H1a and H1b suggested that Chinese and Japanese perceived each other as a type of anti-norm ingroup. According to SGD, people evaluate their anti-norm ingroup more negatively than their outgroup (Abrams *et al.*, 2000; Abrams *et al.*, 2002; Hogg, 1992) because people feel threatened by anti-norm ingroup members because of their ability to harm their social norm (Hogg, 1992).

In the case of China-Japan relations, it may be that the ethnic similarities between the two groups created ambiguity in their distinctions. That in turn may have led the Chinese and Japanese to be hostile towards each other in order to maintain their distinctiveness. Thus, Americans, who do not pose a threat to the social norms of either Chinese or Japanese, were not evaluated as negatively than their anti-norm ingroup members.

An interesting note is that the present research did not support past research on choice behavior. Besides the fact that the social identity in this study was not artificially created, the dynamics of social identity may have changed once the game started. For example, in the DI condition, a Chinese participant evaluated prototypical Japanese in comparison to a prototypical American. However, s/he interacted only with a Japanese opponent once the game started. This might have shifted his/her social categorization of a Japanese from an anti-norm ingroup member to an outgroup member.

Further studies are necessary, but it may suggest that a third-party mediator with a different ethnic background would heighten China-Japan conflicts. For example, it is suspected that a mediator from the U.S. would evoke the subjective group dynamics between China and Japan.

On the other hand, it may be possible that an irrelevant international outgroup member such as a mediator from Switzerland will not evoke the same effects as the one from the U.S.

Hypothesis 2 (Uncertainty)

There was a main effect for Uncertainty on the mean estimate of the pool size, $F(1, 127)=56.67$, $p<.001$, such that participants in the HI condition estimated significantly higher ($M=685.84$) than those in the LO condition (500 *participants who did not enter the correct value=500 were excluded from the study). This result supports past research showing people overestimate pool size when environmental uncertainties exist (Budescu *et al.*, 1990).

Intention Points (H2a)

A one-way ANOVA with 2 levels (Uncertainty: HI vs. LO) was conducted to test the hypothesis that there would be a main effect for uncertainty on intention points. The results showed a significant difference in Intention Points between condition, $F(1, 127)=5.00$, $p<.05$, such that participants in the HI condition intended to request significantly more points ($M=366.43$) than those in the LO condition ($M=310.11$).

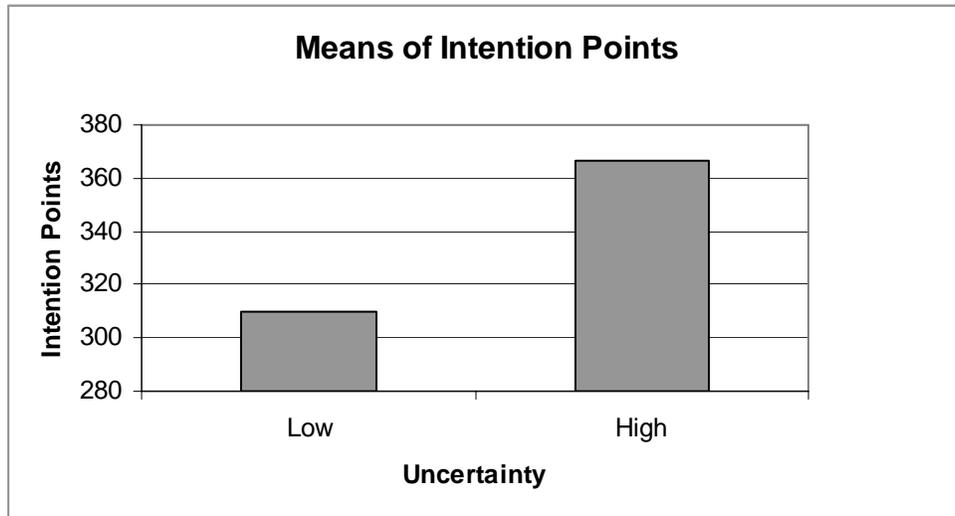


Figure 7: Effects of Uncertainty on Intention Points

The hypothesis was confirmed, and the results supported past studies on uncertainty in social dilemma situations (Budescu, *et al.*, 1992; Gustafsson, *et al.*, 1999; Budescu, *et al.*, 1995; Hine & Gifford, 1996; Samuelson, 1993, 1999; Samuelson & Messick, 1986; Suleiman & Budescu, 1998). Consistent with these studies, participants in the present study overestimated the pool size under uncertainty.

Harvest Points (H2b)

A one-way ANOVA with 2 levels (Uncertainty) was conducted to test the hypothesis that there would be a main effect for uncertainty on harvest points. The results showed that there was a significant difference in Intention Points between condition, $F(1, 127)=4.14, p<.05$, such that participants in the LO condition harvested significantly more points ($M=75.55$) than those in the HI condition ($M=42.86$).

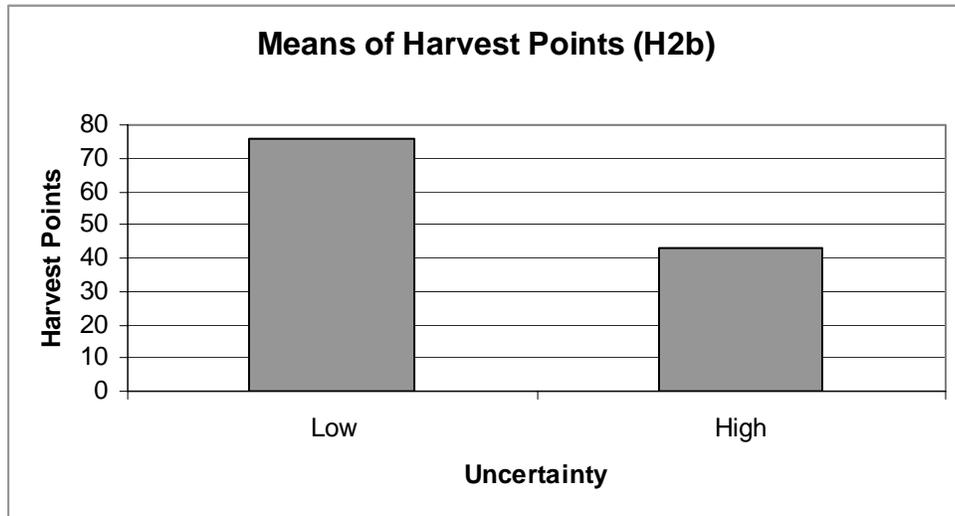


Figure 8: Effects of Uncertainty on Harvest Points

The hypothesis was confirmed and the results suggested that participants were less successful in achieving their goals under uncertainty. There was no interaction between social identity and uncertainty. This suggests that participants' choice to cooperate under certainty depended on the level of uncertainty but not their opponents' social identity.

Intergroup Bias (H2c)

A one-way ANOVA with 2 levels (Uncertainty) was conducted to test the hypothesis that there would be a main effect for uncertainty on intergroup bias. The effect was significant, $F(1, 127) = 2.93, p < .05$. Participants in the HI condition evaluated their opponent more negatively ($M = 3.49$) than those in the LO condition ($M = 3.94$).

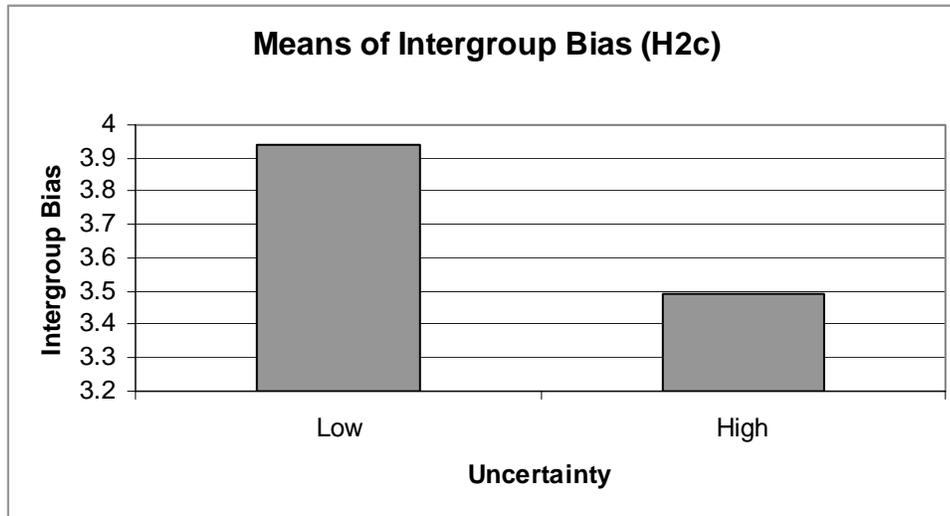


Figure 9: Effects of Uncertainty on Intergroup Bias

The hypothesis was confirmed and the result suggests that people have a more negative attitude toward others under uncertainty. There was no interaction between social identity and uncertainty.

Summary

Hypothesis 2 was designed to examine the effects of resource uncertainty on intergroup bias (H2a), intention points (H2b), and harvest points (H2c). The results support past studies on resource uncertainty. Participants overestimated the resource pool and requested more points under uncertainty. In addition, participants were less successful at receiving points under uncertainty. These findings are consistent with past studies (Budescu *et al.*, 1990; Budescu, *et al.*, 1992; Gustafsson, *et al.*, 1999; Budescu, *et al.*, 1995; Hine & Gifford, 1996; Samuelson, 1993, 1999; Samuelson & Messick, 1986; Suleiman & Budescu, 1998).

One interesting note is that participants evaluated their opponents more negatively under uncertainty compared to those under certainty regardless of the trial outcome. This suggests that people are more likely to misperceive others under uncertainty. Objectively, the opponent's choice behavior is the same throughout the conditions. However, resource uncertainty leads people to assume the other's intention. Because of this preconceived assumption, the result of the game becomes rather irrelevant to evaluate the other. The hypothesis was confirmed and the results suggested that participants were less successful in achieving their goals under uncertainty. The effect occurred regardless of whether the opponent was Chinese, Japanese, or American, suggesting that choice under uncertainty is insensitive to who the opponent is, at least as far as these nationalities are concerned.

Hypothesis 3 (Nationality)

There were no a priori hypotheses regarding the effects of nationality on the dependent variables. The following results are thus secondary, but potentially quite interesting.

Identity

There was a main effect of nationality on identity, $F(1, 127)=40.72, p<.001$. Chinese participants identified with their nationality significantly more strongly ($M=6.20$) than Japanese participants ($M=5.07$). This suggests that Chinese participants were more nationalistic than Japanese participants.

Intergroup Bias

There was also a main effect of nationality on intergroup bias, $F(1, 127)=4.69, p<.05$. Chinese participants evaluated their ingroup significantly more positive ($M=5.13$) than Japanese

participants ($M=4.71$). This result also suggests that Chinese participants had stronger ingroup identity as Chinese than Japanese participants as Japanese.

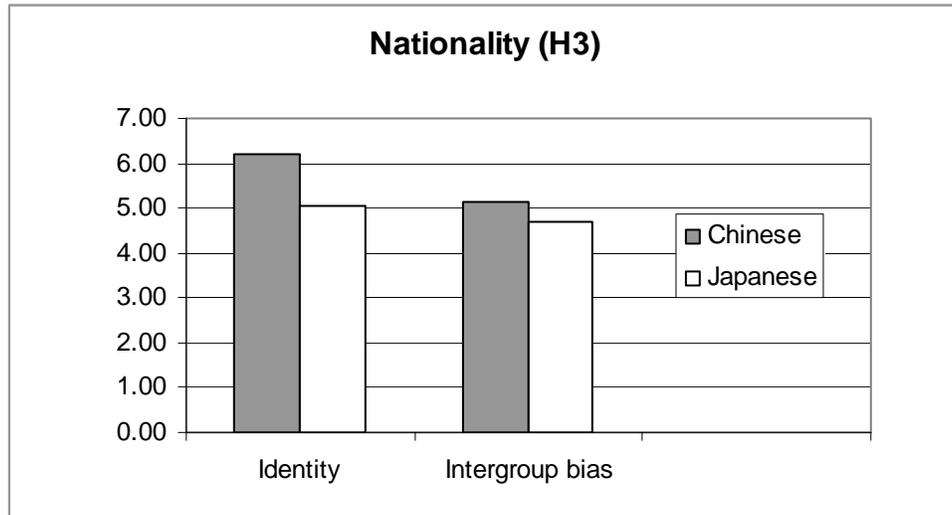


Figure 10: Nationality and National Identities

Discussion

The present study was conducted in order to examine China- Japanese relations from a social-psychological perspective. As predicted in Hypothesis 1, SGD was extended to a real world international relation among Americans, Chinese, and Japanese. It was evident from both an examination of the intergroup bias in Hypothesis 1a and an examination of the perceived similarities in Hypothesis 1b.

The results not only extended research on SGD, but also explained tensions between China and Japan from a cognitive-psychological perspective. The present study suggests that ethnic

similarities between Chinese and Japanese formed a particular perception of each other, which ultimately contribute to their conflicts.

The behavioral component of SGD was not found in this study, however. It is possible that the shift of social identity occurred during the experiment once the resource dilemma game started, so further studies are necessary. Ideas for follow-up experiments to investigate effects of SGD on choice behavior will be discussed later.

As predicted in Hypothesis 2, environmental uncertainty affected attitude and behavior in China-Japan relations. Evident from the examination of intention in Hypothesis 2a and choice behavior in Hypothesis 2b, people became objectively more competitive in uncertain situations. It is partially because they overestimated the pool size. However, that does not fully explain the result from an examination of Hypothesis 2c.

In the present study, participants in an uncertain situation evaluated their opponents more negatively than those in a certain situation regardless of their opponents' choice behavior. It is possible that the opponent's choice behavior and the outcome of the game are not relevant to the evaluation of them under uncertainty. In order to further examine this interesting insight, further investigation is necessary to identify a basis of evaluation of others. Details will be discussed later in the chapter.

Limitation and Future Directions

Number of Trials

Even though the present study provided insights into the China-Japan relationship from a social-psychological perspective, there are some limitations to the study. First, the present study used the one-shot sequential RDG to examine reactions of participants. In order to further

examine choice behavior of Chinese and Japanese, a follow-up study using a multi-trial sequential RDG may be worthy. The multi-trial sequential RDG will better simulate long-term China-Japan relations, and results from such a paradigm will help us better understand these relations. In order to execute a follow-up study with the multi-trial sequential RDG, a few changes in recruiting as well as in the online program would need to be made. In the present study, roughly 50% of participants completed the experiment. Most of them were not compensated, and some of those who did not complete the experiment reported that it was long. Thus, it will be essential to compensate participants in some way. In addition, removing unnecessary questions and shortening instructions will be needed in order to optimize the quality and the length of the online program.

Extending SGD Claims

The present study extended SGD to relations among China, Japan, and the U.S. When a clear ethnic outgroup like Americans are salient, Chinese and Japanese perceive each other as anti-norm ingroup members rather than as classic outgroup members. It is unclear, however, how ethnicities and/ or political relations with different nationalities affect such dynamics. It is possible that Chinese and Japanese categorize each other differently when citizens other than Americans are a reference. For example, many Chinese and Japanese may be unfamiliar with small, isolated nations (e.g., Liechtenstein), and this lack of familiarity may discourage perception of each other as members of an ingroup. On the other hand, most Chinese and Japanese know England, but English may evoke an entirely different SGD compared to Americans. It is because the tension between Chinese and Japanese is partly created and sustained by the U.S. For example, Japanese containment policies against China are mostly U.S. led. The U.S. is involved in some of major sources of conflicts between China and Japan, such as

Taiwan issues and the National Defense Program. On the other hand, other countries like England do not support China or Japan exclusively. Thus, it would be worthwhile to examine the effects of nature of the third-party in SGD.

In order to examine the effects of the nature of the third-party in SGD, a study must be conducted to first identify some nationality-based outgroup members who are positive, negative, or neutral. Then, a partial replication of the present study would need to be conducted. The design would be a 2 (social identity: IN vs. OUT vs. DI) x 3 (Outgroup: positive vs. negative vs. neutral) factorial experiment. It will be important to empirically separate the deviant ingroup and the outgroup, whether they are positive or negative. I hypothesize that SGD changes will depend on the nations involved. For instance, ethnic similarities between Chinese and Japanese may not be salient if the third party is South Korean. In that case, Chinese and Japanese may categorize each other as outgroup instead of deviant ingroup.

Evaluation of Others in Uncertainty

In the present study, participants' evaluation of their opponents was independent of the outcome of the game. Whether participants received any points or not, they evaluated their opponents more negatively when they were uncertain about the pool size. It is possible that objective information such as the outcome of a game is not relevant to evaluations of others in an uncertain situation. Past studies examined the linkage between one's attitude and behavior, and the results are mixed (Deutscher, 1973; Cottam, *et al.*, 2004; Fazio, 1986; Sparks, 2000). Even though some research results suggest little direct relations between one's attitude and behavior, it is clear that they are associated (Fiske & Taylor, 1991).

The present study examined the attitude-behavior link a step further. Little research has looked at how one's behavioral change affects another's attitude toward that person. The present

research suggests that one's behavioral change does not result in another's attitude change. This finding is significant because the result suggests that Japan's policy change by itself may not be sufficient to change Chinese attitude toward Japan or vice versa. Because one of the ultimate goals for this line of research is to suggest ways to alleviate the China-Japan conflict, it is important to know what information Chinese and Japanese base their evaluations of each other. Thus it is worthy to conduct a follow up study to examine a linkage between uncertainty and negative evaluations of others.

A replication of the present study could be conducted in the following fashion. The basic methodology would be the same, but some new scales will be introduced. Participants' mood would need to be assessed to investigate relations among mood, uncertainty, and intergroup bias. A past study showed that uncertainty prolongs positive moods (Wilson, Centerbar, Kermer, & Gilbert, 2005). In their study, a positive mood was prolonged in an uncertain situation. It is possible that a negative mood was prolonged due to uncertainty in this game, which led to negative evaluations of others.

Conclusion

This chapter focused on an experimental study designed to examine the effects of social identity and uncertainty in China-Japan relations, especially on intergroup attitudes and cooperative/ competitive behavior. Collecting data from Chinese and Japanese who reside in their home countries, the results provide valuable information for better understanding friction between China and Japan from a social-psychological perspective.

The SGD model was extended to perceptions of members of different nations. In particular, the attitudinal component of SGD was fully demonstrated by Chinese and Japanese participants.

The results showed that SGD describes social categorizations of Chinese and Japanese. Chinese and Japanese categorize each other as anti-norm ingroup members, which helps explain the animosity between them at the cognitive level. Their ethnic similarities create their ingroup identity, while their disagreements on political and social norms create their anti-norm identity. Further studies are necessary to understand to what degrees their SGD can be changed by a third party, but it is entirely possible that the presence of a third-party exacerbates their negative attitude toward each other.

The study also suggested that negative attitudes between Chinese and Japanese are independent from their behavior toward each other. In an uncertain situation, both Chinese and Japanese participants evaluated each other significantly more negatively regardless of the other's behavior. This finding is significant in that it provided a new piece of information regarding on what information Chinese and Japanese base their evaluations of each other. Uncertainty provides an opportunity for people to make assumptions about their environment, and it is entirely possible that Chinese and Japanese made their assumptions about each other. Because their relations are negative from the beginning, they might have made negative assumptions about each other. By then, other information that could be objective might not be used to evaluate each other. Further studies are necessary to investigate what the initial data suggests, but it was clear that uncertainty contributes to exacerbate the China-Japan conflict.

Follow up studies are necessary to strengthen those suggestions made above, but the present study provided useful base information for future researchers to conduct experimental studies on SGD, uncertainty, intergroup attitudes, and choice behavior. Further comments and suggestions for the China-Japan conflict based on the present study would be discussed in the following chapter.

CHAPTER 6: IMPLICATIONS AND SIGNIFICANCE

Overview

As the first step to develop suggestions for U.S. foreign policy in Northeast Asia, this study focused on China-Japan relations. Their relations were examined from the political-psychological and the social-psychological perspectives, in order to identify the root causes of China-Japan conflicts and investigate the complexity of their relations. Alleviating the conflict between China and Japan are highly relevant to the U.S. in several ways including its economy and defense strategy. China and Japan are the two most powerful nations in Asia, and it is not an exaggeration to state that the two countries play important roles in the success of the U.S. economy and the peace/ security of Northeast Asia.

Even though relations between China and Japan have been normalized for more than 30 years, political events between the two countries often result in negative interactions. From security issues regarding the U.S.-Japan security alliance to historical issues like Koizumi's repeated visits to Yasukuni Shrine, Japanese history textbooks, and the East China Sea disputes, China-Japan relations had been stifled. As Asia's most powerful countries, China and Japan are influential to the rest of the world. Some influences could be negative or even detrimental. The negative influences on Asia are often associated with political tensions between China and Japan.

Past scholars have recognized China-Japanese relations as problematic; however, few studies have been done to understand the complexity of their relations from a psychological perspective. Linkage among those separate issues between China and Japan had not been investigated. The root causes of tensions between China and Japan have not been identified, either. These are basic information necessary for understanding China-Japan relations and establishing ways to alleviate

their conflict. Thus, this study attempted to better understand China-Japan relations by identifying the root causes of their conflict and investigating the complexity of their relations. Ultimately these pieces of information would be essential for suggesting ways to alleviate their conflict.

There were three objectives in this study. The first objective was to identify root causes of China-Japan conflict. In order to alleviate their conflict, it was essential to identify underlying causes of their conflict. Even though many scholars have identified the Sino-Japanese War II as a cause of today's conflict between China and Japan, they have not fully explained the impact of the war. It was particularly important to identify the root causes of China-Japan conflict from a psychological perspective, because people's cognitive processes affect the way they think, feel, and behave. In order to successfully alleviate China-Japan conflict, addressing psychological aspects of the conflict is necessary.

The second objective was to investigate how China and Japan maintained their successful economic relation while their political relation was stifled. This was important for two main reasons. First, it improved understanding of China-Japan relations. Understanding the complexity of their relations was essential to identify how to alleviate their conflict. The other was to identify how positive relations between China and Japan were maintained, in order to apply their positive relations as a model to improve their negative relations. Specifically, their economic success was investigated from the political-psychological and the social-psychological perspectives to suggest ways to improve their political and historical relations.

The third objective was to examine why China-Japan conflict had been particularly challenging. Focusing on the political-psychological and the social-psychological perspectives, China-Japan conflict was examined to find out what psychological processes contribute to the

maintenance of their conflict. By identifying detrimental effects of those psychological processes, it would become possible to improve psychological aspects of China-Japan relations.

In order to achieve those three objectives, two distinct and complementary research methods were used in this study: the content analyses of Chinese and Japanese decision makers and an experimental study with Chinese and Japanese citizens. While a series of content analyses investigated China-Japan relations at the perceptual level, the experimental study examined attitudes and behavioral components in their relations. The content analyses were conducted using the image theory, in order to identify the complex image perceptions and image misperceptions between China and Japan. The experimental study was conducted using the SGD and the concept of social dilemmas, in order to examine effects of Chinese and Japanese social identity and the situational uncertainty on their attitudes and behaviors toward each other. Even though the two research studies were conducted independently, both provided intriguing information that aided better understanding of China-Japan relations.

Content Analyses

Based on the image theory, a series of content analyses were conducted to reveal Chinese and Japanese decision makers' images of each other. Chinese and Japanese decision makers' speeches and interviews were collected from governmental websites, and conceptually analyzed. The results provided new insights on the China-Japan relation. Both Chinese and Japanese decision makers compartmentalized their relations into three major categories: economic, political, and historical relations. This compartmentalization enabled China and Japan to have three unique forms of relation, and each relation seemed independent of each other.

Their economic relation is very successful. This is because both perceive each other as colonial, which minimize the perception of threat in their relation. Due to the lack of perceived threat, their economic relation was positive and stable. Superordinate identity achieved by international organizations such as APEC and ASEAN +3 has likely fostered positive economic relations between China and Japan as well. With mutual benefits and interdependence necessitated from the superordinate identity, China and Japan can focus on positive aspects of their relations. Because of those organizations' nature of internationality, ethnic similarities between China and Japan did not seem to interfere with their identity.

Unlike their economic relation, their political relation was rather negative. Their mutually perceived enemy image created a situation in which both China and Japan perceived each other as threats. However, their relation is stable because of their mutually perceived equality in their capability and their cultural sophistication. Thus, they use diplomatic strategies when conflicts arise in order to maintain their power balance. In addition, there was no apparent misperception in their political relation. This aided their frank and straightforward communication styles, which ultimately minimized miscommunications between China and Japan. Due to the absence of apparent image misperceptions between the two countries, their political relation is stable and diplomatic even when tensions are heightened.

A series of content analyses revealed that their historical relation was the root cause of their unstable and negative relations. Interactions between Chinese and Japanese decision makers only exacerbate their situation, and their misperceptions of each other have detrimental effects on their relations. While Chinese decision makers perceive Japan as imperial, Japanese decision makers perceive China as barbarian. In other words, Chinese decision makers believe the capability of Japan and Japanese cultures are superior to China.

At the same time, Japanese decision makers believe that China is militarily more capable than Japan while their culture is inferior to Japan. Because their perception of each other's capability and culture were not in balance, their relation was not only negative, but unstable. Both Chinese and Japanese decision makers are threatened by each other's superior capability. In addition, Japanese decision makers perceive China as culturally inferior to Japan, which eliminates diplomatic strategies as an option to resolve their conflict. Because of their perceived threats and their image misperception, both China and Japan are more susceptible to the escalation of their conflict spiral and to their repeated negative interactions.

The significance of the content analyses was based on its ability to reveal their compartmentalized relations, its ability to identify types of misperceptions that existed between China and Japan, and its ability to aid demonstrating how China-Japan relations can be improved. Because China-Japan relations are rather complex, no single set of images can fully describe their relations. Instead, the present study reveals the presence of compartmentalization and provides with three unique and independent sets of images between China and Japan. One particular set of image, in their historical relation, was identified as the cause of China and Japan's stifled relations within the three image sets.

From the results of the content analyses, the following can be inferred. Like many scholars have suggested, the Sino-Japanese War II was the key factor to the China-Japan conflict. In the present day, China and Japan face tensions between them each time an event relevant to the war takes place. While Chinese decision makers perceive Japan as superior to them both politically and culturally, Japanese decision makers perceive China as militarily superior but culturally inferior. This set of images creates a unique situation, which escalates their conflict spirals. For

example, Japanese decision makers do not apply diplomatic strategies to resolve conflicts, because they believe that China is culturally incapable to make diplomacy work.

At the same time, Japanese decision makers experience threats from China by China's perceived military superiority. Thus, they often express their disagreements and regrets with regards to negative events without taking any sort of definitive actions. Meanwhile, Chinese decision makers experience powerlessness by the perceived political and cultural superiority of Japan. This perceptual gap in each other's power escalates their conflict by adding more fuel to the already long-existing fire. Thus, correcting their perceptions of events relevant to their past is crucial to alleviate conflicts between China and Japan.

The success of China-Japan economic relations can be attributed to the results of their interdependence, superordinate goals, and superordinate identity. Instead of bilateral settings, economic relations between China and Japan are often in multi-national settings. Especially in the international organizations like the APEC and the ASEAN+3, China and Japan successfully perceive interdependence and superordinate goals, and ultimately establish superordinate identity. Goals that can be achieved only by collaboration are called superordinate goals. Superordinate goals create interdependence among groups, which encourages intergroup cooperation. By necessitating cooperative behavior to achieve their goals, collaboration among groups becomes more likely even when the dominant strategy of a group is to compete (to maximize their outcomes and to minimize others). The effectiveness of superordinate goals to reduce intergroup bias is evident in both lab settings (Gaertner, *et al.*, 1989) and real-life settings (Sherif, 1988). These superordinate goals establish superordinate identity, which ultimately improves intergroup relations (e.g. Smith & Tyler, 1996)

The results of the content analyses suggest that minimizing image misperceptions in historical relations between China and Japan is essential. Modeling after the success in their economic relations, China and Japan can develop superordinate goals with regards to their historical relations. Both China and Japan recognize that they have issues surrounding their history. It is necessary for both parties to bring closer to these controversies. Because their bilateral historical relation is very susceptible to conflict spirals, it is also suggested to have a third-party involved in their reconciliations.

The Experimental Study

Complimentary to the content analyses, the experimental study was conducted in order to examine China-Japan relations at attitude and behavior levels. Based on the SGD, social identity of the opponent was manipulated. During the game, uncertainty of the total pool size was manipulated in order to examine the effects of uncertainty on China-Japan relations. Chinese and Japanese participants played a sequential RDG while the SGD and the level of certainty were manipulated. The SGD was manipulated in order to investigate whether their social identity escalated China-Japan conflict and created a situation in which alleviation of their conflict is difficult. The level of certainty was manipulated to examine the effects of uncertainty on their attitudes and behaviors in an intergroup setting.

There were three sets of hypotheses examined in the study: social identity, uncertainty, and nationality. The first set of hypotheses, social identity, examined effects of social identity on intergroup bias, perceived similarity, and harvest points. The second set of hypotheses, uncertainty, examined effects of uncertainty on intergroup bias, intention points, and harvest

points. Lastly, even though there was no specific *a priori* hypothesis for participants' nationality, effects of nationality on dependent measurements were examined as secondary analyses.

The results of the experimental study showed that the SGD describes social categorizations of Chinese and Japanese well. Specifically, Chinese and Japanese people categorized each other as anti-norm ingroup members. Their ethnic similarities led to their ingroup identity, while their disagreements on political and social norms have led them to categorize each other as anti-norm members. This created a unique bilateral situation in which they evaluate each other more negatively than Americans, who were outgroup members in this study. This was also evident from the results of the perceived similarity scale and the intergroup bias scale.

This finding was particularly significant because of an earlier suggestion to alleviate China-Japan conflict. The results from the content analyses suggest that China-Japanese talks might be fostered by the presence of the third party as a mediator. The results of the experimental study suggests that ethnicity of such mediator must be carefully selected. It is because SGD would change accordingly to the third party. For example, if the third party would be the U.S., its presence would have negative effects on China-Japan relations and exacerbate their conflict. On the other hand, politically neutral and irrelevant nations such as Switzerland may dismiss the detrimental effects of their ethnic similarities.

The results from the experimental study also suggested that Chinese and Japanese participants overestimated the resource pool and became more competitive toward each other in an uncertain situation. In other words, their perceptions became less accurate and they became more hostile toward each other. The real life China-Japan relations are full of uncertainties, and the results could explain how misperceptions occur between China and Japan. In other words, uncertainty is also an underlying cause of the China-Japan conflict.

Even though further studies are necessary to draw conclusive inferences, the experimental study also suggested that negative attitudes between Chinese and Japanese are independent from their behavior toward each other. It seems they prolong their judgment of others in uncertain situations. It is possible that objective changes does not affect Chinese and Japanese attitude toward each other. If so, changing foreign policies would not be sufficient to alleviate their tensions. Instead, improving their relations require changing of their attitudes toward each other at the social-psychological level. In order to successfully improve their relations, China and Japan must develop a list of measurable steps to reconciliations. Because the two countries have been psychologically trapped in their conflict spirals, it is important for them to form specific demands towards resolution.

The findings from the experimental study were important, because they provided insights to further understand China-Japan relations and to suggest ways to alleviate their conflict. First, the finding about SGD between the two countries suggests that their social identity escalates their already-high-tensioned relations. In other words, their conflict should be alleviated at the cognitive level. If a third party is involved to improve their relations, ethnic backgrounds of the third party should be carefully considered because of the nature of their SGD.

Second, the findings regarding Chinese and Japanese attitudes and choice behavior suggested that they do not seem to use their choice behavior as information to evaluate each other. Further research is necessary, but initial results suggest that policy changes may not result in improvement of China-Japan relations. In other words, alleviating China-Japan conflict requires changes both at the policy level and the social-psychological level. For example, uncertainty in China-Japan relations should be minimized whenever and however possible, because uncertainty

between them creates a situation that allows both sides to make assumptions. Because of their negative relations, those assumptions would be negative and lead to escalation of their conflict.

Summary

In conclusion, this paper examined China-Japan conflict from political-psychological and social-psychological perspectives, and began to unfold ways to alleviate their conflicts. By applying two different research methods, the present study identified root causes of China-Japan conflict at both the foreign policy level and the citizen level. While the content analyses identified misperceptions between Chinese and Japanese decision makers, the experimental study identified Chinese and Japanese social identity and uncertainty as causes of their conflicts.

The results of this study provide a foundation to further understand linkages between one's social identity and his or her attitudes and choice behaviors, as well as to further investigate how to improve the China-Japan relation. As the most powerful nations in Asia, the China-Japan relation affects not only themselves but the rest of the world. With the growing threat from North Korea, it is crucial that countries like China and Japan cooperate fully to maintain peace and security in Asia and the rest of the world. Thus, alleviation of China-Japan conflicts should be initiated immediately. Even though this paper discussed the first of a series in studies necessary to reveal ways to successfully alleviate their conflict, suggestions from this study should be valuable.

REFERENCES

- Abrams, D., & Hogg, M. A. (1990) (Eds.), *Social identity theory: Constructive and critical Advances*. New York: Springer-Verlag.
- Abrams, D., Marques, J.M., Bown, N.J., & Henson, M. (2000). Pro-norm and deviant deviance within in-groups and out-groups. *Journal of Personality and Social Psychology.*, 78, 906-912.
- Abrams, D., Marques, J.M., Bown, N.J., & Dougill, M. (2002) Deviant and pro-norm deviance in the bank and on the campus: Two experiments on subjective group dynamics. *Group Processes and Intergroup Relations*, 5, 163-182
- Baron, J. (1990). Harmful heuristics and the improvement of thinking. *Contributions to Human Development*, 21, 28-47.
- Bornstein, G. (1989). Within- and between- group communication in intergroup competition for public goods. *Journal of Experimental Social Psychology*. 25, 422-436
- Brams, S. J. (1977). Deception in 2 x 2 games. *Journal of Peace Science*, 2, 171-203.
- Brams, S. J. (1985). *Superpower games: Applying game theory to superpower conflict*. Yale University Press. New Haven, Connecticut.
- Brams, S. J., Davis, M. D., & Straffin, P. D. (1979). The geometry of the Arms Race. *International Studies Quarterly*, 23(4), 567-588.
- Brams, S. J. & Hessel, M. P. (1984). Threats power in sequel games. *International Studies Quarterly*, 28(1), 217-231.
- Brewer, M. B. (1979). Ingroup bias in the minimal intergroup situation: A cognitive motivational analysis. *Psychological Bulletin*, 86, 307-324.

- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, 17, 475-482.
- Brewer, M. B. (1993). Social identity, distinctiveness, and ingroup homogeneity. *Social Cognition*, Vol. 11(1), 150-164.
- Brewer, M. B. & Miller, (1996). *Intergroup relations*. Open University Press.
- Brewer, M. B. (1999). The psychology of prejudice: ingroup love or outgroup hate? *Journal of Social Issues*, 55(3), 429-494.
- Budescu, D.V. & Au, W.T. (2002). A model of sequential effects in CPR dilemmas. *Journal of Behavioral Decision Making*, 15, 37-63.
- Budescu, D.V., Au, W., & Chen, X. (1997). Effects of protocol of play and social orientation on behavior in sequential resource dilemmas. *Organizational Behavior and Human Decision Processes*, 69, 179-194.
- Budescu, D. V., Rapoport, A., & Suleiman, R. (1990). Resource dilemmas with environmental uncertainty and symmetric layers. *European Journal of Social Psychology*, 20, 475-487.
- Budescu, D. V., Rapoport, A., & Suleiman, R. (1992). Simultaneous vs. sequential requests in resource dilemmas with incomplete information. In O., Huber, J., Mumpower, J., Van der Plicht, & P. Koele (Eds.), *Current themes in psychological decision research*, 297-310. Amsterdam: Elsevier.
- Budescu, D.V., Rapoport, A. & Suleiman, R. (1995). Common pool resource dilemmas under uncertainty: Qualitative tests of equilibrium solutions. *Games and Economic Behavior*, 10, 171-201.

- Budescu, D.V., Suleiman, R., & Rapoport, A. (1995). Positional order and group size effects in resource dilemmas with uncertain resources. *Organizational Behavior and Human Decision Processes*, 61, 225-238.
- Cheng, T. (1974). The Sino-Japanese dispute over the Tiao-yu-tai (Senkaku) Islands and the law of territorial acquisition. *Virginia Journal of International Law*. 14(2). 248-60.
- Cottam, M. (1986). *Foreign policy decision making: the influence of cognition*. Boulder: Westview.
- Cottam, M. L. (1994). *Images and Intervention: U.S. Policies in Latin America*. University of Pittsburgh Press. Pittsburgh: Philadelphia.
- Cottam, M. L. & Cottam, R. W. (2001). *Nationalism and politics: the political behavior of nation states*. Lynne Rienner Publisher. Boulder: Colorado.
- Cottam, M. L., Dietz-Uhler, B., Mastors, E. M., & Preston, T. (2004). *Introduction to political psychology*. Lawrence Erlbaum Associates Publishers. Mahwah: New Jersey.
- Cottam, R. W. (1977). *Foreign policy motivation. Pittsburgh*. University of Pittsburgh: University of Pittsburgh Press.
- Cross, W. E. (1985). Black identity: *Rediscovering the distinction between personal identity and reference group orientation*. In M. Spencer, G. Brokkins and W. Allen (Eds) *Beginnings: the social and affective development of black children*. 155-171. Hillsdale, NJ: Erlbaun.
- Dawes, R. M. (1973). The commons dilemma game: An n -person mixed-motive game with a dominating strategy for defection. *ORI Research Bulletin*, 13, 1-12.
- Dawes, R. M. (1980). Social dilemmas. *Annual Reviews of Psychology*, 169-193.

- Dawes, R. M., McTavish, J., & Shaklee, H. (1977). Behavior, communication, and assumptions about other people's behavior in a commons dilemma situation. *Journal of Personality and Social Psychology*, 35, 1-11.
- Dion, K. L. (1973). Cohesiveness as a determinant of ingroup-outgroup bias. *Journal of Personality and Social Psychology*, 28, 163-172.
- Dovidio, J. F., Gaertner, S. L., Niemann, Y. F., & Snider, K. (2001). Racial, ethnic, and cultural differences in responding to distinctiveness and discrimination on campus: Stigma and common group identity. *Journal of Social Issues*, 57(1), 167-188.
- Embassy of People's Republic of China in the United States of America (2005). Foreign Ministry Spokesperson Qin Gang's Press Conference on 26 April 2005.
<http://www.China-embassy.org/eng/fyrth/t193657.htm>
- Erev, I., Bornstein, G., & Galili, R. (1993). Constructive intergroup competition as a solution to the free rider problem: a field experiment. *Journal of Experimental Social Psychology*, 29, 463-478.
- Fisher, R. (1990). *The social psychology of intergroup and international conflict resolution*. New York: Sprinder-Verlag.
- Forsyth, D. R. (1999). *Group Dynamics*. (Third Edition). Wadsworth Publishing Company. Belmont; California.
- Frank, G. (1992). *The Pacific century*. New York, New York: Macmillan.
- Gaertner, S. L., Mann, J., Murrell, A., & Dovidio, J. F. (1989). Reducing intergroup bias: the benefits of recategorization. *Journal of Personality & Social Psychology*, 57(2), 239-249.
- Gustafsson, M., Biel, A., & Garling, T. (1999). Overharvesting of resources of unknown size. *Acta Psychologica*, 103, 47-64.

- Gustafsson, M., Biel, A., & Garling, T. (2000). Egoism bias in social dilemmas with resource uncertainty. *Group Processes & Intergroup Relations*, 3(4), 351-365
- Hardin, G. (1968). The tragedy of the commons. *Science*, 162, 1243-1248.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley
- Hermann, M.G. (1977). *A Psychological examination of political leaders*. New York: Free Press.
- Herrmann, R. (1985). *Perception and behavior in Soviet foreign policy*. Pittsburgh: University of Pittsburgh Press.
- Herman, R. K., Schopler, J., & Sedikides, C. (1997). Images in international relations: An experimental test of cognitive schema. *International Studies Quarterly*, 41, 403-433.
- Hirt, E., Zillman, D., Erickson, D. & Kennedy, C. (1992). Costs and benefits of allegiance: Changes in fans' self-ascribed competencies after team victory versus defeat. *Journal of Personality and Social Psychology*. 63, 724-731.
- Hine, D. W. & Gifford, R. (1996). Attributions about self and others in common dilemmas. *European Journal of Social Psychology*, 26, 429-445.
- Hinkle, S., Taylor, L. A., & Fox-Cardamore, D. L. (1989). Intragroup identification and intergroup differentiation: A multicomponent approach. *British Journal of Social Psychology*, 28, 305-317.
- Holsti, O., North, R., & Brody, R (1968). Perception and action in the 1914 crisis. In Singer, J. D. (Ed.) *Quantitative International Politics: Insights and Evidence*. 123–158. New York: Free Press.
- Hogg, M. (1992). *The social psychology of group cohesiveness*. New York: New York University Press.

- Hogg, M. A. (2000a). Social identity and social comparison In J. Suls & L. Wheeler (Eds.), *Understanding group behavior: Vol. 2. Small group processes and interpersonal relations*, 227-253. Mahwah, NJ: Erlbaum.
- Hogg, M. A. (2000b). Subjective uncertainty reduction through self-categorization: A motivational theory of social identity processes. *European Review of Social Psychology*, 11, 223-255.
- Hogg, M. & Abrams, D. (1988). *Social identification: A Social psychology of intergroup relations and group process*. New York: Routledge.
- Hogg, M. & Abrams, D. (1990). Social motivation, self-esteem and social identity. In D. Abrams and M. A. Hogg (Eds.), *Social identity theory: Constructive and critical advances*. Hemel Hempstead, UK: Harvester-Wheatsheaf.
- Hogg, M. A., Abrams, D., Otten, S., & Hinkle, S. (2004). The social identity perspective: Intergroup relations, self-conception, and small groups. *Small Group Research*, 35, 246-276.
- Hogg, M. A., Terry, D. J., & White, K. M. (1995). A tale of two theories: A critical comparison of identity theory with social identity theory. *Social Psychology Quarterly*, 58, 255-269.
- Hogg, M. A. & McGarty, C. (1990). Self-categorization and social identity. In D. Abrams and M. A. Hogg (Eds.), *Social identity theory: Constructive and critical advances*. Hemel Hempstead, UK: Harvester-Wheatsheaf.
- Holsti, O. R. (1969). *Content analysis for the social sciences and humanities*. Addison-Wesley. Reading: MA.
- Honda, K. (1999). *The Nanjing Massacre: A Japanese Journalist Confronts Japan*. M.E.Sharpe.

- Hoyle, R. H., Pinkley, R. L., & Insko, C. A. (1989) Perceptions of social behavior: Evidence of differing expectations for interpersonal and intergroup interaction. *Personality and Social Psychology Bulletin*, 15, 365-376.
- Hutchison, P. & Abrams, D. (2003). Ingroup identification moderates stereotype change in reaction to ingroup deviance. *European Journal of Social Psychology*, 33, 497-506.
- Insko, C. A., Schopler, J., Kennedy, J., Dahl, K., Graetz, K., & Drigotas, S. (1992). Individual-group discontinuity from the differing perspectives of Cambell's realistic group conflict theory and Tajfel and Turner's social identity theory. *Social Psychology Quarterly*, 55, 272-291.
- Jervis, R. (1976). *Perception and misperception in international politics*. Princeton University Press. Princeton: New Jersey.
- Jones, E. E., & Harris, V. A. (1967). the attribution of attitudes. *Journal of Experimental Social Psychology*, 3, 1-24.
- Kaufman, H. (1968). Similarity and cooperation received as determinants of cooperation rendered. *Psychonomic Science*, 9, 73-74.
- Kelly, H. H. & Thibaut, J. W. (1978). *Interpersonal relations: A theory of interdependence*. New York: Wiley.
- King, W. (1965). *China and the League of nations: the Sino-Japanese controversy*. St. John's University Press. New York: New York.
- Kramer, R. M. & Brewer, M. B. (1984). Effects of group identity on resource utilization in a simulated commons dilemma. *Journal of Personality and Social Psychology*, 46, 1044-1057.
- Komorita, S. S., & Parks, C. D. (1994). *Social dilemmas*. Boulder, CO: Westview Press.

- Kuhlman, D. M. & Wimberly, D. L. (1976). Expectations of choice behavior held by cooperators, competitors, and individuals across four classes of experimental game. *Journal of Personality and Social Psychology*, 34, 69-81.
- Lary, D. & MacKinnon, S (2001). *Scars of war: the impact of warfare on Modern China*. UBC Press.
- Liebrand, W. B. G., Messick, D. M., & Wilke, H. A. M. (1992). *Social dilemmas: theoretical issues and research findings*. New York: Pergamon Press.
- Luce, R. D., & Raiffa, H. (1957). *Games and decisions: Introduction and critical survey*. London: John Wiley and Sons.
- Marques, J. M., Abrams, D., & Serodio, R. (2001). Being better by being right: Subjective group dynamics and derogation of in-group deviants when generic norms are undermined. *Journal of Personality and Social Psychology*. 81, 436-447.
- Marquez, J. M., & Paez, D. (1994). The black sheep effect: Social categorization, rejection of ingroup deviants, and perception of group variability. *European Review of Social Psychology*, 5, 37-68.
- Mayo, E. (1933) *the human problems of an industrial civilization*. New York: MacMillan.
- Messe, L. A. & Sivacek, J. M. (1979). Predictions of other's responses in a mixed-motive game: Self justification or false consensus? *Journal of Personality and Social Psychology*, 37, 602-607.
- Messick, D. M., Wilke, H. A. M., Brewer, M. B., Kramer, R. M., Zemke, P. E., & Lui, L. (1983). Individual adaptation and structural change as a solution to social dilemmas. *Journal of Personality and Social Psychology*, 44, 294-309.

- Messick, D. M., Allison, S. T., & Samuelson, C. D. (1988). Framing and communication effects on group members' responses to environmental and social uncertainty. In L. Wheeler & P. Shaver (Eds), *Review of Personality and Social Psychology*, 4, 11-44.
- Minister of Japan and His Cabinet (2002). Asia in a new century - challenge and opportunity" speech by Prime Minister Junichiro Koizumi at the Boao Forum for Asia.
http://www.kantei.go.jp/foreign/koizumispeech/2002/04/12boao_e.html
- Minister of Japan and His Cabinet (2005). Press conference by Prime Minister Junichiro Koizumi following the APEC leaders' meeting.
http://www.kantei.go.jp/foreign/koizumispeech/2005/11/19press_e.html
- Ministry of Foreign Affairs of Japan (2001). Economic cooperation program for China.
http://www.mofa.go.jp/policy/oda/region/e_asia/China-2.html
- Ministry of Foreign Affairs of Japan (2002c). Japan's FTA strategy (summary).
<http://www.infojapan.org/policy/economy/fta/strategy0210.html>
- Ministry of Foreign Affairs of Japan (2004c). Regional Diplomacy.
<http://www.mofa.go.jp/policy/other/bluebook/2004/chap2-a.pdf>
- Ministry of Foreign Affairs of Japan (2005a). Basic Position of the Government of Japan Regarding Prime Minister Koizumi's Visits to Yasukuni Shrine.
<http://www.mofa.go.jp/policy/postwar/yasukuni/position.html>
- Ministry of Foreign Affairs of Japan (2005b). Japan's School Textbook Examination Procedure.
<http://www.mofa.go.jp/policy/education/textbooks/index.html>
- Ministry of Foreign Affairs of Japan (2005c). Overview of Official Development Assistance (ODA) to China. http://www.mofa.go.jp/policy/oda/region/e_asia/China/index.html

Ministry of Foreign Affairs of Japan (2005d). Statement by Prime Minister Junichiro Koizumi.

<http://www.mofa.go.jp/announce/announce/2005/8/0815.html>

Ministry of Foreign Affairs of Japan (2006a). Press Conference 31 January 2006.

<http://www.mofa.go.jp/announce/press/2006/1/0131.html#1>

Ministry of Foreign Affairs of People's Republic of China (2000). Economic cooperation.

<http://www.fmprc.gov.cn/eng/wjb/zzjg/yzs/gjlb/2721/2722/t15971.htm>

Ministry of Foreign Affairs of people's Republic of China (2002). Some sensitive issues.

<http://www.fmprc.gov.cn/eng/wjb/zzjg/yzs/gjlb/2721/2722/t15974.htm>

Ministry of Foreign Affairs of the People of Republic of China (2004k). Bilateral relations.

<http://www.fmprc.gov.cn/eng/wjb/zzjg/yzs/gjlb/2721/default.htm>

Parks, C. D. & Sanna, L. J (1999). *Group performance and interaction*. Westview Press.

Pettigrew, T. F. (1979). The ultimate attribution error: extending Allport's cognitive analysis of prejudice. *Personality and Social Psychology Bulletin*, 5(4), 461-477.

Pruitt, D. G., & Kimmel, M. J. (1977). Twenty years of experimental gaming: Critique, synthesis and suggestions for the future. *Annual Review of Psychology*, 28, 363-392.

Pyle, K. B. (1996). *The Making of Modern Japan*. Lexington, MA: D. C. Heath.

Rapoport, A., Budescu, D.V. & Suleiman, R. (1993). Sequential requests from randomly distributed shared resources. *Journal of Mathematical Psychology*, 37, 241-265.

Rapoport, A., Budescu, D. V., Suleiman, R., & Weg, E. (1992). Social dilemmas with uniformly distributed resources. In W. B. G. Liebrand, D. M. Messick, & H. A. M. Wilke (Eds.), *Social dilemmas*, 41-55. Pergamon Press.

Rapoport, A., & Chammah, A. M. (1965). *Prisoner's dilemma: A study in conflict and cooperation*. Ann Arbor: University of Michigan Press.

- Richards, D. (2001). Reciprocity and shared knowledge structures in the prisoner's dilemma game. *Journal of Conflict Resolution*, 45 (5), 621-635.
- Roethlisberger, F. J. & Dickson, W. J. (1939) *Management and the Worker*. Harvard University Press. Cambridge: Massachusetts.
- Rosch, E. (1978). Principles of categorization. In E. Rosch & B. B. Lloyd (eds.): *Cognition and categorization*, 27-48. Hillsdale, NJ: Erlbaum.
- Rose, C. (2005). *China-Japan relations: Facing the past, looking to the future?* Routledge Curzon. New York: New York.
- Samuelson, C.D. (1991). Perceived task difficulty, causal attributions, and preferences for structural change in resource dilemmas. *Personality and Social Psychology Bulletin*, 17, 181-187.
- Samuelson, C.D. (1993). A multiattribute evaluation approach to structural change in resource dilemmas. *Organizational Behavior and Human Decision Processes*, 55, 298-324.
- Samuelson, C.D., & Messick, D.M. (1986). Inequities in access to and use of shared resources in social dilemmas. *Journal of Personality and Social Psychology*, 51, 960-967.
- Sherif, M. (1988). *The Robbers Cave experiment: Intergroup conflict and cooperation*. Wesleyan Univ Press.
- Shimko, K. L. (1991). *Images and arms control*. University of Michigan Press. Ann Arbor: MI.
- Smith, H. J., & Tyler, T. R. (1996). Justice and power: When will justice concerns encourage the advantaged to support policies which redistribute economic resources and the disadvantaged to willingly obey the law? *European Journal of Social Psychology*, 26, 171-200.

- Stephan, W. G. & Stephan, C. W. (1999). *Improving intergroup relations*. Sage Publications. Thousand Oaks: London.
- Suleiman, R., & Budescu, D.V. (1998). Common pool resource dilemmas with incomplete information. In D.V. Budescu, I. Erev, & R. Zwick (Eds.), *Games and human behavior: Essays in honor of Amnon Rapoport*. LEA, Earlbaum.
- Tajfel, H. (1959). Quantitative judgment in social perception. *British Journal of Psychology*, 50,16-29.
- Tajfel, H. (1982). *Human groups and social categories*. Cambridge, U.K.: Cambridge University Press.
- Tajfel, H. & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Monterey, CA: Brooks/ Cole
- Tajfel, H. & Turner, J. C. (1986). *The social identity theory of intergroup behavior*. In S. Worchel & W. Austin, *Psychology of Intergroup Relations*. Chicago: Nelson-Hall.
- Tajfel, H., & Wilkes, A. L. (1963). Classification and quantitative judgment. *British Journal of Psychology*, 54,101-114.
- Tinsley, H.E.A., & Weiss, D.J. (1975). Interrater reliability and agreement of subjective judgments. *Journal of Counseling Psychology*, 22, 358-376.
- Turner, J. C. (1975). Social comparison and social identity: Some prospects for intergroup behavior. *European Journal of Social Psychology*, 25, 79-97.
- Turner, J. C. (1982). Towards a cognitive redefinition of the social group. In H. Tajfel (Ed.), *Social Identity and Intergroup Relations*. Cambridge, Cambridge University Press.

- Turner, J. C. (1985). Social categorization and the self-concept: A social cognitive theory of group behavior. *Advances in Group Processes*, 2, 77-122.
- Turner, J. C., Hogg, M., Turner, P. & Smith, P. (1984). Failure and defeat as determination of group cohesiveness. *British Journal of Social Psychology*. 23, 97-111.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D. & Wetherell, M. S. (1987). *Rediscovering the Social Group: A Self-Categorization theory*. Oxford: Blackwell.
- U.S.-China Economic and Security Review Commission (2005). U.S.-China Economic and Security Review Commission annual reports to Congress.
http://www.uscc.gov/annual_report/2005/annual_report_full_05.pdf
- U.S. Department of State. (2002). China and the Future of U.S.-China Relations.
<http://www.state.gov/s/p/rem/15687.htm>
- van Lange, P.A.M., & Liebrand, W. B. G. (1989). On perceiving morality and potency: Social values and the effects of person perception in a give-some dilemma. *European Journal of Personality*, 3, 209-225.
- van Lange, P.A.M., Liebrand, W. B. G., Messick, D. M. (1992). Introduction and literature review. In W. B. G Liebrand, D. M. Messick, & H. A. M. Wilke (Eds). *Social dilemmas: theoretical issues and research findings*, 3-28. New York: Pergamon Press.
- Vlek, C. & Karen, G. (1992). Decision theory and environmental risk management: Assessment and resolution of four “survival dilemmas”. *Acta Psychologica*. 80, 249-278.
- Wayne, E. A. (2005). China’s emergence as an economic superpower and its implications for U.S. business. Retrieved January 25, 2006, from U.S. Department of State Web site:
<http://www.state.gov/e/eb/rls/rm/2005/46950.htm>

- Wilke, H. A. M. (1991). Greed, efficiency and fairness in resource management situations. In W. Stroebe, & M. Hewstone (Eds.), *European review of social psychology*, 2, 165-187. London: Wiley.
- Wilson, D. (1982). *When tigers fight: the story of the Sino-Japanese War II II, 1973-1945*. Hutchinson.
- Wrightsman, L. S., O'Connor, J., & Baker, N. J. (1972). *Cooperation and competition: Readings of mixed motive games*. Belmont: Books-Cole.
- Xinbo, W. (2005). The end of the silver lining: A Chinese view of the U.S.-Japanese alliance. *The Washington Quarterly*. 29(1). 119-130.

RESEARCH DOCUMENTS

Chinese Image of Japan

Ministry of Foreign Affairs of the People's Republic of China (2003a). Foreign Minister Tang

Jiaxuan gives a press conference during the 1st session of the 10th NPC.

<http://www.fmprc.gov.cn/eng/wjb/wjbz/2467/t14103.htm>

Ministry of Foreign Affairs of the People's Republic of China (2003b). Statement by

Ambassador Hu Xiaodi, Head of the Chinese Delegation, at the First Committee of the 58th Session of the United Nations General Assembly.

<http://www.fmprc.gov.cn/eng/wjb/zwbd/t26784.htm>

Ministry of Foreign Affairs of the People's Republic of China (2004a). Foreign Minister

Spokesman Liu Jianchao's Press Conference on 16 December 2004.

<http://www.fmprc.gov.cn/eng/xwfw/s2510/t175352.htm>

Ministry of Foreign Affairs of the People's Republic of China (2004b). Foreign Ministry

Spokesman Liu Jianchao's Press Conference on 21 December, 2004.

<http://www.fmprc.gov.cn/eng/xwfw/s2510/2510/t176015.htm>

Ministry of Foreign Affairs of the People's Republic of China (2004c). Foreign Minister

Spokesman Liu Jianchao's Press Conference on 30 December 2004.

<http://www.fmprc.gov.cn/eng/xwfw/s2510/t177832.htm>

Ministry of Foreign Affairs of the People's Republic of China (2004d). Foreign Ministry

Spokesman Zhang Qiyue's Press Conference on 12 October 2004.

<http://www.fmprc.gov.cn/eng/xwfw/s2510/t164243.htm>

Ministry of Foreign Affairs of the People's Republic of China (2004e). Foreign Ministry Spokesman Zhang Qiyue's Press Conference on 11 November 2004.

<http://www.fmprc.gov.cn/eng/xwfw/s2510/t173619.htm>

Ministry of Foreign Affairs of the People's Republic of China (2004f). Foreign Ministry Spokesman Zhang Qiyue's Press Conference on 7 December 2004.

<http://www.fmprc.gov.cn/eng/xwfw/s2510/t173619.htm>

Ministry of Foreign Affairs of the People's Republic of China (2004g). President Hu Jintao meets with Japanese Prime Minister Koizumi.

<http://www.fmprc.gov.cn/eng/zxxx/t171653.htm>

Ministry of Foreign Affairs of the People's Republic of China (2004h). Press conference by Minister of Foreign Affairs Li Zhaoxing during the second session of the 10th NPC.

<http://www.fmprc.gov.cn/eng/zxxx/t71616.htm>

Ministry of Foreign Affairs of the People's Republic of China (2004i). Promoting mutual trust through cooperation seeking security by mutual trust.

<http://www.fmprc.gov.cn/eng/wjb/zwbd/t127609.htm>

Ministry of Foreign Affairs of the People's Republic of China (2004j). Strengthening cooperation for mutual benefit and a win-win result: Speech by Premier Wen Jiabao at the 8th ASEAN +3 Summit in Vientiane.

<http://www.fmprc.gov.cn/eng/topics/wenjiabaoASEANeng/t172730.htm>

Ministry of Foreign Affairs of the People's Republic of China (2005b). Foreign Minister Spokesman Liu Jianchao's Press Conference on 3 March 2005.

<http://www.fmprc.gov.cn/eng/s2510/t185796.htm>

Ministry of Foreign Affairs of the People's Republic of China (2005c). Foreign Ministry Spokesman Liu Jianchao's Press Conference on 8 March, 2005.

<http://www.fmprc.gov.cn/eng/xwfw/s2510/t186552.htm>

Ministry of Foreign Affairs of the People's Republic of China (2005d). Foreign Ministry Spokesman Liu Jianchao's Press Conference on 17 March, 2005.

<http://www.fmprc.gov.cn/eng/xwfw/s2510/t188160.htm>

Ministry of Foreign Affairs of the People's Republic of China (2005e). Foreign Ministry Spokesman Kong Wuan's Press Conference January 25, 2005.

<http://www.fmprc.gov.cn/eng/xwfw/s2510/2511/t181353.htm>

Ministry of Foreign Affairs of the People's Republic of China (2005f). Foreign Minister Spokesman Li Zhaoxing answers questions on China's diplomacy and international affairs.

<http://www.fmprc.gov.cn/eng/zxxx/t186024.htm>

Japanese Image of China

Foreign Press of Japan (2003). ASEAN-Japanese media – common issues and common challenges. http://www.fpcj.jp/e/gyouji/asia/asia_9.html

Foreign Press of Japan (2004a). Employment in Japan.

<http://www.fpcj.jp/e/gyouji/br/2004/040707.html>

Foreign Press of Japan (2004b). Leaders of Japan and China meet for first time in 13 months.

<http://www.fpcj.jp/e/shiryo/jb/0452.html>

Foreign Press of Japan (2004c). Tokyo lodges protest with Chinese Government over Nuclear sub violation of territorial waters. <http://www.fpcj.jp/e/shiryo/jb/0450.html>

Ministry of Foreign Affairs of Japan (1997a). Ministry of Foreign Affairs Press Conference on:
Visit of Prime Minister Ryutaro Hashimoto to the People's Republic of China.

<http://www.mofa.go.jp/region/asia-paci/China/conference.html#3>

Ministry of Foreign Affairs of Japan (1997b). Press conference by the press secretary.

<http://www.mofa.go.jp/announce/press/1997/9/909.html>

Ministry of Foreign Affairs of Japan (2002a). Secretary, Mr. Yasuo Fukuda on the history
textbooks to be used in junior high schools from 2002.

<http://www.mofa.go.jp/announce/announce/2001/4/0403.html>

Ministry of Foreign Affairs of Japan (2002b). Trilateral meeting of the leaders of Japan, the
People's Republic of China, and Republic of Korea.

<http://www.mofa.go.jp/region/asia-paci/asean/pmv0211/trilateral.html>

Ministry of Foreign Affairs of Japan (2004a). Press conference following the 59th session of the
UN general assembly. <http://www.mofa.go.jp/policy/un/press0409.html>

Ministry of Foreign Affairs of Japan (2004b). Twenty-second session of the United Nations
Group of Experts on Geographical Name.

<http://www.mofa.go.jp/policy/maritime/japan/state0404.html>

Japanese Image of China in 1930s

The Ministry of Foreign Affairs of Japan. (1977). Second statement issued after the extraordinary
cabinet meeting. Nihon Gaiko Bunsho Manshu Jihen (Documents on Japanese Foreign
Policy Manchuria Incident) Volume I, Part 2. 358-361.

The Ministry of Foreign Affairs of Japan. (1977). Statement issued after the extraordinary cabinet meeting. Nihon Gaiko Bunsho Manshu Jihen (Documents on Japanese Foreign Policy Manchuria Incident) Volume I, Part 1. 69-72.

The Ministry of Foreign Affairs of Japan. (1977). Statement from Minister of Foreign Affairs Uchida. Nihon Gaiko Bunsho Manshu Jihen (Documents on Japanese Foreign Policy Manchuria Incident) Volume II, Part 1. 966-970.

The Ministry of Foreign Affairs of Japan. (1977). Statement from Representative Matsuoka at the council meeting. Nihon Gaiko Bunsho Manshu Jihen (Documents on Japanese Foreign Policy Manchuria Incident) Volume III. 130-144.

The Ministry of Foreign Affairs of Japan. (1977). Telegram from Foreign Minister to Sawada in Paris, France. Nihon Gaiko Bunsho Manshu Jihen (Documents on Japanese Foreign Policy Manchuria Incident) Volume I, Part 3. 550-556.

The Ministry of Foreign Affairs of Japan. (1977). The Prime Minister's Statement to the United Press. Nihon Gaiko Bunsho Manshu Jihen (Documents on Japanese Foreign Policy Manchuria Incident) Volume I, Part 3. 64-66.

The Ministry of Foreign Affairs of Japan. (1977). The statement of the Japanese government concerning the Manchurian affairs. Nihon Gaiko Bunsho Manshu Jihen (Documents on Japanese Foreign Policy Manchuria Incident) Volume I, Part 2. 485-490.

Appendix A: Image Indicator

The capability attribute was derived from statements about the following:

1. Military strength and capability
 - a. the country's offensive and defensive military potential
 - b. the government's control over the military
 - c. the likelihood that the country will resort to use military force to achieve its goal
 - d. whether the military force is superior, equal, or inferior to the other country
 - e. the country's capability of using and willingness to use, military force
 - f. the country's reliance on another country's extended military capability
(deterrence)
2. Domestic policy
 - a. the country's government structure (open or closed)
 - b. the government's effectiveness and efficacy in implementing policy
 - c. the organization, size, and strength of the government's opposition
 - d. the government's ability to carry out a policy, achieve a goal, or abide by an agreement
 - e. whether the decision structure is multilithic or monolithic (monolithic countries are assumed to be more capable since they do not have to please public, interest groups, or bureaucratic interests)
 - f. domestic policy that relies on or originates in another state
3. Economic characteristics

- a. the capacity and stability of the country's economy (industrial potential, agricultural self-sufficiency, growth rate, potential for growth and development)
- b. the interaction between Chinese/ Japanese economy and the other country's economy (permeability of other economy; threats or opportunities for those countries)
- c. the country as recipient or provider of international aid

The culture attribute was derived from the statements about the following:

1. comparison of culture between China/ Japan and or international culture (perception of similarity implies a positive affect with low or no threats)
2. Cultural sophistication (includes social norms, literacy, religion, standard of living, scientific and technological capabilities, racial composition, nationalism and the public-mindedness of citizens.)

The intention attribute was derived from the statements about the following:

1. Goals and motives
 - a. leaders prize of their goals
 - b. leaders' and citizens' motives
 - c. compatibility of goals with Japanese/ Chinese goals
2. Flexibility
 - a. leaders' willingness to bargain, change tactics, and shift policy in response to Chinese/ Japanese initiatives
 - b. the country's flexibility

- c. the linking of flexibility with cause (nationalism, imperialism, etc)
- 3. supportiveness of goals and policies
- 4. supportive of another state's goals and policies
- 5. whether decision structure is multi-tiered or monolithic (those seem as multi-tiered are seen as less threatening)
- 6. state's goals and policies influenced by 'parent' state

Event scripts were derived from statements about the following:

- 1. lessons from history
 - a. historical incident used as analogy to explain current conflict
 - b. historical incident used as lesson regarding appropriateness of techniques or dealing with conflict or issue at hand
- 2. predictions about country's behavior or the outcome of conflicts

Response alternatives were derived from statements about the following:

- 1. instruments deemed appropriate for use in a conflict with the country (includes military threats or actual force, economic incentives to economic sanctions, diplomatic protests, bilateral and multilateral negotiations, or simply doing nothing; those perceived as weaker are dealt with a more coercive fashion)
- 2. Bargaining (those considered equal are dealt with as equals; inferiors are not bargained with)

Appendix B: Conceptual Analysis Summary Sheet

Title:

URL:

Information

When: _____

Who: _____

Position: _____

What occasion: _____

Summary

Analysis

Capability:

Culture:

Intention:

Decision-making:

Threats/ Opportunities:

Image

Appendix C: Programming Code for the Website Used in This Study

Note: the following is the program code for one of the twelve programs developed for this study.

```
-----  
[index.aspx]  
-----
```

```
<HTML>  
  <HEAD>  
    <title>the Commons Dilemma Game</title>  
    <SCRIPT LANGUAGE="JavaScript">  
  
    <!-- Begin  
    function go_to(url) {  
    window.location=url;  
    }  
    function rand_linkj() {  
    var a;  
    a = 1+Math.round(Math.random()*6); // a = random number between 1-6  
    if (a==1) go_to("j_dh_demography.aspx");  
    if (a==2) go_to("j_dl_demography.aspx");  
    if (a==3) go_to("j_ih_demography.aspx");  
    if (a==4) go_to("j_il_demography.aspx");  
    if (a==5) go_to("j_oh_demography.aspx");  
    if (a==6) go_to("j_ol_demography.aspx");  
    }  
    // End -->  
    </SCRIPT>  
    <SCRIPT LANGUAGE="JavaScript">  
  
    <!-- Begin  
    function go_to(url) {  
    window.location=url;  
    }  
    function rand_linkc() {  
    var a;  
    a = 1+Math.round(Math.random()*6); // a = random number between 1-6
```



```

<%@ Page Language="VB" Debug="true" %>
<%@ Import Namespace="System.Data.OleDb" %>
<html>
<head>
<script runat="server" language="VB">
    Dim objConn As New OleDbConnection("Provider=Microsoft.Jet.OleDb.4.0;Data Source=" & _
Server.MapPath("record.mdb"))
    Dim objCmd As OleDbCommand
    Dim objRdr As OleDbDataReader
    Dim LOGIP as String

Sub ImageButton_Click(sender As Object, e As ImageClickEventArgs)
    If America_N.Checked then
        Nation1.Text = "America"
    ElseIf China_N.Checked then
        Nation1.Text = "China"
    ElseIf Japan_N.Checked then
        Nation1.Text = "Japan"
    ElseIf Other_N.Checked then
        Nation1.Text = "Other"
    End If

    If America_C.Checked then
        Country1.Text = "America"
    ElseIf China_C.Checked then
        Country1.Text = "China"
    ElseIf Japan_C.Checked then
        Country1.Text = "Japan"
    ElseIf Other_C.Checked then
        Country1.Text = "Other"
    End If

    LOGIP=Request.ServerVariables("REMOTE_HOST")
    UserID1.Text = IDnumber.text
    Group1.Text = "E"

    objCmd = New OleDbCommand("INSERT INTO demography (UserID, ipaddress, Grouping, Country, Nation)
VALUES (@UserID, @ipaddress, @Grouping, @Country, @Nation)", objConn)

```

```

objCmd.Parameters.Add("@UserID", UserID1.Text)
objCmd.Parameters.Add("@ipaddress", LOGIP)
objCmd.Parameters.Add("@Grouping", Group1.Text)
objCmd.Parameters.Add("@Country", Country1.Text)
objCmd.Parameters.Add("@Nation", Nation1.Text)
objConn.Open()
objCmd.ExecuteNonQuery()
objConn.Close()
Response.Redirect("e_consent.htm")

```

End Sub

```

</script>
</head>
<body>
    <p align="center"> </p>
    <div align="center">
        <center>
            <table id="AutoNumber3" style="BORDER-COLLAPSE: collapse" borderColor="#111111"
height="344" cellSpacing="0" cellPadding="0" width="750" border="1">
                <tr>
                    <td bgColor="#000000" height="1">
                        <p align="center"> <font color="#FFFFFF">
                            <font face="Arial">* * *Commns Dilemma Game*
                        * </font>* </font></td>
                    </tr>
                    <tr>
                        <td height="323">
                            <form runat=server>
                                <p>
                                    &nbsp;</p>
                                <p>
                                    <span style="FONT-FAMILY: Arial">In order to play this game, you need the login
                                code</span><font face="Arial">:<BR>
                                    <asp:TextBox ID="IDnumber" Columns="10" MaxLength="10" AutoPostBack="True" Text="" runat="server"/>
                                </font>
                                </p>
                            </form>
                        </td>
                    </tr>
                </table>
            </center>
        </div>

```

```

    <p class="MsoNormal"><span style="FONT-FAMILY: Arial">Your
    nationality is (Check one)</span></p>
<table border="0" cellpadding="0" cellspacing="0" width="200" id="AutoNumber1">
  <tr>
    <td width="20">
      <asp:RadioButton id=America_N Checked="True" GroupName="Nation" runat="server" /></td>
<td width="180">
    <font face="Arial">American</font></td>
  </tr>
  <tr>
    <td width="20">
      <asp:RadioButton id=China_N Checked="True" GroupName="Nation" runat="server"/></td>
    <td width="180">
      <font face="Arial">Chinese</font></td>
  </tr>
  <tr>
    <td width="20">
      <asp:RadioButton id=Japan_N Checked="True" GroupName="Nation" runat="server" /></td>
    <td width="180">
      <font face="Arial">Japanese</font></td>
  </tr>
  <tr>
    <td width="20">
      <asp:RadioButton id=Other_N Checked="True" GroupName="Nation" runat="server" /></td>
    <td width="180">
      <font face="Arial">Other</font></td>
  </tr>
</table>
<p class="MsoNormal"><span style="FONT-FAMILY: Arial">You are playing
the game from (check one)</span><font face="Arial"><br>
</font>
</p>
<table border="0" cellpadding="0" cellspacing="0" width="200" id="AutoNumber2">
  <tr>
    <td width="20">
      <asp:RadioButton id=America_C Checked="True" GroupName="Country" runat="server" /></td>
    <td width="180">

```

```

        <font face="Arial">America</font></td>
    </tr>
    <tr>
        <td width="20">
            <asp:RadioButton id=China_C Checked="True" GroupName="Country" runat="server"/></td>
        <td width="180">
            <font face="Arial">China</font></td>
    </tr>
    <tr>
        <td width="20">
            <asp:RadioButton id=Japan_C Checked="True" GroupName="Country" runat="server" /></td>
        <td width="180">
            <font face="Arial">Japan</font></td>
    </tr>
    <tr>
        <td width="20">
            <asp:RadioButton id=Other_C Checked="True" GroupName="Country" runat="server" /></td>
        <td width="180">
            <font face="Arial">Other</font></td>
    </tr>
    <tr>
        <td width="20"></td>
        <td width="180">
<p>
            </td>
        </tr>
</table>
<p>
    <align="center">
        <asp:ImageButton id="imagebutton1" runat="server"
AlternateText="Submit"
ImageAlign="left"
ImageUrl="e3.jpg"
OnClick="ImageButton_Click"/>

        <asp:Label id=Country1 font-bold="true" runat="server" />
        <asp:Label id=Nation1 font-bold="true" runat="server" />

```

```

    <asp:Label id=UserID1 font-bold="true" runat="server" />
    <asp:Label id="Group1" runat="server"/>
</form>
    </td>
</tr>
<tr>
    <td bgColor="#000000" height="19"> </td>
</tr>
</table>
</center>
</div>
</body>
</html>

```

[e_consent.htm]

```

<HTML>
  <HEAD>
    <title>the Commons Dilemma Game</title>
  </HEAD>

  <body>
    <p align="center">&nbsp;</p>
    <div align="center">
      <center>
        <table id="AutoNumber2" style="BORDER-COLLAPSE: collapse" borderColor="#111111"
height="344" cellSpacing="0" cellPadding="0" width="750" border="1">
          <tr>
            <td bgColor="#000000" height="1">
              <p align="center"><font color="#FFFFFF" face="Arial">* * *Commons
Dilemma Game*
* * </font></td>
            </tr>
          <tr>
            <td height="323">

```

```

<p align="left">&nbsp;</p>
<p align="left">&nbsp;</p>
<p class="MsoNormal"><span style="font-family: Arial">Welcome to
the commons dilemma game! During this game, you will be asked to
fill out some questionnaires and to play a game with another
person. All of your answers to the questionnaires and your
responses to the game will remain completely anonymous. Please
remember that once you log in, you should not interrupt the game
or quit, for you will be playing with another person. The game
takes about 30 minutes. Please click OK if you agree to
participate in this game.</span></p>
<p align="center">
  <font face="Arial">
    <br>
    &nbsp;</font></p>
<p align="center">
  <font face="Arial">
    <br>
    <br>
    <a href="e_presurvey1.aspx">
</a><br>
    </font>
  <p>
<p>&nbsp;</td>
</tr>
<tr>
  <td bgColor="#000000" height="19">&nbsp;</td>
</tr>
</table>
</center>
</div>

</body>
</HTML>

```

[e_presurvey1.aspx]

```

<%@ Page Language="VB" Debug="true" %>
<%@ Import Namespace="System.Data.OleDb" %>

<html>
<head>
  <script runat="server" language="VB">
    Dim objConn As New OleDbConnection("Provider=Microsoft.Jet.OleDb.4.0;Data Source=" & _
Server.MapPath("record.mdb"))
    Dim objCmd As OleDbCommand
    Dim objRdr As OleDbDataReader
    Dim LOGIP as String

    Sub ImageButton_Click(sender As Object, e As ImageClickEventArgs)

        If Screen_1.Checked then
            Screen.Text = "clover"
        ElseIf Screen_2.Checked then
            Screen.Text = "daisy"
        ElseIf Screen_3.Checked then
            Screen.Text = "hilda"
        ElseIf Screen_4.Checked then
            Screen.Text = "aiden"
        ElseIf Screen_5.Checked then
            Screen.Text = "chad"
        End If

        If Gender_M.Checked then
            Gender.Text = "Male"
        ElseIf Gender_F.Checked then
            Gender.Text = "Female"
        End If

        If Japanese_Y.Checked then
            Language_J.Text = "Y"
        ElseIf Japanese_N.Checked then

```

```
Language_J.Text = "N"
End If

If Mandarin_Y.Checked then
Language_M.Text = "Y"
ElseIf Mandarin_N.Checked then
Language_M.Text = "N"
End If

If Others_Y.Checked then
Language_O.Text = "Y"
ElseIf Others_N.Checked then
Language_O.Text = "N"
End If

If Japan_Y.Checked then
Visit_JP.Text = "Y"
ElseIf Japan_N.Checked then
Visit_JP.Text = "N"
End If

If China_Y.Checked then
Visit_CH.Text = "Y"
ElseIf China_N.Checked then
Visit_CH.Text = "N"
End If

If Other_Y.Checked then
Visit_OT.Text = "Y"
ElseIf Other_N.Checked then
Visit_OT.Text = "N"
End If

If US_Y.Checked then
Know_US.Text = "Y"
ElseIf US_N.Checked then
Know_US.Text = "N"
```

End If

If CH_Y.Checked then

Know_CH.Text = "Y"

ElseIf CH_N.Checked then

Know_CH.Text = "N"

End If

If JP_Y.Checked then

Know_JP.Text = "Y"

ElseIf JP_N.Checked then

Know_JP.Text = "N"

End If

Group1.Text = "E"

Age1.Text = Age.text

LOGIP=Request.ServerVariables("REMOTE_HOST")

objCmd = New OleDbCommand("INSERT INTO presurvey1 (ipaddress, Grouping, ScreenName, Gender, Age, Language_J, Language_M, Language_O, Visit_JP, Visit_CH, Know_US, Know_CH, Know_JP) VALUES (@ipaddress, @Grouping, @ScreenName, @Gender, @Age, @Language_J, @Language_M, @Language_O, @Visit_JP, @Visit_CH, @Know_US, @Know_CH, @Know_JP)", objConn)

objCmd.Parameters.Add("@ipaddress", LOGIP)

objCmd.Parameters.Add("@Grouping", Group1.Text)

objCmd.Parameters.Add("@ScreenName", Screen.Text)

objCmd.Parameters.Add("@Gender", Gender.Text)

objCmd.Parameters.Add("@Age", Age1.Text)

objCmd.Parameters.Add("@Language_J", Language_J.Text)

objCmd.Parameters.Add("@Language_M", Language_M.Text)

objCmd.Parameters.Add("@Language_O", Language_O.Text)

objCmd.Parameters.Add("@Visit_JP", Visit_JP.Text)

objCmd.Parameters.Add("@Visit_CH", Visit_CH.Text)

objCmd.Parameters.Add("@Visit_OT", Visit_OT.Text)

objCmd.Parameters.Add("@Know_US", Know_US.Text)

objCmd.Parameters.Add("@Know_CH", Know_CH.Text)

```

objCmd.Parameters.Add("@Know_JP", Know_JP.Text)

objConn.Open()
objCmd.ExecuteNonQuery()
objConn.Close()
Response.Redirect("e_presurvey2.aspx")
End Sub
</script>
</head>
<body>
<p align="center"> </p>
<div align="center">
<center>
<form runat=server>
<table id="AutoNumber2" style="BORDER-COLLAPSE: collapse" borderColor="#111111" height="344"
cellSpacing="0" cellPadding="0" width="750" border="1">
<tr>
<td bgColor="#000000" height="1">
<p align="center"> <font color="#FFFFFF" face="Arial">* * *Commons Dilemma Game* * *</font></td></tr>
<tr>
<td height="323">

<p>
&nbsp;</p>
<p>
<font face="Arial">Screen Name </font> </p>
<table id="ScreenName" border="0" width="195">
<tr>
<td width="38">
<font face="Arial">
<asp:RadioButton id=Screen_1 GroupName="ScreenName" runat="server" />Clover</font></td>
<td width="37">
<font face="Arial">
<asp:RadioButton id=Screen_2 GroupName="ScreenName" runat="server" />Daisy</font></td>
<td width="32">
<font face="Arial">
<asp:RadioButton id=Screen_3 GroupName="ScreenName" runat="server" />Hilda</font></td>

```

```

<td width="33">
<font face="Arial">
<asp:RadioButton id=Screen_4 GroupName="ScreenName" runat="server" />Aidan</font></td>
<td width="33">
<font face="Arial">
<asp:RadioButton id=Screen_5 GroupName="ScreenName" runat="server" />Chad</font></td>
</tr>
</table>
<font face="Arial">Choose one: </font> </p>
<table id="Gender" cellSpacing="0" cellPadding="0" width="280">
<tr>
<td width="20"><font face="Arial">
<asp:RadioButton id=Gender_M GroupName="Gender" runat="server" />Male</font></td>
<td width="20"><font face="Arial">
<asp:RadioButton id=Gender_F GroupName="Gender" runat="server" />Female</font></td>
</tr>
</table>
<p>
<font face="Arial">Age
<asp:TextBox ID="Age" Columns="2" MaxLength="7" AutoPostBack="True" Text="" runat="server"/>
</font> <p>
<font face="Arial">Do you speak any other languages than your native language?</font></p>
<p>
<font face="Arial">Japanese </font>
<table id="Language_J" border="0" width="280">
<tr>
<td width="20">
<font face="Arial">
<asp:RadioButton id=Japanese_Y GroupName="English" runat="server" />
Yes</font></td>
<td width="20">
<font face="Arial">
<asp:RadioButton id=Japanese_N GroupName="English" runat="server" />
No</font></td>
</tr>
</table>
<p>

```

```

<font face="Arial">Chinese </font> </p>
<table id="Language_M" border="0" width="280">
<tr>
<td width="20">
<font face="Arial">
<asp:RadioButton id=Mandarin_Y GroupName="Chinese" runat="server" />
Yes</font></td>
<td width="20">
<font face="Arial">
<asp:RadioButton id=Mandarin_N GroupName="Chinese" runat="server" />
No</font></td>
</tr>
</table>
<p>
<font face="Arial">Other </font> </p>
<table id="Language_O" border="0" width="280">
<tr>
<td width="20"><font face="Arial">
<asp:RadioButton id=Other_Y GroupName="Other" runat="server" />
Yes</font></td>
<td width="20"><font face="Arial">
<asp:RadioButton id=Other_N GroupName="Other" runat="server" />
No</font></td>
</tr>
</table>
<p>
&nbsp;</p>
<p>
<font face="Arial">Have you visited any of the following countries?</font></p>
</p>
<font face="Arial">Japan </font>
<table id="Visit_US" border="0" width="280">
<tr>
<td width="20">
<font face="Arial">
<asp:RadioButton id=Japan_Y GroupName="Japan" runat="server" />
Yes</font></td>

```

```

<td width="20">
<font face="Arial">
<asp:RadioButton id=Japan_N GroupName="Japan" runat="server" />
No</font></td>
</tr>
</table>

<p>
<font face="Arial">China </font> </p>
<table id="Visit_CH" border="0" width="280">
<tr>
<td width="20" height="20">
<font face="Arial">
<asp:RadioButton id=China_Y GroupName="China" runat="server" />
Yes</font></td>
<td width="20" height="20">
<font face="Arial">
<asp:RadioButton id=China_N GroupName="China" runat="server" />
No</font></td>
</tr>
</table>

<p>
<font face="Arial">Other </font> </p>
<table id="Visit_JP" border="0" width="280">
<tr>
<td width="20"><font face="Arial">
<asp:RadioButton id=Others_Y GroupName="Other" runat="server" />
Yes</font></td>
<td width="20"><font face="Arial">
<asp:RadioButton id=Others_N GroupName="Other" runat="server" />
No</font></td>
</tr>
</table>

<p>
&nbsp;</p>
<p>
<font face="Arial">Do you think you are more knowledgeable about the following
countries than the average person? </font> </p>

```

```

<font face="Arial">America </font>
<table id="Knowledge_US" border="0" width="280">
<tr>
<td width="20"><font face="Arial">
<asp:RadioButton id=US_Y GroupName="US" runat="server" />
Yes</font></td>
<td width="20"><font face="Arial">
<asp:RadioButton id=US_N GroupName="US" runat="server" />
No</font></td>
</tr>
</table>
<p>
<font face="Arial">Japan </font> </p>
</p>
<table id="Knowledge_JP" border="0" width="280">
<tr>
<td width="20"><font face="Arial">
<asp:RadioButton id=JP_Y GroupName="JP" runat="server" />
Yes</font></td>
<td width="20"><font face="Arial">
<asp:RadioButton id=JP_N GroupName="JP" runat="server" />
No</font></td>
</tr>
</table>
<p>
<font face="Arial">China </font> </p>
<table id="Knowledge_CH" border="0" width="280">
<tr>
<td width="20"><font face="Arial">
<asp:RadioButton id=CH_Y GroupName="CH" runat="server" />
Yes</font></td>
<td width="20"><font face="Arial">
<asp:RadioButton id=CH_N GroupName="CH" runat="server" />
No</font></td>
</tr>
</table>
<p>

```

```

<center>
<p>
<asp:ImageButton id="imagebutton1" runat="server"
    AlternateText="Submit"
    ImageAlign="left"
    ImageUrl="e3.jpg"
    OnClick="ImageButton_Click"/></p>
</center>
<tr>
<td bgColor="#000000" height="19">
    <asp:Label id="Group1" runat="server"/>
    <asp:Label id=Screen font-bold="true" runat="server" />
    <asp:Label id=Gender font-bold="true" runat="server" />
    <asp:Label id="Age1" runat="server"/>

    <asp:Label id=Language_J font-bold="true" runat="server" />
    <asp:Label id=Language_M font-bold="true" runat="server" />
    <asp:Label id=Language_O font-bold="true" runat="server" />

    <asp:Label id=Visit_JP font-bold="true" runat="server" />
    <asp:Label id=Visit_CH font-bold="true" runat="server" />
    <asp:Label id=Visit_OT font-bold="true" runat="server" />

    <asp:Label id=Know_US font-bold="true" runat="server" />
    <asp:Label id=Know_CH font-bold="true" runat="server" />
    <asp:Label id=Know_JP font-bold="true" runat="server" />

    </td>
    </tr>
</table>
</center>
</div>
</form>
</body>
</HTML>

```

[e_presurvey2.aspx]

```
<%@ Page Language="VB" Debug="true" %>
```

```
<%@ Import Namespace="System.Data.OleDb" %>
```

```
<html>
```

```
<head>
```

```
  <script runat="server" language="VB">
```

```
    Dim objConn As New OleDbConnection("Provider=Microsoft.Jet.OleDb.4.0;Data Source=" & _  
Server.MapPath("record.mdb"))
```

```
    Dim objCmd As OleDbCommand
```

```
    Dim objRdr As OleDbDataReader
```

```
    Dim LOGIP as String
```

```
Sub ImageButton_Click(sender As Object, e As ImageClickEventArgs)
```

```
  If Identity_A1.Checked then
```

```
    Id1.Text = "1"
```

```
  ElseIf Identity_A2.Checked then
```

```
    Id1.Text = "2"
```

```
  ElseIf Identity_A3.Checked then
```

```
    Id1.Text = "3"
```

```
  ElseIf Identity_A4.Checked then
```

```
    Id1.Text = "4"
```

```
  ElseIf Identity_A5.Checked then
```

```
    Id1.Text = "5"
```

```
  ElseIf Identity_A6.Checked then
```

```
    Id1.Text = "6"
```

```
  ElseIf Identity_A7.Checked then
```

```
    Id1.Text = "7"
```

```
End If
```

```
  If Identity_B1.Checked then
```

```
    Id2.Text = "1"
```

```
  ElseIf Identity_B2.Checked then
```

```
    Id2.Text = "2"
```

```
ElseIf Identity_B3.Checked then
    Id2.Text = "3"
ElseIf Identity_B4.Checked then
    Id2.Text = "4"
ElseIf Identity_B5.Checked then
    Id2.Text = "5"
ElseIf Identity_B6.Checked then
    Id2.Text = "6"
ElseIf Identity_B7.Checked then
    Id2.Text = "7"
End If
```

```
If Identity_C1.Checked then
    Id3.Text = "1"
ElseIf Identity_C2.Checked then
    Id3.Text = "2"
ElseIf Identity_C3.Checked then
    Id3.Text = "3"
ElseIf Identity_C4.Checked then
    Id3.Text = "4"
ElseIf Identity_C5.Checked then
    Id3.Text = "5"
ElseIf Identity_C6.Checked then
    Id3.Text = "6"
ElseIf Identity_C7.Checked then
    Id3.Text = "7"
End If
```

```
If Identity_D1.Checked then
    Id4.Text = "1"
ElseIf Identity_D2.Checked then
    Id4.Text = "2"
ElseIf Identity_D3.Checked then
    Id4.Text = "3"
ElseIf Identity_D4.Checked then
    Id4.Text = "4"
ElseIf Identity_D5.Checked then
```

```
    Id4.Text = "5"  
ElseIf Identity_D6.Checked then  
    Id4.Text = "6"  
ElseIf Identity_D7.Checked then  
    Id4.Text = "7"  
End If
```

```
    If Bias_CA1.Checked then  
        Bc1.Text = "1"  
    ElseIf Bias_CA2.Checked then  
        Bc1.Text = "2"  
    ElseIf Bias_CA3.Checked then  
        Bc1.Text = "3"  
    ElseIf Bias_CA4.Checked then  
        Bc1.Text = "4"  
    ElseIf Bias_CA5.Checked then  
        Bc1.Text = "5"  
    ElseIf Bias_CA6.Checked then  
        Bc1.Text = "6"  
    ElseIf Bias_CA7.Checked then  
        Bc1.Text = "7"  
End If
```

```
    If Bias_CB1.Checked then  
        Bc2.Text = "1"  
    ElseIf Bias_CB2.Checked then  
        Bc2.Text = "2"  
    ElseIf Bias_CB3.Checked then  
        Bc2.Text = "3"  
    ElseIf Bias_CB4.Checked then  
        Bc2.Text = "4"  
    ElseIf Bias_CB5.Checked then  
        Bc2.Text = "5"  
    ElseIf Bias_CB6.Checked then  
        Bc2.Text = "6"  
    ElseIf Bias_CB7.Checked then  
        Bc2.Text = "7"
```

End If

 If Bias_CC1.Checked then

 Bc3.Text = "1"

 ElseIf Bias_CC2.Checked then

 Bc3.Text = "2"

 ElseIf Bias_CC3.Checked then

 Bc3.Text = "3"

 ElseIf Bias_CC4.Checked then

 Bc3.Text = "4"

 ElseIf Bias_CC5.Checked then

 Bc3.Text = "5"

 ElseIf Bias_CC6.Checked then

 Bc3.Text = "6"

 ElseIf Bias_CC7.Checked then

 Bc3.Text = "7"

End If

 If Bias_CD1.Checked then

 Bc4.Text = "1"

 ElseIf Bias_CD2.Checked then

 Bc4.Text = "2"

 ElseIf Bias_CD3.Checked then

 Bc4.Text = "3"

 ElseIf Bias_CD4.Checked then

 Bc4.Text = "4"

 ElseIf Bias_CD5.Checked then

 Bc4.Text = "5"

 ElseIf Bias_CD6.Checked then

 Bc4.Text = "6"

 ElseIf Bias_CD7.Checked then

 Bc4.Text = "7"

End If

 If Bias_JA1.Checked then

 Bj1.Text = "1"

 ElseIf Bias_JA2.Checked then

```
Bj1.Text = "2"  
ElseIf Bias_JA3.Checked then  
    Bj1.Text = "3"  
ElseIf Bias_JA4.Checked then  
    Bj1.Text = "4"  
ElseIf Bias_JA5.Checked then  
    Bj1.Text = "5"  
ElseIf Bias_JA6.Checked then  
    Bj1.Text = "6"  
ElseIf Bias_JA7.Checked then  
    Bj1.Text = "7"  
End If
```

```
    If Bias_JB1.Checked then  
        Bj2.Text = "1"  
    ElseIf Bias_JB2.Checked then  
        Bj2.Text = "2"  
    ElseIf Bias_JB3.Checked then  
        Bj2.Text = "3"  
    ElseIf Bias_JB4.Checked then  
        Bj2.Text = "4"  
    ElseIf Bias_JB5.Checked then  
        Bj2.Text = "5"  
    ElseIf Bias_JB6.Checked then  
        Bj2.Text = "6"  
    ElseIf Bias_JB7.Checked then  
        Bj2.Text = "7"  
End If
```

```
    If Bias_JC1.Checked then  
        Bj3.Text = "1"  
    ElseIf Bias_JC2.Checked then  
        Bj3.Text = "2"  
    ElseIf Bias_JC3.Checked then  
        Bj3.Text = "3"  
    ElseIf Bias_JC4.Checked then  
        Bj3.Text = "4"
```

```
ElseIf Bias_JC5.Checked then
    Bj3.Text = "5"
ElseIf Bias_JC6.Checked then
    Bj3.Text = "6"
ElseIf Bias_JC7.Checked then
    Bj3.Text = "7"
End If
```

```
    If Bias_JD1.Checked then
        Bj4.Text = "1"
    ElseIf Bias_JD2.Checked then
        Bj4.Text = "2"
    ElseIf Bias_JD3.Checked then
        Bj4.Text = "3"
    ElseIf Bias_JD4.Checked then
        Bj4.Text = "4"
    ElseIf Bias_JD5.Checked then
        Bj4.Text = "5"
    ElseIf Bias_JD6.Checked then
        Bj4.Text = "6"
    ElseIf Bias_JD7.Checked then
        Bj4.Text = "7"
    End If
```

```
        If Bias_AA1.Checked then
            Ba1.Text = "1"
        ElseIf Bias_AA2.Checked then
            Ba1.Text = "2"
        ElseIf Bias_AA3.Checked then
            Ba1.Text = "3"
        ElseIf Bias_AA4.Checked then
            Ba1.Text = "4"
        ElseIf Bias_AA5.Checked then
            Ba1.Text = "5"
        ElseIf Bias_AA6.Checked then
            Ba1.Text = "6"
        ElseIf Bias_AA7.Checked then
```

```
Ba1.Text = "7"  
End If  
  
    If Bias_AB1.Checked then  
        Ba2.Text = "1"  
    ElseIf Bias_AB2.Checked then  
        Ba2.Text = "2"  
    ElseIf Bias_AB3.Checked then  
        Ba2.Text = "3"  
    ElseIf Bias_AB4.Checked then  
        Ba2.Text = "4"  
    ElseIf Bias_AB5.Checked then  
        Ba2.Text = "5"  
    ElseIf Bias_AB6.Checked then  
        Ba2.Text = "6"  
    ElseIf Bias_AA7.Checked then  
        Ba2.Text = "7"  
    End If
```

```
    If Bias_AC1.Checked then  
        Ba3.Text = "1"  
    ElseIf Bias_AC2.Checked then  
        Ba3.Text = "2"  
    ElseIf Bias_AC3.Checked then  
        Ba3.Text = "3"  
    ElseIf Bias_AC4.Checked then  
        Ba3.Text = "4"  
    ElseIf Bias_AC5.Checked then  
        Ba3.Text = "5"  
    ElseIf Bias_AC6.Checked then  
        Ba3.Text = "6"  
    ElseIf Bias_AC7.Checked then  
        Ba3.Text = "7"  
    End If
```

```
    If Bias_AD1.Checked then  
        Bc4.Text = "1"
```

```

ElseIf Bias_AD2.Checked then
    Ba4.Text = "2"
ElseIf Bias_AD3.Checked then
    Ba4.Text = "3"
ElseIf Bias_AD4.Checked then
    Ba4.Text = "4"
ElseIf Bias_AD5.Checked then
    Ba4.Text = "5"
ElseIf Bias_AD6.Checked then
    Ba4.Text = "6"
ElseIf Bias_AD7.Checked then
    Ba4.Text = "7"
End If
LOGIP=Request.ServerVariables("REMOTE_HOST")
Group1.Text = "E"

```

```

objCmd = New OleDbCommand("INSERT INTO presurvey2 (ipaddress, Grouping, IdentityA, IdentityB,
IdentityC, IdentityD, BiasCA, BiasCB, BiasCC, BiasCD, BiasJA, BiasJB, BiasJC, BiasJD, BiasAA, BiasAB,
BiasAC, BiasAD) VALUES (@ipaddress, @Grouping, @IdentityA, @IdentityB, @IdentityC, @IdentityD,
@BiasCA, @BiasCB, @BiasCC, @BiasCD, @BiasJA, @BiasJB, @BiasJC, @BiasJD, @BiasAA, @BiasAB,
@BiasAC, @BiasAD)", objConn)

```

```

objCmd.Parameters.Add("@ipaddress", LOGIP)
objCmd.Parameters.Add("@Grouping", Group1.Text)
objCmd.Parameters.Add("@IdentityA", ID1.Text)
objCmd.Parameters.Add("@IdentityB", ID2.Text)
objCmd.Parameters.Add("@IdentityC", ID3.Text)
objCmd.Parameters.Add("@IdentityD", ID4.Text)

```

```

objCmd.Parameters.Add("@BiasCA", Bc1.Text)
objCmd.Parameters.Add("@BiasCB", Bc2.Text)
objCmd.Parameters.Add("@BiasCC", Bc3.Text)
objCmd.Parameters.Add("@BiasCD", Bc4.Text)

```

```

objCmd.Parameters.Add("@BiasJA", Bj1.Text)
objCmd.Parameters.Add("@BiasJB", Bj2.Text)
objCmd.Parameters.Add("@BiasJC", Bj3.Text)
objCmd.Parameters.Add("@BiasJD", Bj4.Text)

```



```

</tr>
</table>
<p>
<font face="Arial">&nbsp;&nbsp;  they are cooperative.</font></p>
  </p>
<table id="BIASAB" border="0">
<tr>
<td><font face="Arial">Not at all</font></td>
<td width="20"><font face="Arial">
<asp:RadioButton id=BIAS_AB1 GroupName="BAB" runat="server" />1</font></td>
<td width="20"><font face="Arial">
<asp:RadioButton id=BIAS_AB2 GroupName="BAB" runat="server" />2</font></td>
<td width="20"><font face="Arial">
<asp:RadioButton id=BIAS_AB3 GroupName="BAB" runat="server" />3</font></td>
<td width="20"><font face="Arial">
<asp:RadioButton id=BIAS_AB4 GroupName="BAB" runat="server" />4</font></td>
<td width="20"><font face="Arial">
<asp:RadioButton id=BIAS_AB5 GroupName="BAB" runat="server" />5</font></td>
<td width="20"><font face="Arial">
<asp:RadioButton id=BIAS_AB6 GroupName="BAB" runat="server" />6</font></td>
<td width="20"><font face="Arial">
<asp:RadioButton id=BIAS_AB7 GroupName="BAB" runat="server" />7</font></td>
<td><font face="Arial">Very much</label></font></td>
</tr>
</table>
  <p><font face="Arial">&nbsp;&nbsp;  they are trustworthy.</font></p>
  </p>
<table id="BIASAC" border="0">
<tr>
<td><font face="Arial">Not at all</font></td>
<td width="20"><font face="Arial">
<asp:RadioButton id=BIAS_AC1 GroupName="BAC" runat="server" />1</font></td>
<td width="20"><font face="Arial">
<asp:RadioButton id=BIAS_AC2 GroupName="BAC" runat="server" />2</font></td>
<td width="20"><font face="Arial">
<asp:RadioButton id=BIAS_AC3 GroupName="BAC" runat="server" />3</font></td>
<td width="20"><font face="Arial">

```



```

        ImageAlign="left"
        ImageUrl="e3.jpg"
        OnClick="ImageButton_Click"/></p>
    </center>
</tr>
<td bgColor="#000000" height="19">
    <asp:Label id="Group1" runat="server"/>
    <asp:Label id=Id1 font-bold="true" runat="server" />
    <asp:Label id=Id2 font-bold="true" runat="server" />
    <asp:Label id=Id3 font-bold="true" runat="server" />
    <asp:Label id=Id4 font-bold="true" runat="server" />

    <asp:Label id=BC1 font-bold="true" runat="server" />
    <asp:Label id=BC2 font-bold="true" runat="server" />
    <asp:Label id=BC3 font-bold="true" runat="server" />
    <asp:Label id=BC4 font-bold="true" runat="server" />

    <asp:Label id=BJ1 font-bold="true" runat="server" />
    <asp:Label id=BJ2 font-bold="true" runat="server" />
    <asp:Label id=BJ3 font-bold="true" runat="server" />
    <asp:Label id=BJ4 font-bold="true" runat="server" />

    <asp:Label id=BA1 font-bold="true" runat="server" />
    <asp:Label id=BA2 font-bold="true" runat="server" />
    <asp:Label id=BA3 font-bold="true" runat="server" />
    <asp:Label id=BA4 font-bold="true" runat="server" />

</td> </tr> </table></center></div></form>
</body></HTML>

```

[e_presurvey3.aspx]

```
<%@ Page Language="VB" Debug="true" %>
```

```
<%@ Import Namespace="System.Data.OleDb" %>
```

```
<html>
```

```
<head>
```

```
  <script runat="server" language="VB">
```

```
    Dim objConn As New OleDbConnection("Provider=Microsoft.Jet.OleDb.4.0;Data Source=" & _  
Server.MapPath("record.mdb"))
```

```
    Dim objCmd As OleDbCommand
```

```
    Dim objRdr As OleDbDataReader
```

```
    Dim LOGIP as String
```

```
Sub ImageButton_Click(sender As Object, e As ImageClickEventArgs)
```

```
  If Bias_OA1.Checked then
```

```
    Bo1.Text = "1"
```

```
  ElseIf Bias_OA2.Checked then
```

```
    Bo1.Text = "2"
```

```
  ElseIf Bias_OA3.Checked then
```

```
    Bo1.Text = "3"
```

```
  ElseIf Bias_OA4.Checked then
```

```
    Bo1.Text = "4"
```

```
  ElseIf Bias_OA5.Checked then
```

```
    Bo1.Text = "5"
```

```
  ElseIf Bias_OA6.Checked then
```

```
    Bo1.Text = "6"
```

```
  ElseIf Bias_OA7.Checked then
```

```
    Bo1.Text = "7"
```

```
End If
```

```
  If Bias_OB1.Checked then
```

```
    Bo2.Text = "1"
```

```
  ElseIf Bias_OB2.Checked then
```

```
    Bo2.Text = "2"
```

```
ElseIf Bias_OB3.Checked then
    Bo2.Text = "3"
ElseIf Bias_OB4.Checked then
    Bo2.Text = "4"
ElseIf Bias_OB5.Checked then
    Bo2.Text = "5"
ElseIf Bias_OB6.Checked then
    Bo2.Text = "6"
ElseIf Bias_OB7.Checked then
    Bo2.Text = "7"
End If
```

```
If Bias_OC1.Checked then
    Bo3.Text = "1"
ElseIf Bias_OC2.Checked then
    Bo3.Text = "2"
ElseIf Bias_OC3.Checked then
    Bo3.Text = "3"
ElseIf Bias_OC4.Checked then
    Bo3.Text = "4"
ElseIf Bias_OC5.Checked then
    Bo3.Text = "5"
ElseIf Bias_OC6.Checked then
    Bo3.Text = "6"
ElseIf Bias_OC7.Checked then
    Bo3.Text = "7"
End If
```

```
If Bias_OD1.Checked then
    Bo4.Text = "1"
ElseIf Bias_OD2.Checked then
    Bo4.Text = "2"
ElseIf Bias_OD3.Checked then
    Bo4.Text = "3"
ElseIf Bias_OD4.Checked then
    Bo4.Text = "4"
```

```
ElseIf Bias_OD5.Checked then
    Bo4.Text = "5"
ElseIf Bias_OD6.Checked then
    Bo4.Text = "6"
ElseIf Bias_OD7.Checked then
    Bo4.Text = "7"
End If
```

```
If Pre_SM1.Checked then
    PreSM.Text = "1"
ElseIf Pre_SM2.Checked then
    PreSM.Text = "2"
ElseIf Pre_SM3.Checked then
    PreSM.Text = "3"
ElseIf Pre_SM4.Checked then
    PreSM.Text = "4"
ElseIf Pre_SM5.Checked then
    PreSM.Text = "5"
ElseIf Pre_SM6.Checked then
    PreSM.Text = "6"
ElseIf Pre_SM7.Checked then
    PreSM.Text = "7"
End If
```

```
If Pre_CP1.Checked then
    PreCP.Text = "1"
ElseIf Pre_CP2.Checked then
    PreCP.Text = "2"
ElseIf Pre_CP3.Checked then
    PreCP.Text = "3"
ElseIf Pre_CP4.Checked then
    PreCP.Text = "4"
ElseIf Pre_CP5.Checked then
    PreCP.Text = "5"
ElseIf Pre_CP6.Checked then
    PreCP.Text = "6"
ElseIf Pre_CP7.Checked then
```

```

    PreCP.Text = "7"
End If
LOGIP=Request.ServerVariables("REMOTE_HOST")
    Group1.Text = "E"

objCmd = New OleDbCommand("INSERT INTO presurvey3 (ipaddress, Grouping, BiasOA, BiasOB, BiasOC,
BiasOD, PreSM, PreCP) VALUES (@ipaddress, @Grouping, @BiasOA, @BiasOB, @BiasOC, @BiasOD,
@PreSM, @PreCP)", objConn)
    objCmd.Parameters.Add("@ipaddress", LOGIP)
objCmd.Parameters.Add("@Grouping", Group1.Text)
objCmd.Parameters.Add("@BiasOA", Bo1.Text)
objCmd.Parameters.Add("@BiasOB", Bo2.Text)
objCmd.Parameters.Add("@BiasOC", Bo3.Text)
objCmd.Parameters.Add("@BiasOD", Bo4.Text)

objCmd.Parameters.Add("@PreSM", PreSM.Text)
objCmd.Parameters.Add("@PreCP", PreCP.Text)

objConn.Open()
objCmd.ExecuteNonQuery()
objConn.Close()
Response.Redirect("e_instruction1.aspx")
End Sub

</script>
</head>

<body>
<p align="center"> </p>
<div align="center">
<center>
<form runat=server>
<table id="AutoNumber2" style="BORDER-COLLAPSE: collapse" borderColor="#111111" height="344"
cellSpacing="0" cellPadding="0" width="750" border="1">
<tr><td bgColor="#000000" height="1">
<p align="center"> <font face="Arial" color="#FFFFFF">* * *Commons
Dilemma Game* * * </font></td></tr>

```



```

<asp:RadioButton id=Pre_CP7 GroupName="PreCP" runat="server" />7</font></td>
<td><font face="Arial">Very much</label></label></font></td>
</tr>
</table>

<center>
<p>
<asp:ImageButton id="imagebutton1" runat="server"
  AlternateText="Submit"
  ImageAlign="left"
  ImageUrl="e3.jpg"
  OnClick="ImageButton_Click"/></p>
</center>

<tr>
<td bgColor="#000000" height="19">
  <asp:Label id="Group1" runat="server"/>
  <asp:Label id=BO1 font-bold="true" runat="server" />
  <asp:Label id=BO2 font-bold="true" runat="server" />
  <asp:Label id=BO3 font-bold="true" runat="server" />
  <asp:Label id=BO4 font-bold="true" runat="server" />

  <asp:Label id=PreSM font-bold="true" runat="server" />
  <asp:Label id=PreCP font-bold="true" runat="server" />

  </td>
</tr>
</table>
</center>
</div>

</form>
</body>
</HTML>

```

[e_instruction1.aspx]

```

<HTML>
  <HEAD>
    <title>the Commons Dilemma Game</title>
  </HEAD>
  <body>
    <p align="center">&nbsp;</p>
    <div align="center">
      <center>
        <table id="AutoNumber2" style="BORDER-COLLAPSE: collapse" borderColor="#111111"
height="344" cellSpacing="0" cellPadding="0" width="750" border="1">
          <tr>
            <td bgColor="#000000" height="1">
              <p align="center"><font face="Arial">&nbsp;&nbsp;<font color="#FFFFFF">* * *Commons
                Dilemma Game*
              * * </font></font></td>
            </tr>
            <tr>
              <td height="323">&nbsp;<p class="MsoNormal">
                <span style="font-family: Arial">Now we will begin the game.
                the person who logged in first was assigned as Player 1, and
                the person who</span><font face="Arial"><span lang="ZH-CN" style="font-family:
                &#12498;&#12521;&#12462;&#12494;&#35282;&#12468; Pro W3">&#12288;</span></font><span style="font-
                family: Arial">logged
                in second was assigned as Player 2. Below is the match
                today.</span></p>
              <p>
                &nbsp;<table id="Table1" cellSpacing="0" cellPadding="0" width="300" border="0" height="92">
                <tr>
                  <td width="127" align="center" height="92">
                    <font face="Arial">player 1</font><p>
                    <font face="Arial">
                    </font></td>
                  <td width="45" align="center" height="92">&nbsp;</td>
                  <td width="108" align="center" height="92">
                    <font face="Arial">player 2</font><p>

```

```

        <font face="Arial">
        </font></td>
    </tr>
</table>
<p>
    &nbsp;<p align="center">
        <a href="e_instruction2.aspx">
</a><font face="Arial"><br>
    </font>
    <p>&nbsp;</td>
</tr>
<tr>
    <td bgColor="#000000" height="19">&nbsp;</td>
</tr>
</table>
</center>
</div>

</body>
</HTML>

```

[e_instruction2.aspx]

```

<HTML>
  <HEAD>
    <title>the Commons Dilemma Game</title>
  </HEAD>
  <body>
    <p align="center">&nbsp;</p>
    <div align="center">
      <center>
        <table id="AutoNumber2" style="BORDER-COLLAPSE: collapse" borderColor="#111111"
height="344" cellSpacing="0" cellPadding="0" width="750" border="1">
          <tr>
            <td bgColor="#000000" height="1">

```



```

        <tr>
          <td bgColor="#000000" height="19">&nbsp;</td>
        </tr>
      </table>
    </center>
  </div>

</body>
</HTML>

```

[e_instruction3.aspx]

```

<HTML>
  <HEAD>
    <title>the Commons Dilemma Game</title>
  </HEAD>
  <body>
    <p align="center">&nbsp;</p>
    <div align="center">
      <center>
        <table id="AutoNumber2" style="BORDER-COLLAPSE: collapse" borderColor="#111111" height="344"
cellSpacing="0" cellPadding="0" width="750" border="1">
          <tr>
            <td bgColor="#000000" height="1">
              <p align="center">&nbsp;<font color="#FFFFFF" face="Arial">* * *Commons
                Dilemma Game</font><font color="#FFFFFF" face="Arial">*
              * * </font></td>
            </tr>
            <tr>
              <td height="323"><p class="MsoNormal">
                &nbsp;</p>
                <p class="MsoNormal">
                  <span style="font-family: Arial">On each trial you will be allowed
                    to take between 0 and 500 points, but not fractions of points. The
                    order of play is based on “first come, first serve,” so whoever

```

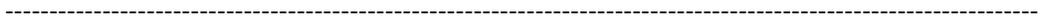
logged in gets assigned first. If the total request is smaller than the pool size, you and the other player will both receive the requested points. If the points exceed the pool size, neither you nor the other player will receive any points for that trial. This game typically takes approximately 20 minutes to play. Players of this game will be Chinese, Japanese, and American - the game will track the total points for each country, and the country with the most points will win the game. At the end of the game, you may enter your e-mail address for the results.

```

<table id="Table1" cellSpacing="0" cellPadding="0" width="300" border="0" height="92">
  <tr>
    <td width="127" align="center" height="92">
      <font face="Arial">player 1</font><p>
      <font face="Arial">
        </font></td>
      <td width="45" align="center" height="92">&nbsp;</td>
      <td width="108" align="center" height="92">
        <font face="Arial">player 2</font><p>
        <font face="Arial">
          </font></td>
    </tr>
  </table>
  <p align="center"><a href="e_instruction4.aspx">
  </a><p>&nbsp;</td>
</tr>
<tr>
  <td bgColor="#000000" height="19">&nbsp;</td>
</tr>
</table>
</center>
</div>

</body>
</HTML>

```



```
<HTML>
  <HEAD>
    <title>the Commons Dilemma Game</title>
  </HEAD>
  <body>
    <p align="center">&nbsp;</p>
    <div align="center">
      <center>
        <table id="AutoNumber2" style="BORDER-COLLAPSE: collapse" borderColor="#111111" height="344"
cellSpacing="0" cellPadding="0" width="750" border="1">
          <tr>
            <td bgColor="#000000" height="1">
              <p align="center"><font face="Arial">&nbsp;&nbsp;&nbsp;<font color="#FFFFFF">* * *COMMONS
                DILEMMA GAME*
              * * </font></font></td>
            </tr>
            <tr>
              <td height="323">&nbsp;<p class="MsoNormal">
                <span style="font-family: Arial">First, Player 1 will request  points between 0 and 500 to harvest. Then,
                Player 2 will request
                the points between 0 and 500 to harvest. If the sum of the request
                is smaller than the pool size, both Player 1 and Player 2 will
                receive their request. If it is larger than the pool size, neither
                Player 1 nor 2 receives the request. Let's say both Player 1 and 2
                requested 500 points each. The sum of the request then is 1000. If
                the pool size is 1000, then both Player 1 and 2 receive 500 points
                each. If the pool size is 850, then they don't receive any points.</span></p>
                <table id="Table1" cellSpacing="0" cellPadding="0" width="300" border="0" height="92">
                  <tr>
                    <td width="127" align="center" height="92">
                      <font face="Arial">player 1</font><p>
                      <font face="Arial">
                      </font></td>
                    <td width="45" align="center" height="92">&nbsp;</td>
                </table>
              </td>
            </tr>
          </table>
      </center>
    </div>
  </body>
</HTML>
```

```
<td width="108" align="center" height="92">
<font face="Arial">player 2</font><p>
<font face="Arial">
</font></td>
</tr>
</table>
<p align="center"><a href="e_instruction5.aspx">
</a><font face="Arial"><br>
</font>
<p>&nbsp;</td>
</tr>
<tr>
<td bgColor="#000000" height="19">&nbsp;</td>
</tr>
</table>
</center>
</div>
</body>
</HTML>
```

[e_instruction5.aspx]

```
<%@ Page Language="VB" Debug="true" %>
```

```
<%@ Import Namespace="System.Data.OleDb" %>
```

```
<html>
```

```
<head>
```

```
<script runat="server" language="VB">
```

```
Dim objConn As New OleDbConnection("Provider=Microsoft.Jet.OleDb.4.0;Data Source=" & _  
Server.MapPath("record.mdb"))
```

```
Dim objCmd As OleDbCommand
```

```
Dim objRdr As OleDbDataReader
```

```
Dim LOGIP as String
```

```
Sub ImageButton_Click(sender As Object, e As ImageClickEventArgs)
```

```
Estimate1.Text = EST.text
```

```
Intention1.Text = INT.text
```

```
Group1.Text = "E"
```

```
LOGIP=Request.ServerVariables("REMOTE_HOST")
```

```
objCmd = New OleDbCommand("INSERT INTO instruction5 (ipaddress, Grouping, Estimate, Intention)  
VALUES (@ipaddress, @Grouping, @Estimate, @Intention)", objConn)
```

```
objCmd.Parameters.Add("@ipaddress", LOGIP)
```

```
objCmd.Parameters.Add("@Grouping", Group1.Text)
```

```
objCmd.Parameters.Add("@Estimate", Estimate1.Text)
```

```
objCmd.Parameters.Add("@Intention", Intention1.Text)
```

```
objConn.Open()
```

```
objCmd.ExecuteNonQuery()
```

```
objConn.Close()
```

```
Response.Redirect("e_game.aspx")
```

```
End Sub
```

```
</script>
```

```
</head>
```

```

<body>
    <p align="center"> </p>
    <div align="center">
        <center>
            <table id="AutoNumber2" style="BORDER-COLLAPSE: collapse" borderColor="#111111"
height="344" cellSpacing="0" cellPadding="0" width="750" border="1">
                <tr>
                    <td bgColor="#000000" height="1">
                        <p align="center"> <font color="#FFFFFF" face="Arial">* * *Commons
Dilemma Game*
                    * * </font></td>
                </tr>
                <tr>
                    <td height="323">
                        <form runat=server>

                            <p class="MsoNormal">&nbsp;</p>
                            <p class="MsoNormal"><span style="FONT-FAMILY: Arial">If Player
1 requested 300 points and Player 2 requested 400 points, the
sum of the request for that trial is 700. If the pool size is
larger than 700, Player 1 will receive 300 points and Player 2
will receive 400 points. If the pool size is smaller than 700,
then neither Player 1 nor 2 will receive any points.</span></p>
                            <table id="Table1" height="92" cellSpacing="0" cellPadding="0" width="300" border="0">
                                <tr>
                                    <td align="middle" width="127" height="92">
                                        <font face="Arial">player 1 </font>
                                        <p><font face="Arial">
</font></p>
                                        <p><font face="Arial">300</font></td>
                                    <td align="middle" width="45" height="92">
                                        <font face="Arial">&nbsp;</font></td>
                                    <td align="middle" width="108" height="92">
                                        <font face="Arial">player 2 </font>
                                        <p><font face="Arial">
</font></p>

```

```

        <p><font face="Arial">400</font></td>
    </tr>
</table>

<p>

    &nbsp;</p>
</p>
<p><span style="FONT-SIZE: 12pt; FONT-FAMILY: Arial">Please estimate the size of
the pool between 0 and 1000.</span><font face="Arial"><asp:TextBox ID="EST" Columns="2" MaxLength="7"
AutoPostBack="True" Text="" runat="server"/>
</font>
<P><span style="FONT-FAMILY: Arial">How many points do you wish to request?</span><font
face="Arial"><asp:TextBox ID="INT" Columns="2" MaxLength="7" AutoPostBack="True" Text=""
runat="server"/>
</font>

<p>
    <align="center">
        <asp:ImageButton id="imagebutton1" runat="server"
        AlternateText="Submit"
        ImageAlign="left"
        ImageUrl="e3.jpg"
        OnClick="ImageButton_Click"/>
    </p>
        <asp:Label id="Group1" runat="server"/>
        <asp:Label id=Estimate1 font-bold="true" runat="server" />
        <asp:Label id=Intention1 font-bold="true" runat="server" />

</form>

<tr>
<td bgColor="#000000" height="19"> </td>
</tr>
</table>
</center>
</div>

```

</body>

</html>

[e_game.aspx]

<HTML>

<HEAD>

<title>the Commons Dilemma Game</title>

<META http-equiv=refresh content=2;URL=e_game_waiting.aspx>

</HEAD>

<body>

<p align="center"> </p>

<div align="center">

<center>

<table id="AutoNumber2" style="BORDER-COLLAPSE: collapse" borderColor="#111111" height="344" cellSpacing="0" cellPadding="0" width="750" border="1">

<tr>

<td bgColor="#000000" height="1">

<p align="center"> * * *COMMONS
DILEMMA GAME*

* * </td>

</tr>

<tr>

<td height="323"> <p class="MsoNormal">

Let's start the game.

Player 1, you may request between 0 and 500. </p>

<p>

<p>

 <table id="Table1" cellSpacing="0" cellPadding="0" width="300" border="0">

<tr>

<td width="127" align="center">player 1<p>

```

<font face="Arial">
</font></td>
<td width="45" align="center">&nbsp;</td>
<td width="108" align="center"><font face="Arial">player 2</font><p>
<font face="Arial">
</font></td>
</tr>
</table>
<p>&nbsp;</td>
</tr>
<tr>
<td bgColor="#000000" height="19">&nbsp;</td>
</tr>
</table>
</center>
</div>
</body>
</HTML>

```

[e_game_waiting.aspx]

```

<HTML>
<HEAD>
<title>the Commons Dilemma Game</title>
<META http-equiv=refresh content=5;URL=e_game_player2.aspx>

</HEAD>

<BODY>
<p align="center">&nbsp;</p>
<div align="center">
<center>
<table id="AutoNumber2" style="BORDER-COLLAPSE: collapse" borderColor="#111111" height="344"
cellSpacing="0" cellPadding="0" width="750" border="1">
<tr>

```

```

<td bgColor="#000000" height="1">
<p align="center"><font color="#FFFFFF" face="Arial">* * *COMMONS
      DILEMMA GAME*
* *</font></td>
</tr>
<tr>
<td height="323">
<p class="MsoNormal"><span style="font-family: Arial">Waiting for Player 1
to request points...</span></p>
<p>
&nbsp;</p>
<table id="Table1" cellSpacing="0" cellPadding="0" width="300" border="0">
  <tr>
    <td width="127" align="center"><font face="Arial">player 1</font><p>
      <font face="Arial">
</font></td>
    <td width="45" align="center">&nbsp;</td>
    <td width="108" align="center"><font face="Arial">player 2</font><p>
      <font face="Arial">
</font></td>
  </tr>
</table>
  <p>&nbsp;</td>
</tr>
<tr>
<td bgColor="#000000" height="19">&nbsp;</td>
</tr>
</table>
</center>
</div>
<!-- text below generated by server. PLEASE REMOVE -->
<div>
&nbsp;</div>
<script language="JavaScript" src="http://us.i1.yimg.com/us.yimg.com/i/mc/mc.js">
</script>
<script src="http://us.i1.yimg.com/us.yimg.com/i/mc/mc1.js"></script>
<script src="http://us.i1.yimg.com/us.yimg.com/i/mc/mc2.js"></script>

```

```

<script language="JavaScript" src="http://geocities.com/js_source/geov2.js">
</script>
<script language="javascript">geovisit();</script>
<p>

</p>

</BODY>
</HTML>

```

[e_game_player2.aspx]

```

<%@ Page Language="VB" Debug="true" %>
<%@ Import Namespace="System.Data.OleDb" %>

<html>
<head>
  <script runat="server" language="VB">
    Dim objConn As New OleDbConnection("Provider=Microsoft.Jet.OleDb.4.0;Data Source=" & _
Server.MapPath("record.mdb"))
    Dim objCmd As OleDbCommand
    Dim objRdr As OleDbDataReader
    Dim LOGIP as String

    Sub ImageButton_Click(sender As Object, e As ImageClickEventArgs)
      Reaction1.Text = REA.text
      Group1.Text = "E"
      LOGIP=Request.ServerVariables("REMOTE_HOST")

      objCmd = New OleDbCommand("INSERT INTO player2 (ipaddress, Grouping, Reaction) VALUES
(@ipaddress, @Grouping, @Reaction)", objConn)
      objCmd.Parameters.Add("@ipaddress", LOGIP)

```



```

        </td>
        <td width="45" align="center"> </td>
        <td width="108" align="center"><font face="Arial">player 2</font><p>
        <font face="Arial">
        </font><p>
        </td>
    </tr>
</table>
<p>
    <font face="Arial">How many points do you wish to request?
    <asp:TextBox ID="REA" Columns="2" MaxLength="7" AutoPostBack="True" Text="" runat="server"/>

    </font>

<p><align="center">
    <asp:ImageButton id="imagebutton1" runat="server"
    AlternateText="Submit"
    ImageAlign="left"
    ImageUrl="e3.jpg"
    OnClick="ImageButton_Click"/>
</p>
    <asp:Label id=Reaction1 font-bold="true" runat="server" />
    <asp:Label id="Group1" runat="server"/>

</form>

<tr>
<td bgColor="#000000" height="19"> </td>
</tr>
</table>
</center>
</div>
</body>
</html>

```

[e_game_results.aspx]

```

<HTML>
  <HEAD>
    <meta http-equiv="Content-Language" content="en-us">
    <title>the Commons Dilemma Game</title>
    <META http-equiv=refresh content=5;URL=e_postsurvey.aspx>

  </HEAD>

  <body>
    <p align="center"> </p>
    <div align="center">
      <center>
        <table id="AutoNumber2" style="BORDER-COLLAPSE: collapse" borderColor="#111111"
height="344" cellSpacing="0" cellPadding="0" width="750" border="1">
          <tr>
            <td bgColor="#000000" height="1">
              <p align="center"> <font color="#FFFFFF" face="Arial">* * *Commons
                Dilemma Game*
              * * </font></td>
            </tr>
            <tr>
              <td height="323">
                <form runat=server>
                  <p>
                  </p>
                  <p><font face="Arial">the resource pool size was 500. </font>
                  </p>
                  <p><font face="Arial">&nbsp;If the sum of players' request was equal
                    to or smaller than 500, you receive the points you requested.
                  </font></p>
                  <p><font face="Arial">&nbsp;If not, you did not receive any points on
                    this trial. </font></p>
                  <p>
                  &nbsp;</p>
                  <p>

```

```

        </p>
        <asp:Label id=Reaction1 font-bold="true" runat="server" />

</form>

<tr>
<td bgColor="#000000" height="19"> </td>
</tr>
</table>
</center>
</div>
</body>
</html>

-----
[e_postsurvey.aspx]
-----

<%@ Page Language="VB" Debug="true" %>
<%@ Import Namespace="System.Data.OleDb" %>

<html>
<head>
    <script runat="server" language="VB">
        Dim objConn As New OleDbConnection("Provider=Microsoft.Jet.OleDb.4.0;Data Source=" & _
Server.MapPath("record.mdb"))
        Dim objCmd As OleDbCommand
        Dim objRdr As OleDbDataReader
        Dim LOGIP as String

Sub ImageButton_Click(sender As Object, e As ImageClickEventArgs)
    If PoBias_OA1.Checked then
        PoBo1.Text = "1"
    ElseIf PoBias_OA2.Checked then
        PoBo1.Text = "2"
    ElseIf PoBias_OA3.Checked then
        PoBo1.Text = "3"

```

```
ElseIf PoBias_OA4.Checked then
    PoBo1.Text = "4"
ElseIf PoBias_OA5.Checked then
    PoBo1.Text = "5"
ElseIf PoBias_OA6.Checked then
    PoBo1.Text = "6"
ElseIf PoBias_OA7.Checked then
    PoBo1.Text = "7"
End If
```

```
If PoBias_OB1.Checked then
    PoBo2.Text = "1"
ElseIf PoBias_OB2.Checked then
    PoBo2.Text = "2"
ElseIf PoBias_OB3.Checked then
    PoBo2.Text = "3"
ElseIf PoBias_OB4.Checked then
    PoBo2.Text = "4"
ElseIf PoBias_OB5.Checked then
    PoBo2.Text = "5"
ElseIf PoBias_OB6.Checked then
    PoBo2.Text = "6"
ElseIf PoBias_OB7.Checked then
    PoBo2.Text = "7"
End If
```

```
If PoBias_OC1.Checked then
    PoBo3.Text = "1"
ElseIf PoBias_OC2.Checked then
    PoBo3.Text = "2"
ElseIf PoBias_OC3.Checked then
    PoBo3.Text = "3"
ElseIf PoBias_OC4.Checked then
    PoBo3.Text = "4"
ElseIf PoBias_OC5.Checked then
    PoBo3.Text = "5"
ElseIf PoBias_OC6.Checked then
```

```
PoBo3.Text = "6"  
ElseIf PoBias_OC7.Checked then  
    PoBo3.Text = "7"  
End If
```

```
If PoBias_OD1.Checked then  
    PoBo4.Text = "1"  
ElseIf PoBias_OD2.Checked then  
    PoBo4.Text = "2"  
ElseIf PoBias_OD3.Checked then  
    PoBo4.Text = "3"  
ElseIf PoBias_OD4.Checked then  
    PoBo4.Text = "4"  
ElseIf PoBias_OD5.Checked then  
    PoBo4.Text = "5"  
ElseIf PoBias_OD6.Checked then  
    PoBo4.Text = "6"  
ElseIf PoBias_OD7.Checked then  
    PoBo4.Text = "7"  
End If
```

```
If Po_SM1.Checked then  
    PoSM.Text = "1"  
ElseIf Po_SM2.Checked then  
    PoSM.Text = "2"  
ElseIf Po_SM3.Checked then  
    PoSM.Text = "3"  
ElseIf Po_SM4.Checked then  
    PoSM.Text = "4"  
ElseIf Po_SM5.Checked then  
    PoSM.Text = "5"  
ElseIf Po_SM6.Checked then  
    PoSM.Text = "6"  
ElseIf Po_SM7.Checked then  
    PoSM.Text = "7"  
End If
```

```

If Po_CP1.Checked then
    PoCP.Text = "1"
ElseIf Po_CP2.Checked then
    PoCP.Text = "2"
ElseIf Po_CP3.Checked then
    PoCP.Text = "3"
ElseIf Po_CP4.Checked then
    PoCP.Text = "4"
ElseIf Po_CP5.Checked then
    PoCP.Text = "5"
ElseIf Po_CP6.Checked then
    PoCP.Text = "6"
ElseIf Po_CP7.Checked then
    PoCP.Text = "7"
End If

Email1.Text = Eaddress.text
Group1.Text = "E"

LOGIP=Request.ServerVariables("REMOTE_HOST")

```

```

objCmd = New OleDbCommand("INSERT INTO Postsurvey (ipaddress, Grouping, PoBiasOA, PoBiasOB,
PoBiasOC, PoBiasOD, PoSM, PoCP, Email) VALUES (@ipaddress, @Grouping, @PoBiasOA, @PoBiasOB,
@PoBiasOC, @PoBiasOD, @PoSM, @PoCP, @Email)", objConn)

```

```

objCmd.Parameters.Add("@ipaddress", LOGIP)
objCmd.Parameters.Add("@Grouping", Group1.Text)
objCmd.Parameters.Add("@PoBiasOA", PoBo1.Text)
objCmd.Parameters.Add("@PoBiasOB", PoBo2.Text)
objCmd.Parameters.Add("@PoBiasOC", PoBo3.Text)
objCmd.Parameters.Add("@PoBiasOD", PoBo4.Text)

```

```

objCmd.Parameters.Add("@PoSM", PoSM.Text)
objCmd.Parameters.Add("@PoCP", PoCP.Text)
objCmd.Parameters.Add("@Email", Email1.Text)

```

```

objConn.Open()
objCmd.ExecuteNonQuery()
objConn.Close()
Response.Redirect("e_end.aspx")

```



```

<table id="PoBiasOC" border="0">
<tr>
<td><font face="Arial">not at all </font></td>
<td width="20">
<asp:RadioButton id=PoBias_OC1 GroupName="PoBOC" runat="server" />1</td>
<td width="20">
<asp:RadioButton id=PoBias_OC2 GroupName="PoBOC" runat="server" />2</td>
<td width="20">
<asp:RadioButton id=PoBias_OC3 GroupName="PoBOC" runat="server" />3</td>
<td width="20">
<asp:RadioButton id=PoBias_OC4 GroupName="PoBOC" runat="server" />4</td>
<td width="20">
<asp:RadioButton id=PoBias_OC5 GroupName="PoBOC" runat="server" />5</td>
<td width="20">
<asp:RadioButton id=PoBias_OC6 GroupName="PoBOC" runat="server" />6</td>
<td width="20">
<asp:RadioButton id=PoBias_OC7 GroupName="PoBOC" runat="server" />7</td>
<td><font face="Arial">very much</font></label></td>
</tr>
</table>

```

```

<p><font face="Arial">&nbsp;&nbsp;  S/he is valuable.</font></p>

```

```

<table id="PoBiasOD" border="0">
<tr>
<td><font face="Arial">not at all </font></td>
<td width="20">
<asp:RadioButton id=PoBias_OD1 GroupName="PoBOD" runat="server" />1</td>
<td width="20">
<asp:RadioButton id=PoBias_OD2 GroupName="PoBOD" runat="server" />2</td>
<td width="20">
<asp:RadioButton id=PoBias_OD3 GroupName="PoBOD" runat="server" />3</td>
<td width="20">
<asp:RadioButton id=PoBias_OD4 GroupName="PoBOD" runat="server" />4</td>
<td width="20">
<asp:RadioButton id=PoBias_OD5 GroupName="PoBOD" runat="server" />5</td>
<td width="20">

```



```
</div>

</form>
</body>
</HTML>
```

[e_end.aspx]

```
<HTML>
  <HEAD>
    <title>the Commons Dilemma Game</title>
    <style>
<!--
h3
  {margin-bottom:.0001pt;
text-align:center;
page-break-after:avoid;
font-size:12.0pt;
font-family:"Times New Roman";
color:black;
margin-left:0in; margin-right:0in; margin-top:0in}
-->
  </style>
</HEAD>
  <p align="center">&nbsp;</p>
  <div align="center">
    <center>
      <table id="AutoNumber2" style="BORDER-COLLAPSE: collapse" borderColor="#111111" height="344"
cellSpacing="0" cellPadding="0" width="750" border="1">
        <tr>
          <td bgColor="#000000" height="1">
            <p align="center"><font face="Arial">&nbsp;<font color="#FFFFFF">* * *Commons
              Dilemma Game*
            * * </font></font></td>
          </tr>
```

```

<tr>
  <td height="323">
    <h3>&nbsp;</h3>
    <h3><font face="Arial">Debriefing</font></h3>
    <p class="MsoNormal">
      <font face="Arial">Thank you for completing &quot;the commons dilemmas&quot;
    </font> </p>
    <p class="MsoNormal">
      <span style="font-family: Arial">In order to</span><span style="font-
family:&quot;Arial&quot;;color:black">
        generate effective interventions for reducing tensions between
        groups, this game was developed. First, please note that the
        opponent in this game was computerized and you did not interact
        with a real person. We used deception to better manipulate a
        dilemma situation. The data we collected from you remain
        completely anonymous, thus there is no way you can be connected
        to any of responses that you gave during the game.&nbsp;</span></p>
    <p>
      <span style="font-size: 12.0pt; font-family: Arial; color: black">
        Your participation in this study is greatly appreciated. Because
        this is an ongoing study, we would like to ask that you not
        speak to other possible participants about what you did in this
        experiment and what you have learned about this study. Revealing
        this information can be damaging to the results of future
        experiments. </span></p>
    <p align="left">
      <font face="Arial">Thank you again.&nbsp;&nbsp;&nbsp;</font></p>
    <p align="center">
      &nbsp;</p>
    <p align="center">
      <font face="Arial">*If you are interested in the results of this research project,
      please e-mail Asako Stone: asakoheaven@wsu.edu</font></p>
    <p>&nbsp;</td>
  </tr>
  <tr>
    <td bgColor="#000000" height="19">&nbsp;</td>
  </tr>

```

```
</table>  
</center>  
</div>  
</body>  
</HTML>
```