UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

EXAMINATION OF THE EFFECTS OF FAMILY AND PEERS ON DEVIANCE ACROSS GENDER AND CULTURE

A DISSERTATION

SUBMITTED TO THE GRADUATE FALCULTY

in partial fulfillment of the requirements for the

Degree of

Doctor of Philosophy

By

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Norman, Oklahoma
2009

EXAMINATION OF THE EFFECTS OF FAMILY AND PEERS ON DEVIANCE ACROSS GENDER AND CULTURE

A DISSERTATION APPROVED FOR THE
DEPARTMENT OF SOCIOLOGY

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ACKNOWLEDGEMENTS

First and foremost, I offer my sincerest gratitude to Dr. Grasmick, Dr. Sharp, and Dr. Kobayashi, who so generously allowed me to use their data for the past eight years. You have completely changed my life. I cannot express strongly enough the gratitude and respect I feel for both Dr. Grasmick and Dr. Sharp. They have been my most influential professors and mentors from the time I started my undergraduate studies in sociology/criminology almost 10 years ago. I believe nobody believed in me more than my chair and a friend, Dr. Sharp, who offered me much needed encouragement and support. I would also like to thank all my committee members for their invaluable comments and criticisms—Dr. Beutel, Dr. Hope, Dr. Latimore, and Dr. Marcus Mendoza. Finally, I thank all the people at the department of sociology for contributing to this wonderful experience.

J: your selfless kindness overwhelms me.

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ABSTRACT

Using comparable self-reported survey data on deviance collected among college students in Japan (*n*=433) and the United States (*n*=363), I assess the applicability of Travis Hirschi's *social bond* and Ronald L. Aker's *social learning* theories across culture and across gender. Specifically, I examine first whether or not there is a difference in the level and type of deviance (both in terms of likelihood and frequency) between Japanese and American samples compared across gender, and the extent to which the two theories jointly and individually, address the questions: (1) can the two theories account for *any* differences in deviant behaviors among Japanese and American males and females? And (2) (if the two theories are applicable in explaining deviance among the Japanese sample,) is the applicability of these two theories similar or different for the Japanese sample compared to the American sample or for males compared to females across culture?

CHAPTER ONE

INTRODUCTION

Prologue

Japan, as represented by Robert N. Bellah's *Tokugawa Religion* published in 1957, has often been seen as an interesting contrast to Western industrialized societies in comparative research. This is because Japan is relatively analogous to Western industrialized societies in terms of modernization and subsequent economic, political, and structural change. Nonetheless, Japan still differs in many other respects, particularly in terms of culture and adherence to tradition. According to Bennett (1980), such differences provide a kind of quasi-experimental research setting, allowing the comparison of two or more populations with preexisting conditions (e.g., capitalist vs. socialist states, democratic vs. non-democratic states, welfare vs. non-welfare states), particularly in areas of the social sciences for which the application of a true experimental design is unfeasible.

In criminology, the relatively low crime rate in Japan, especially the low rate of serious, violent offenses, has often been used to accentuate the relatively high crime rate in the U.S. (e.g., Adler 1983). For instance, in 2007 the rate of murder was *5.5 times* higher, the rate of robbery was *36.9 times* higher, and the rate of reported larceny-theft was *1.81 times* higher in the U.S. compared to the rate in Japan for the same year.[1] In

[1] One of the best ways to compare the prevalence of crime across countries is to compare the crimes reported in the country's official crime statistics, such as the *Uniform Crime Report* (UCR) for the U.S. and the *Hanzai Hakusyo* (translated as the "White Paper of Crime") for Japan. The Federal Bureau of Investigation's UCR program is a nationwide program, compiling the number of crimes reported by about 95% of all law enforcement agencies. The *Hanzai Hakusyo* is compiled by the *Houmu Sougou Kenkyuujyo* (a research institute) under the Japanese Ministry of Justice, overseeing all of the law enforcement agencies in Japan.

Of course, it is important to keep in mind that because criminal laws vary in these two countries, a similar offense name might in fact refer to different behaviors across countries, and this is even the case

addition, Japan's community oriented policing and perceived high level of informal social control is often portrayed in American textbooks as a successful explanation for its lower crime rate among the industrialized countries (e.g., Cole and Smith 2001, Reichel 2008).

Because of measurement and other sample comparability issues involved in cross-national research, past comparative criminology research tends to be at the country level, examining structural correlates[2] and testing macro level theories of crime.[3] Due to a growing volume of comparable data on crime, such as data collected through Interpol and the United Nations, cross-national research of crime comparing official crime rates like homicide, assault, theft, and robbery across countries is increasing (see review by Howard, Newman, and Pridemore 2000).

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with serious offenses, such as murder. Nevertheless, one of the best measures for the prevalence of crime in a given country might be the number of murders. Examining statistics for the year 2007, there were 16,929 reported murders in the U.S. (UCR 2007), while Japan reported a total of 1,309 murders (*Hanzai Hakusyo* 2007) in the same year. In terms of the absolute number of murders, the U.S. reported more than 10 times the number of murders compared to Japan in 2007.

Of course, population size is positively associated with the number of murders, so a more appropriate comparison of the prevalence of crime across countries should utilize murder rates, which control for differences in population size. According to the census data from the two countries for the year 2007, the total population of the U.S. was 301,621,157 (U.S. Census Bureau 2007), about double the total population of Japan, which was 127,771,000 (Japanese Statistics Bureau 2007). These figures produce rates of murder in 2007 of 5.61 murders per 100,000 people in the U.S. and 1.02 murders per 100,000 people in Japan. In other words, these murder rates indicate that people are five times more likely to be murdered in the U.S. compared to in Japan in 2007. The murder rates confirm the notion that Japan is much safer than the U.S., at least in relation to a violent crime like murder.

[2] For instance, past studies examined the effects of the availability of firearms (Alheimer 2008), severity of punishment (Archer, Garner, Beittel 1983), population diversity and heterogeneity (Avison and Loring 1986; Hansmann and Quigley 1982), single parenthood (Barber 2004), anomie (Baumer and Gustafson 2007, Bjerregaard and Cochran 2008, Krohn 1978, Leavitt 1992, Messner 1982), economic inequality (Chamlin and Cochran 2005, Jacobs and Richardson 2008, Krahn, Hartnagel, and Gartrell 1986, Krohn 1976, Lee and Bankston 1999, Messner, Raffalovich, and Shrock 2002, Pratt and Godsey 2003, Stack 1994), and age structure (Gartner and Parker 1990) on the cross-national variation in crime rates.

[3] For instance, past studies applied macro level theories of crime such as Durkheim's and Merton's anomie, Messner and Rosenfeld's (1994) Institutional Anomie, Braithwaite's (1989) Reintegrative Shaming, Elias' (1982) civilization, Cohen and Felson's (1979) opportunity, Wallerstein's (1974) World systems, as well as Shaw and Mckay's (1942) social disorganization theories to explain the differences in the prevalence of serious crimes across courtiers or over time (see for review Howard, Newman, and Pridemore 2000).

However, international criminologists have only recently begun collecting alternatives to official data cross-nationally, such as the International Victimization Survey Data (ICVS), which consists of comparable data on victimization experiences among nationally representative samples from several countries. The ICVS was initiated in 1987, and so far over 78 countries have participated in one of the five rounds of the ICVS. The ICVS is intended to produce estimates of victimization for each participating country using nationally representative samples that are comparable across countries. In order to maintain the comparability of the data, the ICVS focuses on only those relatively more prevalent and common forms of crimes (e.g., petty theft). The ICVS offers significant contributions to cross-cultural criminology, but it is accompanied by a unique set of measurement and validity issues common to victimization data (e.g., recall error, overestimation, etc) in an international context.

Japan joined the ICVS in recent years. However, as is true with most countries, Japan lacks self-reported data on less serious and violent forms of deviance among a nationally representative sample. Thus, comparison of the prevalence, nature, and degree of less serious and violent deviant behaviors between Japan and another country has been non-existent, as has been true for other cross-national comparisons of these types of deviant behaviors. Though some scholars argue for the validity of homicide as an indicator of overall serious and violent crimes at the country level (Fox and Zawitz 1998), homicide is rare in most countries, and thus is relevant to only a small portion of any population.

Although it is debatable which deviant behaviors over others should warrant the attention of criminology, in terms of policy, cost to the society, et cetera, homicide and

other more serious and violent crimes are not the only outcome of a high level of criminality in most countries. Moreover, comparing less serious forms of deviant behaviors across countries, such as across Japan and the U.S., could provide important insight for policy, if a study were to find that the difference among such behaviors across countries is not as large as that for more serious and dangerous forms of criminal behaviors.

Furthermore, despite the popularity and long history of development of individual level theories of deviance in the field of criminology, research that tests individual level theories of deviance beyond Western countries or across countries is limited. For instance, after examining 71 empirical studies published between 1970 and 1991 that tested Hirschi's (1969) social control theory (one of the leading individual level theories of deviance), Kempf (1993) concluded that all 71 studies employed samples from Western countries—including 60 studies in the U.S., 10 studies in Canada, and one study in Germany. This lack of empirical studies that apply individual level theories of deviance outside the U.S. constitutes a significant blow to the field of criminology—for criminology, more than any other social science it seems, is dominated by American scholars, theories, and empirical research using American samples. Junger and Marshall (1997: 80), state that "many of today's criminological theories have been formulated by American scholars and were either explicitly (e.g., Merton 1976; Quinney 1980) or implicitly (Shaw and McKay 1942) designed to apply to American society." Putting aside the question of why the field of criminology is dominated by American scholars and their research—though Adler (1983) argues that the U.S. is "obsessed" with crime because the country experiences such high crime rates

relative to other countries—international and cross-cultural research is greatly needed in the field to assess the "universality" of theory and to suggest revisions and refinements in theory to account for the cultural diversity of the world.

Nevertheless, it is true that international research applying individual level theories of deviance is steadily increasing in recent years. However, when individual level theories of deviance are tested outside the U.S., in most cases they are tested using data from a single country, thus cross-national empirical research testing individual level theories is almost non-existent. This is understandable because collecting comparable self-report data from two different countries is almost impossible due to a host of measurement, language, and sample comparability issues that are unique to cross-national research (Howard, Newman, Pridemore 2000). Thus, to date, only a handful of empirical studies have tested individual level theories of deviance across cultures. For instance, three independent studies collected comparable self-reported data to test individual level theories in Japan and in the U.S. The findings of these studies are summarized in Chapter Four. The lack of cross-cultural, individual level research of deviance is rather unfortunate in light of the fact that past studies report the importance of informal social controls such as family relationships, rather than formal controls such as criminal justice systems, in explaining the difference in crime rates across country (e.g., Adler 1983). Also, many aspects of informal social control, especially those relatively more proximate causes of deviance, are not easily measured or captured at the country level—though past studies used, for instance, differences in the percentages of single-parenthood within a country to explain variations in crime rates at the country level (e.g., Barber 2004).

Additionally, as Akers and Sellers (2009) argue, individual level and group level research and theories[4] are equally important in understanding deviance because they focus on different aspects of the causes of deviance that are equally valuable, which also applies to the international and cross-national research setting. Akers and Sellers (2009) state that a macro level theory of deviance focuses on *structural* and *cultural* variations that affect group variations in deviance, whereas a micro level theory of deviance focuses on the variations in individual *characteristics*, *situations*, and *processes* that affect individual variations in deviance. Both units of analysis, however, offer answers to the same overall question, "why do some individuals commit deviance, while others do not?" As noted by Howard et al. (2000), extant cross-cultural studies in deviance mainly pertain to macro level research, examining the *structural* and *cultural* variations that produce variations in deviance across countries. However, research examining variations in individual characteristics, situations, and processes that can explain variations in deviance at both the individual and country levels would also be of great value to the field, especially if such research could simultaneously offer explanations for the variations in the explanatory factors (i.e., individual characteristics, situations, and processes) across countries. Thus, despite the limitations and challenges that inevitably accompany micro level cross-cultural research, especially when collecting comparable self-reported data on deviance across countries, it is imperative for researchers to expand and improve upon the state of cross-cultural research applying individual level theories of deviance as possible explanations for the variations in deviance across countries.

[4] Akers and Sellers (2009) classify theories of deviance into the following two major types: one offers an explanation for the causes of group variation in deviance, called macro level theory, and the other offers an explanation for the causes of individual variation in deviance, called micro level theory.

The current study addresses the lack of cross-cultural research of deviance at the individual level and, using comparable self-report data collected in Japan and the U.S, tests two of the leading individual level theories of deviance: Hirschi's (1969) social control and Akers's (1985) social learning theories. To examine empirically social control and social learning theories simultaneously is particularly interesting, because both theories focus on the effects on deviance of the relationships with a primary group, presumably important for youths in any culture, including parents, friends, teachers, church, and school. However, while social control theory focuses on the negative (or inhibiting) effects on deviance through the mechanisms of social control, social learning theory focuses on the positive (or promoting) effects on deviance through the mechanisms of social learning.

In this study, using comparable self-report data on deviance collected from Japanese and American samples, I first examine differences in the prevalence, nature, and degree of deviant behaviors between the two samples. Then, I assess to what extent the two individual level theories of deviance explain (1) the expected lower level of deviance among the Japanese compared to Americans (the gap issue) and (2) the deviant behaviors of the Japanese compared to those of Americans (the generality issue). Finally, I compare (3) the applicability of the two theories across Japanese and American samples (the explanatory power issue). Then, this dissertation goes a step further and assesses the two theories of deviance not only across cultures, but also across the intersection of culture and gender. In other words, I examine the variations in the effects of the theoretical variables on deviant behaviors comparing four groups: (1) Japanese males, (2) Japanese females, (3) American males, and (4) American

females. All three issues discussed in relation to cross-cultural theory testing apply when gender is also taken into account (i.e., issues concerning gap, generality, and explanatory power). Specifically, I first examine the difference in the effect of gender and culture on deviance, and second, the possibility that gender differences in the effects of theoretical variables on deviance might vary by country. Because the importance of gender varies in these two countries, particularly as measured by the level of patriarchy, it is possible that gender differences often found in studies of deviance in the U.S. are accentuated in Japan.

This dissertation not only examines and compares how the two individual level theories of deviance address the gap, generality, and explanatory power issues across cultures and across the intersection of culture and gender, but also challenges the theories' claims on "universality." Beyond these intellectual merits, through this research, I attempt to join the efforts of non-western and other international criminologists in bridging the collaborative gap between research on deviance conducted all over the world, and the efforts of many American minority scholars in promoting empirical studies and theory development based on groups historically left out of research. In doing so, I assess how well the field of criminology overall accounts for cultural diversity in the world.

Theoretical Framework

In this dissertation, I test two leading individual level theories of deviance, Hirschi's (1969) social control and Akers's (1985) social learning theories, as possible explanations of deviant behaviors of Japanese and American samples, while taking into account gender. Both Hirschi's social control and Akers's social learning theories focus

on the effects of the relationships and interactions of the primary group,[5] such as family and friends. Though they were not developed specifically to explain cross-national variation in deviance, because both theories focus on the primary group—presumably found in any culture and important to child development in any society—they seem to be appropriate theories to apply cross-nationally.

Hirschi (1969) developed the social control theory while drawing a sharp distinction between the control theory, which emphasizes the factors that *control* deviance (i.e., theories of constraint), and other theories that emphasize factors that *promote* deviance (i.e., theories of motivation). For control theories, all actors are assumed to be equally motivated to deviate, and thus variations in the amount of control an individual experiences that prevents him/her from this universal motivation to deviate explain why some people deviate while others do not. According to Hirschi (1969: 9), for his social control theory, the controls or constraints acting on individuals and preventing deviance are found in their bonds to conventional society, and deviance occurs when "[an] individual's bond to society is weak or broken." There are four elements of the bond for Hirschi's (1969) social control theory: attachment, commitment, involvement, and belief. The element of attachment is the "bond of affection" to conventional persons such as parents, friends, school, and teachers, and institutions such as school. Commitment refers to the "stakes in conformity that are built up by pursuit of, and by a desire to achieve, conventional goals" (Hirschi

[5] Cooley's (1909) distinction of primary vs. secondary groups seem relevant here, because both types of the effects, *controlling* by Hirschi's (1969) social control theory and *learning* by Akers's (1985) social learning theory, produced through interactions with family and friends assume the importance of that relationship to the respondents, which is often associated with the primary group. Both theories would posit that the more important the relationship is for the respondents, the stronger the effect the relationship has on the respondents' behaviors.

1969:162). Involvement is "the most obviously related to delinquent behavior," for the more time people spend in conventional activities, the less time people have for non-conventional activities (Hirschi 1969:185). Finally, the element of belief in the legitimacy of law is related to deviance in that the "absence of (effective) beliefs" forbidding deviance frees one to engage in it (Hirschi 1969:198).

Social learning theory is also considered one of the leading individual level theories of deviance since Akers (1985) introduced his version of the theory as a revision to Sutherland's (1947) original formulation of differential association theory. At the time Sutherland (1947) introduced the early version of social learning theory, the field of criminology was dominated by biological and other theories of crime that placed individual blame on criminals for the crimes they committed—theories that represent the idea that people are born to be criminals. What distinguishes the social learning theory from other theories, particularly the biological theories, is its major premise that deviant behavior is *learned* like any other behavior by *anyone* through the process of social *interaction*. Several concepts are important for social learning theory (Akers and Sellers 2009). First, the term *differential association* refers to the *process* of social interactions, whereby individuals are exposed to *definitions* that are favorable or unfavorable to deviant behaviors through interactions with a primary group. Second, social learning theory incorporates the idea of *differential reinforcement*, which refers to the individual's calculation of both the anticipated rewards and punishments that accompany a behavior. Finally, extending Sutherland's original work, social learning theory also incorporates the mechanism of *imitation*, which refers to the process of engagement in behavior upon observing the behavior of others close to the individual.

Operationally, individual level theories of deviance, such as the two theories considered in this study, are not easily distinguishable because many of them focus on the effects of similar and overlapping concepts on deviance, such as beliefs, parental attachment, and delinquent friends. Recognizing this, Agnew (1995: 375) notes that "there is much overlap in independent variables and it is clearly the case that the effect of most independent variables on crime can be explained using a variety of theories." Furthermore, many of the theories of deviance can be operationalized to encompass the concepts presumably unique to other theories or to explain the effects of the concepts of other theories on deviance using their own *unique* concepts. Akers (1985, 1990), for instance, repeatedly notes that his version of social learning theory encompasses most of the theoretical variables suggested by other leading individual theories of deviance, including Hirschi's (1969) social control theory, thus his theory is *the* general theory of deviance. Agnew (1995: 366), therefore, argues that "empirical studies that simply examine the effect of independent variables on crime have little bearing on the relative merit of the different crime theories." [6]

A good theory is a parsimonious theory with clearly stated assumptions and testable predictions. A theory is not a good theory, however, if though it might be parsimonious, it can be extended to explain and predict *anything* and *everything*

[6] Agnew (1995) devotes an article solely to the issue of the inadequacy of extant empirical research that has compared the explanatory power of the different theoretical variables on deviance because, as he argues, most individual theories of deviance are indistinguishable in terms of the theoretical variables. Instead, Agnew proposes (1995: 364):

> Crime theories can be distinguished in terms of their (a) independent variables, (b) dependent variables, (c) conditioning or structuring variables, and (d) motivational processes. These four dimensions specify what variables affect what types of crime under what conditions. Further, they specify how and why these variables achieve their effect (motivational processes).

Because I employ cross-sectional data to test the empirical validity of the two theories, I think the issue raised by Agnew (1995) is more pertinent in this study, thus I discuss this issue extensively in the theory chapter (Chapter Two) as well as in the method chapter (Chapter Three).

because of its simplicity. I believe that such use of a theory offers logically inconsistent predictions and explanations. A good example might be Evolutionary Theory, which generally is not empirically testable, and which could, as a mental exercise, be used to offer post hoc explanations for any social phenomena. Furthermore, though an all-encompassing theory sounds appealing, when a theory takes into account *everything* and explains *everything*, it does not seem to be explaining *anything*. Such a theory needs to set a clear boundary, and when specific explanations and predictions are offered, each explanation and prediction must be logically consistent with the overall argument in the theory.

The two theories tested in this study (i.e., Hirschi's social control and Akers's social learning theories) can be distinguished theoretically in terms of their underlying assumptions about human nature (Hirschi 1969, Kornhauser 1978, Gottfredson and Hirschi 1990); "their specification of the motivation for crime" (Agnew 1995: 363); the *processes*, as specified by the theories, through which the specific theoretical concepts affect deviant behaviors; among other distinctions. Because the two theories tested in this dissertation closely resemble each other in terms of the theoretical variables, in the next chapter on theory description, I discuss the points of theoretical distinction extensively. Then, in Chapter Three, the operationalization of measurements used in the analyses is discussed in light of the distinctions discussed in the theory chapter.

Research Description

Though studies consistently show a relatively high crime rate in the U.S. and a relatively low crime rate in Japan, very few studies have examined the prevalence, nature, and degree of less serious forms of deviant behaviors compared between these

two countries—or between any other pair of a Western country and a non-Western country. Furthermore, though the field of criminology is dominated by individual level theories of deviance and American scholars dominate the development of such theories, few empirical studies apply the leading individual level theories of deviance outside the U.S. to test the university and applicability of the theories.

In addition, because of the difficulties associated with cross-national empirical research at the individual level, past studies testing individual level theories of deviance to non-Western samples tend to rely on single samples. Such studies are thus not truly cross-cultural or comparative, and might merely report the applicability of theories in explaining deviance in non-Western countries. The theoretical contribution of international research in deviance, however, comes from cross-cultural studies that examine the *differences* in the applicability of theories between two countries more so than studies that merely test the applicability of theories to another country.

This dissertation employs self-reported data on deviance collected from a sample of university students in Japan and in the U.S. In order to maintain the comparability of the sample across countries, the universities were carefully chosen. The questionnaires in English are developed by Harold G. Grasmick, Susan F. Sharp, and Emiko Kobayashi and then were translated into Japanese by Kobayashi, with the help of a professional writer. With comparable questionnaires in English and in Japanese, the survey was administered at the same period at a university in Japan and a university in the U.S. The methodology section in Chapter Three of this dissertation discusses at more length the questionnaire development process, sample selection

method, and possible limitations which might undermine the comparability of the two samples.

As a Japanese citizen studying in the U.S. who is fluent in both Japanese and English, and whose research interest lies in theory testing in criminology using cross-cultural empirical research, I was fortunate enough to be granted permission to use the data collected by the three scholars in Japan and the U.S. for my dissertation. In addition, because I am familiar with and interested in both Japanese and American cultures, their differences, and their effects on deviance, I hope to provide both the insider-perspective as a student of criminology at an American research institution and the outsider-perspective as a citizen of a non-Western country.

Using comparable self-reported data on deviance collected in Japan and the U.S., this dissertation applies and compares the applicability of two leading individual level theories of deviance across the samples from these two countries. This dissertation attempts to provide a much needed addition to the cross-cultural empirical tests of individual level theories of deviance. In addition to its possible theoretical contributions, this dissertation might also offer policy implications, if some of the theoretical variables explain the expected lower levels of deviance among the Japanese compared to Americans. For instance, if the relatively stronger parent-child relationship in Japan is found to explain the lower level of deviance in Japan compared to that in the U.S., specific policy might be developed based on the family relationships in Japan that can promote a stronger parent-child tie in the U.S.

Outline of Subsequent Chapters

The main objective of this dissertation is the empirical testing of two major individual level theories of deviance of particular relevance to youths—Hirschi's social control and Akers's social learning theories—across two cultures, Japan and the U.S. Additionally, this dissertation goes further by examining the interactive effect of gender and culture. Thus, this research consists of two major parts: (1) cross-cultural theory testing of deviance and (2) theory testing of deviance across gender and culture.

In Chapter Two, I first summarize the two theories tested in this dissertation, paying attention to the factors that distinguish the two theories, following Agnew's (1995) suggestions. Then, I provide a brief literature review of the past studies that have contributed to their theoretical development and summarize the current states of the two theories.

In Chapter Three, I first briefly summarize the methodological issues and problems associated with cross-cultural empirical research and describe the current state of cross-cultural criminology. I then describe the data collection methods and sampling design used to collect the self-reported data used in this dissertation, the samples, and the measurement of the dependent variables and the theoretical variables used in this dissertation. One of the important discussions in this chapter addresses the operationalization of the theoretical variables used to measure and distinguish the two theories. Because this dissertation consists of two major parts (one focuses on culture and the other focuses on the intersection of culture and gender), review of extant studies, hypotheses, and analytic strategies specific to each part are discussed in the later

chapters (i.e., in Chapter Four for cross-cultural research and in Chapter Five for across gender and culture research).

Chapter Four covers the first of the two major parts of this dissertation and focuses on the cross-cultural theory testing of deviance. The chapter contains a cross-cultural examination of four distinct subjects, each with a relevant review of extant research, hypotheses, and analyses: (1) the dependent variable, (2) the concept of "culture," (3) the theoretical variables, and (4) the application of the two theories as explanations of deviance. I first provide a brief literature review of extant studies on deviance in Japan and the U.S. Then, the data on deviant behaviors used for this dissertation are analyzed to assess a possible cultural gap in deviance. Next, I discuss the concept of culture, while referring to studies from the field of cross-cultural psychology, and measure the concept of "culture" using the data. I follow this with a review of extant empirical research conducted in Japan and in the U.S., and those concepts relevant to the two theories, including the studies on family relationships, friendships, among others. Then, I assess the country variations in these theoretical variables. I state the hypotheses for the cross-cultural part of this dissertation as they pertain to the effects of theoretical variables on deviance, based on extant research concerning the variations in deviance, culture, and theoretical variables in Japan and the U.S. and also based on the findings of extant empirical research testing Hirschi's (1969) social control and Akers's (1985) social learning theories as explanations of deviance in Japan and the U.S. Finally, I devote the remaining sections of Chapter Four to reporting the results of hypothesis testing. Note that in this chapter, gender is used only as a control variable.

Chapter Five pertains to the second of the two major parts of this dissertation, incorporating gender into the cross-cultural theory testing of deviance and examining the interactive effects of gender and culture. The chapter contains the examination of four distinct subjects across gender and culture, each with a relevant review of extant research, hypotheses, and analyses: (1) the dependent variable, (2) the concept of "gender," (3) the theoretical variables, and (4) the application of the two theories as explanations of deviance. Chapter Five begins with a brief literature review of extant studies on gender and deviance in the U.S. I then analyze the data on deviant behaviors to assess possible gap, variation, and generality of deviance across the intersection of gender and culture for the four distinct groups separately: Japanese males, American males, Japanese females, and American females. Then, I discuss the concept of "gender;" including what such a concept might entail, while referring to extant research and theories on gender, ways to measure the concept empirically, and possible cultural variations. This is followed by an empirical analysis of the differences in "gender" between the two countries using measures from cross-cultural psychology. I then review extant empirical research examining gender differences in both Japan and the U.S., and those concepts relevant to the two theories, including the studies on family relationships, friendships, and so on. Then, I assess the gender and cultural variations on these theoretical variables. Hypotheses specific to the combination of gender and culture portions of this dissertation concerning the effects of theoretical variables on deviance are stated. These hypotheses are derived from the extant research concerning the variations in deviance, culture, and theoretical variables across both gender and culture, and also from the findings of extant empirical research that tested Hirschi's

(1969) social control and Akers's (1985) social learning theories as explanations of deviance across gender. Finally, I devote the remainder of the chapter to reporting the results of the analyses testing the hypotheses.

Chapter Six is the final, concluding chapter of this dissertation, and includes summaries of each chapter and the findings of analyses from this study. Since this dissertation is one of the exploratory empirical studies testing individual level theories of deviance cross-culturally, the concluding chapter also includes a discussion of the limitations of this study and suggestions for future cross-cultural research. I conclude this dissertation with policy implications suggested by the research findings, and finally a discussion of the contributions of this research to the overall field of criminology.

CHAPTER TWO

INDIVIDUAL LEVEL THEORIES OF DEVIANCE

Introduction

This dissertation tests two of the leading individual level sociological theories of deviance: Hirschi's (1969) social control and Akers's (1985) social learning theories. Both theories emphasize the importance of individuals' relationships and interactions with a *primary group* on deviance, but while the former is a theory of *inhibiting* effects on deviance through social control, the latter is a theory of *motivating* effects on deviance through social learning. Unfortunately, despite the long popularity of both of these two theories in the field of criminology, only a handful of studies have applied them, singularly or in combination, as explanations of deviant behaviors among samples from a non-Western country or from cross-cultural samples. Furthermore, no extant empirical research applies individual level theories of deviance to specifically examine the variations in deviance across the intersection of culture and gender. Therefore, this dissertation is one of the first gender-specific, cross-cultural studies to test both Hirschi's (1969) social control and Akers's (1985) social learning theories as explanations of deviant behaviors.

Before reviewing the theories in this chapter, it is important first to consider their theoretical differentiation. Agnew (1995) argues that though criminologists often claim ownership of certain independent variables as unique to their theories, some of the independent variables these theories consider as their own are indistinguishable from one another. Thus, merely applying and comparing the *effect sizes* of such variables on deviance across theories is not adequate to establish the empirical validity

of one theory over another. Instead, Agnew (1995) argues that, in empirical research, to compare the effectiveness of a theory in explaining deviance to that of another theory, it is important to take into account the differences across theories in the implied motivation to commit crime or in the *motivational processes* through which the specific theoretical variables are presumed to affect deviant behaviors, preferably including the measures of such *motivational processes* in the analysis.

In this chapter, I first review Agnew's (1995) discussion of how each individual level theory of deviance is differentiated, focusing on the two theories tested in this dissertation. Reviews of other leading criminologists' arguments on theory classification are found in Appendix A at the end of this dissertation. Next in this chapter, paying close attention to Agnew's (1995) distinctions of theories, I provide the following for both Hirschi's (1969) social control and Akers's (1985) social learning theories: (1) a brief discussion of the theory; (2) a summary of the results of extant empirical studies testing the theory; and (3) the current empirical status of the theory. Both the summary of extant empirical research and a discussion of the current empirical status of each theory pertain only to the major studies conducted in the U.S., as a discussion of cross-cultural and gender specific deviance research takes place in subsequent chapters. Finally, I conclude this chapter by laying the groundwork for the methods chapter and by suggesting appropriate operationalization of measurements for each of the two theories.

Differentiating Theories of Deviance

Agnew (1995: 364) states that because most of the leading individual level sociological theories of deviance are social psychological theories that emphasize factors in an

individual's immediate environment to explain his or her deviance, these theories share many variables as causes of deviance. Thus, distinguishing individual level theories of deviance in empirical research is not a simple task, and merely comparing the explanatory power of the theoretical variables of one theory to those of another, as past empirical research tends to do, is not adequate. According to Agnew (1995: 363, 364), what most sharply distinguishes one individual level theory of deviance from another is the "specification of the motivation of crime" and how perceived theoretical variables specified in the theory lead individuals to deviate. Thus, Agnew (1995: 364) states that when performing empirical tests of individual level theories of deviance, it is important to take into account differences in the *motivational processes* through which theoretical variables are hypothesized to affect deviance. As with the distinction between classical and positivist traditions discussed in Gottfredson and Hirschi (1990), Hirschi (1969), and Tittle and Paternoster (2000), found in Appendix A, Agnew (1995: 364) also classifies the *motivational process* of theoretical variables in terms of whether they "compel or direct individuals into crime" (called *positive motivation*) or whether they "restrain crime" (called *negative motivation* or absence of motivation).

According to Agnew (1995), there are four major types of motivational processes implied by the leading individual level sociological theories of deviance (i.e., social control, social learning, strain, and self-control theories) that explain the processes through which the theoretical variables affect deviance. The motivational processes implied by both social learning and strain theories focus on *positive motivation*, while the motivational processes implied by social control theory focus on *negative motivation*. According to Agnew (1995: 376), the first and second types of

motivational processes both pertain to social learning theories and, more specifically, refer to the processes of a *positive evaluation* of deviance. The theoretical variables specific to social learning theories affect deviance because social learning variables increase a *positive evaluation* or a favorable evaluation of deviance. There are two kinds of *positive evaluations* of deviance: moral evaluation and rational evaluation. In Sutherland's (1947) version of differential association theory, it is argued that when an individual is exposed to an excess of definitions favorable toward deviance over definitions unfavorable toward deviance, he or she is more likely to engage in a deviant behavior. According to Agnew (1985), this is so because when an individual is exposed to an excess of definitions favorable toward deviance over those unfavorable toward deviance, the individual develops a morally favorable evaluation of the deviant behavior, which then works as a *positive motivation* for this individual to engage in the deviant behavior. Agnew (1995) states that in Akers's (1985) version of social learning theory, instead of a moral evaluation, a rationally favorable evaluation of deviance works as a *positive motivation* for deviance. The *rational evaluation* of deviance correspondents to what Akers (1985) describes as the *differential reinforcement* component of his social learning theory, which refers to the individuals' *rational evaluation* of the positive and negative consequences of deviance. According to Akers's (1985) social learning theory, when an individual contemplates deviant behavior, the likelihood of the individual engaging in the behavior increases as he or she perceives that the positive consequences of the behavior outweigh the negative consequences of the behavior. In summary, the basic model for Akers's (1985) social learning theory is stated in Figure 2.1.

Figure 2.1. A Simple Model of Akers's (1985) Social Learning Theory.

Social learning ⟶ Rational evaluation of deviance ⟶ Deviance

Though not pertinent to this dissertation, Agnew's (1985) strain theory, on the other hand, posits that the strain experienced by an individual negatively affects the individual's emotional state, usually producing anger and frustration, which then increases the likelihood of deviance. Agnew (1995: 383) argues that the negative emotions resulting from strain are the "primary instigation," or *positive motivation*, of deviant behaviors. In summary, the basic model for Agnew's (1985) strain theory is stated in Figure 2.2.

Figure 2.2. A Simple Model of Agnew's (1985) Strain Theory.

Strain ⟶ Negative emotions ⟶ Deviance

According to Agnew (1995: 384), the last type of motivational process through which the effects of theoretical variables on deviance are explained is the process of "freedom to engage in crime." This *negative motivation* process is important in explaining the effects of the theoretical variables on deviance for control theories, including Hirschi's (1969) social control theory and Gottfredson and Hirschi's (1990) self-control theory. According to control theories, when an individual lacks a control that prevents him or her from engaging in deviance, this individual is said to be free to engage in deviance. When an individual is *free to engage in deviance*, deviance is more likely than when an individual is not free to engage in deviance. The basic model of control theories is summarized in Figure 2.3.

Figure 2.3. A Simple Model of Control Theories.

Social control/Self control → Freedom to engage in deviance → Deviance

It may be the case that the question of how to classify individual level sociological theories of deviance is itself a theoretical one, and one that depends largely on what factors each theory holds as the most theoretically important to explaining deviance. However, most criminologists, including Agnew (1995), argue that it is important to distinguish the theories of deviance in terms of differences in the *underlying motivation* for deviance and the most important factors affecting such underlying motivation. Therefore, following many criminologists' arguments, including Agnew's (1995), this dissertation differentiates the respective theoretical variables from Hirschi's (1969) social control theory and Akers's (1985) social learning theory, based on the implied *underlying motivation* for deviance. In order to be considered a theoretical variable measuring Hirschi's (1969) social control theory, the variable must be hypothesized to *free* individuals to engage in deviance. Likewise, to be considered a theoretical variable measuring Akers's (1985) social learning theory, the variable must be hypothesized to increase a *favorable rational* or *moral evaluation* of deviant behavior. It should be noted that this distinction, based on Agnew (1995), is still not a clear cut one. Additionally, the final decision as to which variable is considered a measure of which theory is based in part on convention and in part my own view, which is understandably affected by my preference of the theories. I will therefore practice considerable caution in interpreting the results of the analyses of this dissertation when I attribute variables to one theory over another.

Social Control Theory

Hirschi (1969) played one of the most important roles in reviving the classical tradition of criminology when he introduced social control theory. Based on ideas from the classical tradition, Hirschi (1969) offered a compelling alternative explanation of deviance to the field of criminology, which at the time was dominated by positivist theories such as social learning, strain, and biological theories. Hirschi (1969) backed his theory with empirical research based on the Richmond Youth Study, which included a large scale sample of middle and high school boys in California. Gottfredson and Hirschi (1990) state that control theories' purported logical consistency, parsimony, and generalizability across groups and deviant behaviors led many scholars to argue for their superiority. Today, forty years after its inception, Hirschi's (1969) social control theory is still considered one of the leading theories of deviance, and there are many empirical studies that test the variables from this theory. In this section, I briefly review social control theory and its extant empirical research, while paying close attention to the contested issues between learning and control theorists, and finally provide a summary of the current state of the theory.

One of the most important factors that distinguishes the classical tradition from the positivist tradition[7] is an assumption regarding the acceptance of human nature on which these traditions are based.[8] Influenced by the utilitarian philosophy of 18th

[7] A review of the distinctions between classical vs. positivist traditions can be found in Appendix A at the end of this dissertation.

[8] The question on human nature is an old one, debated by philosophers for centuries without reaching a consensus, though certain fields within the social sciences might prefer one position over another (for an extensive discussion of this topic see Selznick 1994). Because the view on human nature affects almost all aspects of a theory about human beings and society, assumptions about human nature tend to be one of the first issues discussed in social sciences.

century scholars such as Thomas Hobbes, the classical tradition holds the view that humans are motivated by the self-interested pursuit of pleasure and the avoidance of pain. In this tradition, therefore, deviant behavior is merely behavior that satisfies an innate self-interested pursuit, and is simply an "expression of fundamental human tendencies" (Gottfredson and Hirschi 1990: 5). Consequently, for the classical tradition, the motivation for deviance is *universal*, and thus it is assumed that *everyone* is motivated to engage in deviant behavior unless somehow restrained from doing so. Thus, classical theories of deviance, including Hirschi's (1969) social control theory, focus on the factors that *prevent* individuals from engaging in deviance, instead of factors that *promote* individuals to engage in deviance, as the primary predictors of individual variations in deviance. According to Hirschi's (1969: 16) social control theory, the factors preventing individuals from engaging in deviance are *bonds to society*, and deviance is more likely when an individual's "bond to society is weak or broken."

Hirschi (1969) identifies four interrelated elements of social bonds: *attachment*, *commitment*, *involvement*, and *belief*. Because all four elements of social bonds are interrelated, individuals with a high level of one element of social bond are more likely to have high levels of all other elements, while individuals with a low level of one element of social bond are more likely to have low levels of all other elements.

Put most simply, there are three major philosophical positions on human nature. First, Thomas Hobbes' doctrine of *original sin* is the idea that humans are born inherently hedonistic and selfish. Second, Jacques Rousseau's doctrine of *innate purity* is the idea that humans are born with intuitive sense of right and wrong. Third, John Locke's *tabula rasa* is the idea that humans are born as a "blank slate," neither inherently sinful nor moral, and thus how we develop as persons depends entirely on our past experiences.

The element of *attachment* refers to the "bond of affection" to conventional individuals and institutions (Hirschi 1969: 83). Hirschi (1969) states that those individuals who have a lower "bond of affection" to others tend to be insensitive to the wishes and expectations of others, making them also insensitive to the norms shared by society, which in turn make them freer to behave in ways contrary to the expectations of others (i.e., deviation). Individuals can form attachments to many types of conventional individuals and institutions, but because Hirschi (1969) developed his social control theory as an explanation of delinquent behaviors among youths, he focuses on attachment to three types of conventional individuals and institutions that he considers important for youths: parents, peers, and school/teachers.

The first type of attachment is *attachment to parents*. Hirschi (1969) states that because attachment to parents influences the effectiveness of parental socialization, which might in turn influence all other elements of social bonds, attachment to parents is arguably one of the most important social bonds in explaining delinquency, particularly among youths. According to Hirschi (1969), those youths with a weaker attachment to parents are less likely to include their parents in their mental and social lives. When youths are less likely to include their parents in their mental and social lives, they are more likely to forgo their parents' wishes and expectations when contemplating deviant behaviors, thus leaving such youths freer to deviate.

According to Hirschi (1969), *attachment to parents* consists of three dimensions, and all three dimensions pertain to the perceptions youths have regarding their relationships with their parents: (1) "affectional identification" refers to the love and respect felt toward parents; (2) "intimacy of communication" refers to sharing of

thoughts, feelings, and problems with parents; and (3) "parental supervision" refers to indirect parental supervision[9] or the awareness of the psychological presence of parental supervision. All three dimensions of *attachment to parents* are intended to measure how present parents are in youths' mental and social lives, particularly when youths contemplate deviant behaviors, though Hirschi (1969) admits that these three dimensions measuring *attachment to parents* are somewhat arbitrary.

In support of the importance of attachment to parents in explaining delinquency, empirical research by Hirschi (1969) finds that *family process*, which refers to the relationships between parents and child, is more important in explaining delinquency than *family structure*, which refers to the family composition (i.e., two-parents vs. single-parent or broken home, biological parents vs. foster or step parents). Furthermore, after examining over 100 articles concerning the relationship between family and delinquency, Loeber and Stoutbamer-Loeber (1986) later came to the same conclusion, affirming Hirschi's (1969) contention that family relationships are important predictors of delinquency among youths. Hirschi (1969) also finds in his empirical study that attachment to one parent is sufficient to effectively reduce delinquency, and therefore, attachment to two parents compared to one parent does not have any greater effect on delinquency. Liska and Reed (1985) raises an important question regarding the effect of attachment to parents on delinquency and the causal order of these two variables. Liska and Reed (1985) argues that the causal order of attachment to parents and delinquency might not be unidirectional, but perhaps the delinquency of a youth also influences his or her attachment to parents. However, Liska and Reed (1985) concludes in his empirical study that the causal order of attachment to

[9] Nye (1958) refers to this concept as indirect control.

parents on delinquency is in fact unidirectional—that delinquency does not influence attachment to parents. In more recent empirical research, Brown and Demuth (2004) find that adolescents in single-parent home are significantly more likely to engage in deviance than those in two-parent home. This finding contradicts the one by Hirschi (1969), however, much of the effect of family structure on deviance disappears once Demuth and Brown (2004) control for family process measures, including parental involvement, supervision, monitoring, and closeness.

The second type of attachment is *attachment to peers*, which refers to the affectional bond, love, and respect felt toward peers. According to Hirschi (1969), the weaker the youths' *attachment to peers*, the less likely they are to take into account the wishes and expectations of their peers when contemplating deviance, thus making youths freer to deviate. This variable is controversial because deviant groups tend to be groups formed among same age peers, and peer deviance is one of the most important theoretical variables in Akers's (1985) social learning theory. Furthermore, in Hirschi's (1969) own empirical study, he finds that delinquents are more likely to have delinquent friends than nondelinquents. The seemingly inconsistent finding is interpreted by Hirschi (1969: 137) as:

> In one view, then, the companionship factor is a central cause of juvenile delinquency. In another view, companionship with delinquents is an incidental by-product of the real causes of delinquency.

Hirschi's (1969) social control theory is "another view" in this case, and he explains the strong correlation between delinquent friends and delinquency as "an incidental by-product of the real causes of delinquency," such as a low stake in conformity or a low

level of commitment. According to Hirschi (1969), therefore, the relationship between delinquent friends and delinquency merely reflects the tendency that youths with a high stake in conformity (which is an element of social bond) are less likely to associate with youths who are delinquent compared to youths with a low stake in conformity.

Gottfredson (2008) similarly argues that there is a significant difference between control theories and Akers's (1985) social learning theory in their respective conceptualization of the effect of deviant peers on deviance. For control theories, the relationship between a youth's association with deviant peers and his or her deviance merely reflects (1) *a selection effect*, in that youths are more likely to associate with other youths who are similar to themselves—thus, deviants are more likely to associate with other deviants and (2) *measurement errors*, such that the variable deviant peers is merely measuring or reflecting the level of deviance of the individual. In other words, according to Gottfredson (2008), association with deviant peers does not necessarily have a direct causal effect on the youth's deviance. Rather it reflects a spurious correlation with the deviance of the youth. On the contrary, for social learning theories, association with deviant peers provides important opportunities for differential association, where learning and imitation of deviant behaviors occurs, and for differential reinforcement. Thus, social learning theories would argue that association with deviant peers provides one of the most important primary causal effects for deviance of the youth. On the other hand, for control theories, such an association merely reflects a correlation and one of the consequences of lack of control.

It is important to note here the distinction between crime and criminality—discussed extensively in Gottfredson and Hirschi (1990) and Sampson and Laub (1993).

Crime is the object of study in criminology, pertaining to "the commission of criminal acts," while criminality pertains to "the propensity to crime" (Gottfredson and Hirschi 1990: 4). Individuals with high criminality might not necessarily engage in high crime, if opportunities are limited. The relationships among crime, criminality, and opportunity are important in understanding the effect of deviant peers on deviance. For control theories, association with deviant peers might increase crime, because it affects opportunity but not criminality, as argued by Gottfredson (2008). Control theories, particularly Gottfredson and Hirschi's (1990) self-control theory, would hold that the individual variation in criminality emerges at early ages (i.e., usually by five years old), before youths begin to associate with other youths, and remains stable, thus association with deviant peers should have a small bearing on criminality. For social learning theories, on the other hand, association with deviant peers is important because it affects both criminality (i.e., definitions favorable to deviate) and opportunity, both of which affect crime.

Reviewing empirical research concerning this issue, Gottfredson (2008) concludes that most empirical research examining the effect of deviant peers on deviance is consistent with control theories. In fact, empirical research generally finds the effect of lower attachment to conventional others on association with delinquent peers (Agnew 1993, Elliot et al. 1985, Sutherland et al. 1992). In addition, Gottfredson (2008) notes that any residual effect of deviant peers on deviance can be explained by the increased opportunity for deviance that usually accompanies association with a large group of (deviant) peers. Additionally, Hirschi (1969) finds in his own empirical study that, contrary to results predicted by Akers's (1985) social learning theory: (1)

delinquents are not attached to one another; (2) the less delinquent the youth is, the less likely he or she is to have delinquent peers; (3) attachment to peers (whether the peers are delinquent or non-delinquent) reduced the likelihood of delinquency; and (4) attachment to peers is not inversely related to attachment to parents. In fact, Hirschi (1969) finds that the stronger the attachment to peers, the stronger the attachment to parents, confirming the expectation of positive correlations among social bonds. In support of Hirschi (1969), other studies also find that attachment to peers is a strong predictor of delinquency (Conger 1976, Hindelang 1973, Krohn et al. 1984, Meier and Johnson 1977). Additionally, studies also find that youth gang groups tend not to be cohesive, and show a lack of attachment among the members (Chesney-Lind 1999). A prominent gang researcher, Klein (1995), also notes that street gangs naturally lack cohesiveness. Instead, gangs tend to connect loosely to one another and memberships tend to be ephemeral for most of the members, unless outside forces (e.g., field workers) enforce cohesiveness among group members. The results of the longitudinal study by Esbensen and Huisinga (1993) show evidence both for Hirschi's (1969) social control theory and for Akers's (1985) social learning theory, in that gang members tend to have higher levels of individual delinquency involvement prior to joining a gang compared to non-gang members; however, there are increases in delinquent activities, and in rates of involvement in delinquency after becoming a gang member compared to non-gang members. The latter finding, though consistent with Akers's (1985) social learning theory, can also be explained by the increased opportunity for deviance inherent to gang membership, consistent with Gottfredson's (2008) argument. An

empirical study by Haynie and Osgood (2005) that sheds light on the issue of association with deviant peers is also discussed in detail at the end of this section.

The last type of attachment is *attachment to school*, which refers to affectional bonds to school and teachers. Hirschi (1969) argues that the weaker youths' attachment to school, the more likely they are to disregard the authority of the school and its teachers, and thus, the freer they are to deviate. Unlike the relationship between *attachment to parents* and delinquency, Liska and Reed (1985) finds that the relationship between *attachment to school/teachers* and delinquency is not unidirectional. When youths become more delinquent, their attachment to school decreases. Hirschi (1969) finds that the level of youths' attachment to parents and attachment to school are positively correlated. However, he also finds that in some cases, a high level of *attachment to teachers/school* serves as insulation for some youths against delinquency, regardless of their levels of *attachment to parents*.

Among the three types of attachment, Hirschi (1969) finds that *attachment to parents* is the most important predictor of delinquency, followed by *attachment to school/teachers*, and then *attachment to peers*. Empirical research also supports *attachment to parents* as one of the most important theoretical variables of Hirschi's (1969) social control theory. In fact, Kempf (1993) notes, in a review of 71 articles published between 1970 and 1991 testing Hirschi's (1969) social control theory, that *attachment to parents* is the most frequently tested theoretical variable from the theory. Overall, other empirical research also finds that among the attachment elements, attachment to parents (Hindelang 1973), attachment to mothers (Krohn and Messey 1980), and attachment to school (Cernkovich and Giordano 1992, Lyerly and Skipper

1981, Mathur and Dodder 1985, Stewart 2003, Welsh, Greene, and Jenkins 1999) are all important predictors of delinquency.

Hirschi (1969) originally developed his social control theory to explain the delinquent behaviors of youths. In a recent addition to his social control theory, Sampson and Laub (1993, also Laub and Sampson 2006) apply a modified version of Hirschi's social control theory to test the delinquent and criminal behaviors of a sample of 500 delinquents and 500 non-delinquents (originally Glueck and Glueck's data) throughout their life-courses. The empirical test by Sampson and Laub (1993), overall, supports the findings of Hirschi's (1969) original research. In addition, Sampson and Laub (1993) find that adolescent delinquency decreases the likelihood of adulthood bonds to society, measured in terms of stability of marriage and employment, which then affect the likelihood of adult crime. Moreover, Sampson and Laub (1993) find that adult social bonds affect adult crime independent of adolescent social bonds or delinquency. In other words, adult social bonds, such as stable marriage and employment, can counter the negative effects of childhood for some adults. At the same time, a lack of adult social bonds can increase adult crime for others, even among those adults who had strong social bonds during childhood. Therefore, when applying Hirschi's (1969) social control theory to explain the deviant behaviors of groups beyond the one on which Hirschi's original theory was developed, it is important to consider all possible attachment types specific to the group that might prevent deviance. In addition, as previously noted, it is important to take into account the fact that, though there is considerable interrelation among an individual's attachment to different types of conventional individuals and institutions, in some cases an individual can form

attachments that can compensate for a lack of attachment to other conventional individuals or institutions, effectively preventing him or her from engaging in deviant behavior. It should be noted that, instead of increasing social bonds, Warr (1998) finds in his empirical study that, for adult men, marriage and employment are important predictor of adult crimes, because they decrease the association with deviant others. Warr's (1998) finding challenges the findings of Sampson and Laub (1993) and provides support for Akers's (1985) social learning theory.

The second element of social bonds is *commitment*, based on Jackson Toby's (1951) idea of "stake in conformity." Hirschi (1969: 162) states that the "stakes in conformity that are built up by pursuit of, and by a desire to achieve, conventional goals," including higher education and a high status occupation, work as controls against engaging in deviance. In general, though everyone is motivated to deviate, youths who have a lower stake in conformity, and thus perceive a lower cost of deviance, are freer to deviate than youths who have a higher stake in conformity. For instance, youths who have good grades in school and are expected to go to a good college have more to lose by committing delinquency (and perhaps getting kicked out of the high school) than youths who have bad grades in school and are not expected to go to college. Note the difference with Agnew's (1985) strain theory, which posits that a higher commitment, in terms of aspiration and expectation, is not always good for youths. In fact, Agnew (1985) argues that when there is a disjuncture between aspiration and expectation, or between expectations and actual outcomes, it produces negative emotions, which then motivates the individual to deviate. Contrary to strain theory, Hirschi's (1969) social control theory states that the higher the commitment,

both in terms of aspiration and expectation (regardless of the actual outcome), the higher the costs of deviance, and therefore, the less likely an individual is to deviate. Moreover, contrary to the argument made by strain theory, control theory would expect that delinquents have a lower level of commitment to, or aspiration and expectation toward, high levels of educational and occupational attainment than non-delinquents. Note also how it differs from Akers's (1985) social learning theory, which is discussed in more detail later. Both Akers's (1985) social learning and Hirschi's (1969) social control theories predict that an individual's rational calculation of the costs and benefits of a behavior affects his or her decision to carry out the behavior. However, Akers's (1985) social learning considers the effect of the rational calculation of both *costs* and *benefits* of deviant behavior on likelihood of engaging in that deviant behavior. On the other hand, since the motivation for deviance is assumed equal for Hirschi's (1969) social control theory, the element of *commitment* for social control theory is concerned only with the *costs* (but not *benefits*) of deviant behavior on the likelihood of that deviant behavior. In other words, while Hirschi's (1969) social control theory is concerned with the *inhibitive* effect of the *cost* of deviant behavior, Akers's (1985) social learning theory is concerned with both the *inhibitive* effect of *costs* and the *motivating* effect of *benefits* of deviant behavior.

Past empirical studies show inconsistent results regarding the effect of *commitment* on deviance. Some researchers find that commitment plays a central role as a predictor of delinquency in the expected direction (Krohn and Massey 1980), while others find its effect on delinquency to be in the direction opposite of that hypothesized by social control theory, and perhaps in support of strain theory (Lyerly and Skipper

1981). Yet others find that commitment is not a strong predictor of delinquency (Wiatrowski 1981).

Third, the element of *involvement*, according to Hirschi (1969: 185) is "the most obviously related to delinquent behavior," for it seems obvious that the more time youths spend on conventional activities, the less they have for any other activities, including delinquency and other deviant behaviors. In other words, the less time youths spend on conventional activities, the less constrained they are in terms of time to deviate, making them freer to deviate, and thus the more likely youths are to actually engage in deviance. Hirschi's (1969) original research finds that among the four elements of social bond, *involvement* is the only one without a consistent, strong effect on delinquency. However, Hirschi's (1969: 193) limited analyses show a negative relationship between the "time devoted to homework" and delinquency, and a positive relationship between "feelings of boredom" and delinquency. Agnew (1985) and Wiatrowski et al. (1981) find that, consistent with the theory, involvement in homework and extracurricular activities has significant negative effects on delinquency. Given the lack of empirical evidence for the element of *involvement*, Hirschi (1969) states that since delinquency requires little time in youths' daily lives,[10] consideration of the type of activities (e.g., school related activities vs. driving cars with peers) in which youths are involved is an important factor in examining its relationship with delinquency. In support of this argument, contrary to Hirschi's (1969) expectation, more recent studies find a positive effect for involvement on deviance, particularly for involvement in part-time employment among youths (Chaiken 2000, Ploeger 1997)—which, it might be granted, is perhaps not necessarily considered a conventional activity for many youths.

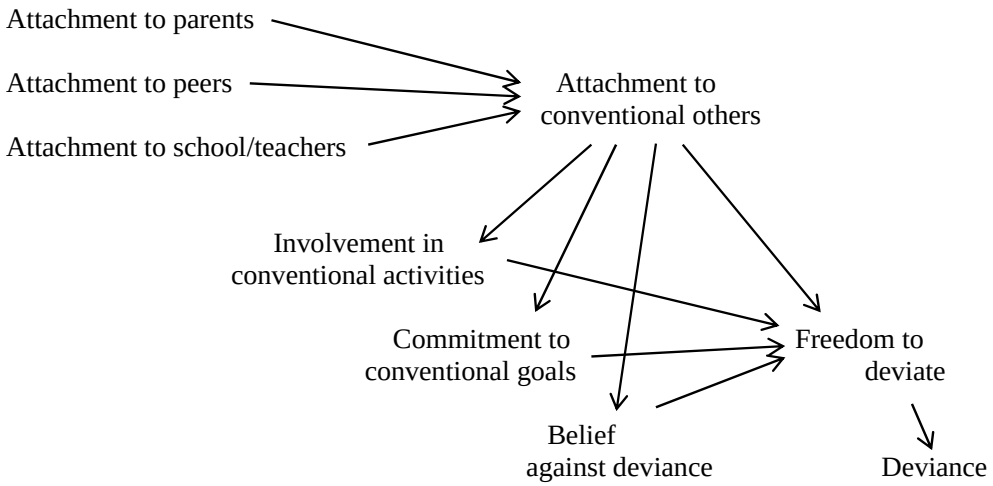
[10] This argument echoes Matza's (1964) *Delinquency and Drift*.

The issue of the element of *involvement* is tricky for Hirschi's (1969) social control theory. For this variable to be consistent with the fundamental premises of Hirschi's (1969) social control theory, the effect of *involvement* has to be focused on the time constraint aspect. When we instead focus on the type of activities youths are involved in, we are no longer concerned with the effect of time constraint on deviance, but rather with the opportunity for deviance or even the effect of *differential association*. In fact, some might argue that the increased engagement in deviance among youths with part-time jobs is attributable to the opportunities that part-time jobs generally provide youths to associate with older youths who might be more deviant. Overall, involvement is one of the least popular elements of social bond, criticized heavily by Minor (1977: 122) as "too conceptually ambiguous to be of theoretical utility."

The fourth and final element is *belief*, which refers to an individual's beliefs that *forbid* deviance, including respect for, and acceptance of, the validity of the law, societal rules, and authorities. According to Hirschi (1969: 198), belief affects deviance in that the "absence of (effective) beliefs" that serve to forbid deviance frees individuals to deviate. Once again, note the difference with Akers's (1985) social learning theory, which holds that the *presence* of *favorable* beliefs toward deviance *motivates* an individual to engage in a deviant behavior. Instead, Hirschi's (1969) social control theory holds that it is the *absence* of *deviance prohibiting* beliefs that frees individuals to deviate, because they fail to *control* or *constrain* an individual from engaging in a deviant behavior. Overall, the strength of the effect of belief on deviance is not consistent across studies (for instance, Agnew 1985 and Paternoster et al. 1983—both find the effect to be very weak), though past studies find that the element of belief has

an effect on deviance (see for instance, Akers and Cochran 1985, Hirschi and Stark 1969). Moreover, the element of belief has proven to be the most controversial of all the elements of Hirschi's (1969) social control theory, particularly because it is difficult to distinguish social control theory's *beliefs* from social learning theory's *definitions* (Costello and Vowell 1999, Elliott et al. 1985). One important study to question the belief element in Hirschi's (1969) social control theory is by Matsueda (1989), who finds that association with delinquent peers influences the individual's belief, rather than the individual's belief influencing association with delinquent peers. The finding is contrary to the expectation of Hirschi's (1969) social control theory, which according to Gottfredson (2008) would predict that an individual's belief affects delinquency, including the association with delinquent peers. A more detailed model of Hirschi's (1969) social control theory is summarized in Figure 2.4.

Figure 2.4. A Detailed Model of Hirschi's (1969) Social Control Theory.



Overall, empirical research supports Hirschi's (1969) social control theory (Krohn 1995, Sampson and Laub 1992). Moreover, Hirschi (1969) finds in his

empirical research that all elements, except for *involvement*, are strong predictors of delinquency, with *attachment* having the strongest effect on delinquency, followed by *belief*, then by *commitment*, though other research finds *attachment* to have the least effect on delinquency (Krohn and Massey 1980). Likewise, in his examination of 71 articles empirically testing Hirschi's (1969) social control theory, Kempf (1993) finds that most studies generally find some support for at least one of the elements of social bond. However, Kempf (1993) also notes that only a small number of studies (N=17) test all four elements of social bond, and many studies use measures of social bond that are not comparable across studies.

One of the major criticisms of Hirschi's (1969) social control theory focuses on the theory's lack of applicability in explaining the more serious forms of delinquency and criminal behaviors of various demographic groups (Agnew 1985). Such criticism is warranted because Hirschi (1969) tested his theory based on a sample of white middle and high school males and their minor delinquent behaviors. Another important critique of Hirschi's (1969) social control theory pertains to the *causes* of attachment (Conger 1976, Linden and Hackler 1973, Mathur and Dodder 1985, Wiatrowski et al. 1981). Scholars argue that though attachment could manifest in many forms (e.g., attachment to: parents, marriage partner, employment, school, and so on), what is more important is the *underlying causes* (e.g., effective parenting) of such attachment, not how strongly an individual is attached to some specific object or institution. In fact, the object of attachment (e.g., family, employment, etc) varies by individual, age group, and other demographic groupings. According to Hirschi's (1969) social control theory, it seems that the object of attachment is not as important as the strength of any

attachment in explaining deviance. Thus, scholars argue that in terms of policy implications, it is more important to uncover why some youths or adults develop stronger social bonds to *any* objects than others. Compared to merely examining how strongly a youth is attached to something, uncovering the *causes* of such attachment—the processes wherein a youth develops stronger social bonds—could contribute more significantly to social policy that attempts to curtail crime and delinquency (Hirschi 2004).

Social Learning Theory

Edwin H. Sutherland, who is a forerunner of the social learning perspective of crime, is considered one of the most influential criminologists of the 20th century. At a time when biological theories of crime and the idea that people are born into criminals dominated the field, Sutherland's (1947: 6-7) argument that "criminal behavior is learned" was truly revolutionary. In addition, Sutherland (1947) argues that: (1) anyone can be a criminal—not just those individuals with biological inclinations; (2) the causes of crime lie outside the individual—not inside, and are therefore social (e.g., personality, physical trait, etc.); and finally (3) both criminal and conforming behaviors are learned via the same process as any other form of behavior. Currently, along with Hirschi's (1969) social control, Gottfredson and Hirschi's (1990) self-control, and Agnew's (1985) strain theories, Akers's (1985) social learning theory is considered among the leading individual level sociological theories of deviance. Akers's (1985) social learning theory, moreover, is arguably one of the most frequently tested theories of deviance and often found to be the strongest predictor of deviance, over other theories (Akers 1998, Akers and Jensen 2003). In this section, I review the theory while

tracing the theoretical development from Sutherland to Akers and extant empirical research testing social learning theory. Once again, I pay close attention to the issues contested between learning and control theorists. Finally, I provide a summary of the current state of the theory.

Social learning theory, based on Sutherland's (1947) differential association theory, is considered among the positivist tradition of criminology. The positivist tradition of criminology relies on scientific methods developed for the natural sciences (e.g., empirical data, statistics, empiricism, rationalism, etc.), applied in social science to understand human behaviors and other social phenomena. When Sutherland (1947) developed the differential association theory, therefore, he relied on methods of empiricism and deductive reasoning, developing a theory that provides a general explanation of the phenomena that can be directly observed. In addition, as a student of George Herbert Mead, Sutherland is influenced greatly by symbolic-interactionism in developing his differential association theory. According to symbolic-interactionism, how we behave in a situation depends on how we define the situation; and our definition of the situation depends on past experiences—particularly our past experiences interacting with others, especially in small intimate groups like immediate family. Applying symbolic-interactionism as an explanation for deviant behaviors, Sutherland (1947) developed nine specific propositions[11] that make up his differential association theory.

[11] According to Sutherland (1947: 6-7; emphasis added):
(1) Criminal behavior is *learned*.
(2) Criminal behavior is learned through *interaction* with other persons in a process of communication.
(3) The principle part of learning criminal behavior occurs within *intimate* personal groups.

In contrast to theories of the classical tradition, such as Hirschi's (1969) social control theory, which views humans as inherently motivated to deviate, Sutherland's (1947) view is that the *motivation* for deviance is *learned* (see propositions four and nine). Sutherland's (1947) view of human nature is consistent with John Locke's (1690) *tabula rasa*, the idea that humans are born a "blank slate," and thus who we are depends entirely on our past experiences. In proposition nine, Sutherland (1947) states that because the general needs and values for conformity are the same as those for deviance, in order to explain why some individuals deviate while others do not, we must look for the motivation for deviance outside of such general needs and values. Later, Akers (1985) applies the concept of "differential reinforcement" to explain this motivation for deviance: an individual engages in deviance because for this individual, the benefits outweigh the costs of such behavior.

Among Sutherland's (1947) nine propositions, proposition six pertains to the effect of "an excess of definitions favorable to violation of law over definitions unfavorable to violation of law," and is considered the principle of differential association theory. However, one of the major criticisms of Sutherland's (1947) differential association theory, and of this proposition in particular, is its lack of a clear explanation of the term "definitions"—an important concept in the theory. Later

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(4) When criminal behavior is learned, the learning includes (a) *techniques* of committing the crime, which are sometimes very complicated, sometimes very simple, and (b) the specific direction of *motives*, *drives*, *rationalizations*, and *attitudes*.
(5) The specific direction of motives and drives is learned from *definitions* of the legal code as favorable or unfavorable.
(6) A person becomes delinquent because of an *excess* of definitions favorable to the violation of law over definitions unfavorable to violation of law.
(7) Differential associations may vary in *frequency*, *duration*, *priority*, and *intensity*.
(8) The process of learning criminal behavior by association with criminal and anti-criminal patterns involves all of the mechanisms that are involved in *any* other learning.
(9) Although criminal behavior is an expression of general needs and values, it is not explained by those general needs and values, because noncriminal behavior is an expression of the same needs and values.

revisions to Sutherland's (1947) differential association theory therefore tend to focus on this issue.

Sutherland (1947: 6-7) argues that the strength of exposure to a definition favorable or unfavorable toward a deviant behavior depends on the modality of the association based on "priority, frequency, duration, and intensity." *Priority* refers to the primacy of exposure; definitions an individual is exposed to first have much stronger effects on the individual than other definitions to which he or she is exposed later. Since family tends to be the first group that most of us encounter, and is the context in which exposure to many of the definitions occurs for the first time, social learning theory places family in a position of particular importance compared to other social groups an individual might encounter in his or her life (Akers and Sellers 2009). *Frequency* refers to the frequency of exposure to a definition; the more frequent the exposure to a certain definition, the stronger the influence of that definition on the individual. *Duration* refers to the duration of the exposure to a definition; the longer the time an individual is exposed to a certain definition, the stronger the influence of that definition on the individual. Finally, *intensity* refers to the importance of the exposure to a definition; the stronger the intensity of the exposure to a certain definition, the stronger the effect of the definition on the individual (Akers and Sellers 2009).

Many scholars have offered revisions and refinements to Sutherland's (1947) differential association theory (e.g., DeFleur and Quinney 1966, Glaser 1956, Jeffery 1965, Cloward and Ohlin 1961, Skyes and Matza 1957), but none received more attention than Akers's version of social learning theory, which first appeared in 1965 (later with Burgess and Akers 1966). Akers (1973, 1977, 1985, 1998) continues to offer

revisions and refinements to his social learning theory even today. One of the most important revisions Akers (1985) applies in his version of social learning theory is to incorporate ideas from behavioral psychology, specifically the ideas of operant and respondent conditioning as a mechanism of learning, while retaining the basic ideas of symbolic-interactionism from Sutherland's (1947) differential association theory. However, Akers (1998) differentiates his social learning theory from theories of radical behaviorism, such as those from John Watson or B.F. Skinner, referring to his social learning theory as "soft behaviorism," more in line with Albert Bandura's (1973, 1977, 1986) cognitive learning theory. Akers (1998) argues that his social learning theory does not assume that our behavioral responses automatically follow external stimuli, but rather the theory assumes that humans are active agents who decide on their behaviors after going through intricate cognitive processes, such as our beliefs and expectations of outcomes.

Combining ideas from both symbolic-interactionism and cognitive learning theory to explain deviant behaviors, Akers (1985) formulates social learning theory, which offers refinements to two of the most important concepts from Sutherland's (1947) differential association theory, *definitions* and *mechanism of learning*. In addition to these two concepts, Akers's (1985) social learning theory is best described by going through the following six concepts that make up the theory: (1) differential association, (2) definitions, (3) differential reinforcement, (4) imitation, (5) feedback, and (6) social structure.

The term *differential association* refers to the process of social interactions whereby individuals are exposed to patterns of behaviors and *definitions* that are

favorable or unfavorable toward a certain behavior—this concept most closely resembles Sutherland's (1947) differential association theory. Those groups with whom an individual might differentially associate include family, friends, church, school, and so on. Because social learning theory emphasizes the importance of group memberships, the theory plays an important role in research on deviant groups, such as gangs (e.g., Battin et al. 1998, Curry et al. 2002, Liu 2003). According to Akers (1985), differential association has both interactional and normative dimensions. The *interaction* dimension pertains to direct or indirect interaction or identification with others who engage in certain behaviors, while the *normative* dimension pertains to the different norms and values about a certain behavior to which an individual is exposed. It is important to note that, according to Sellers and Akers (2006), the norms and values concerning behaviors to which individuals are exposed are not always clear cut, but may be of the following three types: approving, disapproving, or neutral toward the specific behaviors.

Definitions refer to the individual's attitudes and meanings that he or she attributes to a certain behavior (Akers and Sellers 2009). Definitions tend to be evaluative and to reflect a moral attitude toward the behavior, and variations in individual definitions of a behavior are the result of differential association. Additionally, according to Akers and Sellers (2009), definitions have general and specific dimensions. *General definitions* are fundamental belief systems concerning deviance, crime, or law breaking, such as religious and moral values. On the other hand, *specific definitions* pertain to the individual's beliefs regarding specific acts (Akers and Sellers 2009). It is possible for an individual to hold to definitions that

contradict one another. For instance, even though an individual might hold that law breaking in general is wrong, reflecting a general definition of law breaking, he or she might simultaneously hold that it is okay to smoke marijuana once in a while, reflecting a specific belief about a particular law breaking behavior. In support of Akers's social learning theory, and contrary to the expectation of Hirschi's (1969) social control theory, Matsueda (1989) finds that association with delinquent peers influences an individual's belief, which then affects deviance, rather than vice versa. In empirical studies, association with delinquent peers generally is one of the strongest predictors of delinquency (Akers et al. 1979, Akers and Cochran 1985, Loeber and Stouthamer-Loeber 1986, Warr 2002), but note the critiques of Gottfredson and Hirschi (1990) as well as Gottfredson (2008) on this issue discussed earlier. Moreover, empirical studies generally find that, along with differential association, definitions or beliefs about deviant behaviors are one of the strongest predictors of deviance. However, empirical studies tend to find that definitions mediate only a part of the effect of differential association on deviance (e.g., Matsueda 1982, Matsueda and Heimer 1987, Warr and Stafford 1991). This is an interesting finding, but one that raises questions for Akers's (1985) social learning theory. It is not clear how the theory attempts to explain the *motivation* to deviate for such an individual, if differential association by itself directly affects deviance without requiring a change in his or her belief on the behavior. Though much of Akers's (1985) social learning theory emphasizes the effect of association with deviant *peers* on deviance when referring to *differential association*, some studies also examine the effect of deviant family members on deviance (Adler and Adler 1978, Fagan and Wexler 1987, McCord 1991). Though research rarely finds direct effects of

deviant parent(s), many studies find the effect of deviant siblings, particularly older siblings on deviance (Rowe and Gulley 1992, Lauritsen 1993, Rowe and Farrington 1997, Ardelt and Day 2002).

Additionally, Akers's (1985) social learning theory incorporates the idea of *differential reinforcement*, which refers to the individual's calculation of the rewards and punishments of a behavior, both actual and anticipated, and social and nonsocial. This particular idea is similar to deterrence and rational choice theories. While some anticipated rewards and punishments can be non-social (as in the case of physiological consequences of using an illegal drug), the most important differential reinforcement for Akers's (1985) social learning theory is a *social reinforcement* based on interactions with others (see also Katz 1990, Wood et al. 1997). An individual's anticipation for the rewards and punishments that accompany a certain behavior is influenced, once again, by differential association.

Also influenced by Bandura, Akers (1998) emphasizes the importance of indirect learning, such as *imitation* (termed "modeling" for Bandura), rather than focusing only on direct learning through interactions with others—extending Sutherland's work. According to Akers (1998), imitation refers to engagement in behavior upon observing the behavior of others close to the individual. Imitation might explain the direct relationship of differential association on deviance by influencing initial engagement in a certain behavior without influencing definitions. The study by Warr and Stafford (1991) supports the importance of imitation. In fact, they find that peers' behavior has a much stronger effect on respondents' deviance, compared to peer's attitude toward deviance, and the effect of peers' behavior on respondents'

deviance remain strong after controlling for both peers' and respondents' own attitudes. Furthermore, Warr and Stafford (1991) find that when peers' behavior and attitude are inconsistent, behavior has a much stronger effect on respondents' deviance than does attitude. Once an individual engages in a particular behavior, however, social learning theory suggests that *differential reinforcement* plays the more important role in continued engagement in the behavior than does imitation.

Akers (1985) notes the importance of a *feedback effect* in social learning theory. Once an individual engages in deviance, through imitation for instance, the engagement in deviance itself then affects the *differential association* as well as *definitions*. Furthermore, once an individual engages in deviance, *differential reinforcement* continues to operate, and increases or decreases the likelihood for individuals to engage in the deviant behavior. However, empirically, this is difficult to examine without an elaborate longitudinal data, and once a feedback effect is in full swing, such effect is undistinguishable from other effects on deviance.

Finally, in a recent revision to his social learning theory, Akers (1998) adds a discussion of *social structure* and how it affects *differential association* and *differential reinforcement*, which he calls the social structure and social learning (SSSL) model. Akers's (1998) SSSL model is consistent with Sutherland's (1947) idea of differential social organization, which is concerned with how different social structure affects measures of social learning—individual patterns of associations and definitions. The addition of social structure is a response to Kornhauser's (1978) critique against "cultural deviance theory," such as Akers (1985) social learning theory. Kornhauser (1978) argues that cultural deviance theory generally focuses on subcultures and their

unique belief systems, and how such belief systems affect individual behaviors and group variations in deviance. Kornhauser (1978) argues that when "cultural deviance theory" discusses "subcultures" and "belief systems," it often fails to differentiate culture, the belief system, and structure, the structural arrangements (e.g., economical, political, and so on), though both affect how an individual behaves.

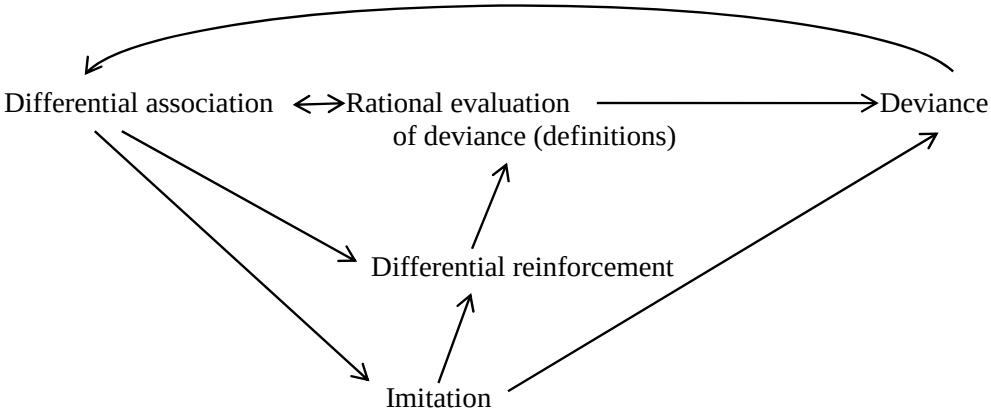
Kornhauser's (1978) critique specifically targets Lewis' (1963) "culture of poverty" argument, in which Lewis assumes that those characteristics and traits unique to individuals in poverty are valued and accepted by those people, not necessarily good characteristics and traits but probably ones that play important roles in the perpetuation of poverty. What Lewis (1963) fails to recognize is that we should not consider all patterns that we perceive in society as cultural. Rather, many of the patterns in society reflect variations in the structural arrangements of individuals, such as social disorganization and organization, socioeconomic status, and so on. For instance, the fact that single-motherhood is pervasive among African Americans in the U.S. is not necessarily a reflection of a cultural value of the group, or that African Americans consider it desirable; rather it perhaps reflects the adaptation to structural arrangements. Similarly, Kornhauser's (1978) critique can be applied to Liebow's (1967) subculture of black street corner men, Anderson's (1990) subculture of street, Wolfgang and Ferracuti's (1967) subculture of violence, Cohen's (1955) "reaction formation," and most gang and other "cultural deviance theory" in general. All these "cultural deviance" theories assume the existence of "subcultures" within a society (such as gangs, black street youths, and so on) that have their own specific normative systems that are in direct opposition to the normative system of the dominant culture.

Kornhauser's (1978) critique of "cultural deviance theory," including Akers's (1985) social learning theory, is targeted at the following four fallacies as summarized: (1) the assumption that the perceived characteristics and traits unique to a "subculture" constitute a normative system; (2) the assumption that everyone in a "subculture" accepts the presumed "normative system" of his or her "subculture"; (3) the failure to explain individual variations within "subcultural" groups; and (4) the failure to distinguish the effects of structure on the perceived characteristics and traits of a "subculture," which then results in the first fallacy.

In summary, Akers's (1985) social learning theory proposes that deviance is more likely when: (1) an individual is directly or indirectly engaged in *differential association* with others who expose him or her to an excess of definitions favorable toward deviance over definitions unfavorable toward deviance, because such deviance favoring *differential association* in turn makes it more likely that: (2) an individual develops *definitions* favorable toward deviance than those that are unfavorable and (3) an individual is exposed to *deviant models*. Additionally, as an individual observes that *deviant models* gain more benefits than costs associated with the deviant behavior though *differential reinforcement* and as (4) an individual experiences benefits that outweigh costs of such behavior through his or her own *differential reinforcement*, it is more likely that (2) an individual develops *definitions* favorable toward deviance than those that are unfavorable, which then increases the likelihood of (continued) deviance. A more detailed model describing Akers's (1985) social learning theory is summarized in Figure 2.5. It is important to note that the direct effect of imitation on deviance (which does not go through *rational evaluation of deviance*) is inconsistent with

Agnew's (1991) argument for the underlying motivational process of Akers's (1985) social learning theory.

Figure 2.5. A Detailed Model of Akers's (1985) Social Learning Theory.



Overall, empirical research supports Akers's (1985) social learning theory (see for review of empirical status, Akers and Jensen 2009, also see Akers 1973, 1985, 1998, 2000, Akers and Cochran 1985, Akers and Jensen 2003, Akers et al. 1979, Jensen 2003, Jensen and Akers 2003, Jensen and Rojek 1998, Kaplan et al. 1987, Warr 1993, 2002), though there are some exceptions (e.g., Costello and Vowell 1999, Hirschi 1969). Furthermore, when different individual level theories are tested together as explanations of deviance, the theoretical variables from Akers's (1985) social learning theory are generally the strongest predictors of deviance (e.g., Akers and Cochran 1985, Kandel and Davies 1991, Matsueda 1982, Matsueda and Heimer 1987, Rebellon 2002), and often explain away the effects of the theoretical variables from other theories (e.g., Elliott et al. 1985, Kaplan et al. 1987, 1996, Thornberry et al. 1994).

One of the major critiques against Akers's (1985) social learning theory is the lack of a clear definition of "crime," because in empirical research, the theory takes for granted the legal definition of crimes. Furthermore, both specific definitions of deviant behavior and differential reinforcement for a specific deviant behavior generally lead Akers's (1985) social learning theory to specialization of deviant behaviors (Gottfredson and Hirschi 1990). In addition to the lack of a clear definition of crime, Gottfredson and Hirschi (1990) argue that social learning theory fails to provide an explanation for behaviors that are analogous to crime, such as car accidents, even though such behaviors are highly correlated with crime, and thus seem to suggest the same underlying cause. In addition to the specialization of deviant behaviors hypothesized by Akers's (1985) social learning theory, Akers (1985) also suggests that an individual's attitude toward a specific law is related to the violation of that specific law and that the definition concerning a specific behavior is related to engagement of that specific behavior. This is in contrast to Sutherland (1947) who argues that an individual's attitude toward the law in general is related to law violations in general. Thus, Akers's (1985) social learning theory would suggest the specialization of the causes of deviance as well (e.g., the definition favorable to stealing affects the behavior specific to stealing not deviance in general).

Another critique of Akers's (1985) social learning theory focuses on the issues of stability and change and on the distinction between criminality and crime. Gottfredson and Hirschi (1990) argue that while Akers's (1985) social learning theory offers important insights into the proximate process of how deviance is learned and the proximate causes of deviance in general (perhaps this is why the social learning

variables tend to have the strongest effects on deviance), it cannot explain the changes in deviance for an individual over time. For instance, Akers's (1985) social learning theory cannot provide an explanation for why crime surges during adolescence and why most delinquents desist from deviance as they grow older. In addition, since membership in deviant groups is not as common among adults as among youths, Akers's (1985) social learning theory seems to offer a much weaker explanation for the "differential association" component of adult crimes.

Finally, going back to the selection effect critique of association with deviant peers on deviance, in their empirical study, Haynie and Osgood (2005) find that the effect of the most important theoretical measure on deviance in Akers's (1985) social learning theory, association with deviant peers, is not as strong as past studies have usually found. In particular, when it is measured using respondents' own self-reports about deviant peer associations, the effect sizes of this measure on deviance is overestimated by at most fivefold. Moreover, Haynie and Osgood (2005) also find that the normative influence of peer deviance (i.e., its effect on criminality) on deviance is not as strong as past studies have usually found, and of equal importance is its effect on opportunity for deviance, as Gottfredson (2008) argues. This is a significant blow to Akers's (1985) social learning theory, particularly because association with deviant peers generally is one of the strongest predictors of deviance for this theory. The finding by Haynie and Osgood (2005) suggest the importance of carefully examining the implication of their findings when effect sizes of theoretical measures are compared across theories.

Summary

One of the primary reasons Akers (1985, 1990) and other learning theorists (Conger 1976, Akers and Cochran 1985) consider his social learning theory an all encompassing theory of deviance that can explain the effects of theoretical variables from other individual level theories[12] seems to be that, unlike other leading individual level theories of deviance, social learning theory is an explanation of deviance that "embraces variables that operate both to *motivate* and *control* criminal behavior, both to promote and undermine conformity" (Akers and Sellers 2009: 89, emphasis added). Because of this, many social learning theorists argue that Akers's (1985) social learning theory essentially includes *all* theoretical variables from Hirschi's (1969) social control theory (see Conger 1976, Akers and Cochran 1985, Akers 1985, 1990, Sutherland et al. 1992) and perhaps even from Agnew's (1985) strain theory. Therefore, these scholars argue that the empirical validity of Hirschi's (1969) social control theory does not necessarily disprove Akers's (1985) social learning theory but rather supports it. This poses a theoretical problem for Hirschi's (1969) social control theory and a practical problem for this dissertation. Notwithstanding Hirschi's (1979) critiques on the incompatibility of the fundamentals of human nature,[13] the purported ability of Akers's (1985) social

[12] In fact, Agnew (1995) argues that social learning theorists, more than any other theorists, claim an *all encompassing* ability for their theory.

[13] Maintaining logical consistently is one of the important requirements of a sound theory. Given this, Hirschi (1979) argues that those theories that assume humans to be inherently *motivated* to deviate should not provide any explanations for what *motivates* individuals to deviate. Not only are such explanations redundant, but they are logically inconsistent, for assumption for the inherent *motivation* for deviance precludes a need for *additional motivation* to engage in the behavior. On the other hand, those theories that assume humans are inherently social beings, and thus we require external *motivation* to engage in deviance, should focus on the factors that *motivate* individuals to engage in deviant behaviors. However, since humans are assumed social beings for the latter, there is no reason to explain *conformity* or why some individuals do not deviate (i.e., factors that *inhibit* deviance). Hirschi (1979) argues that *all* theories of deviance must take on one of these two sides and stick to the side. Hirschi (1979) is an avid opponent

learning theory to explain *everything* is not necessarily a gift for the theory or a qualification for a sound, parsimonious theory. Without clearly stated assumptions and a causal mechanism underlying the effects of theoretical variables on a dependent variable, I think that a "theory" can merely be a description of social phenomena or run a risk for tautology, rather than explanation.

For the sake of theoretical clarity and simplicity, the most appropriate way to test the two theories empirically seems to be to focus on the primary argument for each theory and emphasize the major differences, even if learning theorists might disagree with this arrangement. In terms of scientific knowledge, a simple theory that is easily and clearly testable and falsifiable using empirical research is more beneficial, even if it is invalid, than a complex theory with many theoretical variables and implications that are not easily testable or falsifiable. Moreover, I think that examining the empirical validity of the variables that are considered as Hirschi's (1969) social control theory, compared to other variables that are considered as Akers's (1985) social learning theory, provides more benefit to the field than examining the empirical validity of Akers's (1985) social learning theory with all variables from Hirschi's (1969) and perhaps even from Agnew's (1985). In this dissertation, heeding Agnew's (1995) discussion of differentiating individual level theories of deviance based on the *motivational process* specified by either theory, I measure only those factors that are considered *positive motivation* for deviance, or more specifically, those factors that affect *positive rational evaluation* of deviance as theoretical variables for Akers's (1985) social learning theory. Likewise, this dissertation considers those factors that are

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of *integrative theories* that combine more than one theories with inconsistent assumptions about human nature.

considered *negative motivation* for deviance, or more specifically, the factors that *free* individuals to deviate as theoretical variables for Hirschi's (1969) social control theory.

CHAPTER THREE

DATA AND METHODS

Introduction

In this dissertation, I examine two of the leading individual level sociological theories of deviance as explanations of deviant behaviors among Japanese and American youths. The two theories are: Hirschi's (1969) social control and Akers (1985) social learning theories. As Agnew (1995) argues, the operational distinctions of these two theories are often unclear, and both theories claim ownership over similar independent variables as unique to their own. This is because both theories are concerned with the relationships and interactions with primary groups as important predictors of deviance. Based on Agnew's (1995) discussion of the underlying *motivational processes* implied by the two theories, in this dissertation I measure those factors that are hypothesized to affect a *positive rational evaluation of deviance* as the theoretical variables for Akers's (1985) social learning theory. Likewise, I measure those factors that are hypothesized to *free individuals to deviate* as the theoretical variables for Hirschi's (1969) social control theory.

It should be noted that this distinction places some independent variables in grey areas, especially those variables measuring *beliefs* and *definitions*. However, I think that although some of the independent variables common to both theories are also considered central (such as the variables concerning peers), the two theories differ in terms of their respective premises on *how* such variables affect deviance, as argued by Agnew (1995). For instance, while Akers's (1985) social learning theory emphasizes the effects of *deviant* peers on the *favorable* evaluation of deviance, Hirschi's (1969)

social control theory emphasizes the effects of *any* peers on *constraints* against deviance. By the same token, based on Agnew's (1995) distinction, the implied *underlying processes* through which the variables *beliefs* or *definitions* affect deviant behavior seem to differ considerably for social control and social learning theories. For this reason I consider *beliefs*, the absence of which *frees* individuals to deviate, as measuring the *belief* variable for Hirschi's (1969) social control theory, and consider *definitions*, the presence of which *increase* the *favorable evaluations of deviance*, as measuring the *definition* variable for Akers's (1985) social learning theory.

In this chapter, I first briefly review the methodological issues associated with cross-cultural empirical research. I then describe the data used in this dissertation, specifically focusing on the data collection methods and sampling design, the samples themselves, and the measurement of the dependent and theoretical variables. In those cases where Agnew's (1995) distinction of theoretical variables is not applicable, I rely on the conventional operationalization (based on extant research) for the variables from the two theories followed by an explanation and justification. Though the hypotheses and analytic strategies are normally discussed in the chapter for methods, I address these instead in the following two chapters—those specific to cross-cultural research are discussed in Chapter Four, and those specific to gender and culture research are discussed in Chapter Five.

Issues Associated with Cross-Cultural Survey Research

Since Merton's (1938) anomie theory, individual level theories of deviance have dominated the field of criminology. However, despite the increased volume of empirical research applying leading individual level theories of deviance to samples

outside the U.S. (e.g., Axenroth 1983, Cabrera 2001, Hwang and Akers 2003, Miller 1992, Saito 2002, Shoemaker 1994, Souryal 1992, Tanioka and Glaser 1991, Tittle and Botchkovar 2004, Vazsonyi et al. 2004, Wang and Jensen 2003, Wang et al. 2002, Zhang and Messner 1995, 1996), there are only a handful of studies that examine individual level theories of deviance across cultures (e.g., Fukushima et al. 2009, Grasmick and Kobayashi 2002, Kobayashi and Grasmick 2002, Kobayashi et al. 2001, Kobayashi et al. 2008). This is understandable; however, while all empirical research in the social sciences encounter methodological issues, micro level cross-cultural research and cross-cultural survey research in particular seem to have at least twice the number of methodological issues to overcome compared to single country survey research. Because of this, Howard et al. (2000) argue that it is almost impossible to conduct scientifically valid cross-cultural survey research.

With the increased interest in comparative criminology, a number of official cross-national crime datasets are available today that are used extensively in macro level research of crime, such as those collected by the United Nations and by Interpol. In addition, there are currently two examples of cross-national survey research on deviance that provide alternatives to the official cross-national crime data. The first such dataset, discussed previously, is the International Victimization Survey Data (ICVS) on victimization experiences among nationally representative samples from several countries. The major limitation of the ICVS for this dissertation is a lack of measurements usable for testing the leading individual level theories of deviance. The ICVS also lacks data on victimless crimes and information about offenders. The other cross-cultural survey dataset on deviance is the International Self-Report Delinquency

(ISRD), started by scholars from 15 countries who attended a NATO Advanced Research Workshop in 1988 (Junger-Tas et al. 1994). The ISRD offers remedies to some of the limitations of the ICVS in several ways. First, unlike the ICVS, the ISRD collects information about respondents' offending. Second, the ISRD also includes information about respondents' socio-demographic characteristics and about the respondents' family, school, and friends. However, the ISRD includes a limited number of participating countries, most of which are from Western Europe, due to its NATO association. The first ISRD (ISRD-1) contains data collected in 1998 from 13 Western European countries and the U.S. The second ISRD (ISRD-2) includes self-reported delinquency data from over 30 countries collected between 2005 and 2006. Howard et al. (2000) argue that the variations in sampling frames, sampling methods, response rates, and other methodological issues associated with the ISRD prevent scholars from applying sophisticated cross-national analyses of deviance. Nonetheless, critiques and suggestions for future research and standard methods for collecting cross-cultural survey data developed through the efforts of both the ICVS and the ISRD have paved an important path for the cross-cultural survey research of crime.

Before describing the cross-cultural survey data used in this dissertation, I summarize some of the methodological issues facing cross-cultural survey research that have prevented its growth. Of course, all the methodological issues associated with single-country survey research also apply to cross-cultural survey research, so here I focus on issues more relevant to the cross-cultural research setting. Covering every methodological issue associated with cross-cultural survey research is, however, outside of the scope of this dissertation, so I focus on three major issues concerning: (1) the

definition of crime, (2) the comparability of samples/data, and (3) measurement validity.

The first issue, and perhaps the largest obstacle in comparative criminology, is the diversity of the definition of the dependent variable (i.e., crime, delinquency, and deviance) from country to country (Howard et al. 2000). Because crime and delinquency are legal constructs and because laws vary across time and space, which specific behaviors committed under what specific circumstances constitute crime and delinquency might vary by country and across time periods. The age at which an individual can legally commit a crime even varies by country and across time periods. Comparing the official crime rate (e.g., shoplifting) between two countries is, therefore, not an easy task, because the variation in crime rates across countries is affected by country-specific variations in at least the following factors: criminality, opportunity, the legal definition of the crime, the legal system and processes associated with the crime, reporting rates, the effectiveness of policing for the crime, and clearance rates for the crime, among many other factors. Because of this, recent versions of control theories offering a theoretical definition for crime/delinquency that is not based on a legal definition of crime from a specific country in a specific time period are a welcomed development for cross-cultural and international criminology. However, the definitions of crime offered by the two control theories are not identical. Based on the societal consensus model, Hirschi (1969: 47) defines delinquency in his social control theory as "[those] acts, the detection of which is thought to result in punishment of the person committing them by agents of the larger society." This definition might be a little problematic for cross-cultural research since the definition seems to state that though

the abstract concept of "delinquency" is universal, the specific behaviors that constitute "delinquency" might vary by society. It is on specific behaviors, however, that empirical research must rely to measure delinquency. On the other hand, Gottfredson and Hirschi (1990: 15) take a slightly different view in self-control theory, defining crime in terms of the assumption about the universal nature of criminal behavior: "acts of force or fraud undertaken in pursuit of self-interest."

To create a general delinquency scale, empirical research testing individual level theories of deviance in the U.S. most commonly refers to the general delinquent and deviant behavior items from the National Youth Survey (Elliot et al. 1985). The survey is also adopted by the ISRD, and overall is found to be applicable in countries outside the U.S. Similar items are used in the self-reported survey data for this dissertation. Among the general deviance items, however, some deviant/delinquent behaviors might be problematic when comparing Japanese and American youths. For instance, the legal status of some behaviors differ between the two countries, such as riding a motorcycle without a helmet, which is considered illegal in Japan, but considered legal in some states in the U.S. In addition, the amount of opportunity for the behavior seems to differ between the two countries, such as those behaviors concerning illegal drugs use and sales (i.e., certain illegal drugs are more prevalent and available in some countries compared to others).

Second, another obstacle in cross-cultural survey research is the difficulty associated with collecting comparable samples and data. The best way to conduct cross-cultural survey research, or any survey research, is to collect a representative sample from each country using the same sampling frame (e.g., all high school youths,

all adults between the ages of 18 to 50). However, this is usually not easy to accomplish, even within a single country. One of the problems undermining the validity of the ISRD is a difference in the sampling frame used by participating countries: while some countries collected data from a nationally representative sample, others collected data from a representative sample of a much smaller region of the country, such as a city (Howard et al. 2000). Unless the cross-cultural research employs data from each country's nationally representative samples or representative samples from the same sampling frame, comparison of the prevalence, nature, and degree of crime/delinquency across countries becomes somewhat invalid or at least problematic.

Another important critique of the ISRD, discussed by Howard et al. (2000), pertains to the differences in response rates by participating countries. Response rate is an especially pertinent issue for criminology, because the more delinquent (or the higher the criminality) the individual, the more likely he or she is to be excluded from being chosen in the sample for survey research. Reasons for exclusion vary, but might include the fact that chronic and serious offenders are more likely to skip school (or work) on the day the survey was administered, not follow instructions while completing the survey, not be included in the roster that was used as a sampling frame, have dropped out of school or otherwise been institutionalized (Cernkovich et al. 1985), or in general not be as willing as others to participate in anything that is not of value to them. Thus, maintaining consistent response rates across groups is very important in comparative criminology. However, familiarity with survey participation on the part of respondents might vary across countries, which might then affect response rate. In the U.S., for example, most people have some experience participating in surveys because

of the mandatory filing of census and because market research and general social surveys are both common. However, in other parts of the world, people are not only unfamiliar with survey research, but some might even be skeptical or fearful of participating in surveys. Tittle and Botchkovar (2005), for instance, find that when they collected survey data in Russia, many Russians were skeptical and fearful that the data might be used against them by the government; even with the assurance of anonymity, they were hesitant to participate in the survey. Thus, even if researchers attempt to collect representative data using the same sampling frame for each country, because countries vary in many ways that affect response rates, there are still a number of issues that can prevent the collection of comparable data across countries.

Third, the measurement validity of each measure must be examined for each country separately, especially if the survey instrument is offered in different languages, or administered in countries with different cultural backgrounds. Firstly, when an instrument requires translation into several languages, researchers must decide how each questionnaire item is translated while retaining the comparability of the instrument and of the measurement validity across languages. Each questionnaire item can be translated literally to maintain consistency in the wording, or can be translated to take into account differences in cultural meanings associated with specific words. For instance, a survey item in Hirschi's (1969) social control theory measuring *attachment to parents*, "affectional identification," is often measured using the question in English, "Do you love your mother/father figure?" This question, if translated literally to Japanese, might undermine the consistency of the measurement validity across countries. The English word "love" translates literally to Japanese as *aishiteru*, which

is often used among couples in a romantic relationship to profess the emotional connection one holds for the other, and is rarely used between parents and children, because the word "love" in Japanese is associated with romantic love. Thus, though the English word "love" translates literally to Japanese as *aishiteru*, the two words probably do not convey the same meaning in the two countries. In this case, a more appropriate way to translate the word "love" to Japanese might be to take into account such cultural differences to maintain the underlying meaning of the construct across countries. Additionally, the variable measuring race and ethnicity often carries different social meanings by country because the relative composition of different racial and ethnic groupings varies across countries. In most cases, the way race and ethnicity is used in American social science research is probably not applicable in a cross-cultural setting, because the grouping of race and ethnicity in the U.S. is influenced by American history and political and social issues. In cross-cultural research, it is important first to specify what underlying constructs the researcher is trying to tap using measures such as race and ethnicity (e.g., mere groupings, differences in political power, SES), and to examine whether the measure, if applied cross-culturally, taps into the same underlying constructs across cultures. Likewise, religious affiliation and religiosity, often included in criminology research, also carry different social meanings in different countries, and might tap into different aspects of social life (and thereby measure different underlying constructs). For instance, unlike the U.S., where religion is an accepted part of social life for many, even among youths, religion and religiosity tend to carry somewhat different meanings in Japan, where participation in cult religious practice is high. As these examples show, the validity of each measure must be carefully examined within

the specific cultural and social context in which it is interpreted. Just because operational measures are identical in two countries, there is no guarantee that they are measuring the same underlying constructs across countries, if such operational measures have different meanings across countries.

No social scientific research is an exact science, and it always faces numerous methodological issues that need to be overcome in order to advance the research. Research methods in social science would never improve without such effort. The two cross-cultural surveys (i.e., the ICVS and the ISRD) are, therefore, welcomed developments and a long time coming to comparative criminology. Studies like these and their respective trials and errors contribute significantly to the advancement of cross-cultural survey research and overall comparative criminology. The survey research used in this dissertation also offers invaluable contributions to comparative criminology. Unlike the ICVS or ISRD, the survey data used in this dissertation are theoretical, and include central measures from leading individual level sociological theories of deviance. In the remainder of this chapter, I describe the survey data, the data collection method, samples, and measures from the data used in the analyses, while referring back to some of the methodological issues discussed in this section.

Data Collection

The self-reported survey data used in this dissertation come from research conducted by Susan F. Sharp and Harold G. Grasmick in the U.S. and Emiko Kobayashi in Japan, entitled *Investigation of the Role of Individuality Versus Group Orientation in Behaviors among Two Samples of College Students*. Sharp and Grasmick designed the criminology component of the questionnaire, and the individual questionnaire items

were translated into Japanese by Kobayashi with the help of a professional writer. Questionnaire items are written and translated to assure that approximately the same meaning is carried among the Japanese and the American samples. Several pre-tests were conducted in both countries. The survey contains self-reported measures of different forms of deviant behaviors, central measures from several deviance theories, including Hirschi's (1969) social control and Akers's (1985) social learning theories, basic demographic measures, and other social psychological measures. Identical survey instruments were administered to samples of college students at comparable universities[14] in the U.S. and in Japan simultaneously within the same period in April and May of 2003.

The researchers attempted to achieve comparability of the two samples by carefully selecting a university from each country that offers similarities in terms of school size, academic level, and local city population size. A Southwestern state university to which the two American researchers had access was chosen for the U.S., and a sample was drawn from students enrolled in introductory sociology classes. At the time of the study, this U.S. school had approximately 22,000 students enrolled full-time (including both graduate and undergraduate students), and the university is within a metropolitan area with a population of about 1.1 million that also contains the state's capital. All efforts were made to ensure that the university in Japan from which the Japanese sample was chosen is comparable to the school chosen for the U.S. However,

[14] In general, college students are not the most deviant group in any population. Thus, this study lacks data from more deviant groups of youths from the two countries. However, due to the limited resources available, and the difficulties associated with conducting surveys on illegal behaviors among juveniles, college students usually are the most convenient and accessible group from which to collect survey data on sensitive issues. Moreover, in terms of comparability of data, the lack of data from a more "desirable" population is a *constant* across the two countries.

selecting a comparable Japanese university proved to be a difficult task because school systems differ considerably between the U.S. and Japan.[15] In the end, a university in Japan was chosen based on the similarity of the city in which the school is located, and the size of the university. At the time of the study, the university chosen for Japan had approximately 16,500 full-time students enrolled (including both undergraduate and graduate students), and the Japanese school is located in a city with a population of 2.2 million, within a metropolitan area that contains the prefecture's capital city.

Samples

The survey was originally completed by a total of 442 Japanese and 505 American students. However, because of discrepancies in the proportion of students who

[15] The term "state university" implies a different type of school in the two countries. While each of the 47 prefectures in Japan has several universities that are funded by the prefecture and the city, and though these universities are equivalent to state university in the U.S. in terms of funding sources, they are not equivalent to the major universities in U.S states in terms of academic prestige. Each prefecture in Japan has at least one national university funded by the Japanese Ministry of Education, and there were about 100 such national universities in Japan that resemble the U.S. state universities in terms of academic prestige. Thus, the researchers chose one such school in Japan among the national universities to collect the survey data.

The two countries also differ in terms of university curriculum. At most universities in the U.S., students go through general education curriculum wherein the first couple of years are devoted to general education courses, including courses such as Introduction to Sociology. In other words, university curriculum in the U.S. is relatively flexible and individualized. In addition, in the U.S., students do not have to declare their majors when they enroll in school the first year. Japanese universities, on the other hand, have a relatively more rigid university curriculum. For instance, high school students who apply to a Japanese university apply not to the school but to a specific major within the school. All Japanese college students, therefore, start the university curriculum with a major already declared (even for a law or medical degree), and subsequently follow the rigid coursework specified by the major. In other words, there simply is no equivalent to a U.S. general education course, such as Introduction to Sociology, which is taken by a large number of students outside their major in Japan. Thus, the students in the Japanese sample consist of those from more than one course, including literature, economics, science, engineering, and education.

In addition, though the three researchers planned to administer the survey at the two universities simultaneously to the students in similar stages of their academic careers, the differences in the academic calendars in the two countries also posed a problem. While the academic year in the U.S. begins in late August or early September and ends in May, the academic year in Japan begins in April and ends in March. Thus, the researchers decided to administer the survey between April and May of 2003 to both the U.S. students who are enrolled in Introduction to Sociology courses (presumably taken by students mostly at the end of their freshman year) and to the Japanese who are enrolled in sophomore level courses (presumably taken by the students at the beginning of their sophomore year, and thus quite similar in academic standings compared to their American counterparts).

identified themselves as a racial and ethnic minority in the Japanese sample (2.1%) and the American sample (26.9%) is considerably large,[16] and threaten the comparability of the samples across the two countries, those students who identified themselves as a racial and ethnic minority of their country are unfortunately excluded from analyses in this dissertation. This resulted in a total of 433 Japanese students (who identified themselves as Japanese citizens) and 369 white American students.

Tables 3.1 and 3.2 show univariate descriptive statistics for gender, age, academic classification, and socioeconomic status for the Japanese and American samples, presented separately by gender. The figures for each characteristic are representative of those expected at each school overall, but differ across the two samples. First, as Table 3.1 shows, the two samples differ considerably in terms of gender composition; the Japanese sample consists of a much higher percentage of male

[16] Racial and ethnic minority status is not as "clear" in Japan as in the U.S. (see Smith 1995, *The Myth of Japanese Homogeneity* or Lie 2001, *Multiethnic Japan* for a discussion on this issue). To begin with, minority status in Japan is usually associated with citizenship (i.e., you are either a Japanese citizen or not a Japanese citizen). There are a lot of descendents of individuals of various Asian origins whose ancestors were brought to Japan to work under slavery during the war. Some of these individuals do not have Japanese citizenship even today because Japan enforces one of the toughest immigration and naturalization laws of the world. In addition, there are many racial and ethnic minority Japanese citizens, as recognized by social scientists, including *Ainu*, *Okinawan*, and Japanese whose ancestors are from other countries (e.g., Korea, China, Brazil, and the Philippines) (see also Sugimoto 2003). However, most of these ethnic minority groupings among Japanese citizens are not recognized by the Japanese government, and are likely not acknowledged by the individuals themselves (in order to avoid discrimination).

Furthermore, the proportion of racial and ethnic minority groups at Japanese universities is probably smaller compared to its proportion among all population in Japan. I suspect that most, if not all, of the nine students in the Japanese sample who identified themselves as "not Japanese" are *foreign students*, rather than the racial and ethnic minority Japanese. Lie (2001) argues that unless you are a foreign student applying to Japanese universities from overseas, those foreign nationals who reside in Japan (even those whose ancestors were forcefully brought to Japan) usually have a difficult time applying to Japanese national universities, because of the citizenship requirement placed on most college admissions. However, there are no government figures showing the number of non-Japanese residents enrolled in Japanese national universities or of students represented by their race and ethnicity.

respondents (71%) than the American sample (43%).[17] This difference produces a strong correlation between gender and country ($r = 0.283$, $p<0.001$ with a one-tailed significance test). Thus, any simple bivariate analysis examining either gender or nation in combination with another variable must be interpreted with caution, for such results can be biased due to the high correlation of the two variables.

Table 3.1. Frequency and Percentage Distributions of Age and Academic Classification by Gender for the Japanese Sample, *n* =433 and the American Sample, *n* =369.

		Japanese		Americans	
		Males	Females	Males	Females
Age	Mean (*S.D.*)	19.38 (0.658)	19.35 (0.612)	19.86 (1.366)	19.43 (1.656)
	18	2 (0.6%)	2 (1.6%)	17 (10.7%)	44 (21.0%)
	19	207 (67.2%)	83 (66.4%)	55 (34.6%)	94 (44.8%)
	20	83 (26.9%)	35 (28.0%)	52 (32.7%)	47 (22.4%)
	21	13 (4.2%)	4 (3.2%)	17 (10.7%)	13 (6.2%)
	22	1 (0.3%)	1 (0.8%)	9 (5.7%)	7 (3.3%)
	23	2 (0.6%)	0	6 (3.8%)	2 (1.0%)
	24 +	0	0	3 (1.9%)[a]	3 (1.5%)[b]
Academic Classification					
	Freshman	3 (1.0%)	1 (0.8%)	67 (42.1%)	117 (55.7%)
	Sophomore	286 (92.9%)	115 (92.0%)	56 (35.2%)	54 (25.7%)
	Junior	13 (4.2%)	9 (7.2%)	20 (12.6%)	29 (13.8%)
	Senior	5 (1.6%)	0	16 (10.1%)	10 (4.8%)
	Graduate	1 (0.3%)	0	0	0
Total		308 (100%)	125 (100%)	159 (100%)	210 (100%)

[a] include two 24 years old and one 26 years old.

[b] include one 26 years old, one 29 years old, and one 34 years old.

[17] The overrepresentation of males in the Japanese sample is not unexpected in terms of the overall proportion of males at Japanese national universities. According to the Ministry of Education, Culture, Sports, Science and Technology, 66 % of all students enrolled in Japanese national universities are male (Statistics on School Education 2003), and based on the university wide statistics, 71 % of all students enrolled at the school where the Japanese sample was selected were male, consistent with the sample.

It is, nevertheless, an astonishing contrast to the gender composition of college students in the U.S. Women made up about 56 % of all undergraduate students enrolled in four year American colleges in 2006. In the school from which the U.S. sample was selected, males constituted about 51% of all students enrolled in 2003. The higher percentage of females in the sample for the U.S. compared to the percentage of females at the overall university probably reflects the fact that females are generally overrepresented in social science courses, including the Introduction to Sociology course where the sample was selected.

Table 3.1 also shows the age and academic classification of students by gender for the two samples. The mean age is about the same across the four groups (ranging from 19.35 to 19.86), but the higher standard deviations for age among the American males and females compared to the Japanese males and females reflect a higher variability among American college students in terms of age compared to Japanese college students. In Japan, non-traditional students or older people going back to school are rare, compared to the U.S., reflected by the presence of a few students for both the American male and female samples who are a little older than traditional college students. Additionally, due to the differences in university curriculum between American and Japanese universities (see footnote 15 of this chapter), students in the two samples differ considerably in terms of their current school standing. Since most Japanese university students follow a rigid curriculum (unless a student fails a class and must retake it), administering the survey in those courses that are typically taken by sophomore students resulted in a high concentration of sophomores in the Japan sample. On the other hand, even though an Introduction to Sociology course is usually taken by freshman or sophomore level students in the U.S., there is more variability among the U.S. sample in terms of academic classification.

Table 3.2 shows three measures of socioeconomic status (SES) displayed separately by gender for the Japanese and American samples. An SES measure is included in the analyses in this study, the creation of which is discussed in the next section, but the overall SES is similar across the two samples. This is expected, because though the two samples come from two distinct countries, in both countries, one would expect college students overall to have a relatively high (parental) SES compared to the

Table 3.2. Frequency and Percentage Distributions of Three Socio-Economic Status Measures by Gender for the Japanese Sample, *n* =433 and the American Sample, *n* =369.

	Japanese		Americans	
	Males	Females	Males	Females
Household income				
<$15,000	6 (1.9%)	3 (2.4%)	9 (5.7%)	7 (3.3%)
$15,000 ~ $29,999	21 (6.8%)	5 (4.0%)	3 (1.9%)	7 (3.3%)
$30,000 ~ $44,999	31 (10.1%)	12 (9.6%)	17 (10.7%)	18 (8.6%)
$45,000 ~ $59,999	46 (14.9%)	17 (13.6%)	14 (8.8%)	17 (8.1%)
$60,000 ~ $74,999	39 (12.7%)	12 (9.6%)	27 (17.0%)	41 (19.5%)
$75,000 ~ $99,999	41 (13.3%)	13 (10.4%)	21 (13.2%)	36 (17.1%)
>$100,000	12 (3.9%)	13 (10.4%)	55 (34.6%)	57 (27.1%)
Do not know	110 (35.7%)	50 (40.0%)	13 (8.2%)	27 (12.9%)
Missing	2 (0.6%)	0	0	0
Father's educational attainment				
<High school[a]	9 (2.9%)	2 (1.6%)	1 (.6%)	2 (1.0%)
High school graduate/GED	90 (29.2%)	29 (23.2%)	21 (13.2%)	29 (13.8%)
Some college[b]	18 (5.8%)	6 (4.8%)	38 (23.9%)	64 (30.5%)
College degree	162 (52.6%)	68 (54.4%)	51 (32.1%)	64 (30.5%)
>College degree[c]	23 (7.5%)	15 (12.0%)	47 (29.6%)	50 (23.8%)
Missing	6 (1.9%)	5 (4.0%)	1 (0.6%)	1 (0.5%)
Mother's educational attainment				
<High school[a]	7 (2.3%)	0	1 (.6%)	5 (2.4%)
High school graduate/GED	105 (34.1%)	36 (28.8%)	31 (19.5%)	49 (23.3%)
Some college[b]	90 (29.2%)	40 (32.0%)	42 (26.4%)	55 (26.2%)
College degree	98 (31.8%)	45 (36.0%)	53 (33.3%)	67 (31.9%)
>College degree[c]	3 (1.0%)	3 (2.4%)	32 (20.1%)	34 (16.2%)
Missing	5 (1.6%)	1 (0.8%)	0	0
Total	308 (100%)	125 (100%)	159 (100%)	210 (100%)

[a] The "<High school" category includes some junior high school but did not graduate, junior high school graduation only, and some high school.

[b] The "Some college" category includes vocational certificate, two year degree, and some college.

[c] The ">College degree" category includes graduate or professional degree.

rest of the population. The first SES measure shown in the table is household income, which indicates that the Japanese respondents are more likely *not* to know how much their parents make in a year (35.7% of males and 40.0% of females in Japan said they do not know their household income) compared to the American respondents (8.2% males and 12.9% females). Because of the high number of missing cases, household income is not a good indicator of SES for this study. The next two measures of SES pertain to the educational attainment for each parent—these two measures are combined

to create a control variable measuring SES, discussed in the next section. The educational attainments for respondents' mothers and fathers are consistent across gender for both countries, though the fathers' educational attainment for the Japanese females seems to be a little higher than that for the Japanese males, and the mothers' educational attainment for the American males seems to be a little higher than that for the American females. Both mothers' and fathers' educational attainments are, however, higher for the American sample than the Japanese sample overall.[18] Though there is a difference by country, parents' educational attainments are still much better indicators of SES for each respondent within his or her own country.

[18] There might be two possible reasons for this difference. First, the higher proportion of parents who have less than a high school degree in the Japanese sample compared to the U.S. sample can be explained by differences in the laws concerning compulsory education between the two countries. Since 1947, the compulsory education law in Japan requires youths between the ages of six and fifteen to attend school for a total of nine years, thus the compulsory education requirement extends only through the end of junior high school education in Japan. Whereas in the U.S., though the compulsory education law varies by state to state, in the state where the U.S. sample was drawn, youths between the ages of five and 18 are required to attend school for a total of 14 years, which usually extends through the end of high school education in the U.S.

Japanese census data from the year 2000 shows that among the population of all Japanese over the age of 15, only 24.6% reported that they have a high school degree—though 8.2% of this population reported that they are still attending school. The percentage is much higher among those between the ages of 25 and 44, averaging around 42.9%. However, the percentage of high school completion decreases dramatically when the population age over 45 is considered (e.g., less than 10% for those over 70 years old). (Note: The Japanese government collects census data every five years and started collecting more detailed data on its population every 10 years starting in 1960. The 2000 Japanese census includes information about the educational attainment of the Japanese population, because it is a more detailed census). On the other hand, according to *Current Population Reports*, in 2007, almost 84% of adults ages 25 and over in the U.S. reported that they have completed at least a high school degree or the equivalent.

Second, a graduate or professional degree is not as commonly acquired in Japan as in the U.S. Figures from the Japanese Ministry of Education, Culture, Sports, Science and Technology show that in 1999, 97.7% of those who graduated from junior high school entered a high school, 53.7% of those who graduated from high school entered a junior or four year college, and 12.0% of those who graduated from a college entered a graduate and professional school. In 1980, around the time the parents of the respondents graduated from high school, the percentage of those high school graduates who moved on to a junior or four year college was around 35%, and those who graduated from college and moved onto a graduate or a professional degree was around 6% in Japan. On the other hand, according to the U.S. Census, 66.0% of high school graduates enrolled in college in 2006. This percentage was 49.3% for the year 1980. Using different figures from the U.S. Census, in 2007, about 9.9% of the U.S. population over 25 years old earned a graduate or a professional degree, and about 44.2% of the U.S. population over 25 years old earned some kind of college degree (e.g., associate or bachelor). These figures should be much higher if we include only the younger population and if we include those who started but did not finish.

Measurement[19]

In this section, the coding of the measures used in the analyses of this dissertation is discussed in detail, specifically for culture, gender, several measures of deviance, and theoretical variables from both Hirschi's (1969) social control and Akers's (1985) social learning theories from the *Investigation of the Role of Individuality Versus Group Orientation in Behaviors among Two Samples of College Students*. Following a discussion the coding of each measure, I discuss the frequency and percentage distributions of the measure and descriptive statistics of the measure for the combined samples. For each measure used in this dissertation, the time period each questionnaire specifies is noted, if available.

Culture and Gender

Upon combining the samples from the two countries, respondents' nationality is treated as a dummy variable, called *Japan*, and is coded 1 for Japanese respondents and 0 for American respondents. After racial and ethnic minority members from both samples are excluded, there are 433 respondents in the Japanese sample and 369 respondents in the American sample. Note that although I refer to the two samples as the Japanese sample and the American sample throughout this study, they include only those respondents who are not racial and ethnic minority members of the respective societies. Respondents' gender is a dummy variable, called *male*, and is coded 1 for males and 0 for females. There are 308 males (71.13%) and 125 females (28.87%) in the Japanese sample and 159 males (43.09%) and 210 females (56.91%) in the American sample. As

[19] This chapter does not include the discussions of the univariate statistics for each measure analyzed separately by country and by country and gender, since they are discussed in subsequent chapters (separately by country in Chapter Four and separately by country and gender in Chapter Five).

discussed previously, there is a significant bivariate correlation between *Japan* and *male* ($r = 0.283$, $p<.001$ with a one-tailed significance test).

Deviance

This dissertation employs self-reported deviant behaviors from the *Investigation of the Role of Individuality Versus Group Orientation in Behaviors among Two Samples of College Students* for dependent variables. Self-reported deviant behaviors are preferred in this study over official data such as police on delinquency and crime for several reasons. First, because the samples from the two countries consist of college students, they are less likely to have any police record for crime or delinquency, thus using official data would considerably decrease the variability of deviance among the samples. Second, because of variations in the legal definitions of crimes and delinquencies, and in the criminal justice system between the two countries, general deviance behaviors that are not based on a legal definition of delinquency or crime are the preferred measure of deviance across countries (Elliot et al. 1985). Third, cross-cultural self-reported deviance data offer an important insight and alternative data to official crime data, concerning information about individual variations in less serious and dangerous forms of deviance across countries. It should be noted that although the survey dataset used in this dissertation is cross-sectional, the measures used for deviance pertain to respondents' past behavior (instead of projected behavior), more specifically about the last one year for both kinds of deviant behaviors used in this study. This might pose a potential problem in terms of interpreting the causal order between deviance and theoretical variables. This issue is discussed in more detail in subsequent chapters, along with analyses.

Two kinds of deviant behaviors are examined in this dissertation. The first type includes 16 *general* deviant behaviors, and the second type includes 12 *academic* deviant behaviors specific to college students. The respondents were asked to indicate how often they have engaged in each of the general/academic deviant behaviors in the past year. Response categories are in the form of a five-point Likert scale ranging from "never" to "almost always." For all deviant behaviors, missing cases for each respondent are replaced with the mode of the combined samples for that behavior. Furthermore, for each of the total of 28 deviant behaviors, two types of measures are created: one measuring *prevalence* and the other measuring *frequency* of engaging in the behavior. First, while maintaining the original five-point Likert scale coding, each deviant behavior is coded so that a higher value indicates a higher *frequency* of offending. Second, a dummy variable measuring *prevalence* of offending is created for each deviant behavior by coding 1 for the respondents who have *ever* engaged in the behavior in the past year and 0 for the respondents who have *never* engaged in the behavior in the past year.

General Deviance

General deviant behaviors include the following 16 deviant behaviors: (1) destroying property that did not belong to them, (2) stealing something worth $5 or less, (3) stealing something worth more than $5, (4) hurting someone badly enough that they needed bandages or a doctor, (5) smoking cigarettes or using tobacco, (6) cheating in school to get a better grade, (7) engaging in sexual relations with someone they did not consider to be their boyfriend/girlfriend, (8) gambling illegally, (9) drinking alcohol, (10) using marijuana, (11) using other illegal drugs, (12) driving without a seatbelt, (13)

exceeding the speed limit by 15 mph (20km/hr) or more, (14) riding a motorcycle without a helmet, (15) selling drugs, (16) driving a car or motorcycle after drinking more than one drink. Frequency and percentage distributions for each of the 16 general deviant behaviors for the combined samples are shown in Table 3.3. Table 3.3 shows that the prevalence of engaging in any of the 16 general deviant behaviors among both the Japanese and American respondents is very small. Except for drinking alcohol and speeding, the majority of respondents from both countries indicate that they have never engaged in the behaviors in the last year. Because so few Japanese respondents reported use or sales of illegal drugs compared to the American respondents (discussed in more detail in the next chapter), I decided to exclude the three items pertaining to illegal drug use and sales (i.e., using Marijuana, using other illegal drugs, and selling drugs) from consideration in the general deviance scale. Additionally, since the sixth general deviance item, "cheating in school to get a better grade," overlaps with the 12 academic deviance behaviors, this item is also excluded from consideration in the general deviance scale. After excluding these three illegal drug related deviant behaviors and one academic deviance behavior, a principal component analysis is conducted for the combined samples using the remaining 12 general deviance items measured in both *frequency* and *prevalence*.

The principal component analysis for 12 general deviance items measured in *frequency* shows a single factor; however, factor loadings for "hurting someone badly enough that they needed bandages or a doctor" (factor loading = 0.392) and "riding a motorcycle without a helmet" (factor loading = 0.396) do not load well with other items. Thus, I exclude these two deviant behaviors from the general deviance scale

measured in *frequency*. A principal component analysis with the remaining 10 general deviance items shows a single factor with all factor loadings greater than 0.40. The factor loading of each of the 10 general deviance items measured in *frequency* are also shown in Table 3.3. Cronbach's alpha for the linear composite of z-scores of the 10 general deviance items measured in *frequency* is 0.78, and the reliability could not be improved by eliminating any of the 10 items. The *general deviance frequency* scale is created by summing the z-score transformations of the 10 items measured in the original five point Likert scale (with a mean of 0 and a *S.D.* of 5.86).

A principal component analysis using 12 general deviance items measured in *prevalence* also shows that the same two deviant behaviors (i.e., "hurting someone" and "riding a motorcycle without a helmet") fail to load well with other items (factor loadings = 0.344 and 0.341, respectively). However, in addition to these two items, the principal component analysis for *prevalence* also shows that neither "destroying property that did not belong to them" (factor loading = 0.376) nor "drinking alcohol" (factor loading = 0.341) load well with other items. After these additional two items are excluded, a principal component analysis shows a single factor among the remaining eight general deviance items measured in *prevalence* with all factor loadings greater than 0.40. The factor loading of each of the eight general deviance items measured in *prevalence* are also shown in Table 3.3. Cronbach's alpha for the linear composite of z-scores of the eight general deviance items measured in *prevalence* is 0.76, and the reliability could not be improved by eliminating any of the eight items. The *general deviance prevalence* scale is created by summing the z-score transformations of the eight items measured in the dichotomy (with a mean of 0 and a *S.D.* of 4.87).

Table 3.3. Frequency and Percentage Distributions and Factor Loadings of 16 General Deviant Behaviors for the Combined Samples, *n* =801.

"How often have you engaged in the following behaviors in the past year?"	Never	Rarely	Sometimes	Often	Almost always	Missing	Factor loading[a]	Factor loading[b]
(1) Destroyed property that did not belong to them.	513 (64.0%)	226 (28.2%)	53 (6.6%)	5 (0.6%)	1 (0.1%)	4 (0.5%)	0.425	-
(2) Stolen something worth $5 or less.	651 (81.2%)	121 (15.1%)	22 (2.7%)	4 (0.5%)	0	4 (0.5%)	0.627	0.620
(3) Stolen something worth more than $5.	731 (91.1%)	52 (6.5%)	15 (1.9%)	0	0	4 (0.5%)	0.542	0.511
(4) Hurt someone badly enough that they needed bandages or a doctor.	719 (89.7%)	63 (7.9%)	15 (1.9%)	0	1 (0.1%)	4 (0.5%)	-	-
(5) Smoked cigarettes or used tobacco.	513 (64.0%)	110 (13.7%)	76 (9.5%)	47 (5.9%)	50 (6.2%)	6 (0.7%)	0.684	0.618
(6) Cheated in school to get a better grade.	456 (56.9%)	199 (24.8%)	96 (12.0%)	39 (4.9%)	7 (0.9%)	5 (0.6%)	-	-
(7) Engaged in sexual relations with someone they did not consider to their boyfriend or girlfriend.	611 (76.2%)	102 (12.7%)	57 (7.1%)	24 (3.0%)	3 (0.4%)	5 (0.6%)	0.608	0.593
(8) Gambled illegally	651 (81.2%)	75 (9.4%)	42 (5.2%)	25 (3.1%)	5 (0.6%)	4 (0.5%)	0.421	0.484
(9) Drank alcohol.	80 (10.0%)	118 (14.7%)	228 (28.4%)	283 (35.3%)	89 (11.1%)	4 (0.5%)	0.562	0.673
(10) Used marijuana.	667 (83.2%)	65 (8.1%)	22 (2.7%)	32 (4.0%)	11 (1.4%)	5 (0.6%)	-	-
(11) Used other illegal drugs.	754 (94.0%)	26 (3.2%)	9 (1.1%)	7 (0.9%)	1 (0.1%)	5 (0.6%)	-	-
(12) Driven without a seatbelt.	475 (59.2%)	172 (21.4%)	84 (10.5%)	45 (5.6%)	20 (2.5%)	6 (0.7%)	0.654	-
(13) Exceeded the speed limit by 15 mph (20 km/hr) or more.	303 (37.8%)	165 (20.6%)	166 (20.7%)	108 (13.5%)	55 (6.9%)	5 (0.6%)	0.559	0.633
(14) Ridden a motorcycle without a helmet.	679 (84.7%)	54 (6.7%)	43 (5.4%)	16 (2.0%)	4 (0.5%)	6 (0.7%)	-	-
(15) Sold drugs.	775 (96.6%)	15 (1.9%)	5 (0.6%)	2 (0.2%)	0	5 (0.6%)	-	-
(16) Driven a car or motorcycle after drinking more than one drink.	551 (68.7%)	150 (18.7%)	66 (8.2%)	26 (3.2%)	4 (0.5%)	5 (0.6%)	0.754	0.725

[a] Factor loadings are based on a principal component analysis with 10 general deviance items (measured in *frequency)* that are included in the scale.

[b] Factor loadings are based on a principal component analysis with eight general deviance items (measured in *prevalence*) that are included in the scale.

Table 3.4. Frequency and Percentage Distributions and Factor Loadings of 12 Academic Deviance Items for the Combined Samples, *n* =801.

"How often in the past year have you engaged in the following behavior?"	Never	Rarely	Sometimes	Often	Almost Always	Missing	Factor loading[a]	Factor loading[b]
Academic misconduct								
(1) Copied or looked at the answers from someone else during a quiz or test?	384 (47.9%)	256 (31.9%)	115 (14.3%)	39 (4.9%)	6 (0.7%)	2 (0.2%)	0.716	0.582
(2) Bought or used a paper you obtained over the internet or from someone else and turned it in as your own?	604 (75.3%)	98 (12.2%)	69 (8.6%)	20 (2.5%)	9 (1.1%)	2 (0.2%)	0.751	0.695
(3) Copied someone else's work and turned it in as your own?	410 (51.1%)	198 (24.7%)	144 (18.0%)	42 (5.2%)	6 (0.7%)	2 (0.2%)	0.784	0.674
(4) Used cheat notes, etc., when taking an exam?	589 (73.4%)	111 (13.8%)	77 (9.6%)	15 (1.9%)	7 (0.9%)	3 (0.4%)	0.777	0.728
(5) Plagiarized a paper for a class?	526 (65.6%)	161 (20.1%)	79 (9.9%)	24 (3.0%)	8 (1.0%)	4 (0.5%)	0.682	0.586
(6) Received an illicit copy of an exam prior to taking the test?	714 (89.0%)	50 (6.2%)	16 (2.0%)	12 (1.5%)	7 (0.9%)	3 (0.4%)	-	0.469
(7) Lied to an instructor about why you missed an exam?	736 (91.8%)	49 (6.1%)	9 (0.6%)	5 (0.6%)	1 (0.1%)	2 (0.2%)	-	-
Academic underachievement								
(8) Skipped a class?	74 (9.2%)	238 (29.7%)	314 (39.2%)	150 (18.7%)	24 (3.0)	2 (0.2%)	0.746	0.522
(9) Came to class late?	128 (16.0%)	260 (32.4%)	227 (28.3%)	157 (19.6%)	28 (3.5%)	2 (0.2%)	0.800	0.631
(10) Didn't finish an assignment on time?	341 (42.5%)	252 (31.4%)	140 (17.5%)	57 (7.1%)	10 (1.2%)	2 (0.2%)	0.759	0.763
(11) Forgot to study for an exam?	355 (44.3%)	213 (28.8%)	136 (17.0%)	63 (7.9%)	14 (1.7%)	3 (0.4%)	0.685	0.690
(12) Fell asleep in class?	191 (23.8%)	153 (19.1%)	152 (19.0%)	218 (27.2%)	86 (10.7%)	2 (0.2%)	0.589	-

[a] Factor loadings are based on each of the principal component for five academic misconduct items and five academic underachievement items (measured in *frequency*).

[b] Factor loadings are based on each of the principal component for six academic misconduct items and four academic underachievement items (measured in *prevalence*).

Academic Deviance

Academic deviant behaviors include the following 12 deviant behaviors specifically relevant for students: (1) copying or looking at the answers from someone else during a quiz or test, (2) buying or using a paper they obtained over the internet or from someone else and turning it in as their own, (3) copying someone else's work and turning it in as their own, (4) using cheat notes, etc. when taking an exam, (5) plagiarizing a paper for a class, (6) receiving an illicit copy of an exam prior to taking the test, (7) lying to an instructor about why they missed an exam, (8) skipping a class, (9) coming to class late, (10) not finishing an assignment on time, (11) forgetting to study for an exam, and (12) falling asleep in class. Frequency and percentage distributions for each of the 12 academic deviance items for the combined samples are shown in Table 3.4. As expected, the percentages of those students who indicated that they have *never* engaged in the behaviors are much smaller than those for the general deviance behaviors (as low as 9.2% for "skipping class" to the highest of 91.8% for "lied to an instructor"). For instance, for only six academic deviance behaviors, the majority of respondents indicate that they have *never* engaged in the behavior. The other six academic behaviors are committed by the majority of the respondents. All 12 items measure academic deviance; however, even before conducting a principal component analysis, it seems fairly clear that these 12 academic deviant behaviors can be grouped into two different types of academic deviance. The first type, which includes the first seven items listed above, pertains to behaviors that are usually proscribed by schools as academic misconduct behaviors. On the other hand, the remaining five behaviors, though they might be against specific course rules, are not usually considered academic misconduct

by schools, but instead, represent behaviors that could be considered academic underachievement. Thus, two types of academic deviance measures are created for this dissertation.

Academic Misconduct. A principal component analysis using the seven academic misconduct items for the combined sample is conducted for both *frequency* and *prevalence* measures. First, a principal component analysis with seven academic misconduct items measured in *frequency* shows that "lied to an instructor about why they missed an exam" (factor loading = 0.235) does not load well with other academic misconduct items. This item is therefore excluded from the scale, and the principal component analysis excluding this item shows a single factor with all items loading well with other items. However, a reliability analysis shows that the elimination of the last item, "receiving an illicit copy of an exam prior to taking the test" improves alpha by 0.009. Since this item's loading is much lower than the factor loadings for other items, this item is also excluded from the scale. A principal component analysis with the remaining five academic misconduct items shows a single factor. The factor loading for each of the five academic misconduct items is also shown in Table 3.4. Cronbach's alpha for the linear composite of z-scores of the five academic misconduct items measured in *frequency* is 0.80, and reliability could not be improved by eliminating any of the five items. The *academic misconduct frequency* scale is created by summing the z-score transformations of the eight items measured in the original five-point Likert scale (with a mean of 0 and a *S.D.* of 3.71).

Second, a principal component analysis with seven academic misconduct items measured in *prevalence* shows once again that "lied to an instructor about why they

missed an exam" (factor loading = 0.175) does not load well with other academic misconduct items. This item is therefore excluded from the scale, and the principal component analysis with the remaining six academic misconduct items shows a single factor with all items loading well with other items. The factor loading for each of the six academic misconduct items is also shown in Table 3.4. Cronbach's alpha for the linear composite of z-scores of the six academic misconduct items measured in *prevalence* is much lower (0.687), and the reliability could not be improved by eliminating any of the six items. The *academic misconduct prevalence* scale is created by summing the z-score transformations of the six items measured in dichotomy (with a mean of 0 and a *S.D.* of 3.75).

Academic Underachievement. A principal component analysis using the five academic underachievement items for the combined samples is conducted for both *frequency* and *prevalence* measures. First, a principal component analysis with five academic underachievement items measured in *frequency* shows a single factor with fairly high loadings among the items. Cronbach's alpha for the linear composite of z-scores of the five academic underachievement items measured in *frequency* is 0.76, and the reliability could not be improved by eliminating any of the five items. The factor loading for each of the five academic underachievement items is also shown in Table 3.4. The *academic underachievement frequency* scale is created by summing the z-score transformations of the five items measured in the original five-point Likert scale (with a mean of 0 and a *S.D.* of 3.58).

Second, a principal component analysis with five academic underachievement items measured in *prevalence* shows that the last item, "falling asleep in class" does not

load well (factor loading = 0.357) with other academic underachievement items. However, the remaining four academic underachievement items load well, as a principal analysis shows. Cronbach's alpha for the linear composite of z-scores of the four academic underachievement items measured in *prevalence* is very low (alpha = 0.56), and the reliability analysis shows that exclusion of the first item "skipping a class" could improve alpha by 0.002. However, since the improvement is minimal, I decided to retain the measure for the scale. The factor loading for each of the four academic underachievement items is also shown in Table 3.4. The *academic underachievement prevalence* scale is created by summing the z-score transformations of the five items measured in dichotomy (with a mean of 0 and a *S.D.* of 2.62).

Control Variables

All analyses in this dissertation control for respondent's age, parental socioeconomic status (SES), and family structure—the individual characteristics research generally finds are strong correlates of deviance. In addition to gender composition, the Japanese and American samples vary considerably across most of these control variables, except for parental SES—which justifies the importance of controlling for these individual characteristics.

Age

The respondents' ages are measured using the age as of their last birthday, called *age*. Frequency and percentage distributions for *age* separated by gender for the two samples are shown in Table 3.1. The mean *age* of the Japanese sample is 19.37 (*S.D.* = 0.64) with 99% of the sample between the ages of 18 and 21 years old and age ranging from 18 to 23. The mean *age* of the American sample is 19.62 (*S.D.* = 1.55) with 92% of the

sample between the ages of 18 and 21 years old and age ranging from 18 to 34. A preliminary analysis of the *age* distribution of the combined samples shows that the distribution is positively skewed (*sk* = +4.26), due to the small number of outliers in the American sample who are much older than average college students (e.g., skewness for the American sample is +3.52 and for the Japanese sample is +1.81). In order to reduce the skewness of the distribution of *age*, those respondents age 23 years and older are coded as 23 for their age (the maximum age for the Japanese sample). The recoded *age* has a mean of 19.45 (*S.D.* = 0.95) with *sk* = +1.43 for the combined samples.

SES

The respondents' SES is measured by combining both mother's and father's educational attainment. Household income is not an appropriate measure of SES for this study because the item measuring household income yielded a considerably large number of missing cases, particularly among the Japanese sample (see Table 3.2). To measure parental educational attainment, respondents were asked to identify for each parent the highest level of educational attainment from the following nine categories: (1) some junior high school but did not graduate, (2) junior high school graduation, (3) some high school, (4) high school grad/GED, (5) vocational certificate, (6) two year college, (7) some college, (8) college degree, and (9) graduate/professional degree. Frequency and percentage distributions of educational attainment for each parent separated by gender for the two samples are shown in Table 3.2. Respondents' SES is a dummy variable, called *SES*, coded 1 for those who have at least one parent with a college degree or higher (i.e., college degree or graduate/professional degree) and coded 0 for all other

respondents (i.e., neither parent has a college degree or higher).[20] The mean *SES* for the combined samples is 0.68 (*S.D.* = 0.47), indicating that 68% of the respondents have at least one parent who has a college degree or higher. The distribution is similar across the two samples (the mean for the Japanese sample is 0.67 with a *S.D.* = 0.47 and for the American sample is 0.68 with a *S.D.* = 0.47), though the American sample overall has a slightly higher *SES* than the Japanese sample.

Family Structure

Though family process is found to be more important than family structure as a predictor of youth delinquency in several studies (e.g., Loeber and Stoutbamer-Loeber 1986, Hirschi 1969), because past studies indicate that family composition varies considerably across Japan and the U.S., this study controls for family structure. The respondents were asked: "while you were growing up, how would you describe your household?" The respondents indicated either "not applicable" or "yes" to the following nine household types: (1) single mother household, (2) single father household, (3) both biological parents in household, (4) mother and step-father, (5) father and step-mother, (6) with grandparents, (7) foster care, (8) adoptive parents/guardians, and (9) both biological parents and grandparents. Among the American sample, 13 male and 16 female respondents indicate that they grew up in more than one type of household. Frequency and percentage distributions for family structure by gender for the two samples, excluding the 29 American respondents with

[20] Preliminary analysis shows that 253 respondents indicate neither of their parents have a college degree or higher, 258 respondents indicate one of their parents has a college degree or higher, 275 respondents indicate both of their parents have a college degree or higher, six respondents indicate one of their parents has less than a college degree and missing value for the other parent, seven respondents indicate one of their parents has a college degree or higher and missing value on the other parent, and three respondents have missing value on both of their parents. I assigned the three respondents with missing value for both of their parents the value of the mode of this variable for the combined samples (i.e., the value of 1 for at least one parent with a college degree or higher).

multiple answers, are shown in Table 3.5, and show that the Japanese respondents are more likely to have grown up in a kind of extended family with both biological parents and grandparents or in a household with both biological parents (94.1% of males and 94.4% of females), compared to their American counterparts (76.0% of males and 81.7% of females). Thus, as expected, single-parent households and the presence of a step-parent in the household are both more prevalent among the American respondents. The family structure variable created for this study measures the presence of a single adult versus two or more adults in a household, tapping the differences in the amount of possible physical supervision across these two major types of household, thus this study does not measure family structure in terms of traditional vs. non-traditional households. The variable, *two-parent home*, is a dummy variable, coded 0 for the respondents who have, at any time in their lives, experienced being in a single-parent home (i.e., "single mother household" and "single father household"), and coded 1 for all other respondents (i.e., the respondents who have never experienced a single-parent household and lived their entire lives in households with more than one adult presence).[21] The mean for the *two-parent home* variable for the combined samples is 0.91 (*S.D.* = 0.29), indicating that 91% of students have *never* grown up in a single-parent household. As expected, the distribution of this variable differs by country. While the mean for the Japanese sample is 0.95 (*S.D.* = 0.21), the respective mean for the American sample is 0.85 (*S.D.* = .36), indicating that

[21] The one Japanese male respondent who had missing values on all household types was coded 1 for this variable (the mode of this variable for the combined samples).

Table 3.5. Frequency and Percentage Distributions of Family Structure by Gender for the Japanese, *n* =433 and American Samples, *n* =369.

"While growing up, how would you describe your household?"	Japanese		Americans	
	Males	Females	Males[a]	Females[b]
Both biological parents	237 (76.9%)	93 (74.4%)	111 (76.0%)	159 (81.2%)
Both biological parents and grandparents	53 (17.2%)	25 (20.0%)	0	1 (0.5%)
Single-mother	12 (3.9%)	5 (4.0%)	21 (14.4%)	13 (6.7%)
Single-father	2 (0.6%)	1 (0.8%)	1 (0.7%)	1 (0.5%)
Mother and step-father	1 (0.3%)	1 (0.8%)	9 (6.2%)	12 (6.2%)
Father and step-mother	0	0	2 (1.4%)	1 (0.5%)
Grandparents only	2 (0.6%)	0	1 (0.7%)	4 (2.1%)
Foster care	0	0	0	0
Adoptive parents/guardians	0	0	1 (0.7%)	3 (1.5%)
Missing	1 (0.3%)	0	0	0
Total	308 (100%)	125 (100%)	146 (100%)	194 (100%)

[a] 13 American males who identified more than one family type are not included in this table.

[b] 16 American females who identified more than one family type are not included in this table.

the American respondents were more likely to have grown up in a single-parent home, compared to the Japanese respondents.[22]

Theoretical Variables

Where possible, I attempt to include comprehensive measures in this dissertation for both Hirschi's (1969) social control theory and Akers's (1985) social learning theory. For each theoretical measure and scale created in this dissertation, detailed discussions of the univariate descriptive statistics of each measure compared across countries are found in Chapter Four, and across males and females separately for the two samples in Chapter Five. All Hirschi's (1969) social control measures are coded so that a higher value indicates a higher social bond, while all Akers's (1985) social learning measures are coded so that a higher value indicates a higher level of measures of social learning.

Hirschi's Social Control Theory

For Hirschi's (1969) social control theory, an attempt was made to capture all four elements of the social bond, included in Hirschi's (1969) original research. However, as discussed later, creation of *belief* element posed a problem, because items used to create the *belief* element did not seem to meet the criteria set to be considered as a measure for this theory. In the end, all four elements of social bonds are created for this study along with a global measure of attachment to parents. Possible ways to create

[22] This cross-national difference is expected and is consistent with the difference in the proportions in the overall population by nation. For instance, in 2000, among those households with children under 18 years old, 19% consisted of single-parent homes. On the other hand, according to the U. S. Census Bureau (2003), in 2002, the respective proportion was 31% in the U.S. Nevertheless, for both samples, a smaller proportion of students has ever grown up in single-parent homes (i.e., 5% for Japanese and 15% for Americans, respectively), compared to their proportions in the respective national census (i.e., 19% and 31%, respectively). This difference might reflect the fact that both samples in this study consist of youths who are in four-year universities, excluding the populations of youths in both countries who might be more likely to have grown up in single-parent homes.

some of the measures that capture the *underlying process* though with Hirschi's (1969) social control measures affect deviance are also discussed.

Attachment. The first element of social bond is attachment. The attachment element includes the three types used in Hirschi's (1969) original research. Because the samples in this dissertation are also youths, I include the same three types of attachment from Hirschi's (1969) original research, including attachment to parents, attachment to peers, and attachment to school.

The first type of attachment is *attachment to parents*, which consists of the following three components: (1) affectional identification with father/mother, (2) intimacy of communication with father/mother, and (3) parental supervision. The three components of attachment to parents are measured by asking respondents about their perceptions of their relationships with their mother and father separately—thus there are identical questions for each parent. Unlike other theoretical variables included in this dissertation, items measuring attachment to parents yielded a considerably large number of missing cases. These missing cases are replaced with the mode of the item for the combined samples.

Affectional identification with parents is measured using the respondents' opinion about the following five statements about their relationship with their parents asked separately for each parent: (1) I want to be like my mother/mother figure or father/father figure, (2) I love my mother/mother figure or father/father figure (translated as *hahaoya/chichioya nokotoga daisukida*), (3) I feel extremely close to my mother/mother figure or father/father figure, (4) I get all the affection I want from my mother/mother figure or father/father figure, and (5) I often engage in leisure activities

with my mother/mother figure or father/father figure. The response categories are coded in a four-point Likert scale ranging from "not at all like me" to "very much like me". Assuming that the reason behind respondents who chose "n/a" for one parent to any of the five questions was due to growing up without that parent, the missing values for these respondents are replaced with the value for the other parent, if available. For each question, the respondents' answers for mother and father are summed to form one item. Thus, there are five mother-father combined items that measure affectional identification with parents. In cases where a respondent indicated "n/a" to an item for both parents, then this respondent received the mode of the combined samples for the mother-father combined item. Frequency and percentage distributions for each of the five items separately for each parent for the combined samples are shown in Table 3.6. A principal component analysis for the five mother-father combined affectional identification items shows a single factor. Factor loading of each of five mother-father combined items is also shown in Table 3.6. Cronbach's alpha for the linear composite of z-scores of the five items is 0.88. Reliability could not be improved by eliminating any of the five items. The *affectional identification* scale is created by summing the z-score transformation of the five mother-father combined items with a mean of 0 and a standard deviation of 4.11.

Intimacy of communication with parents is measured using the respondents' opinions about the following statement asked separately for each parent: "my father/mother is willing to listen when I need to talk about my worries or problems." The respondents used a five-point Likert scale ranging from "not at all" to "a great deal" to identify their opinion about the statement. Frequency and percentage distributions for the intimacy of

communication item for each parent for the combined samples are shown in Table 3.7. Like items for *affectional identification* scale, the intimacy of communication items for the two parents are summed to form one mother-father combined intimacy of communication item for each respondent. Once again, the missing value for the respondents who chose "n/a" for one of their parents was replaced with the value for the other parent, if available. If respondents did not have an answer for either of their parents, they received the value for the mode of the combined samples for the combined mother-father item. Since there is only one combined item measuring intimacy of communication, neither factor analysis nor reliability analysis is conducted for this measure. The *intimacy of communication* variable has a mean of 6.69 and a standard deviation of 2.41 for the combined samples.

Parental supervision is measured using the respondents' answers to the following two questions, asked separately for each parent: (1) "how often did your father/father figure or mother/mother figure know where you were when you were away from home?" and (2) "how often did your father/father figure or mother/mother figure know whom you were with when you were away from home?" These two questions are asked specifically to refer to <u>while the respondents were growing up before they graduated from high school</u>. The respondents used a three-point Likert scale ranging from "never" to "often" to answer the two questions for each parent. Frequency and percentage distributions of the two questions for each parent for the combined samples are shown in Table 3.8. Once again, each of the two parental supervision items for mother and father are summed to form one mother-father combined item. The missing value for respondents with an "n/a" for one of their parents has been replaced with the

Table 3.6. Frequency and Percentage Distributions and Factor Loadings of Five Affectional Identification with Parents Items for Each Parent for the Combined Samples, *n* =801.

	Not at all like me	Somewhat like me	Quite a bit like me	Very much like me	Not applicable	Missing	Factor loading
a. I want to be like my mother/mother figure.	138 (17.2%)	323 (40.3%)	187 (23.3%)	117 (14.6%)	29 (3.6%)	8 (1.0%)	0.739
b. I want to be like my father/father figure.	151 (18.8%)	300 (37.4%)	190 (23.7%)	118 (14.7%)	34 (4.2%)	9 (1.1%)	
c. I love my mother/mother figure.	23 (2.9%)	175 (21.8%)	200 (24.9%)	381 (47.5%)	12 (1.5%)	11 (1.4%)	0.837
d. I love my father/father figure.	48 (6.0%)	181 (22.6%)	182 (22.7%)	359 (44.8%)	22 (2.7%)	10 (1.2%)	
e. I feel extremely close to my mother/mother figure.	29 (3.6%)	181 (22.6%)	265 (33.0%)	302 (37.7%)	14 (1.7%)	11 (1.4%)	0.882
f. I feel extremely close to my father/father figure.	86 (10.7%)	247 (30.8%)	226 (28.2%)	206 (25.7%)	26 (3.2%)	11 (1.4%)	
g. I get all the affection I want from my mother/mother figure.	61 (7.6%)	220 (27.4%)	215 (26.8%)	275 (34.3%)	20 (2.5%)	11 (1.4%)	0.837
h. I get all the affection I want from my father/father figure.	97 (12.1%)	232 (28.9%)	208 (25.9%)	221 (27.6%)	33 (4.1%)	11 (1.4%)	
i. I often engage in leisure activities with my mother/mother figure.	118 (14.7%)	275 (34.3%)	178 (22.2%)	200 (24.9%)	20 (2.5%)	11 (1.4%)	0.818
j. I often engage in leisure activities with my father/father figures.	160 (20.0%)	294 (36.7%)	155 (19.3%)	145 (18.1%)	37 (4.6%)	11 (1.4%)	

Table 3.7. Frequency and Percentage Distributions of Intimacy of Communication for Each Parent for the Combined Samples, *n* =801.

	Not at all	A little	Some	Quite a bit	A great deal	n/a	Missing
a. My father is willing to listen when I need to talk about my worries or problems.	114 (14.2%)	197 (24.6%)	143 (17.8%)	126 (15.7%)	173 (21.6%)	39 (4.9%)	10 (1.2%)
b. My mother is willing to listen when I need to talk about my worries or problems.	49 (6.1%)	126 (15.7%)	181 (22.6%)	163 (20.3%)	253 (31.5%)	20 (2.5%)	10 (1.2%)

value for the other parent, if available. For cases in which the respondents answered "n/a" for both of their parents, they are assigned the value for the mode of the combined samples for the mother-father combined item. Cronbach's alpha for the linear composite of the two mother-father combined items is 0.86, indicating a moderately high degree of reliability. The *parental supervision* scale is created by summing the z-score transformations of the two mother-father combined items. The mean for the *parental supervision* scale for the combined samples is 0 (*S.D.* =1.88).

Table 3.8. Frequency and Percentage Distributions of Two Parental Supervision Items for Each Parent for the Combined Sample, *n* =801.

	Never	Sometimes	Often	n/a	Missing
a. How often did your father/father figure know where you were when you were away from home?	68 (8.5%)	248 (30.9%)	460 (57.4%)	25 (3.1%)	1 (0.1%)
b. How often did your mother/mother figure know where you were when you were away from home?	122 (15.2%)	263 (32.8%)	390 (48.6%)	26 (3.2%)	1 (0.1%)
c. How often did your father/father figure know whom you were with when you were away from home?	16 (2.0%)	117 (14.6%)	657 (81.9%)	11 (1.4%)	1 (0.1%)
d. How often did your father/father figure know whom you were with when you were away from home?	26 (3.2%)	175 (21.8%)	589 (73.4%)	11 (1.4%)	1 (0.1%)

In order to create an overall global measure of attachment to parents with the three items (including *affectional identification* with parents, *intimacy of communication* with parents, and *parental supervision*), a principal component analysis is conducted to determine the dimensionality of the three items/scales measuring attachment to parents. A principal component analysis shows a single factor; however, a reliability analysis indicates that elimination of the *parental supervision* scale would improve alpha by 0.009. Because the improvement is minimal, I decided to retain this

scale and create a scale measuring overall *attachment to parents* using all three scales. The factor loading of each of the three scales is: 0.881 for *affectional identification*, 0.868 for *intimacy of communication*, and 0.686 for *parental supervision*. Cronbach's alpha for the linear composite of the three items is 0.744. An overall scale measuring *attachment to parents* is created by summing the z-score transformation of the three scales. The *attachment to parents* scale has a mean of 0 and a standard deviation of 2.44.

The second type of attachment, attachment to peers, consists of the respondents' answers to the following two questions: (1) "do you respect your close friends' opinions about the important things in life?" and (2) "would you like to be the kind of person your close friends are?" The respondents chose one of the following three answers for each question: "not at all", "in a few ways", and "in most ways." There are no missing cases for either of the attachment to peers items. Frequency and percentage distributions of the combined samples are shown in Table 3.9. Cronbach's alpha for the linear composite of the two items is 0.66. The *attachment to peers* scale is created by summing the z-score transformations of the two items. The mean for the attachment to peer for the combined samples is 0 (*S.D.* = 1.73).

Table 3.9. Frequency and Percentage Distributions of Two Attachment to Peers Items for the Combined Samples, *n* =801.

	Not at all	In a few ways	In most ways	n/a	Missing
(1) Do you respect your close friends' opinions about the important things in life?	44 (5.5%)	424 (52.9%)	334 (41.6%)	0	0
(2) Would you like to be the kind of person your close are?	112 (14.0%)	511 (63.7%)	179 (22.3%)	0	0

The last type of attachment, attachment to school, is measured by a single item, which asks the respondents: "In general, did you like or dislike high school?" The answer categories include: "I disliked school," "I liked and disliked school equally,"

and “I liked school.” Frequency and percentage distributions of this item for the combined samples are shown in Table 3.10. The *attachment to school* variable is a dummy variable coded 1 for the respondents who liked school, and coded 0 for all other respondents (i.e., did not like school). The *attachment to school* variable has a mean of 0.643, indicating the majority of the respondents liked high school, and a standard deviation of 0.479.

Table 3.10. Frequency and Percentage Distributions of Attachment to School for the Combined Samples, *n* =801.

	I disliked school	I liked and disliked school	I liked school	Missing
In general, did you like or dislike high school?	66 (8.2%)	220 (27.4%)	514 (64.1%)	2 (0.2%)

In order to create a further parsimonious measure of the element of attachment for Hirschi’s (1969) social control theory, a principal component analysis is conducted to determine the dimensionality of the three types of attachment measures (including *attachment to parents*, *attachment to peers*, and *attachment to school*). However, a principal component analysis does not show a clear single factor, and a reliability analysis indicates that the reliability for a scale with these three attachment measures is considerably low (alpha = 0.383). Thus, I decided not to create an overall measure of the element of attachment, and instead use the three types of attachment measures separately in the subsequent analyses.

Commitment. The second element of Hirschi’s (1969) social control theory is commitment, which was created using the question: “How important is it to you to achieve the following goals?” Three goals that are generally considered valuable for college students are included: (1) “making good grades in college,” (2) “graduating from college,” and (3) “getting the job that I want when I finish my education.”

Respondents indicate the importance of these three goals to them using a four-point Likert scale ranging from "not very important" to "very important." Those respondents indicating "no goals in this area" for any of the items are coded with the value for "not very important" on that item. Each item measuring commitment is coded so that a higher value indicates a higher commitment. Frequency and percentage distributions for the three items for the combined samples are shown in Table 3.11. A principal components analysis of the three commitment items indicates a single factor, showing that each item loads well with other items. Factor loading of each of the three items is also shown in Table 3.11. Cronbach's alpha for the linear composite of the three items is 0.69. Reliability could not be improved by eliminating any of the three items. The *commitment* scale is created by summing the z-score transformations of the three items. The mean for the *commitment* scale for the combined samples is 0 (*S.D.* = 2.35).

Involvement. The third element of Hirschi's (1969) social control theory is involvement, which is measured as the respondents' actual time in hours spent participating per week in the following organizations or activities in the past year: (1) job, (2) academic club, (3) community organization, (4) school band or orchestra, (5) organized athletics, (6) classes other than school, and (7) other activities or organizations. There were a few cases with extreme scores (i.e., hours), and to eliminate a bias resulting from such outliers, maximum cut-off points were set for each activity or institution. For instance, while the mean for job was 15.88 hours, 2.4% of respondents indicated that they worked more than 40 hours per week, thus the maximum possible value for hours per week spent on jobs is set at 40 hours a week. The same procedure was applied to all other activities or institutions. Univariate descriptive statistics, specific cut off values,

and the proportion of outliers (with values greater than the cut off points) for the combined samples for each of the involvement items are displayed in Table 3.12. The variable measuring *involvement* is created by summing for each respondent the actual hours of participation in organizations or activities. Each missing case is replaced with the mean value for the combined samples of each of the activities or organizations. The summed *involvement* value ranges from 0 hour to 117 hours per week. Realistically, though, if we assume that most college students spend at least 15 hours per week in class and sleep at least seven hours per day (or 49 hours per week), there are only 104 hours of free time per week left for any respondent outside of class (out of 168 hours in a week). In fact, only 1.2% of the respondents in the combined samples report that they spend more than 70 summed hours per week on activities outside of class. Thus, the cut off value for the summed *involvement* variable is set at 70 hours, and all those respondents indicating that they spend 70 hours or more per week on activities outside of class are recoded to the value of 70 for this variable. The new *involvement* variable has a mean of 22.65 and a standard deviation of 15.12 for the combined samples.

Belief. The final element of Hirschi's (1969) social control theory is belief. The items from the survey used in this study appropriate for the belief element for this theory are the respondents' level of agreement/disagreement to the following five statements: (1) to get ahead, you have to do some things that are not right, (2) the person who leaves the keys in the car is about as much to blame for its theft as the person who steals it, (3) it is all right to get around the law if you can get away with it, (4) most things people call delinquency do not really hurt anyone, and (5) people should

Table 3.11. Frequency and Percentage Distributions of Three Commitment Items for the Combined Samples, *n* =801.

"How important in achieving the following goals?"	Not very important	Somewhat important	Important	Very important	No goal in this area	Missing	Factor loading
(1) Making good grades in college.	41 (5.1%)	167 (20.8%)	286 (35.7%)	275 (34.3%)	30 (3.7%)	3 (0.4%)	0.817
(2) Graduating from college.	6 (0.7%)	50 (6.2%)	161 (20.1%)	575 (71.7%)	7 (0.9%)	3 (0.4%)	0.842
(3) Getting the job that I want when I finish my education.	7 (0.9%)	28 (3.5%)	163 (20.3%)	595 (74.2%)	6 (0.7%)	3 (0.4%)	0.692

Table 3.12. Univariate Descriptive Statistics of Involvement for the Combined Sample, *n* =801.

"How many hours per week do you spend in the following activities or institutions?"	Mean[a]	*S.D.* [a]	*Min.*	*Max.* [b]	Cut off (% outliers)	Missing
(1) Job	13.531	12.471	0	1000	>40 (2.5%)	11
(2) Religious/Church activities	1.105	2.413	0	60	>12 (0.6%)	6
(3) Academic club	0.753	2.189	0	100	>10 (1.5%)	3
(4) Community organization	0.561	1.916	0	56	>10 (1.1%)	3
(5) School band or orchestra	0.551	2.120	0	50	>10 (2.5%)	3
(6) Organized athletics	3.716	7.068	0	300	>30 (1.1%)	5
(7) Classes other than school	0.490	1.692	0	45	>10 (0.6%)	2
(8) Other	2.215	5.366	0	250	>20 (3.1%)	7

[a] Means and standard deviations are calculated for each activities after missing cases for each activities are replaced with the mear of each activities for the combined samples and outliers are recoded with the respective cut off values.

[b] Maximum value for each item includes outliers.

let other people do what they want to do as long as nobody gets hurt, even if it is against the law. However, all these five items at the first glance seem to be measuring the *presence* of *deviance promoting* beliefs (i.e., disrespect for the law), thus they seem to be inconsistent with the criteria I set in previous chapter to be considered a measure for Hirschi's (1969) social control theory. Respondents indicated their agreement or disagreement with the five statements using a four-point Likert scale ranging from "strongly agree" to "strongly disagree." Frequency and percentage distributions for the five items for the combined samples are shown in Table 3.13. Looking at the table, it seems that the respondents' disagreement (i.e., "strongly disagree" and "disagree") to the five statements could meet the criteria set for being considered as measures for Hirschi's (1969) social control theory. Specifically, in the previous chapter, I noted that Hirschi's (1969) social control theory holds that it is the *absence* of *deviance prohibiting* beliefs that frees individuals to deviate, because they fail to *control* or *constrain* an individual from engaging in a deviant behavior. Thus, if the respondents did not indicate that they either "strongly disagree" or "disagree" to any of the five statements, this might constitute the *absence* of *deviance prohibiting* beliefs. On the other hand, if the respondents instead indicates that they either "agree" or "strongly agree" to any of the five statements, this might constitute the *presence* of *deviance promoting* beliefs. Thus, to create the scale measuring *belief* for Hirschi's social control theory, I recode each item into an ordinal measure with three categories: "strongly disagree," "disagree," and all other (including "agree" and "strongly agree"). Additionally, each item is coded so that a higher value indicates a higher belief (i.e., presence of deviance prohibiting beliefs). A principal components analysis of the five

belief items indicates that the second item, "the person who leaves the keys in the car is about as much to blame for its theft as the person who steals it," does not load well with other items (factor loading = 0.259). Eliminating this item from the scale, a principal component analysis shows a single factor. Factor loading of each of the remaining four items is also shown in Table 3.13. Cronbach's alpha for the linear composite of the four items is 0.68. Reliability could not be improved by eliminating any of the four items. The *belief* scale is created by summing the z-score transformations of the four items. The mean for the *belief* scale for the combined samples is 0 (*S.D.* = 2.85).

Results of a partial correlation analysis of the theoretical variables from Hirschi's (1969) social control theory, controlling for nationality, gender, age, SES, and family structure are shown in Table 3.14. As is found in Hirschi's (1969) original study, all measures from this theory have significant positive correlations with one another, except for the correlations involving the measure for *involvement*. Furthermore, in support of Hirschi's (1969) contention that attachment to parents and *attachment to peers* do not have an inverse relationship, Table 3.13 shows that the relationships between *attachment to peers* and *affectional identification* with parents, *intimacy of communication* with parents, and a universal measure of *attachment to parents* are all significantly positive, indicating that those respondents with stronger *attachment to peers* also have stronger attachment to parents, compared to those respondents with weaker *attachment to peers*. However, interestingly, the relationship between *parental supervision* and *attachment to peers* failed to reach significance. Finally, overall, *commitment*, *attachment to school*, and *belief* all have significant

Table 3.13. Frequency and Percentage Distributions and Factor Loadings of Five General Definitions Favoring Deviance Items for the Combined Samples, *n* =801.

	Strongly disagree	Disagree	Agree	Strongly agree	Missing	Factor loading[a]
(1) To get ahead, you have to do some things that are not right.	154 (19.2%)	411 (51.2%)	212 (26.4%)	23 (2.9%)	2 (0.2%)	0.641
(2) The person who leaves the keys in the car is about as much to blame for its theft as the person who steals it.	216 (26.9%)	324 (40.4%)	219 (27.3%)	41 (5.1%)	2 (0.2%)	-
(3) It is all right to get around the law if you can get away with it.	260 (32.4%)	435 (54.2%)	91 (11.3%)	9 (1.1%)	7 (0.9%)	0.797
(4) Most things people call delinquency do not really hurt anyone.	211 (26.3%)	445 (55.5%)	131 (16.3%)	8 (1.0%)	7 (0.9%)	0.669
(5) People should let other people do what they want to do as long as nobody gets hurt even if it against the law.	196 (24.4%)	414 (51.6%)	148 (18.5%)	39 (4.9%)	5 (0.6%)	0.741

[a] Factor loadings are based on a principal component analysis without the second item.

positive relationships with other measures of social control, except for the relationship between *commitment* and *attachment to peers* as well as between *belief* and *attachment to peers*. *Involvement*, on the other hand, fails to reach significance with any of the measures from Hirschi's (1969) social control theory.

Table 3.14. Partial Correlations Among Measures from Hirschi's (1969) Social Control Theory, Controlling for Nationality, Gender, Age, SES, and Family Structure for the Combined Samples, *n* =801 (one-tailed significance test in parenthesis).

	(01)	*(02)*	*(03)*	*(04)*	*(05)*	*(06)*	*(07)*	*(08)*	*(09)*
(01) Affectional Identification with parents	1.000								
(02) Intimacy of Communication with parents	0.554 (0.000)	1.000							
(03) Parental supervision	0.261 (0.000)	0.220 (0.000)	1.000						
(04) Attachment to parents	0.793 (0.000)	0.770 (0.000)	0.687 (0.000)	1.000					
(05) Attachment to peers	0.120 (0.000)	0.074 (0.019)	0.034 (0.166)	0.100 (0.002)	1.000				
(06) Attachment to school	0.188 (0.000)	0.080 (0.012)	0.095 (0.004)	0.161 (0.000)	0.070 (0.024)	1.000			
(07) Commitment	0.184 (0.000)	0.137 (0.000)	0.079 (0.013)	0.176 (0.000)	0.058 (0.052)	0.174 (0.000)	1.000		
(08) Involvement	-0.050 (0.080)	-0.056 (0.056)	-0.021 (0.279)	-0.055 (0.059)	-0.054 (0.065)	0.033 (0.179)	-0.045 (0.104)	1.000	
(09) Belief	0.171 (0.000)	0.169 (0.000)	0.096 (0.003)	0.192 (0.000)	0.032 (0.181)	0.132 (0.000)	0.080 (0.012)	-0.016 (0.324)	1.000

Agnew (1995) argues that it is important to include in empirical research the measures for *underlying processes* through which theoretical variables affect deviance. In Hirschi's (1969) social control theory, according to Agnew (1995), the *underlying process* pertains to the process of being free to engage in deviance, as a result of a lack of social bonds that prevent deviance. So for instance, we might be able to measure the process of being free to engage in deviance, as a result of a lack of involvement by creating a variable that measures respondents' free time (i.e., equals to hours available in a week minus the total hours respondents spend per week on activities and institutions, classes, and sleep). However, such variable measuring free time would

mostly likely result in a strong multicolinearity with the measure for *involvement*. In another example, the process of being free to engage in deviance as a result of lack of *commitment* might be measured by asking respondents to indicate all possible stakes in conformity for each deviant behavior, as is often done when testing deterrence theories, but such measures are not available in the dataset used for this dissertation. In terms of the *belief* element, it seems that the measure created for this study (i.e., the absence of deviance prohibiting beliefs) in fact is identical to the process of being free to engage in deviance, as a result of lack of belief. The one *underlying process* for Hirschi's (1969) social control theory that might be possible to include is the process of being free to engage in deviance, as a result of a lack of attachment to parents or peers. Hirschi (1960) specifically notes that when individuals are not attached to conventional others (like parents or peers) deviance is more likely, because when contemplating deviance, such individuals forgo the expectations and wishes of others. In other words, such individuals are free to engage in deviance, because they do not have to take into account the wishes and expectations of others. There are questionnaire items appropriate to measure such a process for both the respondents' parents and peers. However, since they are measures originally included in the survey for Akers's (1985) social learning theory, the additional two measures for *underlying process* for Hirschi's (1969) social control theory are discussed in more detail later.

Akers's Social Learning Theory

Efforts were made once again to include comprehensive measures from Akers's (1985) social learning theory. However, because Akers's (1985) social learning theory could potentially include all aspects of social interactions, this study focuses in particular on

the three major theoretical measures from this theory: differential association, definitions, and differential reinforcement. Note that this study does not include a measure for imitation.

Differential Association. The differential association measure for Akers's (1985) social learning theory for this dissertation pertains only to differential association with deviant peers. The respondents were asked, "how many of your close friends engaged in the following behaviors in the past year?," concerning the same 16 general deviance items used to measure respondents' own general deviant behaviors. The response categories included "none of them", "less than half", "more than half", and "almost all of them". Each item is coded so that a higher value indicates a higher level of association with deviant peers. Frequency and percentage distributions of each item for the combined samples are shown in Table 3.15. Once again, the three measures pertaining to illegal drug use and sales in addition to the one academic deviance behavior are excluded from inclusion in the scale measuring differential association with deviant peers. A principal component analysis for the remaining 12 items shows a single-factor solution, with a moderately high Cronbach's alpha value for the linear composite of those 12 items (alpha = 0.88). Reliability could not be improved by eliminating any of the 12 items. The factor loading of each item is also shown in Table 3.15. The *differential association* with deviant peers scale is created by summing the z-score transformations of the 12 items. The mean for this scale for the combined samples is 0 (*S.D.* = 7.78).

Note that for both the respondents' own and their friends' engagements in deviant behaviors, the questions ask about behaviors within the past year, thus the deviant

behavior engagements of both the respondents and their peers pertain to the same time period. This further complicates the interpretation of the results for Akers's (1985) social learning theory in terms of cause and effect, because the purported cause, the association with deviant peers, occurs at the same time as the effect, respondents' own deviance. At least from the cross-sectional data used in this dissertation, along with the measures for the respondents' deviance and differential association alone, therefore, it is not possible to distinguish among a selection effect, opportunity effect, and the direct causal effect of differential association on deviance. In addition, as discussed in the previous chapter, Haynie and Osgood (2005) find that the effect of association with deviant peers on deviance, when measured using respondents' own self-reports about deviant peer associations, is overestimated by even fivefold. This finding suggests further that it is important to carefully examine the implication of the findings when effect sizes of theoretical measures are interpreted or compared across theories.

Definitions. This study includes two types of definitions. The first type of definitions pertains to general definitions, which are fundamental belief systems concerning deviance, crime, or law breaking. General definitions favoring deviance are measured using respondents' opinions on the same five statements used to create the *belief* element for Hirschi's (1969) social control theory. Respondents identified their opinion about each of the five items using a four-point Likert scale ranging from "strongly disagree" to "strongly agree". In terms of creating a general definition measure that is true to the criteria for being considered as a measure of Akers's (1985) social learning theory set in previous chapter, it must measure the *presence* of *deviance promoting* definitions. Thus, I recode each of the five items into an ordinal variable

Table 3.15. Frequency and Percentage Distributiona and Factor Loadinga of 16 Differential Association with Deviant Peers Items for the Combined Samples, *n* =801.

"How many of your close friends engaged in the following behaviors in the past year?"	None of them	Less than half	More than half	Almost all of them	Missing	Factor loading[a]
(1) Destroyed property that did not belong to them.	405 (50.5%)	348 (43.4%)	30 (3.7%)	14 (1.7%)	5 (0.6%)	0.655
(2) Stolen something worth $5 or less.	502 (62.6%)	250 (31.2%)	38 (4.7%)	11 (1.4%)	1 (0.1%)	0.753
(3) Stolen something worth more than $5.	569 (70.9%)	195 (24.3%)	24 (3.0%)	7 (0.9%)	7 (0.9%)	0.705
(4) Hurt someone badly enough that they needed bandages or a doctor.	581 (72.4%)	184 (22.9%)	21 (2.6%)	11 (1.4%)	5 (0.6%)	0.591
(5) Smoked cigarettes or used tobacco.	125 (15.6%)	395 (49.3%)	190 (23.7%)	89 (11.1%)	3 (0.4%)	0.726
(6) Cheated in school to get a better grade.	259 (32.3%)	372 (46.4%)	123 (15.3%)	39 (4.9%)	9 (1.1%)	-
(7) Engaged in sexual relations with someone they did not consider to their boyfriend or girlfriend.	349 (43.5%)	330 (41.1%)	89 (11.1%)	31 (3.9%)	3 (0.4%)	0.734
(8) Gambled illegally	521 (65.0%)	202 (25.2%)	58 (7.2%)	19 (2.4%)	2 (0.2%)	0.59
(9) Drank alcohol.	24 (3.0%)	111 (13.8%)	208 (25.9%)	458 (57.1%)	1 (0.1%)	0.421
(10) Used Marijuana.	518 (64.6%)	179 (22.3%)	64 (8.0%)	39 (4.9%)	2 (0.2%)	-
(11) Used other illegal drugs.	630 (78.6%)	132 (16.5%)	26 (3.2%)	12 (1.5%)	2 (0.2%)	-
(12) Driven without a seatbelt.	225 (28.1%)	344 (42.9%)	120 (15.0%)	107 (13.3%)	6 (0.7%)	0.72
(13) Exceeded the speed limit by 15 mph (20 km/hr) or more.	114 (14.2%)	322 (40.1%)	209 (26.1%)	153 (19.1%)	4 (0.5%)	0.666
(14) Ridden a motorcycle without a helmet.	432 (53.9%)	301 (37.5%)	45 (5.6%)	21 (2.6%)	3 (0.4%)	0.486
(15) Sold drugs.	685 (85.4%)	102 (12.7%)	7 (0.9%)	6 (0.7%)	2 (0.2%)	-
(16) Driven a car or motorcycle after drinking more than one drink.	329 (41.0%)	327 (40.8%)	91 (11.3%)	51 (6.4%)	4 (0.5%)	0.716

[a] The factor analysis does not include the three illegal drug related deviance and academic deviance items.

with three categories: “strongly agree,” “agree,” and all other (including “strongly disagree” and “disagree”). In addition, each item is coded so that a higher value indicates a more favorable general definition on deviance. Frequency and percentage distributions for each of the five items for the combined samples are shown in Table 3.13. A principal component analysis for the five items shows, once again, that the second item, “the person who leaves the keys in the car is about as much to blame for its theft as the person who steals it” does not load well with other items (factor loading = 0.125). Thus this item is excluded from the scale. A factor analysis with the remaining four items shows a single factor (with factor loadings: 0.625, 0.732, 0.666, and 0.687, respectively). Cronbach’s alpha for the linear composite of the four items is 0.61, and reliability could not be improved by eliminating any of the four items. The *general definitions* favoring deviance scale is created by summing the z-score transformations of the four items. The mean for this scale for the combined samples is 0 (*S.D.* = 2.71). Note that since both *belief* and *general definitions* scales are created from the same items, inclusion of the two scales in an analysis most likely will result in multicolinearity.

The second type of definitions pertains to specific definitions favoring specific deviant behaviors and corresponds to the 16 general deviance items used in the respondents’ own deviant behaviors. The respondents were asked, “if you knew someone your age was engaged in the following behavior, how would you react?” The respondents answered this question for each of the 16 general deviance items using a five-point Likert scale ranging from “strongly approve” to “strongly disapprove”. Frequency and percentage distributions of each of the 16 items for the combined

samples are shown in Table 3.16. In order to maintain consistently and be true to the criteria set for a measure to be considered Akers's (1985) social learning theory, each item is recoded to three categories constituting "strongly approve," "approve," and all other (including "would not care," "disapprove," and "strongly disapprove"). With this recoding, each of the five items now captures the *presence* of *deviance promoting* definition. All items are coded so that a higher value indicates a more favorable view on deviance. Once again, the three items concerning illegal drug use and sales as well as an academic deviance item are excluded from the scale. A principal component analysis for the remaining 12 items shows a single factor. The factor loading for each of the remaining 12 items is also shown in Table 3.16. Cronbach's alpha for the linear composite of the 12 items is 0.81. Reliability could not be improved by eliminating any of the 12 items. The *specific definitions* favoring deviance scale was created by summing the z-score transformations of the 12 items. The mean for this scale for the combined samples is 0 (*S.D.* = 6.38).

Differential Reinforcement. Two types of differential reinforcement measures are included in this study: one measuring the reinforcement by the respondents' peers and the other measuring the reinforcement by the respondents' parents. Peers' deviant reinforcement is measured using the respondents' answer to the following question "thinking of your close friends, how do you think they would react if they found out that you engaged in the following deviant behaviors?" The deviant behaviors include the 16 general deviant behaviors also used to measure respondents' own deviance. The respondents answer the question for each of the 16 deviant behaviors using a five-point Likert scale ranging from "strongly disapprove" to "strongly approve." Frequency and

Table 3.16. Frequency and Percentage Distributions and Factor Loadings of 16 Specific Definitions Favoring Deviance Items for the Combined Samples, *n* =801.

"If you knew someone your age was engaged in the following behavior, how would you react?"	Strongly approve	Approve	Would not care	Disapprove	Strongly disapprove	Missing	Factor loading[a]
(1) Destroyed property that did not belong to them.	3 (0.4%)	4 (0.5%)	113 (14.1%)	361 (45.0%)	321 (40.0%)	0	0.467
(2) Stolen something worth $5 or less.	2 (0.2%)	7 (0.9%)	150 (18.7%)	346 (43.1%)	297 (37.0%	0	0.577
(3) Stolen something worth more than $5.	1 (0.1%)	0	105 (13.1%)	262 (32.7%)	433 (54.0%)	1 (0.1%)	0.496
(4) Hurt someone badly enough that they needed bandages or a doctor.	2 (0.2%)	6 (0.7%)	81 (10.1%)	267 (33.3%)	445 (55.5%)	1 (0.1%)	0.445
(5) Smoked cigarettes or used tobacco.	7 (0.9%)	46 (5.7%)	392 (48.9%)	231 (28.8%)	126 (15.7%)	0	0.655
(6) Cheated in school to get a better grade.	4 (0.5%)	26 (3.2%)	286 (35.7%)	298 (37.2%)	188 (23.4%)	0	-
(7) Engaged in sexual relations with someone they did not consider to their boyfriend or girlfriend.	7 (0.9%)	40 (5.0%)	315 (39.3%)	213 (26.6%)	226 (28.2%)	1 (0.1%)	0.511
(8) Gambled illegally	4 (0.5%)	46 (5.7%)	362 (45.1%)	195 (24.1%)	193 (24.1%)	2 (0.2%)	0.526
(9) Drank alcohol.	51 (6.4%)	179 (23.3%)	435 (54.2%)	98 (12.2%)	38 (4.7%)	1 (0.1%)	0.493
(10) Used Marijuana.	5 (0.6%)	30 (3.7%)	171 (21.3%)	183 (22.8%)	412 (51.4%)	1 (0.1%)	-
(11) Used other illegal drugs.	0	10 (1.2%)	116 (14.5%)	173 (21.6%)	501 (62.5%)	2 (0.2%)	-
(12) Driven without a seatbelt.	3 (0.4%)	26 (3.2%)	275 (34.3%)	338 (42.1%)	157 (19.6%)	3 (0.4%)	0.805
(13) Exceeded the speed limit by 15 mph (20 km/hr) or more.	9 (1.1%)	58 (7.2%)	351 (43.8%)	282 (35.2%)	101 (12.6%)	1 (0.1%)	0.615
(14) Ridden a motorcycle without a helmet.	1 (0.1%)	24 (3.0%)	246 (30.7%)	295 (36.8%)	234 (29.2%)	2 (0.2%)	0.723
(15) Sold drugs.	3 (0.4%)	7 (0.9%)	89 (11.1%)	150 (18.7%)	552 (68.8%)	1 (0.1%)	-
(16) Driven a car or motorcycle after drinking more than one drink.	2 (0.2%)	17 (2.1%)	122 (15.2%)	270 (33.7%)	390 (48.6%)	1 (0.1%)	0.486

[a] Factor loadings are based on a factor analysis that exclude the three illegal drug related items and academic deviance item.

percentage distributions for the 16 items measuring peers' differential reinforcement for the combined samples are shown in Table 3.17. Once again, in order to remain true to the criteria set in the previous chapter for a measure to be considered an Akers's social learning theory measure, each item is recoded so that it measures peers' *positive reinforcement for deviance*. In other words, each item is recoded so that it contains three categories: "strongly approve," "approve," and all others (including "would not care or not their concern," "disapprove," and "strongly disapprove"). Each item is coded so that a higher value indicates a more favorable reinforcement for that deviant behavior by peers. As with the other measures using the general deviance items, the three illegal drug use and sales items as well as academic deviance item are excluded from the scale measuring peers' differential reinforcement. A principal component analysis is conducted with the remaining 12 items and shows that the item, "drinking alcohol" does not load well with other items (factor loading = 0.386), thus this item is excluded from the scale. A principal component analysis with the remaining 11 items shows a single factor. Cronbach's alpha value for the linear composite of the 11 items is 0.87. Reliability could not be improved by eliminating any of the 11 items. Factor loading of each item is also shown in Table 3.17. The *peers' differential reinforcement* scale is created by summing the z-score transformations of the 11 items. The mean for this scale for the combined samples is 0 (*S.D.* = 6.95).

The second type of differential reinforcement is the reinforcement by the respondents' parents, which is measured using the respondents' answer to the following question: "thinking of your parents, how do you think they would react if they found that you engaged in the deviance?" Once again, the specific deviant behaviors include

Table 3.17. Frequency and Percentage Distributions and Factor Loadings of 16 Peers' Differential Reinforcement Items for the Combined Samples, *n* =801.

"Thinking of your close friends, how do you think they would react if they found out that you have:"	Strongly approve	Approve	Would not care	Disapprove	Strongly disapprove	Missing	Factor loading[a]
(1) Destroyed property that did not belong to them.	3 (0.4%)	8 (1.0%)	120 (15.0%)	375 (46.8%)	293 (36.5%)	3 (0.4%)	0.726
(2) Stolen something worth $5 or less.	3 (0.4%)	19 (2.4%)	166 (20.7%)	320 (39.9%)	293 (36.5%)	1 (0.1%)	0.741
(3) Stolen something worth more than $5.	1 (0.1%)	10 (1.2%)	94 (11.7%)	272 (33.9%)	421 (52.5%)	4 (0.5%)	0.709
(4) Hurt someone badly enough that they needed bandages or a doctor.	2 (0.2%)	16 (2.0%)	78 (9.7%)	274 (34.2%)	430 (53.6%)	2 (0.2%)	0.547
(5) Smoked cigarettes or used tobacco.	13 (1.6%)	80 (10.0%)	317 (39.5%)	256 (31.9%)	134 (16.7%)	2 (0.2%)	0.569
(6) Cheated in school to get a better grade.	13 (1.6%)	68 (8.5%)	266 (33.2%)	302 (37.7%)	153 (19.1%)	0	-
(7) Engaged in sexual relations with someone they did not consider to their boyfriend or girlfriend.	23 (2.9%)	63 (7.9%)	213 (26.6%)	248 (30.9%)	254 (31.7%)	1 (0.1%)	0.516
(8) Gambled illegally	18 (2.2%)	68 (8.5%)	311 (38.8%)	214 (26.7%)	189 (23.6%)	2 (0.2%)	0.612
(9) Drank alcohol.	168 (20.9%)	263 (32.8%)	286 (35.7%)	44 (5.5%)	38 (4.7%)	3 (0.4%)	-
(10) Used Marijuana.	17 (2.1%)	47 (5.9%)	95 (11.8%)	161 (20.1%)	480 (59.9%)	2 (0.2%)	-
(11) Used other illegal drugs.	6 (0.7%)	18 (2.2%)	49 (6.1%)	151 (18.8%)	572 (71.3%)	6 (0.7%)	-
(12) Driven without a seatbelt.	8 (1.0%)	42 (5.2%)	331 (41.3%)	315 (39.3%)	97 (12.1%)	9 (1.1%)	0.728
(13) Exceeded the speed limit by 15 mph (20 km/hr) or more.	20 (2.5%)	85 (10.6%)	419 (52.2%)	226 (28.2%)	51 (6.4%)	1 (0.1%)	0.636
(14) Ridden a motorcycle without a helmet.	3 (0.4%)	37 (4.6%)	317 (39.5%)	304 (37.9%)	139 (17.3%)	2 (0.2%)	0.685
(15) Sold drugs.	6 (0.7%)	11 (1.4%)	45 (5.6%)	128 (16.0%)	611 (76.2%)	1 (0.1%)	-
(16) Driven a car or motorcycle after drinking more than one drink.	3 (0.4%)	22 (2.7%)	93 (11.6%)	341 (42.5%)	342 (42.6%)	1 (0.1%)	0.693

[a] Factor analysis does not include the three illegal drug related deviance, one academic deviance, and drinking alcohol items.

Table 3.18. Frequency and Percentage Distributions and Factor Loadings of 16 Parents' Differential Reinforcement Items for the Combined Samples, *n* =801.

"Thinking of your parents, how do you think they would react if they found out that you have:"	Strongly approve	Approve	Would not care	Disapprove	Strongly disapprove	Missing	Factor Loading[a]
(1) Destroyed property that did not belong to them.	1 (0.1%)	0	9 (1.1%)	180 (22.4%)	611 (76.2%)	1 (0.1%)	0.816
(2) Stolen something worth $5 or less.	2 (0.2%)	3 (0.4%)	10 (1.2%)	126 (15.7%)	660 (82.3%)	1 (0.1%)	0.883
(3) Stolen something worth more than $5.	2 (0.1%)	0	4 (0.5%)	77 (9.6%)	718 (89.5%)	1 (0.1%)	0.909
(4) Hurt someone badly enough that they needed bandages or a doctor.	1 (0.1%)	2 (0.2%)	9 (1.1%)	137 (17.1%)	649 (80.9%)	4 (0.5%)	0.711
(5) Smoked cigarettes or used tobacco.	1 (0.1%)	12 (1.5%)	72 (9.0%)	244 (30.4%)	472 (58.9%)	1 (0.1%)	0.527
(6) Cheated in school to get a better grade.	1 (0.1%)	4 (0.5%)	40 (5.0%)	201 (25.1%)	555 (69.2%)	1 (0.1%)	-
(7) Engaged in sexual relations with someone they did not consider to their boyfriend or girlfriend.	1 (0.1%)	15 (1.9%)	86 (10.7%)	188 (23.4%)	511 (63.7%)	1 (0.1%)	0.555
(8) Gambled illegally	2 (0.2%)	16 (2.0%)	92 (11.5%)	193 (24.1%)	497 (62.0%)	2 (0.2%)	0.517
(9) Drank alcohol.	38 (4.7%)	160 (20.0%)	240 (29.9%)	188 (23.4%)	174 (21.7%)	1 (0.1%)	-
(10) Used Marijuana.	2 (0.2%)	3 (0.4%)	10 (1.2%)	89 (11.1%)	694 (86.5%)	4 (0.5%)	-
(11) Used other illegal drugs.	2 (0.2%)	0	2 (0.2%)	67 (8.4%)	729 (90.9%)	2 (0.2%)	-
(12) Driven without a seatbelt.	3 (0.4%)	8 (1.0%)	69 (7.4%)	360 (44.9%)	367 (45.8%)	5 (0.6%)	0.754
(13) Exceeded the speed limit by 15 mph (20 km/hr) or more.	2 (0.2%)	19 (2.4%)	94 (11.7%)	368 (45.9%)	318 (39.7%)	1 (0.1%)	0.635
(14) Ridden a motorcycle without a helmet.	2 (0.2%)	4 (0.5%)	39 (4.9%)	214 (26.7%)	542 (67.6%)	1 (0.1%)	0.842
(15) Sold drugs.	1 (0.1%)	1 (0.1%)	4 (0.5%)	52 (6.5%)	743 (92.6%)	1 (0.1%)	-
(16) Driven a car or motorcycle after drinking more than one drink.	2 (0.2%)	0	8 (1.0%)	135 (16.8%)	655 (81.7%)	2 (0.2%)	0.909

[a] Factor loadins are based on a factor analysis that exclude the three illegal drug related deviance items, one academic deviance item, and drinking alcohol item.

the 16 general deviant behaviors. The respondents answer the question for each of the 16 deviance items using a five-point Likert scale ranging from "strongly disapprove" to "strongly approve." Frequency and percentage distributions for parents' differential reinforcement for the combined samples are shown in Table 3.18. Once again, in order to remain true to the criteria set in previous chapter for a measure to be considered as Akers's social learning theory measure, each item is recoded so that it measures parents' *positive reinforcement for deviance*. In other words, each item is recoded, so that it contains three categories: "strongly approve," "approve," and all other (including "would not care or not their concern," "disapprove," and "strongly disapprove"). Each item is coded so that a higher value indicates a more favorable reinforcement for the deviance by parents. Once again, the three illegal drug use and sales items and one academic deviance item are excluded from the scale. A principal component analysis is conducted with the remaining 12 items and shows once again that the item, "drinking alcohol" does not load well with other items (factor loading = 0.287). Excluding this item, a factor analysis shows a single factor. Factor loading of each item is also shown in Table 3.18. Cronbach's alpha value for the linear composite of the 13 items is 0.92, indicating a high reliability among the 11 measures. Reliability could not be improved by eliminating any of the 11 items. The *parents' differential reinforcement* scale is created by summing the z-score transformations of the 11 items. The mean for this scale for the combined samples is 0 (*S.D.* = 8.08).

Table 3.19 shows the results of a partial correlation analysis for the theoretical variables from Akers's (1985) social learning theory, controlling for nationality, gender, age, SES, and family structure. Table 3.19 indicates that, as expected by the theory, all

five measures for this theory included in this study have significant positive relationships with one another.

Table 3.19. Partial Correlations Among Measures from Akers's (1985) Social Learning Theory, Controlling for Nationality, Gender, Age, SES, and Family Structure for the Combined Samples, *n* =801 (one-tailed significance test in parenthesis).

	(01)	*(02)*	*(03)*	*(04)*	*(05)*
(01) Differential association with deviant peers	1.000				
(02) General definition favoring deviance	0.309 (0.000)	1.000			
(03) Specific definition favoring deviance	0.124 (0.000)	0.181 (0.000)	1.000		
(04) Peers' differential reinforcement favoring deviance	0.439 (0.000)	0.282 (0.000)	0.249 (0.000)	1.000	
(05) Parents' differential reinforcement favoring deviance	0.112 (0.000)	0.104 (0.002)	0.096 (0.003)	0.124 (0.000)	1.000

Hirschi's Underlying Process Measures

As discussed previously, it seems possible to measure the process of being free to deviate, resulting from weaker attachment to parents and peers, for Hirschi's social control theory, using the same items used to create scales measuring differential reinforcements by parents and peers for Akers's (1985) social learning theory. Instead of coding each item so that it reflects the *presence* of deviance *promoting* reinforcement (as was done for the two *differential reinforcement* measures), this time, each item is recoded so that it reflects the *absence* of deviance *prohibiting* reinforcement. In other words, each item is recoded into three categories: "strongly disapprove," "disapprove," and all other (including "would not care or not their concern," "approve," and "strongly approve"). Each item is coded so that a higher value indicates a higher absence of

deviance prohibiting reinforcement. The three items pertaining to illegal drug use and sales in addition to one academic deviance item are excluded for the scales measuring absence of deviance prohibiting reinforcement by parents and peers. First, a factor analysis with the remaining 12 items for peers' absence of deviance prohibiting reinforcement shows that the item, "drinking alcohol," does not load well with other items (factor analysis = 0.382), thus this item is also excluded from the scale. A factor analysis with the remaining 11 items shows a single factor (with factor loadings: 0.722, 0.762, 0.755, 0.648, 0.610, 0.612, 0.673, 0.649, 0.677, and 0.632, respectively). Cronbach's alpha value for the linear composite of the 11 items is 0.88. Reliability could not be improved by eliminating any of the 11 items. The *peers' absence of deviance prohibiting reinforcement* scale is created by summing the z-score transformations of the 11 items. The mean for this scale for the combined samples is 0 (*S.D.* = 7.46). Second, a factor analysis with the remaining 12 items for parents' absence of deviance prohibiting reinforcement shows a single factor (with factor loadings: 0.681, 0.667, 0.695, 0.637, 0.635, 0.605, 0.588, 0.474, 0.637, 0.616, 0.659, and 0.681, respectively). Cronbach's alpha value for the linear composite of the 12 items is 0.86. Reliability could not be improved by eliminating any of the 12 items. The *parents' absence of deviance prohibiting reinforcement* scale is created by summing the z-score transformations of the 12 items. The mean for this scale for the combined samples is 0 (*S.D.* = 7.13).

Table 3.20 shows the results of a partial correlation analysis for the theoretical variables from Hirschi's (1969) social control theory with the two motivational process scales, controlling for nationality, gender, age, SES, and family structure. Table 3.20

indicates that, as expected, both *peers'* and *parents' absence of deviance prohibiting reinforcement* have significant negative relationships with all of social bond measures, except for *involvement*. Thus, in terms of a partial correlation analysis, the results seem to support the argument by Hirschi (1969) that weak social bonds free individuals from the expectation and wishes of others.

Table 3.20. Partial Correlations Among Measures from Hirschi's (1969) Social Control Theory, Controlling for Nationality, Gender, Age, SES, and Family Structure for the Combined Samples, *n* =801 (one-tailed significance test in parenthesis).

	(01)	*(02)*	*(03)*	*(04)*	*(05)*	*(06)*	*(07)*	*(08)*	*(09)*	*(10)*	*(11)*
(01) Affectional Identification with parents	1.000										
(02) Intimacy of Communication with parents	-	1.000									
(03) Parental supervision	-	-	1.000								
(04) Attachment to parents	-	-	-	1.000							
(05) Attachment to peers	-	-	-	-	1.000						
(06) Attachment to school	-	-	-	-	-	1.000					
(07) Commitment	-	-	-	-	-	-	1.000				
(08) Involvement	-	-	-	-	-	-	-	1.000			
(09) Belief	-	-	-	-	-	-	-	-	1.000		
(10) Absence of peers' deviance prohibiting reinforcement	-0.136 (0.000)	-0.102 (0.002)	-0.139 (0.000)	-0.169 (0.000)	-0.206 (0.000)	-0.141 (0.000)	-0.122 (0.000)	0.031 (0.191)	-0.355 (0.000)	1.000	
(11) Absence of parents' deviance prohibiting reinforcement	-0.094 (0.004)	-0.095 (0.004)	-0.142 (0.000)	-0.149 (0.000)	-0.072 (0.021)	-0.079 (0.013)	-0.148 (0.000)	-0.052 (0.071)	-0.251 (0.000)	0.508 (0.000)	1.000

Summary

The dataset used in this dissertation, entitled *Investigation of the Role of Individuality Versus Group Orientation in Behaviors among Two Samples of College Students*, is one of the first theoretical self-reported cross-cultural data of deviance. Unlike the ICVS or ISRD, two of the most recognized cross-cultural survey datasets in crime, the data used in this dissertation include central measures from leading individual sociological theories of deviance, including Hirschi's (1969) social control theory and Akers's (1985) social learning theory, and self-reported data on the engagement of various forms of less serious and more prevalent forms of deviant behaviors. Furthermore, unlike the ISRD, which collect data from mostly Western European countries and the

U.S., the data used in this dissertation compare self-reported deviant behaviors of youths in Japan and the U.S.

Based on Agnew's (1995) distinction of the leading individual level sociological theories of deviance, I created measures that are used in the subsequent analyses for this dissertation. To the extent possible, this study includes comprehensive measures for both Hirschi's (1969) social control and Akers's (1985) social learning theories. However, because Hirschi's *beliefs* element could not be easily distinguished from Akers' *definitions* measure, at least in terms of what is available from the survey data, this study used the same items to create both the *belief* element for Hirschi's (1969) social control theory and the *definitions* for Akers's (1985) social learning theory, though the items are coded differently to maintain consistency with the underlying premises of each theory. In addition, though all of the elements of social bonds are included in the study, this dissertation does not have a comprehensive measure for the underlying process of "being free to deviate" for Hirschi's (1969) social control theory, discussed by Agnew (1995). The only two underlying process measures for Hirschi's (1969) social control theory included in this study are *peers'* and *parents' absence of deviance prohibiting reinforcement*, which specifically explain the underlying process for the effects of both attachment to parents and to peers on deviance. If analyses show an effect for other social control measure on deviance (including commitment, involvement, and belief), however, one can only assume that it is because the lack of such social control *freed* the individual to deviate, as hypothesized by Hirschi (1969) and specified by Agnew (1995). On the other hand, as a measure of *definitions* for Akers's (1985) social learning theory, this dissertation includes measures for *positive*

evaluation of deviance, the underlying process of motivation for Akers's (1985) social learning theory, according to Agnew (1995). However, it is very likely that this dissertation does not include exhaustive measures of Akers's (1985) social learning theory, since the theory covers almost every aspect of social interactions and relationships. In particular, this dissertation does not include a measure for imitation—one of the important processes of social learning in Akers's (1985) version of social learning theory. In addition, as suggested by Figure 2.5, since Akers's (1985) social learning theory hypothesizes *feedback effects* among many of the measures from its theory, cross-sectional research like this dissertation mostly likely fails to fully capture the relationships among the theoretical variables and deviance. Nevertheless, with the variables measuring nationality and gender, control variables, deviance, and theoretical measures created in this chapter, I test the two theories as explanations of deviance across countries in Chapter Four and across the intersection of culture and gender in Chapter Five. Specific hypotheses and analytic strategies follow the discussion of each study and review of extant research in the next two chapters.

CHAPTER FOUR

CROSS-CULTURAL ANALYSIS

Introduction

Over a hundred years ago, Durkheim (1895) stated the importance of comparative research and the use of comparative scientific methods for sociology, including cross-cultural research. During the 19th century, sociology was born to examine the consequences of modernization after the Industrial Revolution, and its founders, including Durkheim, relied heavily on comparative methods to examine the negative effects of industrialization and urbanization by comparing multiple societies and cities. In fact, Durkheim (1895) argued that comparative studies *are* sociology itself. The importance of comparative methods to criminology also goes without saying. Indeed, there is no contention that comparative research carries historical salience in criminology, as Howard, Newman, and Pridemore (2000: 141) state, "comparative criminology is as old as criminology itself," and as seen in the works of the 18th century scholars, such as Cesare Beccaria and Adolphe Quetelet, who examined variations in social structures, population compositions, legal systems, and crime rates across countries.

Nevertheless, according to Marsh (1967), prior to the 1960s, comparative research, and cross-cultural research in particular, constituted only a fraction of all research in criminology. Since the time of Beccaria and Quetelet, the trend in criminology has been to shift from *outward* comparison, in the form of cross-national/cultural research, to *inward* examination within one's own country (Howard et al. 2000). During the 19th and 20th centuries, the inward examination of crime promoted

the development of many of the leading individual level theories of crime as we know them today, but most were developed within the U.S. Today, criminology is dominated by both macro and micro level theories developed by American scholars, based on studies conducted using a sample of American white males. Given this, Clinard (1960: 253) argues, "if the sociological study of crime is to be scientific, general data, hypotheses, and findings should not be derived from only one particular series of historical events taking place in one society, which is often the case especially in American criminology."

Since the1960s, concurrent with the civil rights and women's movements, minority scholars in the U.S. have become increasingly vocal and critical of the empirical validity of theories in the social sciences as they are applied (or *not* applied) across different groups. Many of the existing theories in the social sciences either ignore the minority members of a society in development or provide explanations perpetuating the misconception and the inferiority of minority groups (e.g., *Bell Curve*). Scholars argue that to eliminate ethnocentrism in social scientific theories, merely testing the applicability of a theory on various groups is inadequate. Instead, we need to generalize and refine sociological theories to take into account variations of individual experiences across groups. Comparative studies are essential to examining such group variations in a society, especially the kind of research that emphasizes the heterogeneity of groups and the unique experiences of minority groups. Indeed, criminology does not stand as an exception to such criticisms. Like Clinard (1960), many criminologists have also criticized the paucity of theories generated by, or that consist of, members other than Anglo-Saxon males (e.g., Kempf 1993).

Feminist criminologists are especially vocal with such criticisms, and are among the forerunners in advocating comparative studies that critically examine the empirical validity of the theories as they are applied to females (Heinderhson 1969). As a critique of the leading theories of deviance, Daly and Chesney-Lind (1988), for instance, raise two important questions. First, can a theory of deviance explain why males are more deviant than females? Second, even though many of the existing theories of deviance are developed as explanations for male deviance, can such a theory explain female deviance equally as well as male deviance? In other words, is such a theory generalizable and applicable in explaining the deviant behaviors of females? Of course, we do not expect a theory to explain everything or to apply to everyone, and there are always exceptional cases that defy general trends. However, if a theory is purported to be a universal theory of deviance (though the definition of theory implies universality and stating otherwise waxes oxymoronic), the lack of an adequate answer to either of these two questions should prompt refinements to the theory to take into account the diversity of groups, particularly since females constitute 50% of the population of the world.

In this dissertation, I apply the two questions raised by Daly and Chesney-Lind (1988) to cross-cultural research. Stated specifically for this dissertation, based on past research and data, I expect a gap in deviance between the Japanese and Americans, such that Japanese youths overall are less deviant than American youths. Given this expected *cultural gap* in deviance between the two countries, I ask for each of the two theories tested in this dissertation (i.e., Hirschi's social control and Akers's social learning theories): (1) can the theory account for the *cultural gap* in deviance between

the Japanese and Americans? Furthermore, given that both theories are developed in the U.S. to explain deviant behaviors of Americans, I also ask for each of the two theories: (2) can the theory explain the deviant behaviors of the Japanese equally as well as the deviant behaviors of Americans? In other words, are the two theories applicable and generalizable in explaining the deviant behaviors of the Japanese, relative to the deviant behaviors of Americans? Because two individual level theories of deviance are tested simultaneously in this dissertation, in addition to these two questions, I also compare the explanatory power of the two theories as explanations of deviance, examined separately for, and compared across, Japanese and American youths. In other words, I ask: (3) are the two theories equally applicable in explaining deviance of the Japanese and Americans or is one theory more applicable than the other for one country compared to the other?

This chapter pertains to the cross-cultural examination of deviance and tests the two theories of deviance across countries. The next chapter pertains to the examination of deviance across the intersection of culture and gender, and tests the two theories of deviance across the intersection of culture and gender. In this chapter, I first examine the cultural variations in deviance using self-reported data. This examination includes an assessment of the *cultural gap* in deviance. Next, I examine and analyze the concept of "culture" using measures from social psychology. Then, referring to the extant studies, I hypothesize and test how the cultural differences between the two countries produce differences across countries in terms of the theoretical variables, particularly in the relationships and interactions with family and peer for the youths. Finally, in the last section of this chapter, I hypothesize how the variations in the theoretical variables

produce differences in deviance across the two countries. I follow the hypotheses with tests of the two theories as explanations of deviant behaviors across the two countries, while focusing on how well each of the two theories answer the three theoretical questions stated earlier.

Country Variations in Deviance

Japan is an interesting contrast to Western countries for the cross-cultural research of crime, because the trend in crime rates for Japan since the WWII differs from those for any other industrialized countries in the West. For instance, while concurrent with rising affluence in society, most Western countries experienced a considerable increase in crime since WWII, but crime in Japan instead decreased by half between 1945 and 1973[23] (Vogel 1979). Given this, Japan poses an interesting sociological question as

[23] In recent years media coverage and the public's opinion of crime in Japan both have indicated that the Japanese perceive a significant increase in overall crime since the economic recession in the late 1990s. After analyzing official crime records, Hamai and Ellis (2006) find that the number of crimes in Japan did increase in recent years. However, the increase was due to policy changes in the reporting and recording of crime by the Japanese National Police Agency. According to Hamai and Ellis (2006), the White Paper of Crime shows an 80% increase in violent crimes in Japan between 1991 and 2001 following the policy changes, but most of the increase (about 90%) was due to an increase in minor offenses that were not recorded previously.

Maniwa (2005), a Japanese criminology professor, also discusses the myth of an increase in violence among Japanese youths in recent years. He argues that the Japanese media's continued coverage of the most heinous delinquencies committed by a small number of youths influenced the public perception that youths are more dangerous and violent today. However, upon analyzing official data, Maniwa (2005) found no significant increase in the absolute number of delinquency, even after taking into account the aging of the Japanese population.

This is an interesting issue that needs further examination, though I address it only briefly here because it is outside the purview of this dissertation. Jones and Wallace (1996) argue that since post-industrialization (which resulted in a decrease in the number of well-paying jobs for individuals without a higher education level) and an increase in unemployment in England, the public's negative perceptions about youths increased. Without taking into account the negative consequences of economic change in recent years, especially for those youths who have lower education levels, the English public blamed the characters of their youths for the increase in unemployment, teenage pregnancy, homelessness, and other social ills. Miyamoto (2002), a Japanese sociologist and a leading youth advocate, makes a similar observation about Japan. She argues that the Japanese public's opinion, that today's Japanese youths are self-centered, is unfounded and is not *the* reason for delayed marriage, lower birthrate, and a high unemployment rate in Japan. Rather, she argues, we need to examine the effects of the tightening of job markets since the recession in the late 1990s, especially among those based on a traditional seniority system (which negatively affects youths while protecting the older generations of the population), and lack of governmental support for young working couples (despite the increasing cost of childcare), among

well because sociological theories tend to hypothesize a unidirectional modernization process based on a Western development model and negative consequences of urbanization in a society. Furthermore, because the relatively low crime rate in Japan can accentuate the relatively high crime rate in the U.S.,[24] Japan is often exemplified as an interesting contrast to the U.S. in comparative criminology. In fact, the difference in crime between Japan and the U.S. is quite shocking, especially in terms of serious and violent crimes, such as murder. [25] For instance, the official murder rates[26] in the two

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other things in the lives of Japanese youths and young adults. This argument is similar to the one describing the plight of African Americans in the inner cities of the U.S. as discussed by Wilson (1987) in *Truly Disadvantaged*.

[24] Actually, the difference in crime rates between Japan and the U.S., particularly murder, is astonishing, *not* because the murder rate in Japan is so low, but because the murder rate in the U.S. is so high. For instance, analysis by LaFree and Drass (2002) on homicide victimization among 34 countries between 1956 and 1998 shows that, in fact, the homicide victimization rate for Japan is not particularly low among the other 24 industrialized nations in their study, but the homicide victimization rate for the U.S. is significantly high compared to other industrialized nations. Most industrialized nations report in their data a mean homicide victimization rate for that period of somewhere between 0.5 and 2.0. The U.S. and Finland are the only two countries with mean rates greater than 2.0, and while the mean rate for Finland is 2.77, that for the U.S. is 7.94. In fact, the homicide rate of the U.S. is higher than most of the industrializing countries included in their study.

[25] As discussed in the previous methods chapter, comparing crime rates across countries requires considerable caution, even for murder rates. Not only do the legal definitions of offenses differ by country, many other factors can also influence the crime rates, such as the likelihood of reporting by civilians or the law enforcement agencies, how the numbers of crimes are counted and reported in statistics by the agencies that collect the data, and the level of enforcement of the law.

For instance, the proportion of law enforcement personnel to the population might affect both the numbers of offenses reported to the police and the number of offenses cleared. We should expect that the more police officers there are, the higher the likelihood that any crime would be detected and counted. When comparing data on the number of law enforcement officers in Japan and the U.S., however, we find that the proportion of law enforcement officers to the population in the two countries does not differ. According to the White Paper of Police, there were a total of 255,221 police officers in Japan in 2007—about 2.00 police officers for every 1,000 people in the population, while according to the UCR, there were a total of 559,566 full-time law enforcement officers in the U.S. in 2004—about 1.86 police officers for every 1,000 people in the population. Thus, at least in terms of the proportion of law enforcement officers in the population, Japan and the U.S. seem to have fairly similar likelihoods of detection and reporting of crimes. Of course, because of the higher rates of violent crime in the U.S. overall compared to Japan (particularly in terms of murder), American law enforcement officers are forced to spend more time solving murders and other serious offences, such as gun crimes, compared to the time spent by their Japanese counterparts.

[26] One of the best ways to compare safety and prevalence of crime across countries is to compare the numbers of serious crimes reported in official crime statistics, such as the *Uniform Crime Report* (UCR) for the U.S. and *Hanzai Hakusyo* (translated as the "White Paper of Crime") for Japan. The Federal

countries indicate that in 2007, you were *5.5 times* more likely to be murdered in the U.S. compared to in Japan.[27] Among youths under the age of 19, a total of 2,518 American youths were arrested for murder in 2007 (a rate of 3.06 murders per 100,000),[28] while the number was 34 Japanese youths under the age of 19 in 2006 (a rate of 0.14 murders per 100,000).[29] Scholars often attribute the difference for serious

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Bureau of Investigation's Uniform Crime Reporting (UCR) program is a nationwide program, compiling the number of crimes reported by about 95% of all law enforcement agencies. Unless otherwise noted, all figures reported in this section concerning official crime rates for the two countries come from these two sources.

[27] Examining the most current statistics for the year 2007, there were a total of 16,929 murders in the U.S. (UCR 2007), while Japan experienced a total of 1,309 murders (White Paper of Crime 2007) in the same year. In terms of the absolute number of murders, the U.S. experienced about 10 times the number of murder compared to Japan in 2007. The overall clearance of murders differs between the two countries, too. While the percentage of murders cleared by arrest calculated for 2007 data in the U.S. was about 61.2%, the percentage in Japan was about 96.8%. Caution is in order because the method by which clearance is counted, whether or not it reflects the true clearance of murder, or how strongly a country enforces procedures to minimize miscarriages of justice and to protect human rights needs to be considered to make accurate comparisons of murder clearance in the two countries. In fact, Hamai and Ellis (2006) report on the part of law enforcement in Japan to actively undercount the number of crimes to increase the clearance rate and to maintain the appearance of national safety.

Of course, the population size is positively associated with the number of murders, so a more appropriate comparison of the prevalence of crime across countries should utilize *rates*, which controls for differences in the population size (i.e., the base number). According to the census data from the two countries for the year 2007, the total population of the U.S. was 301,621,157 (U.S. Census Bureau 2007), about double the total population of Japan, which was 127,771,000 (Japanese Census Bureau 2007). These figures produce rates of murder in 2007 of 5.61 murders per 100,000 people in the U.S. and 1.02 murders per 100,000 people in Japan. In other words, there were 5 times the number of murders in the U.S. compared to Japan per every 100,000 people in 2007.

[28] It should be noted that the number is probably higher for the U.S. if we take into account those juveniles who are prosecuted and counted as adults for the murder they committed.

[29] Past studies consistently show that crime *overall* peaks at a young age, especially at around 15 to 17 years old, though not true for all criminal behaviors, and this is invariant across cultures and time (Gottfredson and Hirschi 1990). Based on the census statistics from the two countries, we know that the U.S. has a more youthful population than Japan –one of the most aging populations in the world. Thus, in addition to the population size, it is also important to take into account the proportion of youths in population when crime rates are compared across countries.

For instance, the U.S. census estimated that the U.S. population between 15 to 19 years old constituted about 7.2% of the total population in 2006, while the Japanese population between 15 and 19 years old consisted about 4.9% of the total population in 2007. Because Japan considers juveniles, the portion of the population subjected to Juvenile Delinquency Law, to be youths under 19 years old, comparing murder rates among the population under 19 in the two countries might be a more appropriate measure of the prevalence of crime when compared across countries. In 2007, according to the UCR, the number of murders committed by youths under 19 years of age were 2,518 (a rate of 3.06 murders per

and violent crimes, such as murder, between Japan and the U.S. to the difference in the availability of assault weapons across the two countries.[30] Indeed, in 2007, about 68% (or f =10,086) of all murders in the U.S., involved some form of firearms, while 2% (or f = 21) of all murders in Japan in the same year, are attributed to firearms. Furthermore, the majority of the victims of firearms in Japan were *yakuza* (Japanese mafia) members (11 out of 21 murders) (National Police Agency 2008). This difference is even more striking when we consider the fact that the U.S. is only about twice as large as Japan in terms of population.

The difference in official crime rates between Japan and the U.S. for offenses other than murder is, however, not consistent and varies by offense. Among those offenses with similar legal definitions reported in 2007, there were a total of 445,125 robberies in the U.S. (a rate of 147.6 per 100,000) compared to 5,108 robberies in Japan (a rate of 4.0 per 100,000); and there were a total of 6,568,572 larceny-theft offenses in the U.S. (a rate of 2,177.8 per 100,000) compared to 1,534,528 larceny-theft offenses in Japan (a rate of 1,201.0 per 100,000). The data on these two offenses, along with the

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100,000 youths) in the U.S., while the number was 34 (a rate of 0.14 murders per 100,000 youths) in Japan in 2006. Thus even controlling for both the age and the size of the population, the official crime data confirm the notion that Japan is much safer country than the U.S. In fact, comparing the murder rates among juveniles in the two countries accentuates the difference in crime between the two countries— the U.S. experiences about 22 times the number of the murders committed by the youths under 19 years of age compared to Japan..

[30] The availability of assault weapons varies considerably between Japan and the U.S because the history behind assault weapons and its government regulations differ. For instance, the regulation of assault weapons in Japan started in the 1500s when *shogun* banned the possession of swords among commoners to prevent the possible revolt, and the possession of firearms was regulated strictly for the same reasons in the following periods. Today, Japan holds one of the toughest gun control laws in the world. Along with a low participation rate among the Japanese in hunting and shooting as sports, only about 0.3% of the general population in Japan possesses some form of firearms. The U.S., on the other hand, protects the individual's right to own firearms under the constitution, and studies consistently find that the U.S. has one of the most armed civilian population in the world with a rate of 83 to 96 guns per 100 citizens (of course, this does not mean that almost everyone in the U.S. possesses a gun, but it just means that some people own a lot of firearms, some own a few firearms, and others do not own any firearm).

data on murder, indicate that in terms of official crime rates, though the degree of differences vary depending on the offense, the U.S. overall has much higher rates of crime than Japan. Thus, it seems that insofar as official crimes are concerned, the popular notion that Japan is generally a much safer country than the U.S. appears to be warranted.

Limitations in the use of official crime data for single-country empirical research also apply to cross-cultural empirical research, but the limitations are at least twofold in the latter, because official crime data are influenced by the particular criminal laws and the criminal justice systems of the country in question, which usually vary across countries, as discussed in the previous chapter. To overcome some of the limitations associated with official crime data, victimization data are often used instead or in conjunction with the official data. Nevertheless, until Japan started collecting the ICVS in 1989, there was no systematic data for the victimization experiences of the Japanese (Aldous and Leishman 2000). With five rounds of ICVS data completed so far, of which Japan has completed three, numerous articles and reports are published that analyze the ICVS data across countries (see for instance, van Kesteren et al. 2000). Comparing the year 2000 round of the ICVS data from 12 countries,[31] overall, the crime victimization rates in Japan are much lower than the other 11 countries (note that they are all Western countries, and the lower victimization rates in Japan are especially apparent for violent crimes (van Kestern et al. 2000). Additionally, except for a few offenses, Japanese crime victimization rates dropped significantly between 2000 and

[31] The 12 countries in the ICVS data for the year 2000 include Australia, Canada, England and Wales, Finland, France, Japan, Netherlands, Poland, Portugal, Sweden, Switzerland, and the U.S.

2004, according to the most current ICVS data available (White Paper on Crime 2004).[32]

Though data from many small topical surveys are available (e.g., the Japanese National Police Agency often collects data on specific criminal and delinquent behaviors of interest to the government and public), unlike in the U.S., there is no systematic national-level self-reported data on crime and delinquency available in Japan. In fact, Western scholars constantly criticize the immaturity of social science research and the lack of *any* systematic social science data in Japan, especially social survey research (Bestor and Steinhoff 2003) and even consumer research (Freedland 2003). Due to the limited knowledge of research methods and the often less sophisticated methods used to gather social scientific data in Japan compared to other countries (Bestor and Steinhoff 2003), comparison of *any* such data in Japan, if available, and other countries often becomes problematic. In fact, despite studies having repeatedly noted the evidence of lower crime rates in Japan, there are only a handful of individual level studies that systematically examined less serious and violent deviant behaviors between Japan and another country (e.g., Grasmick and Kobayashi 2002, Kobayashi and Grasmick 2002, Kobayashi et al. 2001). However, consistent with overall official crime rates, most of these studies show that Americans tend to be much more deviant or delinquent than the Japanese. Interestingly, however, when comparing deviant behaviors related to school, such as cheating on exams or sleeping during class, a study by Diekhoff et al. (1999) found that the Japanese are much more deviant than

[32] These ICVS data also support Hamai and Ellis's (2006) research finding that the media and the public perception of the increase in crime since the economic recession of the late 1990s in Japan is unfounded and mere hype.

Americans. Thus, the *gap* in deviance might not be consistent between the two countries, depending on the types of deviant behaviors examined.

The self-reported survey data on deviance used in this dissertation join the limited number of cross-cultural studies and offer an important first step toward understanding the individual variations in deviance across Japan and the U.S. This section begins with an examination of general deviant behaviors across Japan and the U.S. Frequency and percentage distributions of the 16 general deviance items are shown separately for the Japanese sample (in Table 4.1) and the American sample (in Table 4.2). As discussed previously, very few Japanese respondents indicated that they have ever used or sold illegal drugs (two used marijuana, three used other illegal drugs, and two sold drugs). This is understandable, considering the fact that illegal drugs are so rare in Japan and that getting caught possessing marijuana would result in front page coverage within the national news media in Japan. For instance, Asahi.com (2009)[33] reports an arrest of a Canadian man in Japan who reportedly engaged in "drug trafficking" by receiving cookies with marijuana cooked into them via mail sent from his friend in Canada. Furthermore, it is very unlikely that those three Japanese respondents who indicated the use of "other illegal drugs" used what would be considered "hard core" illegal drugs in the U.S. It is more likely that these Japanese students have inhaled paint or paint thinner—two of the most common ways to get high in Japan. In addition to illegal drug use and sales, Table 4.1 also indicates deviance overall is rare, at least among this sample of the Japanese. For all 16 deviant behaviors, except for drinking alcohol, the majority of respondents indicated that they have *never*

[33] The Asahi.com website is run by *Asahi Shinbun*, one of the major national newspapers in Japan.

Table 4.1. Frequency and Percentage Distributions of 16 *General Deviance* Items for the Japanese Sample, *n* =433.

"How often have you engaged in the following behaviors in the past year?"	Never	Rarely	Sometimes	Often	Almost always	Missing
(1) Destroyed property that did not belong to them.	253 (58.4%)	134 (30.9%)	40 (9.2%)	4 (0.9%)	0	2 (0.5%)
(2) Stolen something worth $5 or less.	392 (90.5%)	29 (6.7%)	8 (1.8%)	2 (0.5%)	0	2 (0.5%)
(3) Stolen something worth more than $5.	411 (94.9%)	17 (3.9%)	3 (0.7%)	0	0	2 (0.5%)
(4) Hurt someone badly enough that they needed bandages or a doctor.	387 (89.4%)	35 (8.1%)	8 (1.8%)	0	1 (0.2%)	2 (0.5%)
(5) Smoked cigarettes or used tobacco.	334 (77.1%)	38 (8.8%)	25 (5.8%)	12 (2.8%)	22 (5.1%)	2 (0.5%)
(6) Cheated in school to get a better grade.	260 (60.0%)	83 (19.2%)	51 (11.8%)	30 (6.9%)	6 (1.4%)	3 (0.7%)
(7) Engaged in sexual relations with someone they did not consider to their boyfriend or girlfriend.	378 (87.3%)	28 (6.5%)	16 (3.7%)	8 (1.8%)	1 (0.2%)	2 (0.5%)
(8) Gambled illegally	369 (85.2%)	24 (5.5%)	18 (4.2%)	16 (3.7%)	4 (0.9%)	2 (0.5%)
(9) Drank alcohol.	34 (7.9%)	44 (10.2%)	140 (32.3%)	161 (37.2%)	52 (12.0%)	2 (0.5%)
(10) Used Marijuana.	429 (99.1%)	2 (0.5%)	0	0	0	2 (0.5%)
(11) Used other illegal drugs.	428 (98.8%)	3 (0.7%)	0	0	0	2 (0.5%)
(12) Driven without a seatbelt.	357 (82.4%)	46 (10.6%)	21 (4.8%)	4 (0.9%)	3 (0.7%)	2 (0.5%)
(13) Exceeded the speed limit by 15 mph (20 km/hr) or more.	258 (59.6%)	41 (9.5%)	54 (12.5%)	46 (10.6%)	32 (7.4%)	2 (0.5%)
(14) Ridden a motorcycle without a helmet.	355 (82.0%)	30 (6.9%)	32 (7.4%)	11 (2.5%)	1 (0.2%)	4 (0.9%)
(15) Sold drugs.	428 (98.8%)	2 (0.5%)	0	0	0	3 (0.7%)
(16) Driven a car or motorcycle after drinking more than one drink.	374 (86.9%)	32 (7.4%)	19 (4.4%)	4 (0.9%)	2 (0.5%)	2 (0.5%)

Table 4.2. Frequency and Percentage Distributions of 16 *General Deviance* Items for the American Sample, *n* =369.

"How often have you engaged in the following behavior in the past year?"	Never	Rarely	Sometimes	Often	Almost always	Missing
(1) Destroyed property that did not belong to them.	260 (70.5%)	92 (24.9%)	13 (3.5%)	1 (0.3%)	1 (0.3%)	2 (0.5%)
(2) Stolen something worth $5 or less.	259 (70.2%)	92 (24.9%)	14 (3.8%)	2 (0.5%)	0	2 (0.5%)
(3) Stolen something worth more than $5.	320 (86.7%)	35 (9.5%)	12 (3.3%)	0	0	2 (0.5%)
(4) Hurt someone badly enough that they needed bandages or a doctor.	332 (90.0%)	28 (7.6%)	7 (1.9%)	0	0	2 (0.5%)
(5) Smoked cigarettes or used tobacco.	179 (48.5%)	72 (19.5%)	51 (13.8%)	35 (9.5%)	28 (7.6%)	4 (1.1%)
(6) Cheated in school to get a better grade.	196 (53.1%)	116 (31.4%)	45 (12.2%)	9 (2.4%)	1 (0.3%)	2 (0.5%)
(7) Engaged in sexual relations with someone they did not consider to their boyfriend or girlfriend.	233 (63.1%)	74 (20.1%)	41 (11.1%)	16 (4.3%)	2 (0.5%)	3 (0.8%)
(8) Gambled illegally	282 (76.4%)	51 (13.8%)	24 (6.5%)	9 (2.4%)	1 (0.3%)	2 (0.5%)
(9) Drank alcohol.	46 (12.5%)	74 (20.1%)	88 (23.8%)	122 (33.1%)	37 (10.0%)	2 (0.5%)
(10) Used Marijuana.	238 (64.5%)	63 (17.1%)	22 (6.0%)	32 (8.7%)	11 (3.0%)	3 (0.8%)
(11) Used other illegal drugs.	326 (88.3%)	23 (6.2%)	9 (2.4%)	7 (1.9%)	1 (0.3%)	3 (0.8%)
(12) Driven without a seatbelt.	118 (32.0%)	126 (34.1%)	63 (17.1%)	41 (11.1%)	17 (4.6%)	4 (1.1%)
(13) Exceeded the speed limit by 15 mph (20 km/hr) or more.	45 (12.2%)	124 (33.6%)	112 (30.4%)	62 (16.8%)	23 (6.2%)	3 (0.8%)
(14) Ridden a motorcycle without a helmet.	324 (87.8%)	24 (6.5%)	11 (3.0%)	5 (1.4%)	3 (0.8%)	2 (0.5%)
(15) Sold drugs.	347 (94.0%)	13 (3.5%)	5 (1.4%)	2 (0.5%)	0	2 (0.5%)
(16) Driven a car or motorcycle after drinking more than one drink.	177 (48.0%)	118 (32.0%)	47 (12.7%)	22 (6.0%)	2 (0.5%)	3 (0.8%)

engaged in the behavior. On the other hand, illegal drug use and sales are more prevalent among the American sample compared to the Japanese sample, but the numbers are still low and the majority of the American sample indicated that they have never used or sold any illegal drugs, as Table 4.2 shows. Among the American sample, more than half of the respondents admit to engaging in the following deviant behaviors in the past year: smoking, drinking alcohol, driving without wearing a seatbelt, exceeding the speed limit, and driving under the influence. The frequency and percentage distributions based on the 16 general deviant behaviors shown in the two tables indicate that the American respondents are either more honest or more deviant than the Japanese respondents, the latter of which would be consistent with the country differences in serious and dangerous forms of crime found in the national crime data.

Next, frequencies and percentage distributions of the 12 academic deviance items are shown separately for the Japanese sample (in Table 4.3) and the American sample (in Table 4.4). The prevalence of academic deviance between the two countries varies depending on the behavior, but for both countries, as expected, the percentages of those students who indicate that they have *never* engaged in the behaviors are much lower than those for the general deviance behaviors.

Next, Table 4.5 shows bivariate correlations among nationality, gender, control variables (i.e., *age*, *SES*, and *two-parent home*), and six kinds of deviance scales (including both prevalence and frequency of: *general deviance*, *academic misconduct*, and *academic underachievement* scales. As expected, nationality is significantly related to gender, *age*, and family structure. The Japanese sample consists of more males, is younger, and is less likely to have grown up in a single-parent home than the American

Table 4.3. Frequency and Percentage Distributions of 12 *Academic Deviance* Items for the Japanese Sample, *n* =433.

"How often in the past year have you engaged in the following behavior?"	Never	Rarely	Sometimes	Often	Almost Always	Missing
(1) Copied or looked at the answers from someone else during a quiz or test?	232 (53.6%)	96 (22.2%)	71 (16.4%)	28 (6.5%)	6 (1.4%)	0
(2) Bought or used a paper you obtained over the internet or from someone else and turned it in as your own?	275 (63.5%)	70 (16.2%)	60 (13.9%)	19 (4.4%)	9 (2.1%)	0
(3) copied someone else's work and turned it in as your own?	164 (37.9%)	97 (22.4%)	127 (29.3%)	40 (9.2%)	5 (1.2%)	0
(4) Used cheat notes, etc., when taking an exam?	284 (65.6%)	67 (15.5%)	62 (14.3%)	13 (3.0%)	7 (1.6%)	0
(5) Plagiarized a paper for a class?	225 (52.0%)	108 (24.9%)	72 (16.6%)	20 (4.6%)	7 (1.6%)	1 (0.2%)
(6) Received an illicit copy of an exam prior to taking the test?	380 (87.8%)	25 (5.8%)	10 (2.3%)	11 (2.5%)	6 (1.4%)	1 (0.2%)
(7) Lied to an instructor about why you missed an exam?	422 (97.5%)	8 (1.8%)	0	2 (0.5%)	1 (0.2%)	0
(8) Skipped a class?	46 (10.6%)	110 (25.4%)	164 (37.9%)	92 (21.2%)	21 (4.8%)	0
(9) Came to class late?	54 (12.5%)	106 (24.5%)	130 (30.0%)	120 (27.7%)	23 (5.3%)	0
(10) Didn't finish an assignment on time?	196 (45.3%)	115 (26.6%)	79 (18.2%)	36 (8.3%)	7 (1.6%)	0
(11) Forgot to study for an exam?	200 (46.2%)	85 (19.6%)	91 (21.0%)	46 (10.6%)	10 (2.3%)	1 (0.2%)
(12) Fell asleep in class?	10 (2.3%)	29 (6.7%)	108 (24.9%)	205 (47.3%)	81 (18.7%)	0

Table 4.4. Frequency and Percentage Distributions of 12 *Academic Deviance* Items for the American Sample, *n* =369.

"How often in the past year have you engaged in the following behavior?"	Never	Rarely	Sometimes	Often	Almost Always	Missing
(1) Copied or looked at the answers from someone else during a quiz or test?	152 (41.2%)	160 (43.4%)	44 (11.9%)	11 (3.0%)	0	2 (0.5%)
(2) Bought or used a paper you obtained over the internet or from someone else and turned it in as your own?	329 (89.2%)	28 (7.6%)	9 (2.4%)	1 (0.3%)	0	2 (0.5%)
(3) copied someone else's work and turned it in as your own?	246 (66.7%)	101 (27.4%)	17 (4.6%)	2 (0.5%)	1 (0.3%)	2 (0.5%)
(4) Used cheat notes, etc., when taking an exam?	305 (82.7%)	44 (11.9%)	15 (4.1%)	2 (0.5%)	0	3 (0.8%)
(5) Plagiarized a paper for a class?	301 (81.6%)	53 (14.4%)	7 (1.9%)	4 (1.1%)	1 (0.3%)	3 (0.8%)
(6) Received an illicit copy of an exam prior to taking the test?	334 (90.5%)	25 (6.8%)	6 (1.6%)	1 (0.3%)	1 (0.3%)	2 (0.5%)
(7) Lied to an instructor about why you missed an exam?	314 (85.1%)	41 (11.1%)	9 (2.4%)	3 (0.8%)	0	2 (0.5%)
(8) Skipped a class?	28 (7.6%)	128 (34.7%)	150 (40.7%)	58 (15.7%)	3 (0.8%)	2 (0.5%)
(9) Came to class late?	74 (20.1%)	154 (41.7%)	97 (26.3%)	37 (10.0%)	5 (1.4%)	2 (0.5%)
(10) Didn't finish an assignment on time?	145 (39.3%)	137 (37.1%)	61 (16.5%)	21 (5.7%)	3 (0.8%)	2 (0.5%)
(11) Forgot to study for an exam?	155 (42.0%)	146 (39.6%)	45 (12.2%)	17 (4.6%)	4 (1.1%)	2 (0.5%)
(12) Fell asleep in class?	181 (49.1%)	124 (33.6%)	44 (11.9%)	13 (3.5%)	5 (1.4%)	2 (0.5%)

sample. Also as expected, *SES* is not significantly related to nationality. Additionally, as expected, the Japanese report that they engage in a significantly lower level of *general deviance* measured at both *frequency* (r = -0.294, p = 0.000) and *prevalence* (r = -0.515, p = 0.000). On the other hand, the Japanese report that they engage in a significantly higher level of both types of academic deviance than Americans, except *academic underachievement prevalence,* which has no significant relationship with nationality. Among other variables, consistent with past studies, the bivariate correlation analysis also shows that males engage in significantly higher levels of all types of deviant behaviors than females. *Age* is significantly and positively related to *general deviance,* measured in both *frequency* and *prevalence,* such that older respondents are more likely to engage in a significantly higher level of *general deviance* than younger respondents. However, *age* has a significant negative relationship with *academic misconduct frequency*. *Age* also has a significant positive relationship with *academic underachievement prevalence*. *SES* is significantly related to most of the measures of academic deviance but not to *general deviance,* indicating that those respondents with a higher parental *SES* report engaging in a significantly higher level of academic deviance than those respondents with a lower parental *SES*.[34] Family structure is significantly related to *general deviance,* measured in both *frequency* and *prevalence*, but not to *academic deviance*, such that those respondents who have grown up in a single-parent home report a significantly higher level of *general deviance* than the respondents who have never grown up in a single-parent home, suggesting the

[34] This finding seems to support Agnew's (1985) strain theory, rather than Hirschi's (1969) social control theory, in terms of the relationship between aspiration and deviance, such that the higher the aspiration (resulting perhaps from higher parental expectation), the higher the strain, the more likely the individual to engage in deviance. Though, of course it is speculative at this point based on a bivariate analysis.

Table 4.5. Bivariate Correlations for Culture, Gender, Control, and Six Types of Deviance Scales for the Combined Samples, n=801 (one-tailed significance test in parenthesis).

	(01)	*(02)*	*(03)*	*(04)*	*(05)*	*(06)*	*(07)*	*(08)*	*(09)*	*(10)*	*(11)*
(01) Japan	1.000										
(02) Male	0.283 (0.000)	1.000									
(03) Age	-0.091 (0.010)	0.101 (0.004)	1.000								
(04) SES (1=high)	-0.012 (0.743)	-0.001 (0.977)	-0.004 (0.908)	1.000							
(05) Two-parent home	0.180 (0.000)	-0.015 (0.670)	-0.159 (0.000)	0.031 (0.373)	1.000						
(07) General deviance prevalence scale	-0.515 (0.000)	0.148 (0.000)	0.191 (0.000)	0.031 (0.382)	-0.153 (0.000)	1.000					
(06) General deviance frequency scale	-0.294 (0.000)	0.233 (0.000)	0.188 (0.000)	0.009 (0.791)	-0.106 (0.003)	0.876 (0.000)	1.000				
(09) Academic misconduct prevalence scale	0.280 (0.000)	0.205 (0.000)	-0.005 (0.896)	0.085 (0.016)	0.021 (0.561)	0.127 (0.000)	0.257 (0.000)	1.000			
(08) Academic misconduct frequency scale	0.343 (0.000)	0.208 (0.000)	-0.011 (0.000)	0.073 (0.040)	0.050 (0.157)	0.074 (0.036)	0.228 (0.000)	0.871 (0.000)	1.000		
(11) Academic underachievement prevalence scale	-0.018 (0.603)	0.159 (0.000)	0.072 (0.042)	0.072 (0.042)	-0.045 (0.207)	0.201 (0.000)	0.236 (0.000)	0.197 (0.000)	0.212 (0.000)	1.000	
(10) Academic underachievement frequency scale	0.338 (0.000)	0.259 (0.000)	0.053 (0.134)	0.059 (0.097)	0.032 (0.368)	0.037 (0.290)	0.194 (0.000)	0.345 (0.000)	0.415 (0.000)	0.700 (0.000)	1.000

importance of the effect of family structure on deviance. Although the relationship between family structure and *general deviance* is significant, it needs to be examined with caution and with controls for family process variables from Hirschi's (1969) social control theory, which might intervene in the effect of family structure on deviance. Finally, as expected, all six types of deviance measures are significantly and positively related to one another.

Next, I examine the *cultural gap* in deviance between the Japanese and American samples using an Ordinary Least Squares (OLS) regression analysis, controlling for gender, *age*, *SES*, and family structure. Results for the three types of deviant behaviors measured in *prevalence* as the dependent variable are shown in Table 4.6 and results for those measured in *frequency* as the dependent variable are shown in table 4.7.

Table 4.6 shows that the results of OLS regression analyses with three types of deviance *prevalence* measures confirm the results found for the bivariate correlation analysis. The Japanese respondents are significantly less likely than the American respondents to engage in *general deviance*, and the effect of nationality on *general deviance prevalence* (β = -0.586) is much stronger than that of gender on this dependent variable (β = 0.303). The Japanese respondents, on the other hand, are significantly more likely to engage in *academic misconduct* than the American respondents, but there is no country difference in terms of prevalence of engaging in *academic underachievement*. Males are significantly more likely to engage in all three types of deviant behaviors than females. Older respondents are significantly more likely to engage in *general deviance* than younger respondents, and the respondents with at least

one parent with a college degree or higher are significantly more likely to engage in both *academic misconduct* and *academic underachievement* than the respondents with neither parent with a college degree or higher. This finding is a little perplexing. While the significant positive effect of *SES* on *academic misconduct* might be consistent with Agnew's (1985) strain theory, such that respondents with a higher *SES* might experience more pressure for academic success than respondents with a lower *SES*, the former would be compelled to engage in *academic misconduct* to get a better grade. However, *academic underachievement* is opposite of what one might normally think students engage in if they are under pressure for academic success. The fact that respondents with a higher *SES* are more likely to engage in both types of academic deviance than respondents with a lower *SES* suggests that the underlying cause of *SES* on academic deviance might not be strain or pressure toward academic success. The two models with academic deviance as the dependent variable have small R^2 value, indicating that nationality, gender, and control variables by themselves cannot explain much of the variance of the two types of academic deviance.

Table 4.7 shows the results of OLS analyses with three types of deviance scales measured in *frequency* as the dependent variable. Overall, the results of OLS analyses confirm the findings of the bivariate analysis shown in Table 4.5. Controlling for gender, *age*, *SES*, and family structure, Japanese respondents engage in a significantly lower level of *general deviance* but a significantly higher level of both types of academic deviance than American respondents. The effect of nationality on *general deviance* (β=-0.373) is stronger than the effect of gender on this type of deviance (β=0.326), and the effects of nationality on both types of academic deviance (β=0.0.311

Table 4.6. OLS Regression Analyses with *Three Types of Deviance Prevalence Scales* Regressed on Nationality, Gender, and Control Variables for the Combined Samples, *n* =801.

	General Deviance Prevalence				Academic Misconduct Prevalence				Academic Underachievement			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-8.632	**	2.965		-1.847		2.723		-2.852		1.972	
Japan	-5.719	***	0.293	-0.586	1.857	***	0.269	0.247	-0.299		0.195	-0.057
Male	2.992	***	0.292	0.303	1.021	***	0.268	0.135	0.904	***	0.194	0.170
Age	0.525	***	0.147	0.102	0.003		0.135	0.001	0.125		0.098	0.045
SES (1=high)	0.267		0.293	0.026	0.709	**	0.269	0.089	0.405	*	0.195	0.072
Two-parent home	-0.453		0.481	-0.027	-0.314		0.441	-0.025	-0.240		0.320	-0.027
Adjusted R^2	0.367				0.098				0.032			
Model *p*	0.000				0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Table 4.7. OLS Regression Analyses with *Three Types of Deviance Frequency* Scales Regressed on Nationality, Gender, and Control Variables for the Combined Samples, *n* =801.

	General Deviance Frequency				Academic Misconduct Frequency				Academic Underachievement Frequency			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-13.956	***	4.001		-2.453		2.65		-6.585	**	2.536	
Japan	-4.376	***	0.395	-0.373	2.316	***	0.262	0.311	2.149	***	0.251	0.299
Male	3.867	***	0.394	0.326	0.897	***	0.261	0.119	1.217	***	0.250	0.168
Age	0.734	***	0.199	0.119	0.017		0.132	0.004	0.232	*	0.126	0.062
SES (1=high)	0.079		0.395	0.006	0.607	*	0.261	0.077	0.482	*	0.250	0.063
Two-parent home	-0.304		0.649	-0.015	-0.073		0.429	-0.006	-0.141		0.411	-0.012
Adjusted R^2	0.204				0.131				0.146			
Model *p*	0.000				0.000				0.000			

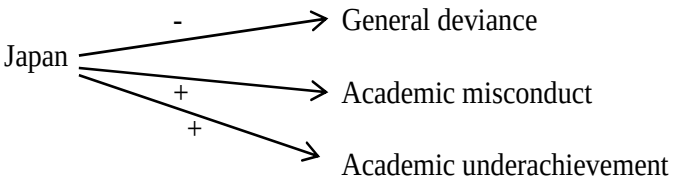
* p <0.05; ** p <0.01; *** p <0.001.

and 0.299, respectively) are stronger than the effects of gender on the two types of academic deviance (β=0.119 and 0.168, respectively). Among the other variables included in the analyses, Table 4.7 also shows that, as expected, males engage in significantly higher levels of all three types of deviant behaviors compared to females, older respondents engage in significantly higher levels of both *general deviance* and *academic underachievement* than younger respondents, and respondents with a higher parental *SES* engage in significantly higher levels of both types of academic deviance than respondents with a lower parental *SES*.

As Tables 4.6 and 4.7 show, there is clearly a *cultural gap* in deviance, but the *direction* of the gap varies by the type of deviant behavior examined. Unlike gender, which consistently shows that males are more deviant than females, whether the Japanese are more or less deviant than the Americans depends on the type of deviant behavior. Finally, it should be noted that once other variables are included in the regression equation, the effect of family structure on *general deviance* measured in both *frequency* and *prevalence* disappeared. This result might be explained by the fact that, as Table 4.5 shows, *age* is significantly related to family type in both of the samples and *age* has positive effects on *general deviance* measured in both *frequency* and *prevalence*. Thus, once respondents' *age* is controlled, there is no direct effect of family structure on *general deviance*. Without including theoretical variables in the regression analysis, nationality and control variables alone explain very little variance (less than 20%) for any of the three types of deviant behaviors measured in both *frequency* and *prevalence*, except for *general deviance prevalence* (with a moderately high value of R^2 = 0.367).

The results of the regression analyses shown in Tables 4.6 and 4.7 are summarized in Figure 4.1. Effects consistent with the hypotheses are shown in a solid line, and those inconsistent with the hypothesis are shown in a dotted line. Figure 4.1 shows that, consistent with past studies and expectations, the Japanese are significantly less likely to engage in a significantly lower level of *general deviance* and are significantly more likely to engage in a significantly higher level of *academic deviance* than the Americans, controlling for gender, *age*, *SES*, and family structure.

Figure 4.1. Results of the OLS Regression Analysis with Three Types of Deviance Regressed on Nationality, Controlling for Gender, Age, SES, and Family Structure.



Examining "Culture"

Up to this point, I have used the terms nationality, country, and culture interchangeably to refer to the variable *Japan*. But what exactly is this variable measuring, aside from denoting that there are two distinct groups in this study? In other words, what exactly is the underlying construct measured by this variable in this study? According to Bennett (1980), as discussed previously, the benefit of comparative research is the quasi-experimental research setting that it provides, allowing the comparison of two or more populations with preexisting conditions. In comparative research, therefore, it is important first to spell out the preexisting conditions distinguishing the groups that can affect the relationships between theoretical variables and the dependent variable. This

echoes the recent move in social science toward deconstructing commonly used control variables in quantitative research, such as gender and race/ethnicity.[35] Though most macro level cross-cultural research examines *structural variations* (such as the criminal justice system, legal system, economy, population composition, availability of firearms, social disorganization, among others), since it is an individual level study, this study examines *cultural variations* as measures of preexisting conditions between Japan and the U.S. I hypothesize that theoretical variables from both Hirschi's (1969) social control and Akers's (1985) social learning theories might have differing effects on deviance between the Japanese and American samples because preexisting *cultural variation* between the two countries affects individual characteristics measured in terms of the theoretical variables.

But what exactly are the preexisting cultural variations between Japan and the U.S.? The *Oxford Dictionary of Sociology* defines culture as "all that in human society which is socially rather than biologically transmitted" and "the symbolic and learned aspects of human society" (Marshall 1994: 137). More specifically, while drawing a distinction with race, ethnicity, and nationality, Matsumoto and Juang (2004: 10) define culture in their *Culture and Psychology* textbook as:

> a dynamic system of rules, explicit and implicit, established by groups in order to ensure their survival, involving attitudes, values, beliefs, norms, and behaviors, shared by a group but harbored differently by each specific unit within the group, communicated across generations, relatively stable but with the potential to change across time.

[35] For instance, the variable gender in empirical research can be an underlying construct for many factors that distinguish males and females, including biological sex, gendered socialization, gendered opportunity, gendered values, gender identity, and so on.

These definitions of culture seem to be based on an ecological evolutionary perspective (Nolan and Lenski 1999), as it is applied to the evolution of culture. Based on the definition offered by Matsumoto and Juang (2004), cultural variability we perceive are the result of each culture's adaptation for survival, influenced by and shaped by, for instance, the environment (e.g., availability of natural resources), population density, affluence, technological innovation, climate, among other factors. Based on this definition of culture, Matsumoto and Juang (2004: 18) warn that, though it is not a poor assumption, "nationality per se is not culture." Indeed, the variable *Japan* used in this study measures a lot more than mere cultural variation between the two countries, or even nationality, and such a variable is possibly affected by, for instance, structural variations and group variations in measurement errors, such as differences between samples in how seriously the respondents took the survey.[36]

One might argue that the inclusion of the cultural variability measure goes against the assumptions of control theories, though the move is comparable with Akers's (1985) social learning theory. I justify the inclusion of the cultural variation measure in this study for two major reasons. First, while control theorists such as Hirschi (1969) and Kornhauser (1978) argue against the existence of *deviant subcultures*, they do not necessarily argue against the existence of *culture* and *subcultures* in a society. In fact, based on the definition of culture offered by Matsumoto and Juang (2004), "deviant subculture," such as gangs, should not be

[36] It is possible that since the American respondents, especially students who are taking social science courses, are presumably more used to participating in surveys than the Japanese respondents the differences in experience participating in surveys might create differences in how the respondents took the survey.

considered a culture, echoing Kornhauser's (1978) argument.[37] Second, while control theorists argue against the effect of deviant subcultural values on deviance, the measures of cultural variability included in this dissertation are not necessarily measures of deviant values, nor do the measures imply that they directly *cause* deviance or *promote* deviant values. Instead, the measures of cultural variability included in this dissertation pertain to the "various patterns of interaction that are based on the norms, rules, and values of their culture" (Gudykunst 1996: 510) that individuals learn though socialization. Nobody, including control theorists, can deny the importance of socialization and the acquisition of societal norms, rules, and values of a society. In fact, for the two leading control theories (including both Hirschi's (1969) social control and Gottfredson and Hirschi's (1990) self-control theories), parenting and other family processes, the major aspects of socialization, play important roles in their theories. Therefore, I believe that the inclusion of the cultural variability measures in this study does not necessarily violate the assumptions of the control perspective.

For Akers's (1985) social learning theory, on the other hand, the inclusion of measures of cultural variability is not in direct conflict with the premise of its theory. However, I think that the particular cultural variability included in this study measures different aspects of values and beliefs than those emphasized in Akers's (1985) social learning theory, since, after all, Akers's social learning theory is a theory of deviance, not a theory of cultural variation. Thus, I still hold the view here that the measures of

[37] Based on the definition of Matsumoto and Juang (2004), gangs should not be considered "cultural" groups. There are three major reasons for assessment. First, most gangs do not have strict rules, involving attitudes values, beliefs, norms, and behaviors. Though some might argue otherwise, many would agree that if there are rules, they are not *strict* rules. Second, even if one grants that the gangs have strict rules, they are most likely not communicated across generations. Third, and most importantly, studies show that gangs are not stable groups.

cultural variability included in this dissertation are not necessarily measures of *deviant values*, nor do I imply that they directly *cause* deviance or *promote* deviant values. In fact, I do not believe that Akers (1985) would argue that, in order to explain the higher crime rate of the U.S. relative to Japan, the U.S. is a more deviant culture than Japan—though some scholars might hold such a view (e.g., Merton 1976, Messer and Rosenfeld 1994). Instead, in order to explain the country variations in deviance/crime, I believe that Akers (1985, 1998) would refer to the differences in the prevalence and levels of differential association (i.e., the number of deviant groups and the number of individuals who belong to such deviant groups[38]) or to the structural variations across the two countries, rather than to country variations in deviant values.

Matsumoto and Juang (2004: 48) state that, among the possible measures of cultural variability, individualism-collectivism (I-C) is "the best-known dimension," often used in social sciences to explain psychological and behavioral variability across cultures (for meta-analyses of this measure, see Oyserman et al. 2002). I-C refers to "the degree to which a culture encourages, fosters, and facilities the needs, wishes, desires, and values of an autonomous and unique self over those of a group" (Matsumoto and Juang (2004: 48). There are four important attributes to I-C associated to individual self, values, and behavior. First, members of collectivistic cultures see

[38] Whether I agree with this assessment, this is a highly probable explanation for the gap in deviance between Japan and the U.S.—the explanation that the high heterogeneity in the U.S. (indicating a higher number of "subcultures") compared to Japan explain the higher crime in the U.S. compared to Japan. There are in fact a number of empirical studies that examine the relationship between homogeneity/heterogeneity of the population and crime rates across countries (this idea also echoes social disorganization theory).

As an interesting side note, in 1986, then Japanese Prime Minister, Nakasone (a contemporary of former president Ronald Regan), commented that the reason the U.S. does not have a good education system is because the U.S. is too heterogeneous with too many racial and ethnic minority groups having low education levels. He also blamed the heterogeneity for the high crime rates of the U.S. compared to Japan, one of the most homogeneous countries in the world. His comment, of course, angered many people in the U.S., though most Japanese probably did not understand the significance of such comment.

themselves as *interdependent* on others, while those of individualistic cultures see themselves as autonomous and *independent* from others. Second, members of collectivistic cultures place a higher value on *group* needs and goals, while those of individualistic cultures place a higher value on *individual* needs and goals (Matsumoto and Juang 2004). Third, the behaviors of the members of collectivistic cultures are influenced equally by "norms, duties, and obligations" and by personal attitudes and needs, while those of the individualistic cultures are influenced by *personal* attitudes and personal needs only (Triandis 1999). Finally, members of collectivistic cultures emphasize unconditional relationships with others, while members of individualistic cultures emphasize rationality. These four specific attributes of I-C suggest that if the Japanese and Americans differ along I-C, such a cultural variability might offer differing settings wherein the effects of the theoretical variables on the deviance take place.

Indeed, past empirical research consistently shows that Japan and the U.S. differ in terms of I-C. Beginning with Benedict's (1946) *The Chrysanthemum and the Sword: Patterns of Japanese Culture*, Japan is often characterized as collectivistic and group-orientated, and a country that values group conformity. In fact, Sugimoto (2003: 3) states that there is a consensus within Japanese society that "integration and harmony are achieved effectively between Japanese, making Japan a 'consensus society.'" Japanese psychologist, Doi (1971, 1985), also posits that the Japanese do not develop an independent self and also that, in order to promote conformity and cohesion, Japanese culture makes the expression of individuality unnecessary. Nakane (1970) posits that Japanese culture values harmony over independent self-concept, resulting in a higher

level of cooperation among its members. There are empirical studies that examine how agents of socialization such as family and school actively promote interdependent self-concept, group-orientation, and conformity among children in Japan (e.g., Sugiyama Hendry 1989, McVeigh 2000, Stevenson et al. 1986, Shimizu and LeVine 2001, Fukuzawa and LeTendre 2001, and LeTendre 2000). On the other hand, the U.S. is known for its strong emphasis on independent self-concept. In fact, the U.S. Bill of Rights represents that the country is founded by the political philosophy of individualism and individual rights. In another example, developmental psychology courses taught in the U.S. generally emphasize the development of the self and self-identify for American children as well as the importance of independence in child development (see for instance, Shaffer 2000). Empirical studies also find that parents in the U.S. place a strong value on the independence of their children (e.g., Furstenberg 2000). Thus, it seems that the I-C dimension is a particularly important measure of cultural variability when Japan and the U.S. are compared. In fact, overall, I-C is found to be one of the most important and long-recognized cultural variables between Japan and the U.S., popularly used in empirical research, precisely because Japan and the U.S. are often placed in extreme opposite poles of the I-C dimension (Matsumoto and Juang 2004).[39]

A number of studies have examined I-C across countries empirically using systematic measurements. For instance, Hofstede (1980) analyzes the variability of I-C

[39] It should be noted that studies critical of the popular argument that Japan is more collectivistic than the Western countries have been increasing in recent years (Takano and Osaka 1999, Sugimoto 2003, Oyserman et al. 2002). Furthermore, many scholars have begun to criticize the focus on the concept of individualism and collectivism, noting that it is an ethnocentric notion favoring the values of the Western countries (Matsumoto and Juang 2004).

among 50 countries using an Individualism-Collectivism scale consisting of 126 questions. In his empirical studies, Japan is consistently found to be much lower on the individualistic dimension than the U.S. (Hofstede 1980, 1984, 1991, 2001). In one of the most recent studies, Hofstede (2001) finds that, among 39 countries examined (a mean IDV[40] score of 51), Japan ranks in the middle (IDV = 46), while the U.S. ranks first (IDV =91) with other Western countries also among the higher ranks in terms of individualism. Other studies also find that Japan overall is relatively higher in collectivism and lower in individualism compared to Western countries (e.g., Reischauer 1988, Triandis 1994, Matsumoto et al. 1996). Since Hofsteade (1980) first introduced his Individualism-Collectivism scale, various measures of I-C have been developed and empirically tested (for review, Triandis 1995, Oyserman et al. 2002). In this dissertation, cultural variability is measured using an "independent self-concept" (which measures individualism) and an "interdependent self-concept" (which measures collectivism) developed by Markus and Kitayama (1991). It is important to note that today scholars argue that unlike Hofstede's (1980) original stipulation, the I-C dimension is not a "bipolar singular dimension," thus, countries high on individualism are not necessarily low on collectivism and countries low on individualism are not necessarily high on collectivism (Oyserman et al. 2002: 3). Instead, scholars argue that the I-C dimension needs to be conceptualized as a measure of two aspects of cultural variability, where some countries might score high on both individualism and collectivism, while others might score low on both of these measures. For this reason, this study includes both the individualism and the collectivism measures, used as separate measures. Based on the findings of past studies using these measures, I expect

[40] Independent self-concept

the Japanese respondents to score higher on the measure of collectivism (i.e., interdependent self-concept) and lower on the measure of individualism (i.e., independent self-concept), compared to the American respondents. Before analyzing the data to examine this hypothesis in what follows, I briefly discuss the creation of the two I-C measures from the Japan-U.S. survey data.

Independent Self-Concept

Independent self-concept, which corresponds to individualism, is measured using respondents' agreement or disagreement with the following 14 statements: (1) I should be judged on my own merit, (2) being able to take care of myself is a primary concern for me, (3) my personal identity is very important to me, (4) I prefer to be self-reliant rather than dependent on others, (5) I am a unique person separate from others, (6) if there is a conflict between my values and values of groups of which I am a member, I follow my values, (7) I try not to depend on others, (8) I take responsibility for my own actions, (9) it is important for me to act as an independent person, (10) I should decide my future on my own, (11) what happens to me is my own doing, (12) I enjoy being unique and different from others, (13) I am comfortable being singled out for praise and rewards, and (14) I do not support a group decision when it is wrong. The respondents indicate their agreement or disagreement with each of the 14 statements using a four-point Likert scale ranging from "strongly agree" to "strongly disagree." All 14 items are coded so that a higher value indicates a higher level of individualism. Missing cases are substituted with the mode of the combined samples for each item. The frequency and percentage distributions for each of the 14 items are displayed separately for the Japanese sample (shown in Table 4.8) and for the American sample (shown in Table

Table 4.8. Frequency and Percentage Distributions of 14 *Independent Self-Concept* Items for the Japanese Sample, *n* =433.

"Indicate the degree to which you agree or disagree with the following statements."	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Missing
(1) I should be judged on my own merit.	21 (4.8%)	73 (16.9%)	234 (54.0%)	102 (23.6%)	3 (0.7%)
(2) Being able to take care of myself is a primary concern for me.	5 (1.2%)	9 (2.1%)	203 (46.9%)	215 (49.7%)	1 (0.2%)
(3) My personal identity is very important to me.	6 (1.4%)	38 (8.8%)	200 (46.2%)	188 (43.4%)	1 (0.2%)
(4) I prefer to be self-reliant rather than dependent on others.	11 (2.5%)	164 (37.9%)	202 (46.9%)	55 (12.7%)	1 (0.2%)
(5) I am unique person separate from others.	18 (4.2%)	179 (41.3%)	174 (40.2%)	61 (14.1%)	1 (0.2%)
(6) If there is a conflict between my values and values of groups of which I am a member, I follow my values.	10 (23%)	186 (43.0%)	194 (44.8%)	42 (9.7%)	1 (0.2%)
(7) I try not to depend on others.	20 (4.6%)	178 (41.1%)	199 (46.0%)	35 (8.1%)	1 (0.2%)
(8) I take responsibility for my own actions.	4 (0.9%)	31 (7.2%)	274 (63.3%)	124 (28.6%)	0
(9) It is important for me to act as an independent person.	3 (0.7%)	5 (1.2%)	247 (57.0%)	178 (41.1%)	0
(10) I should decide my future on my own.	3 (0.7%)	6 (1.4%)	197 (45.5%)	227 (52.4%)	0
(11) What happens to me is my own doing.	12 (2.8%)	115 (26.6%)	220 (50.8%)	86 (19.9%)	0
(12) I enjoy being unique and different from others.	12 (2.8%)	112 (25.9%)	198 (45.7%)	110 (25.4%)	1 (0.2%)
(13) I am comfortable being singled out for praise and rewards.	12 (2.8%)	98 (22.6%)	214 (49.4%)	108 (24.9%)	1 (0.2%)
(14) I don't support a group decision when it is wrong.	4 (0.9%)	78 (18.0%)	253 (58.4%)	98 (22.6%)	0

Table 4.9. Frequency and Percentage Distributions of 14 *Independent Self-Concept* Items for the American Sample, *n* =369.

"Indicate the degree to which you agree or disagree with the following statements."	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Missing	Factor loading[a]
(1) I should be judged on my own merit.	5 (1.4%)	15 (4.1%)	152 (41.2%)	194 (52.6%)	3 (0.8%)	0.443
(2) Being able to take care of myself is a primary concern for me.	5 (1.4%)	19 (5.1%)	143 (38.8%)	201 (54.5%)	1 (0.3%)	0.488
(3) My personal identity is very important to me.	0	16 (4.3%)	113 (30.6%)	238 (64.5%)	2 (0.5%)	0.621
(4) I prefer to be self-reliant rather than dependent on others.	1 (0.3%)	29 (7.9%)	172 (46.6%)	164 (44.4%)	3 (0.8%)	0.616
(5) I am unique person separate from others.	1 (0.3%)	23 (6.2%)	146 (39.6%)	196 (53.1%)	3 (0.8%)	0.665
(6) If there is a conflict between my values and values of groups of which I am a member, I follow my values.	0	23 (6.2%)	148 (40.1%)	195 (52.8%)	3 (0.8%)	0.597
(7) I try not to depend on others.	6 (1.6%)	40 (10.8%)	180 (48.8%)	138 (37.4%)	5 (1.4%)	0.620
(8) I take responsibility for my own actions.	1 (0.3%)	4 (1.1%)	123 (33.3%)	237 (64.2%)	4 (1.1%)	0.629
(9) It is important for me to act as an independent person.	2 (0.5%)	13 (3.5%)	160 (43.4%)	189 (51.2%)	5 (1.4%)	0.587
(10) I should decide my future on my own.	5 (1.4%)	35 (9.5%)	125 (33.9%)	200 (54.2%)	4 (1.1%)	0.462
(11) What happens to me is my own doing.	2 (0.3%)	31 (8.4%)	152 (41.2%)	180 (48.8%)	4 (1.1%)	0.562
(12) I enjoy being unique and different from others.	1 (0.3%)	19 (5.1%)	147 (39.8%)	197 (53.4%)	5 (1.4%)	0.665
(13) I am comfortable being singled out for praise and rewards.	4 (1.1%)	55 (14.9%)	147 (39.8%)	158 (42.8%)	5 (1.4%)	0.420
(14) I don't support a group decision when it is wrong.	3 (0.8%)	41 (11.1%)	176 (47.7%)	144 (39.0%)	5 (1.4%)	0.486

[a] Though this is a table for the American sample, the factor loading listed in this table for each item is for the principal component analysis conducted using the sample.

4.9). Table 4.8 shows that among the Japanese sample, the most commonly chosen answer for the 14 independent self-concept items is "somewhat agree." On the other hand, Table 4.9 shows that among the American sample, the most commonly chosen answers for the 14 items are either "somewhat agree" or "strongly agree," and there are very few cases in the American sample answering "strongly disagree" to any of the 14 items. Merely eye-balling the frequency and percentage distributions tables for the two countries, it is clearly the case that there are considerable differences in the distributions of the data for all 14 independent self-concept items between the two samples. A principal components analysis is conducted to determine the dimensionality of the 14 independent self-concept items for the combined samples. The principal components analysis indicates a single factor. Factor loadings (for the combined samples) for each item are also reported in Table 4.4. Cronbach's alpha for the linear composite of the 14 independent self-concept items is .83, indicating a moderately high degree of reliability. Reliability could not be improved by eliminating any of the 14 items. The *independent self-concept* scale is created by summing the z-score transformations of all 14 items (with a mean = 0 and a *S.D.* = 7.88).

Interdependent Self-Concept

Similarly, the interdependent self-concept, which correspondents to collectivism, is measured using respondents' agreement or disagreement with the following 13 statements: (1) I consult with others before making important decisions, (2) I consult with co-workers on work-related matters, (3) I will sacrifice my self-interest for the benefit of my group, (4) I stick with my group even though difficulties, (5) I respect decisions made by my group, (6) I will stay in a group if it needs me, even when I am

not happy with the group, (7) I maintain harmony in the groups of which I am a member, (8) I respect the majority's wishes in groups of which I am a member, (9) I remain in groups of which I am a member if they need me, even though I am dissatisfied with them, (10) I try to abide by customs and conventions at work, (11) It is better to consult others and get their opinions before doing anything, (12) It is important to consult friends and get their ideas before making decision, and (13) My relationships with others are more important to me than my accomplishments. Once again, the respondents indicate their agreement or disagreement with each of the 13 statements using a four-point Likert scale ranging from "strongly agree" to "strongly disagree." All 13 items are coded so that a higher value indicates a higher level of collectivism. Missing cases are substituted with the mode of the combined samples for each item. The frequency and percentage distributions of each item are displayed separately for the Japanese sample (shown in Table 4.10) and for the American sample (shown in Table 4.11). Table 4.10 shows once again that among the Japanese sample, for most of the 13 interdependent self-concept items, the most commonly chosen answer was "somewhat agree," and there are very few respondents who chose "strongly disagree" or "strongly agree" in response to any of the 13 interdependent self-concept items. On the other hand, Table 4.11 shows that among the American sample, the most common answer for the 13 items is "somewhat agree." A principal components analysis is conducted to determine the dimensionality of the 13 interdependent self-concept items for the combined samples, which shows that the last item, "my relationships with others are more important to me than my accomplishments" does not load well with other items (factor loading = 0.286). A factor analysis without this last item shows a single factor.

Table 4.10. Frequency and Percentage Distributions of 14 *Interdependent Self-Concept* Items for the Japanese Sample, *n* =433.

"Indicate the degree to which you agree or disagree with the following statements."	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Missing
(1) I consult with others before making important decisions.	17 (3.9%)	85 (19.6%)	258 (59.6%)	72 (16.6%)	1 (0.2%)
(2) I consult with co-workers on work-related matters.	30 (6.9%)	174 (40.2%)	202 (46.7%)	24 (5.5%)	3 (0.7%)
(3) I will sacrifice my self-interest for the benefit of my group.	35 (8.1%)	166 (38.3%)	212 (49.0%)	18 (4.2%)	2 (0.5%)
(4) I stick with my group even through difficulties.	13 (3.0%)	64 (14.8%)	305 (70.4%)	49 (11.3%)	2 (0.5%)
(5) I respect decisions made by my group.	45 (10.4%)	169 (39.0%)	203 (46.9%)	15 (3.5%)	1 (0.2%)
(7) I will stay in a group if it needs me, even when I am not happy with the group.	7 (1.6%)	43 (9.9%)	274 (63.3%)	108 (24.9%)	1 (0.2%)
(8) I maintain harmony in the groups of which I am a member.	23 (5.3%)	154 (35.6%)	223 (51.5%)	30 (6.9%)	3 (0.7%)
(9) I respect the majority's wishes in groups of which I am a member.	38 (8.8%)	177 (40.9%)	202 (46.7%)	15 (3.5%)	1 (0.2%)
(10) I remain in groups of which I am a member if they need me, even though I am dissatisfied with them.	9 (2.1%)	62 (14.3%)	308 (71.1%)	54 (12.5%)	0
(11) I try to abide by customs and conventions at work.	12 (2.8%)	102 (23.6%)	262 (60.5%)	57 (13.2%)	0
(12) It is better to consult others and get their opinions before doing anything.	14 (3.2%)	76 (17.6%)	268 (61.9%)	74 (17.1%)	1 (0.2%)
(13) My relationships with others are more important to me than my accomplishments.	9 (2.1%)	102 (23.6%)	260 (60.0%)	62 (14.3%)	0

Table 4.11. Frequency and Percentage Distributions of 14 *Interdependent Self-Concept* Items for the American Sample, *n* =369.

"Indicate the degree to which you agree or disagree with the following statements."	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Missing	Factor loading[a b]
(1) I consult with others before making important decisions.	4 (1.1%)	36 (9.8%)	215 (58.3%)	111 (30.1%)	3 (0.8%)	0.604
(2) I consult with co-workers on work-related matters.	7 (1.9%)	40 (10.8%)	205 (55.6%)	113 (30.6%)	4 (1.1%)	0.574
(3) I will sacrifice my self-interest for the benefit of my group.	10 (2.7%)	69 (18.7%)	203 (55.0%)	85 (23.0%)	2 (0.5%)	0.604
(4) I stick with my group even through difficulties.	3 (0.8%)	16 (4.3%)	177 (48.0%)	171 (46.3%)	2 (0.5%)	0.655
(5) I respect decisions made by my group.	2 (0.5%)	29 (7.9%)	200 (54.2%)	134 (36.3%)	4 (1.1%)	0.689
(7) I will stay in a group if it needs me, even when I am not happy with the group.	14 (3.8%)	75 (20.3%)	180 (48.8%)	97 (26.3%)	3 (0.8%)	0.662
(8) I maintain harmony in the groups of which I am a member.	3 (0.8%)	27 (7.3%)	203 (55.0%)	133 (36.0%)	3 (0.8%)	0.624
(9) I respect the majority's wishes in groups of which I am a member.	2 (0.5%)	38 (10.3%)	213 (57.7%)	112 (30.4%)	4 (1.1%)	0.657
(10) I remain in groups of which I am a member if they need me, even though I am dissatisfied with them.	17 (4.6%)	94 (25.5%)	194 (52.6%)	61 (16.5%)	3 (0.8%)	0.596 0.546
(11) I try to abide by customs and conventions at work.	2 (0.5%)	28 (7.6%)	218 (59.1%)	115 (31.2%)	6 (1.6%)	0.620
(12) It is better to consult others and get their opinions before doing anything.	5 (1.4%)	83 (22.5%)	203 (55.0%)	74 (20.1%)	4 (1.1%)	0.554
(13) My relationships with others are more important to me than my accomplishments.	6 (1.6%)	47 (12.7%)	214 (58.0%)	98 (26.6%)	4 (1.1%)	-

[a] Though this is a table for the American sample, the factor loading listed in this table for each item is for the principal component analysis conducted using the sample.

[b] Factor loadins are based on a principal component analysis without the last item.

Factor loadings for each of the remaining 12 items are also shown in Table 4.11. Cronbach's alpha for the linear composite of the 12 items is 0.85. The scale measuring *interdependent self-concept* is created by summing the z-score transformations of the 12 items (with a mean = 0 and a *S.D.* = 7.39).

Bivariate Analysis

Next, before conducting regression analyses testing the hypothesis, two sets of correlation analysis are conducted. The first correlation analysis (shown in Table 4.12) corresponds to bivariate correlations among the variables measuring nationality, gender, control variables, and two cultural variability measures. The second correlation analysis (shown in Table 4.13) corresponds to partial correlations, controlling for nationality, gender, *age*, *SES*, and family structure, among three types of deviance scales measured in both *prevalence* and *frequency*, and two cultural variability measures. Table 4.12 shows that, as expected, the Japanese respondents have a significantly lower level of *independent self-concept* than the American respondents. However, contrary to expectations, the Japanese respondents also have a significantly lower level of *interdependent self-concept* than the American respondents. Also contrary to expectations, males have a significantly lower level of *independent self-concept* than females, but as expected, males have a significantly lower level of *interdependent self-concept* than females. Note, however, that these results are confounded by the fact that gender and nationality are strongly correlated. In addition, older respondents have a significantly higher level of *independent self-concept* than younger respondents. Furthermore, those respondents who have never grown up in a single-parent home have a significantly lower level of *independent self-concept* than the

Table 4.12. Bivariate Correlations Among Nationality, Gender, Control Variables, and Two Cultural Variation Scales for the Combined Samples, n=801 (one-tailed significance test in parenthesis).

	(01)	*(02)*	*(03)*	*(04)*	*(05)*	*(06)*	*(07)*
(01) Japan	1.000						
(02) Male	-	1.000					
(03) Age	-	-	1.000				
(04) SES (1=high)	-	-	-	1.000			
(05) Two-parent home	-	-	-	-	1.000		
(06) Independent self-concept	-0.492 (.000)	-0.142 (.000)	0.084 (.017)	-0.037 (.293)	-0.099 (.005)	1.000	
(07) Interdependent self-concept	-0.426 (.000)	-0.128 (.000)	0.030 (.398)	0.015 (.667)	-0.051 (.149)	0.257 (.000)	1.000

Table 4.13. Partial Correlations Among Three Types of Deviance Scales Measured in Both Frequency and Prevalence and Two Cultural Variation Scales, Controlling for Nationality, Gender, Age, SES, and Family Structure for the Combined Samples, n=801 (one-tailed significance test in parenthesis).

	(01)	*(02)*	*(03)*	*(04)*	*(05)*	*(06)*	*(07)*	*(08)*
(01) General deviance prevalence	1.000							
(02) General deviance frequency	-	1.000						
(03) Academic misconduct prevalence	-	-	1.000					
(04) Academic misconduct frequency	-	-	-	1.000				
(05) Academic underachievement prevalence	-	-	-	-	1.000			
(06) Academic underachievement frequency	-	-	-	-	-	1.000		
(07) Independent self-concept	0.018 (0.307)	0.052 (0.071)	-0.063 (0.038)	-0.037 (0.147)	-0.004 (0.455)	-0.016 (0.321)	1.000	
(08) Interdependent self-concept	-0.069 (0.025)	-0.073 (0.020)	-0.036 (0.156)	-0.082 (0.010)	-0.056 (0.057)	-0.108 (0.001)	0.062 (0.041)	1.000

respondents who grew up in a single-parent home. Table 4.13 shows that *independent self-concept* has a significant positive relationship with *general deviance frequency* (but not with *prevalence*), and a significant negative relationship with *academic misconduct*

prevalence (but not with *frequency*). *Independent self-concept* has no significant relationship with *academic underachievement*. On the other hand, *interdependent self-concept* has significant negative relationships with both *prevalence* and *frequency* measures of *general deviance*. In addition, *interdependent self-concept* also has significant negative relationships with both types of academic deviance measures, except for *academic misconduct* measured in *prevalence*. As argued by scholars in recent years, the fact that I-C is not a bipolar singular dimension is supported by the fact that the *independent self-concept* and *interdependent self-concept* measures have a significant positive relationship, at least among the two samples examined in this study, as opposed to a negative relationship, expected if the two measures are diametrically opposite.

Next, Table 4.14 shows results of OLS regression analyses: one for *independent self-concept* as the dependent variable and the other for *interdependent self-concept* as the dependent variable. As found in the bivariate correlation analysis, controlling for gender, *age*, *SES*, and family structure, Japanese respondents report significantly lower levels of both *independent self-concept* and *interdependent self-concept*. Nationality is the only variable that is significant in both models, indicating that the significant bivariate relationships found for other variables with the two I-C measures are due to the correlations these variables have with nationality. The results in Table 4.14 support the notion that the Japanese are, in general, less individualistic than Americans. However, contrary to expectations and past studies, the results also indicate that the American sample is more collectivistic than the Japanese sample, as measured by interdependent self-concept. One possible explanation for this contradictory result is

Table 4.14. OLS Regression Analysis with *Two Cultural Variability Measures* Regressed on Nationality, Gender, and Control Variables for the Combined Samples, *n* =801.

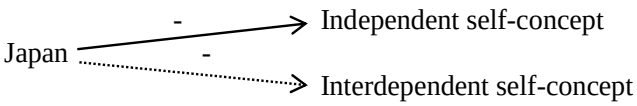
	Independent Self-Concept				Interdependent Self-Concept			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-1.584		5.255		3.501		5.132	
Japan	-7.669	***	0.519	-0.486	-6.358	***	0.507	-0.429
Male	-0.142		0.518	-0.009	-0.087		0.506	-0.006
Age	0.329		0.261	0.040	-0.035		0.255	-0.005
SES (1=high)	-0.716		0.519	-0.043	0.149		0.506	0.009
Two-parent home	-0.125		0.852	-0.005	0.631		0.832	0.025
Adjusted R^2	0.246				0.177			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

the uniqueness of the samples used in this study. The college students at a national university in Japan might hold a less collectivistic attitude compared to the rest of the population, producing results that are contrary to the findings of past research. Moreover, since the samples in this study consist of members of a younger generation only, the traditional view and research findings that the Japanese are more collectivistic than Americans might not hold. However, the fact that the sample is not representative of its nation as a whole is also true with the U.S. sample; therefore, one would expect the *difference* between the two countries in terms of I-C to be constant across different groups of the population. Results of the OLS regression analyses shown in Table 4.14 are summarized in Figure 4.2. Effects consistent with the hypotheses are displayed in a solid line, and those inconsistent with the hypotheses are displayed in a dotted line. Figure 4.2 shows that, consistent with past studies and expectations, the Japanese sample have a significantly lower level of *independent self-concept* than the American

sample. Figure 4.2 also shows that, contrary to the past studies and expectations, the Japanese have a significantly lower level of *interdependent self-concept* than the American sample, controlling for gender, *age*, *SES*, and family structure.

Figure 4.2. Results of the OLS Regression Analysis with *Two Types of Cultural Variability Measures* regressed on Nationality, Controlling for Gender, Age, SES, and Family Structure.



Though not an integral part of this dissertation, OLS regression analyses regressing each of the three types of dependent variables measured in *prevalence* and *frequency* on nationality, gender, control variables, and the two cultural variability measures are conducted. Table 4.15 shows the results for the three types of deviance scales measured in *prevalence* as the dependent variable. Compared with the results of the OLS regression analyses that exclude the two cultural variability measures (shown in Tables 4.6 and 4.7), the inclusion of the two cultural variability measures has a very little overall effect on the effects of gender, *Age*, *SES*, and family structure on either of the three deviance scales measured in *prevalence*. However, the standardized regression coefficients for nationality decreased somewhat after the two cultural variability measures are entered into the equations for the model with *academic misconduct* as the dependent variable, indicating that at least some of the effect of nationality on this type of deviance can be explained by cultural variability between the two countries. Additionally, once the two cultural variability measures are controlled, the effect of *Japan* on *academic underachievement* measured in *prevalence* becomes a

Table 4.15. OLS Regression Analyses with *Three Types of Deviance Scales Measured in Prevalence* Regressed on Nationality, Gender, and Control Variables, Two Cultural Variability Scales for the Combined Samples, *n* =801.

	General Deviance				Academic Misconduct				Academic Underachievement			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-8.649	**	2.962		-1.837		2.721		-2.777		1.972	
Japan	-5.883	***	0.352	-0.603	1.507	***	0.323	0.201	-0.437	*	0.234	-0.083
Male	2.990	***	0.292	0.303	1.015	***	0.268	0.134	0.902	***	0.194	0.170
Age	0.519	***	0.147	0.101	0.013		0.135	0.003	0.124		0.098	0.045
SES (1=high)	0.282		0.293	0.027	0.689	**	0.269	0.086	0.408	*	0.195	0.073
Two-parent home	-0.426		0.480	-0.026	-0.307		0.441	-0.024	-0.226		0.320	-0.025
Independent self-concept	0.013		0.020	0.020	-0.032	*	0.018	-0.066	0.000		0.013	-0.001
Interdependent self-concept	-0.041	*	0.020	-0.062	-0.017		0.019	-0.034	-0.021		0.014	-0.061
Adjusted R^2	0.369				0.100				0.032			
Model *p*	0.000				0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Table 4.16. OLS Regression Analyses with *Three Types of Deviance Scales Measured in Frequency* Regressed on Nationality, Gender, and Control Variables, Two Cultural Variability Scales for the Combined Samples, *n* =801.

	General Deviance				Academic Misconduct				Academic Underachievement			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-13.68	***	3.99		-2.334		2.643		-6.406	**	2.525	
Japan	-4.423	***	0.474	-0.377	1.927	***	0.314	0.259	1.773	***	0.300	0.247
Male	3.868	***	0.393	0.326	0.891	***	0.260	0.118	1.211	***	0.249	0.167
Age	0.718	***	0.198	0.116	0.021		0.131	0.005	0.232	*	0.126	0.061
SES (1=high)	0.119		0.394	0.010	0.602	*	0.261	0.076	0.486	*	0.249	0.063
Two-parent home	-0.262		0.647	-0.013	-0.049		0.428	-0.004	-0.108		0.409	-0.009
Independent self-concept	0.043		0.027	0.058	-0.016		0.018	-0.035	-0.005		0.017	-0.010
Interdependent self-concept	-0.059	*	0.028	-0.075	-0.041	*	0.018	-0.082	-0.053	**	0.017	-0.110
Adjusted R^2	0.209				0.136				0.154			
Model *p*	0.000				0.000				0.000			

* $p<0.05$; ** $p<0.01$; *** $p<0.001$.

significant negative effect. However, all significant effects in Table 4.6 remain after controlling for cultural variability. Moreover, once cultural variability is controlled, the effect of *Japan* on *academic underachievement* becomes significant, and the effect of *Japan* on *general deviance* increases after cultural variability is controlled. The results are consistent with the fact that while *interdependent self-concept* has significant negative effects on all types of deviant behaviors measured in *prevalence*, the Japanese respondents are significantly lower on this type of cultural variability, thus once *interdependent self-concept* is controlled, the country differences in deviance are accentuated. Interestingly, Table 4.15 also shows that while *interdependent self-concept* has a significant and negative effect on *general deviance, independent self-concept* has a significant negative effect on *academic misconduct*. Neither of the cultural variability measures has a significant effect on *academic underachievement*. Results of OLS regression analyses with three types of deviance measured in *frequency* are shown in Table 4.16. The results look almost identical to the ones with *prevalence* scales as the dependent variable. One major difference is that with *frequency* measures as the dependent variable, *interdependent self-concept* has significant effects on all three types of dependent variables, and the effects are all negative. On the other hand, *independent self-concept* is not significant when *academic misconduct frequency* is the dependent variable.

Cultural Variation in Theoretical Variables

To briefly restate the attributes of I-C discussed in the previous section, studies generally indicate that collectivistic culture encourages the members to see themselves as interdependent on others, to place a higher value on group needs and goals, and to

emphasize unconditional relationships with others, while their behaviors are influenced equally by social norms, duties, and obligations, and by personal attitudes and needs. On the other hand, individualistic cultures encourage their members to see themselves as autonomous, to place a higher value on individual needs and desires, and to emphasize rationality, while their behaviors are influenced chiefly by personal attitudes and needs. As these attributes of I-C indicate, examining preexisting cultural variability in terms of I-C across countries seems to be an important component in cross-cultural research of deviance, because I-C is specifically a measure of preexisting cultural variability concerning relationships between an individual and others as well as how such relationships might affect the behavior of an individual.

Furthermore, I-C seems to be particularly relevant for both Hirschi's (1969) social control and Akers's (1985) social learning theories because both theories emphasize an individual's *relationships* and *interactions* with others as the important predictors of deviance. Additionally, because neither of the two theories is developed specifically to account for the effects of cultural variation on deviance or theoretical variables, I-C might be an appropriate addition to these two individual theories, when the theories are applied cross-culturally. Although I-C is not an explanation of deviance per se, nor does it attempt to explain deviance directly, it seems apparent that if one finds differences across countries in terms of how a theory explains deviant behaviors, such differences might be due to *cultural variation* across those countries. In the remainder of this section, I review empirical research that sheds light on how I-C might produce country variations in conditions under which the theoretical variables affect

deviance. Based on the review of past research, hypotheses are stated, and the empirical tests of the hypotheses follow.

To begin with, based on the attributes of I-C, I expect the relationship between Hirschi's (1969) social control theory and I-C to be strong and direct, since the attributes of collectivistic culture seem to be identical to having stronger social bonds, while those for individualistic culture seem to be identical to having weaker social bonds. Thus, I expect stronger social bonds among the members of collectivistic cultures compared to the members of individualistic cultures. In support of this, empirical studies consistently find higher attachment and commitment among members of collectivistic cultures compared to the members of individualistic cultures. According to Triandis (1988), for example, studies find that the members of collectivistic cultures tend to place a higher value on family, family relationships, and relationships with others in the society, compared to those of individualistic cultures.[41] More specifically, empirical studies generally find that, consistent with their expected high value in collectivism, Japanese parents place a high value on their children's dependence on them, in order to promote family loyalty and compliance among children—traits that are valued among collectivistic cultures (Miyake et al. 1985).[42] Doi (1985, 1971) also notes that Japanese parents tend to foster in their children interdependence or a dependent self-concept, whereby the Japanese children develop their identities though their parents. This is in stark contrast to the U.S., where the

[41] For instance, it is often found that Asian countries, which are considered relatively more collectivistic than Western countries, tend to place a higher value on family, displayed in their traditions and practices, including placing family names before given names or worshiping family ancestors (Matsumoto and Juang 2004).

[42] For instance, traditionally Japanese parents foster the dependence of their children by rarely leaving them alone and sharing the bed well into their childhood (e.g., Connor 1976, Rothbaum et al. 2002, Miyake et al. 1984).

formation of an individual self is considered an important step in child development. Although this study found that the Japanese sample has a significantly lower level of interdependent self-concept than the American sample, based on extant empirical studies, I should expect a positive relationship between interdependent self-concept and attachment to parents. With a stronger attachment to parents, we should also expect collectivistic cultures to have higher levels of commitment, belief,[43] and involvement, compared to individualistic cultures, as these elements of social bonds are interrelated with one another; moreover, attachment to parents affects parenting, which then, according to Hirschi (1969), affects all other elements of social bonds, though it is difficult to see how cultural variability might affect involvement.[44] Though not a direct measure of Hirschi's (1969) commitment, studies related to the topics of formal and informal social controls offer interesting insights. For instance, studies on parenting find that parents in more collectivistic cultures place a greater emphasis on personal and interpersonal relationships and on emotions and feelings, while parents in individualistic cultures place a greater emphasis on authority and "direct instrumental process[es]," using, for instance, rewards and punishments (Conroy et al. 1980). The difference in parental socialization practices found across cultures leads some cross-cultural scholars to argue that moral reasoning among members of collectivistic cultures tends to be driven by interpersonal relationships and the attainment of "societal harmony," rather than by values such as justice and rationality—those values important in individualistic cultures (Shaffer 2000: 340). The findings by these studies suggest

[43] The possible effect of I-C on the relationship between belief and deviance is discussed along with Akers's (1985) social learning theory.

[44] It is possible, however, that individuals in collectivistic cultures are more involved in their communities and communal activities than individuals in individualistic cultures.

that, though the amount of commitment might not differ by culture, in terms of "stake in conformity," informal social control might work more effectively to curtail deviance in collectivistic cultures than in individualistic cultures. On the other hand, formal social control might work more effectively to curtail deviance in individualistic cultures than in collectivistic cultures. For Hirschi's (1969) social control theory, therefore, the cultural variability measured in terms of I-C seems to affect social bonds directly, and deviance indirectly through effects on social bonds. In other words, theoretical measures from Hirschi's (1969) social control theory work as *intervening variables* explaining the relationship between cultural variability and deviance.

On the other hand, since Akers's (1985) social learning theory focuses on the causal processes in explaining deviance, rather than the causal factors, I-C might not necessarily affect Akers's (1985) social learning measures directly.[45] Indeed, the idea that cultural variability measured in terms of I-C has direct effects on differential association, definitions, imitations, or differential reinforcement seems to contradict the view stated previously—that the measures of cultural variability included in this study are not necessarily the measures of deviant values, nor is it implied that they directly cause deviance or promote deviant values. However, compared to individualistic cultures, the importance placed on others relative to the self for individuals in collectivistic cultures suggests the possibility that the effects of Akers's (1985) social

[45] Going back to an earlier point about how Akers's (1985) social learning theory might explain country variation in deviance, I do not think that I-C, as a measure of cultural variation, necessarily explains country variation in social learning measures, such as differential association. For instance, I do not think that I-C explains why there is a country variation in the number of deviant subcultures. I do not think that Akers's (1985) social learning theory itself is equipped to explain country variation in deviance, because I do not think the theory offers an adequate explanation for why some countries have more deviant subcultures than others, though it might be possible with the recent addition of macro-level explanations. I think that cross-cultural application of Akers's (1985) social learning theory requires examination of structural factors in explaining the country variations in measures from the theory.

learning measures on deviance might be stronger for members of collectivistic cultures compared to the members of individualistic cultures.[46] In support of this hypothesis, empirical studies consistently find that collectivistic cultures tend to place greater social pressure on conformity (e.g., Matsumoto and Juang 2004, Buck et al. 1984), and that in Western countries, particularly in the U.S., people tend to consider conformity a negative attribute rather than a positive or purposeful one, as it often is considered in collectivistic cultures (Matsumoto and Juang 2004). The stronger needs or desires for conformity experienced by individuals in collectivistic cultures compared to those in individualistic cultures suggest that the theoretical variables from Akers's (1985) social learning theory might have stronger effects in terms of influencing the behaviors of individuals in collectivistic cultures compared to their effects on the behaviors of individuals in individualistic cultures. In other words cultural variability, in terms of I-C, might be important for Akers's (1985) social learning theory by affecting the *strength* of the effects of differential association and differential reinforcement on deviance. Thus, for Akers's (1998) social learning theory, cultural variability works as a *conditional variable* that affects the relationship between theoretical measures and deviance.

The possible differences in the effects of preexisting cultural conditions on the relationship between theoretical measures and deviance for Hirschi's (1969) social

[46] The effect of cultural variation on the relationship between definitions and deviance seems to be a conditional effect. In other words, while I think neither individualistic nor collectivistic cultures encourages more or less deviant definitions, the cultural variation might affect the strength of an individual's own definitions about deviance in affecting the commission of the deviant behavior. In support of this, studies generally find that in collectivistic cultures, individuals' behaviors are influenced more strongly by the norms, rules, and obligations of the society than those for individualistic cultures, where individuals are more likely to be influenced by their own needs and desires (Triandis 1999). However, this difference does not necessarily mean that collectivistic cultures have more or less deviant norms and rules than individualistic cultures.

control and Akers's (1985) social learning theories are interesting from a theoretical point of view. The expected differences just discussed suggest that for Hirschi's (1969) social control theory, one would expect deviance to be lower among collectivistic cultures compared to individualistic cultures, because collectivistic cultures promote stronger social bonds than individualistic cultures. On the other hand, for Akers's (1985) social learning theory, one would expect deviance to be lower among individualistic cultures compared to collectivistic cultures, because individualistic attributes weaken the effects of others' influences, both deviant and conforming, on an individuals' behaviors, compared to collectivistic attributes, which strengthen the effects of others' influences, both deviant and conforming, on individuals' behaviors. In summary, based on the attributes of I-C, extant research on I-C, and expectations on how I-C attributes affect the central measures from both the social control and social learning theories, I hypothesize that the effects of preexisting cultural variability between the Japanese and the Americans on the relationship between theoretical measures and deviance differ for the two theories. For Hirschi's (1969) social control theory, because I-C seems to affect an individual's levels of social bonds directly, I hypothesize that the theoretical variables work as *intervening variables* explaining the relationship between cultural variability and deviance. On the other hand, for Akers's (1985) social learning theory, I hypothesize that cultural variability is a *conditional variable* that affects the strength of the relationship between theoretical variables and deviance.

To examine the effects of I-C on the relationships between theoretical variables and deviance for both Hirschi's (1969) social control and Akers's (1985) social learning

theories, I first conduct an OLS regression analysis with each of the theoretical variables regressed on variables measuring nationality and the two measures of I-C, controlling for gender, *age, SES,* and family structure. But first, a bivariate correlation analysis among nationality, control variables, the two types of I-C, and theoretical variables is conducted separately for Hirschi's social control theory (shown in Table 4.17) and for Akers's social learning theory (shown in Table 4.18). Table 4.17 shows that, contrary to the expectations based on their lower deviance, but consistent with the expectations based on their lower interdependent self-concept compared to Americans, the Japanese respondents have significantly lower levels of all elements of social bonds than the American respondents, except for *attachment to school* and *belief*. Additionally, as expected from their higher deviance, males have significantly lower levels of all elements of social bonds than females, except for *attachment to school*, for which males have a significantly higher level than females. Interestingly, both *independent self-concept* and *interdependent self-concept* are significantly and positively related to all types of social bonds, except the relationships between *independent self-concept* and *attachment to school*, and *independent self-concept* and *belief*. On the other hand, Table 4.18 shows that, consistent with the expectation from their lower deviance than the Americans, the Japanese respondents have significantly lower levels of all measures of Akers's social learning, except for *general definitions* favoring deviance and *parental deviance reinforcement*, neither of them is significantly related to nationality. Additionally, consistent with their higher deviance than females, males have significantly higher levels of all measures of social learning, except *parental deviant reinforcement*, which is not significantly related to gender. *Age* is significantly

Table 4.17. Bivariate Correlations Among Nationality, Gender, Control Variables, Two Cultural Variation Scales, and Theoretical Measures from Hirschi's (1969) Social Control Theory for the Combined Samples, n=801 (one-tailed significance test in parenthesis).

	(01)	*(02)*	*(03)*	*(04)*	*(05)*	*(06)*	*(07)*	*(08)*	*(09)*	*(10)*	*(11)*	*(12)*	*(13)*	*(14)*	*(15)*	*(16)*
(01) Japan	1.000															
(02) Male	-	1.000														
(03) Age	-	-	1.000													
(04) SES (1=high)	-	-	-	1.000												
(05) Two-parent home	-	-	-	-	1.000											
(06) Individualism	-	-	-	-	-	1.000										
(07) Collectivism	-	-	-	-	-	-	1.000									
(08) Affectional Identification with parents	-0.528 (0.000)	-0.273 (0.000)	-0.015 (0.366)	0.063 (0.036)	0.015 (0.338)	0.268 (0.000)	0.326 (0.000)	1.000								
(09) Intimacy of Communication with parents	-0.559 (0.000)	-0.237 (0.000)	0.048 (0.089)	0.068 (0.027)	-0.033 (0.178)	0.298 (0.000)	0.317 (0.000)	-	1.000							
(10) Parental supervision	-0.349 (0.000)	-0.187 (0.000)	-0.049 (0.081)	0.040 (0.126)	0.028 (0.214)	0.089 (0.006)	0.175 (0.000)	-	-	1.000						
(11) Attachment to parents	-0.588 (0.000)	-0.285 (0.000)	-0.007 (0.423)	0.070 (0.023)	0.004 (0.453)	0.269 (0.000)	0.335 (0.000)	-	-	-	1.000					
(12) Attachment to peers	-0.584 (0.000)	-0.242 (0.000)	0.077 (0.015)	0.037 (0.146)	-0.084 (0.008)	0.303 (0.000)	0.417 (0.000)	-	-	-	-	1.000				
(13) Attachment to school	0.086 (0.008)	0.003 (0.468)	-0.003 (0.463)	0.054 (0.064)	0.052 (0.069)	0.026 (0.227)	0.111 (0.001)	-	-	-	-	-	1.000			
(14) Commitment	-0.488 (0.000)	-0.261 (0.000)	-0.077 (0.015)	-0.056 (0.056)	-0.091 (0.005)	0.324 (0.000)	0.355 (0.000)	-	-	-	-	-	-	1.000		
(15) Involvement	-0.389 (0.000)	-0.063 (0.036)	0.110 (0.001)	0.028 (0.212)	-0.160 (0.000)	0.275 (0.000)	0.123 (0.000)	-	-	-	-	-	-	-	1.000	
(16) Belief	-0.009 (0.396)	-0.196 (0.000)	-0.066 (0.061)	0.020 (0.289)	-0.004 (0.456)	0.025 (0.242)	0.145 (0.000)	-	-	-	-	-	-	-	-	1.000

Table 4.18. Bivariate Correlations Among Nationality, Gender, Control Variables, Two Cultural Variation Scales, and Theoretical Measures from Akers's (1985) Social Learning Theory for the Combined Samples, *n* =801 (one-tailed significance test in parenthesis).

	(01)	*(02)*	*(03)*	*(04)*	*(05)*	*(06)*	*(07)*	*(08)*	*(09)*	*(10)*	*(11)*	*(12)*
(01) Japan	1.000											
(02) Male	-	1.000										
(03) Age	-	-	1.000									
(04) SES (1=high)	-	-	-	1.000								
(05) Two-parent home	-	-	-	-	1.000							
(06) Individualism	-	-	-	-	-	1.000						
(07) Collectivism	-	-	-	-	-	-	1.000					
(08) Differential association with deviant peers	-0.325 (0.000)	0.173 (0.000)	0.108 (0.001)	0.000 (0.496)	-0.123 (0.000)	0.191 (0.000)	0.043 (0.110)	1.000				
(09) General definition favoring deviance	-0.033 (0.175)	0.206 (0.000)	0.081 (0.011)	-0.009 (0.399)	0.000 (0.497)	0.057 (0.0.54)	-0.120 (0.001)	-	1.000			
(10) Specific definition favoring deviance	-0.076 (0.016)	0.031 (0.000)	0.034 (0.166)	-0.017 (0.311)	-0.021 (0.275)	0.062 (0.040)	-0.112 (0.001)	-	-	1.000		
(11) Peers' deviant reinforcement	-0.162 (0.000)	0.134 (0.000)	0.074 (0.019)	-0.003 (0.467)	0.000 (0.499)	0.138 (0.000)	0.071 (0.023)	-	-	-	1.000	
(12) Parents' deviant reinforcement	-0.032 (0.185)	0.016 (0.323)	0.025 (0.242)	0.006 (0.429)	0.000 (0.499)	-0.044 (0.106)	0.030 (0.199)	-	-	-	-	1.000

and positively related to *differential association*, *general definitions*, and *peers' deviance reinforcement*. Consistent with the expectation based on the differences in the amount of physical supervision, *two-parent home* is significantly and negatively associated with *differential association*. Similar to gender, *independent self-concept* is significantly and positively associated with most of the measures of social learning, expect for *parental deviance reinforcement*. On the other hand, while *interdependent self-concept* is significantly and negatively associated with both *general* and *specific definitions* favoring deviance, it has a significant positively relationship with *peers' deviance reinforcement*. Once again note that all these bivariate correlation results need to be interpreted with caution because of the strong correlation between *Japan* and *male*. In the remainder of this section, each of the theoretical measures from both Hirschi's and Akers's theories is regressed one at a time on nationality, gender, control variables, and both of the cultural variability measures.

Hirschi's (1969) Social Control Theory

Each of the measures from Hirschi's (1969) social control theory is regressed on nationality, control variables, and two cultural variability measures (including *independent self-concept* and *interdependent self-concept*) to examine the hypothesized direct effects of the two cultural variability measures on the theoretical variables. Tables 4.19 through 4.27 show the results of OLS regression analyses with each of the theoretical measures from Hirschi's social control theory regressed as dependent variables. Each table includes two models—one without I-C measures and the other with I-C measures. As seen in the bivariate correlation analysis, contrary to expectations based on their lower deviance, except for *attachment to school* (Table

4.24) and *belief* (Table 4.26), the Japanese respondents have significantly weaker social bonds than the American respondents. For the regression model with *belief* as the dependent variable, once two cultural variability measures are entered into the equation, the effect of nationality on *belief* becomes significant and positive. For all models, nationality has the strongest effect on social bonds, stronger than gender, except for the model with *belief* as the dependent variable. The regression model including *attachment to school* as the dependent variable without the two cultural variability measures fails to reach significance. Among the control variables, as expected from their higher levels of deviance compared to females, males are significantly lower on almost all social bonds compared to females, except for *attachment to school* (Table 4.24) and *involvement* (Table 4.26). Overall, the inclusion of the two measures of I-C generally reduces the effect of nationality on social bonds (but the effects of all other variables on social bonds remain the same), which seems to indicate that I-C explains some of the effects of nationality on social bonds. However, for models with *parental supervision* (Table 4.21), *attachment to school* (Table 4.24), and *belief* (Table 2.27) as the dependent variable, inclusion of the two I-C measures increases the effects of nationality on those three social bond measures. As hypothesized, *interdependent self-concept* tends to have significant positive effects on most of the social bonds, except for *parental supervision* (Table 4.21) and *involvement* (Table 4.26)—for neither model, *interdependent self-concept* has a significant effect. On the other hand, while *independent self-concept* generally does not have significant effect on social bonds, it has a significant negative effect on *parental supervision* (Model 4.21) and has

significant positive effects on *attachment to school* (Table 4.24), *commitment* (Table 4.26), and *involvement* (Table 4.27).

The results of the OLS regression analyses with Hirschi's (1969) social bond measures as the dependent variables reported in Tables 4.19 through 4.27 are summarized in Figure 4.4 (showing nationality as the independent variable), Figure 4.5 (showing *interdependent self-concept* as the independent variable), and Figure 4.6 (showing *independent self-concept* as the independent variable). Effects consistent with the hypothesis are displayed in solid lines, and effects inconsistent with the hypothesis are displayed in dotted lines. Figures 4.5 and 4.6 combine the results from previous tables. First, Figure 4.4 shows that, contrary to expectations, the Japanese sample has significantly lower levels of all elements of social bonds, except *attachment to school*

Table 4.19. OLS Regression Analyses with *Emotional Identification with Parents* Regressed on Nationality, Gender, Control Variables, and Two Cultural Variation Scales for the Combined Samples, *n* =801.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	4.127		2.627		3.906		2.609	
Japan	-4.231	***	0.260	-0.513	-3.778	***	0.31	-0.458
Male	-1.020	***	0.259	-0.122	-1.013	***	0.257	-0.122
Age	-0.145		0.131	-0.033	-0.144		0.130	-0.033
SES (1=high)	0.475	*	0.259	0.054	0.469	*	0.258	0.053
Two-parent home	1.376	***	0.426	0.098	1.336	**	0.423	0.095
Individualism					0.005		0.018	0.009
Collectivism					0.065	***	0.018	0.118
Adjusted R^2	0.305				0.315			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Table 4.20. OLS Regression Analyses with *Intimacy of Communication with Parents* Regressed on Nationality, Gender, Control Variables, and Two Cultural Variation Scales for the Combined Samples, *n* =801.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	6.823	***	1.517		6.732	***	1.511	
Japan	-2.631	***	0.150	-0.545	-2.376	***	0.179	-0.492
Male	-0.404	**	0.149	-0.083	-0.400	**	0.149	-0.082
Age	0.043		0.075	0.017	0.041		0.075	0.016
SES (1=high)	0.306	*	0.150	0.059	0.308	*	0.149	0.060
Two-parent home	0.533	*	0.246	0.065	0.516	*	0.245	0.063
Individualism					0.008		0.010	0.028
Collectivism					0.030	**	0.010	0.091
Adjusted R^2	0.323				0.329			
Model *p*	0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 4.21. OLS Regression Analyses with *Parental Supervision* Regressed on Nationality, Gender, Control Variables, and Two Cultural Variation Scales for the Combined Samples, *n* =801.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	2.640	*	1.335		2.570	*	1.330	
Japan	-1.298	***	0.132	-0.345	-1.435	***	0.158	-0.382
Male	-0.310	**	0.131	-0.082	-0.313	**	0.131	-0.082
Age	-0.118	*	0.066	-0.060	-0.110	*	0.066	-0.056
SES (1=high)	0.135		0.132	0.034	0.116		0.131	0.029
Two-parent home	0.501	*	0.216	0.078	0.492	*	0.216	0.077
Individualism					-0.025	**	0.009	-0.106
Collectivism					0.009		0.009	0.034
Adjusted R^2	0.137				0.144			
Model *p*	0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 4.22. OLS Regression Analysis with *Attachment to Parents* Regressed on Nationality, Gender, Control Variables, and Two Cultural Variation Scales for the Combined Samples, *n* =801.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	2.464	*	1.480		2.335		1.473	
Japan	-2.813	***	0.146	-0.575	-2.670	***	0.175	-0.546
Male	-0.581	***	0.146	-0.117	-0.579	***	0.145	-0.117
Age	-0.080		0.074	-0.031	-0.076		0.073	-0.030
SES (1=high)	0.315	*	0.146	0.060	0.304	*	0.145	0.058
Two-parent home	0.823	***	0.240	0.099	0.801	***	0.239	0.096
Individualism					-0.009		0.010	-0.028
Collectivism					0.033	***	0.010	0.100
Adjusted R^2	0.373				0.380			
Model *p*	0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 4.23. OLS Regression Analyses with *Attachment to Peers* Regressed on Nationality, Gender, Control Variables, and Two Cultural Variation Scales, for the Combined Samples *n* =801.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-0.313		1.071		-0.478		1.044	
Japan	-1.941	***	0.106	-0.559	-1.626	***	0.124	-0.469
Male	-0.306	**	0.106	-0.087	-0.301	**	0.103	-0.086
Age	0.070		0.053	0.038	0.071		0.052	0.039
SES (1=high)	0.112		0.106	0.030	0.106		0.103	0.029
Two-parent home	0.118		0.174	0.020	0.088		0.169	0.015
Individualism					0.001		0.007	0.007
Collectivism					0.048	***	0.007	0.204
Adjusted R^2	0.346				0.379			
Model *p*	0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 4.24. OLS Regression Analyses with *Attachment to School* Regressed on Nationality, Gender, Control Variables, and Two Cultural Variation Scales for the Combined Samples, *n* =801.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	0.391		0.366		0.360		0.361	
Japan	0.084	*	0.036	0.087	0.194	***	0.043	0.202
Male	-0.022		0.036	-0.023	-0.020		0.036	-0.021
Age	0.007		0.018	0.013	0.005		0.018	0.011
SES (1=high)	0.055		0.036	0.054	0.057		0.036	0.055
Two-parent home	0.060		0.059	0.037	0.054		0.058	0.033
Individualism					0.005	*	0.002	0.083
Collectivism					0.011	***	0.002	0.173
Adjusted R^2	0.006				0.035			
Model *p*	0.082				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Table 4.25. OLS Regression Analyses with *Commitment* Regressed on Nationality, Gender, Control Variables, and Two Cultural Variation Scales for the Combined Samples, *n* =801.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	7.247	***	1.545		7.103	***	1.511	
Japan	-2.170	***	0.153	-0.460	-1.585	***	0.179	-0.336
Male	-0.573	***	0.152	-0.120	-0.564	***	0.149	-0.118
Age	-0.275	***	0.077	-0.111	-0.283	***	0.075	-0.114
SES (1=high)	-0.308	*	0.152	-0.061	-0.295	*	0.149	-0.059
Two-parent home	-0.206		0.250	-0.026	-0.237		0.245	-0.030
Individualism					0.031	**	0.010	0.102
Collectivism					0.055	***	0.010	0.173
Adjusted R^2	0.265				0.298			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Table 4.26. OLS Regression Analyses with *Involvement* Regressed on Nationality, Gender, Control Variables, and Two Cultural Variation Scales for the Combined Samples, *n* =801.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	13.334		10.611		14.072		10.556	
Japan	-11.502	***	1.048	-0.379	-10.588	***	1.253	-0.349
Male	1.133		1.045	0.037	1.153		1.039	0.038
Age	0.932		0.527	0.059	0.858		0.525	0.054
SES (1=high)	0.865		1.047	0.027	1.035		1.043	0.032
Two-parent home	-4.249	**	1.720	-0.082	-4.150	**	1.711	-0.080
Individualism					0.214	**	0.071	0.111
Collectivism					-0.144		0.073	-0.056
Adjusted R^2	0.160				0.170			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Table 4.27. OLS Regression Analyses with *Belief* Regressed on Nationality, Gender, Control Variables, and Two Cultural Variation Scales for the Combined Samples, *n* =801.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	3.257		2.143		3.038		2.119	
Japan	0.283		0.212	0.049	0.750	**	0.252	0.131
Male	-1.190	***	0.211	-0.206	-1.183	***	0.209	-0.205
Age	-0.133		0.106	-0.044	-0.133		0.105	-0.044
SES (1=high)	0.126		0.211	0.021	0.120		0.209	0.020
Two-parent home	-0.230		0.347	-0.024	-0.270		0.343	-0.028
Individualism					0.007		0.014	0.018
Collectivism					0.066	***	0.015	0.170
Adjusted R^2	0.037				0.059			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

and *belief*. However, these findings are consistent with expectations based on I-C and the finding that the Japanese sample is lower on *interdependent self-concept* than the American sample. Consistent with expectations, Figure 4.5 shows that *interdependent self-concept* has significant and positive effects on most of the social bonds, except for *parental supervision* and *involvement*. On the other hand, Figure 4.6 shows that *independent self-concept* has a significant and negative effect on *parental supervision*, consistent with what one would expect in individualistic countries, and positive effects on *attachment to school*, *commitment*, and *involvement*.

Figure 4.4. Results of the OLS Regression Analyses with *Hirschi's (1969) Social Control Measures* Regressed on Nationality, Controlling for Gender, Age, SES, and Family Structure.

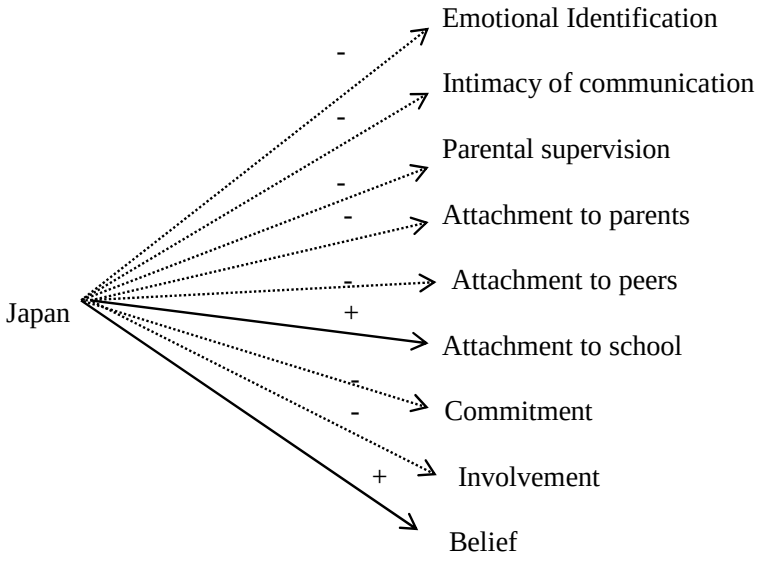


Figure 4.5. Results of the OLS Regression Analyses with *Hirschi's (1969) Social Control Measures* Regressed on Interdependent self-concept, Controlling for Nationality, Control Variables, and Independent self-concept.

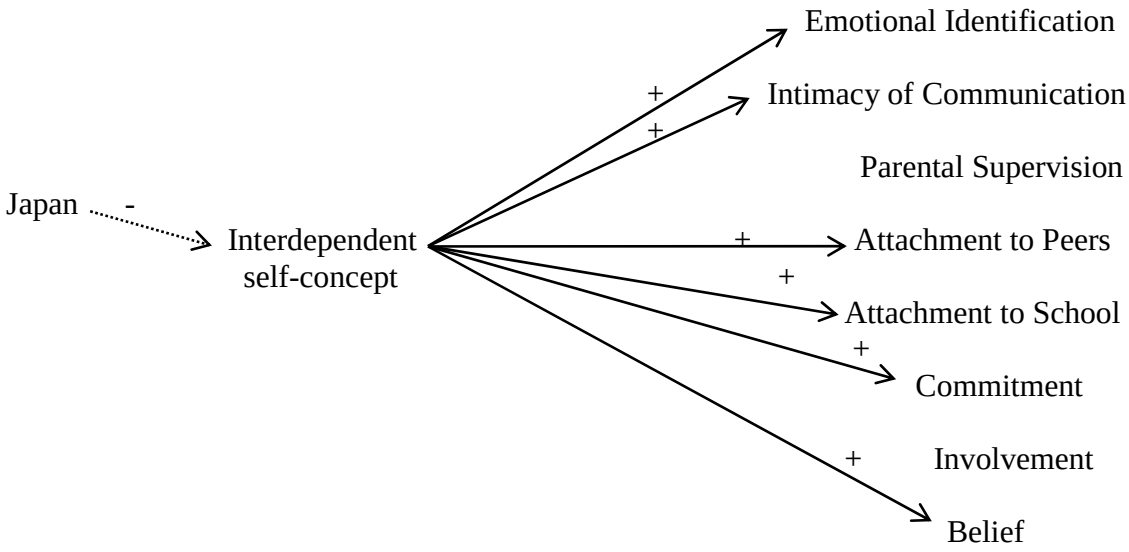
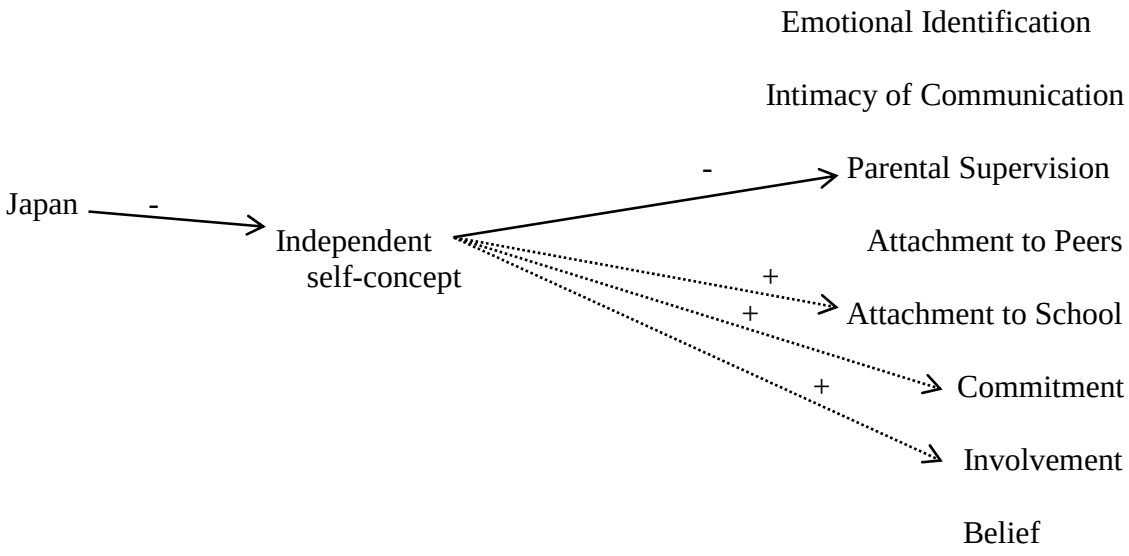


Figure 4.6. Results of the OLS Regression Analysis with *Hirschi's (1969) Social Control Variables* Regressed on Nationality and Independent self-concept, Controlling for Nationality and Interdependent self-concept



Akers' (1985) Social Learning Theory

Second, each of the measures from Akers's (1985) social learning theory is regressed on nationality, control variables, and two cultural variability measures (including *independent self-concept* and *interdependent self-concept*) to examine the effects of the two cultural variability scales on the theoretical variables. Tables 4.28 through 4.31 show the results of OLS regression analyses with each of the theoretical measures from Akers's social learning theory (except for *parents' deviance reinforcement*) regressed as dependent variables. Both models with *parents' deviance reinforcement* (one without and one with two cultural variability measures) as the dependent variable fail to reach significance, so they are not reported here. In addition, though the results are reported in the table, regression analysis with *specific definition* as the dependent variable (shown in Table 4.30) without the two cultural variability measures also fails to reach significance. Each table corresponds to each of the social learning measures and includes two models: one without I-C measures and the other with I-C measures. The OLS regression analyses show that, consistent with the bivariate correlation analysis, *Japan* has significant negative effects on all of the measures of social learning. *Male*, on the other hand, has significant positive effects on most of the social learning measures, except for *specific definitions*. Except for the models with *peers' deviant reinforcement* as the dependent variable, the inclusion of the two cultural variability measures increased the effect of *Japan* on measures of social learning. For all other control variables, including gender, the inclusion of the two I-C measures does not result in much change to their respective standardized coefficient values. In addition, the analyses show that *interdependent self-concept* has significant negative effects on

Table 4.28. OLS Regression Analyses with *Differential Association with Deviant Peers* Regressed on Nationality, Gender, Control Variables, and Two Cultural Variation Scales for the Combined Samples, *n* =801.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-4.216		5.394		-3.720		5.363	
Japan	-6.137	***	0.533	-0.393	-6.552	***	0.637	-0.420
Male	4.418	***	0.531	0.280	4.414	***	0.528	0.280
Age	0.308		0.268	0.038	0.289		0.267	0.035
SES (1=high)	-0.040		0.532	-0.002	0.011		0.530	0.001
Two-parent home	-1.113		0.874	-0.042	-1.031		0.869	-0.039
Individualism					0.046		0.036	0.047
Collectivism					-0.121	***	0.037	-0.115
Adjusted R^2	0.180				0.190			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Table 4.29. OLS Regression Analysis with *General Definition Favorable of Deviance* Regressed on Nationality, Gender, Control Variables, and Two Cultural Variation Scales for the Combined Samples, *n* =801.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-3.645	*	2.026		-3.398	*	2.002	
Japan	-0.536	**	0.200	-0.099	-0.758	***	0.238	-0.139
Male	1.257	***	0.200	0.229	1.255	***	0.197	0.228
Age	0.154		0.101	0.054	0.144		0.100	0.051
SES (1=high)	-0.062		0.200	-0.011	-0.038		0.198	-0.007
Two-parent home	0.281		0.328	0.030	0.322		0.325	0.035
Individualism					0.021		0.014	0.062
Collectivism					-0.061	***	0.014	-0.166
Adjusted R^2	0.049				0.071			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Table 4.30. OLS Regression Analyses with *Specific Definition Favorable of Deviance* Regressed on Nationality, Gender, Control Variables, and Two Cultural Variation Scales for the Combined Samples, *n* =801.

	Model 1			Model 2		
	b	*S.E.*	*β*	*b*	*S.E.*	*β*
Constant	-2.294	4.873		-1.702	4.816	
Japan	-1.151 **	0.481	-0.090	-1.865 ***	0.572	-0.146
Male	0.705	0.480	0.055	0.696	0.474	0.054
Age	0.138	0.242	0.021	0.121	0.239	0.018
SES (1=high)	-0.250	0.481	-0.018	-0.203	0.476	-0.015
Two-parent home	-0.008	0.790	0.000	0.093	0.781	0.004
Individualism				0.034	0.033	0.042
Collectivism				-0.153 ***	0.033	-0.178
Adjusted R^2	0.003			0.028		
Model *p*	0.174			0.000		

* p <0.05; ** p <0.01; *** p <0.001.

Table 4.31. OLS Regression Analyses with *Peers' Deviant Reinforcement* Regressed on Nationality, Gender, Control Variables, and Two Cultural Variation Scales for the Combined Samples, *n* =801.

	Model 1			Model 2		
	b	*S.E.*	*β*	*b*	*S.E.*	*β*
Constant	-6.862	5.164		-6.750	5.160	
Japan	-3.094 ***	0.510	-0.222	-2.590 ***	0.613	-0.186
Male	0.272 ***	0.509	0.193	2.728 ***	0.508	0.194
Age	0.306	0.257	0.042	0.284	0.257	0.039
SES (1=high)	-0.100	0.510	-0.007	-0.052	0.510	-0.003
Two-parent home	1.175	0.837	0.050	1.185	0.836	0.050
Individualism				0.067 *	0.035	0.076
Collectivism				-0.001	0.036	-0.002
Adjusted R^2	0.059			0.061		
Model *p*	0.000			0.000		

* p <0.05; ** p <0.01; *** p <0.001.

all measures of social learning, except for *peers' deviance reinforcement*. Finally, *independent self-concept* has a significant positive effect on *peers' deviance reinforcement*.

Results of the OLS regression analyses shown in Tables 4.28 through 4.31 are summarized in Figures 4.7 (shown with nationality as the independent variable), Figure 4.8 (shown with *interdependent self-concept* as the independent variable), and Figure 4.9 (shown with *independent self-concept* as the independent variable). Figures 4.8 and 4.9 combine the results from previous tables. Since no hypothesis is stated (because I expected no direct effects of I-C on social learning measures), all significant effects are displayed with dotted lines. Figure 4.7 shows that the Japanese have significantly lower levels of all of the social learning measures included in this study. *Interdependent self-concept* has significant negative effects on most of the social learning measures, except for *peers' deviant reinforcement*. *Independent self-concept*, on the other hand, has a significant positive effect on only one of the social learning measures, *peers' deviance reinforcement*.

Figure 4.7. Results of the OLS Regression Analyses with Akers's (1985) Social Learning Variables Regressed on Nationality, Controlling for Gender, Age, SES, and Family Structure.

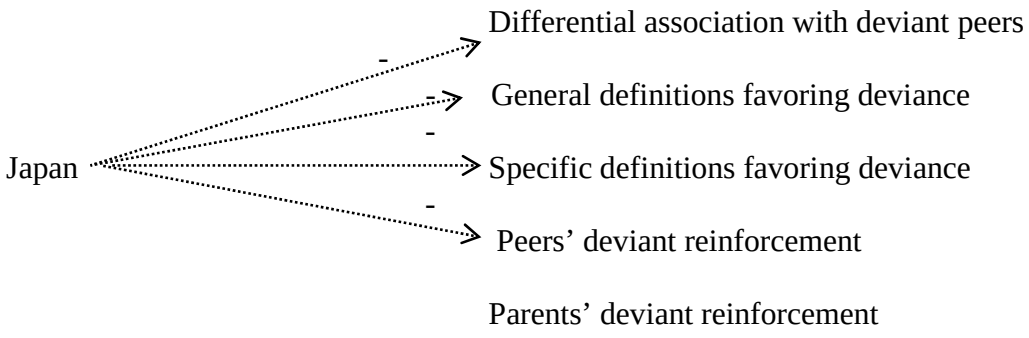


Figure 4.8. Results of the OLS Regression Analysis with Akers's (1985) Social Learning Variables Regressed on Nationality and Interdependent self-concept, Controlling for Control Variables and Independent self-concept.

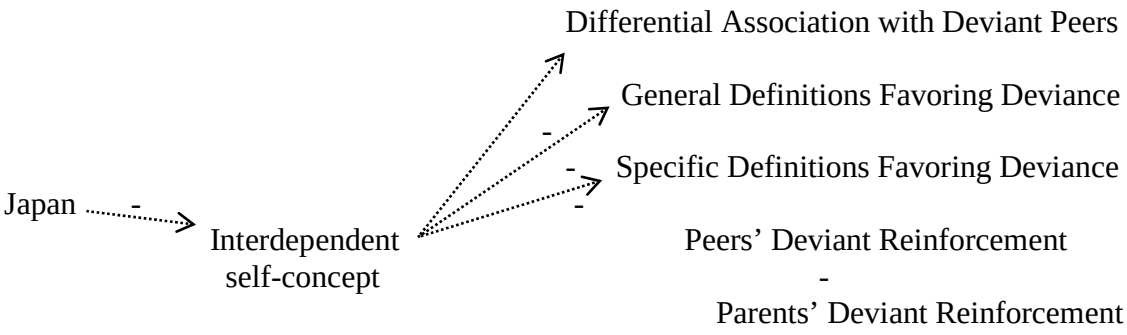
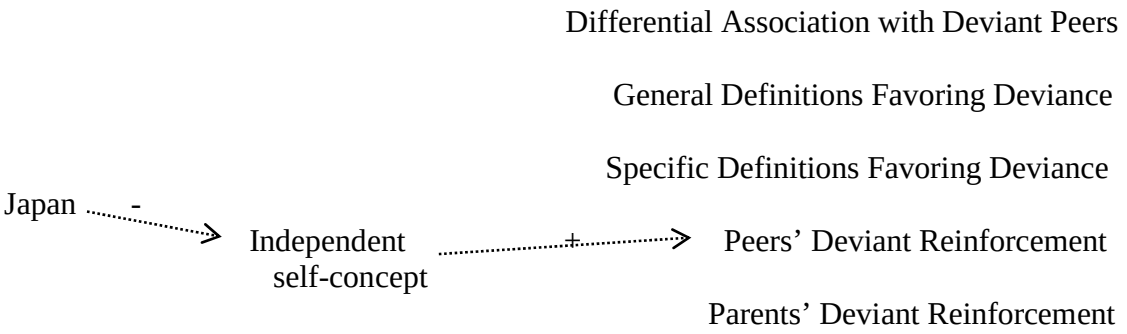


Figure 4.9. Results of the OLS Regression Analyses with Akers's (1985) Social Learning Variables Regressed on Nationality and Independent self-concept, Controlling for Nationality and Interdependent self-concept



In summary, the Japanese respondents have significantly lower levels of most of Hirschi's (1969) social bonds than the American respondents (except for *attachment to school*). The findings are contrary to the predictions based on past studies and on the cultural gap in *general deviance*. However, since studies indicate that we should expect social bonds to be stronger among the members of countries higher in interdependent self-concept, the findings are consistent with the lower level of *interdependent self-concept* found among the Japanese compared to Americans, among the samples in this

study. When each of the measures of social bonds is regressed on nationality, gender, *age*, *SES*, and family structure, nationality has the strongest effect on social bonds, even stronger than gender. Additionally, as expected from their higher deviance, males have significantly lower levels of most social bonds than females (except for *attachment to school* and *involvement*). Furthermore, as hypothesized, *interdependent self-concept* has significant positive effects on most of the social bonds (except for *parental supervision* and *involvement*). In contrast, *independent self-concept* has a significant negative effect on *parental supervision*, but significant positive effects on *attachment to school*, *commitment*, and *involvement*. On the other hand, when each of the measures of social learning is regressed, the Japanese respondents show significantly lower levels of all of social learning measures. The findings are consistent with the fact that the American respondents engage in a significantly higher level of *general deviance* than the Japanese respondents. Additionally, as expected, males have significantly higher levels of most of the social learning measures (except for *specific definitions*). Finally, *interdependent self-concept* has significant negative effects on most of the social learning measures (except for *peers' deviance reinforcement*). On the other hand, *independent self-concept* has a significant positive effect on *peers' deviant reinforcement*. Having examined the effects of nationality and cultural variability on each of the theoretical measures from both Hirschi's (1969) social control and Akers's (1985) social learning theories, in the next section I examine how the variations in measures from the two theories found in Japan and the U.S. in this section explain the cultural gap in deviance across the two groups found in the previous section.

Applying Theories to Assess Cultural Variations in Deviance

As noted previously in the methods chapter, due to the difficulties associated with conducting cross-national survey research, the majority of past cross-national research on deviance has been at the macro level, examining structural correlates of official crime rates and applying macro level theories of deviance. For instance, researchers have examined the effects of the availability of firearms (Alheimer 2008), severity of punishment (Archer, Garner, Beittel 1983), population diversity and heterogeneity (Avison and Loring 1986; Hansmann and Quigley 1982), single parenthood (Barber 2004), anomie (Baumer and Gustafson 2007, Bjerregaard and Cochran 2008, Krohn 1978, Leavitt 1992, Messner 1982), economic inequality (Chamlin and Cochran 2005, Jacobs and Richardson 2008, Krahn, Hartnagel, and Gartrell 1986, Krohn 1976, Lee and Bankston 1999, Messner, Raffalovich, and Shrock 2002, Pratt and Godsey 2003), and age structure (Gartner and Parker 1990) on variations in official crime rates across countries. In addition, researchers have applied macro level theories of crime to explain the country variations in official crime rates, such as Durkheim's and Merton's anomie, Messner and Rosenfelds' institutional anomie (XXX), Braithwait's reintegrative shaming, Elias' (1982) civilization, Cohen and Felson's (1979) opportunity, Wallerstein's (1974) World systems, and Shaw and Mckay's (1942) social disorganization theories (for review, see Howard, Newman, and Pridemore 2000). For example, in order to explain the decline in crime rates in Japan after the WWII, Roberts and LaFree (2004) analyzed pooled cross-sectional data of crime for the years 1955 to 2000. They examined some of the most popularly tested explanations of Japan's low crime rates, including effective informal social control and a low level of social

disorganization (measured by rates of divorce, female labor participation, and urbanization), a low level of economic stress (measured by income inequality, unemployment, and poverty), a high certainty of punishment, and a low proportion of young males in the population. Robers and LaFree (2004) found that, though most of these explanatory variables have significant effects on Japan's crime rate, one of the most consistent and strongest predictors of decline in Japan's recent crime rates has been low economic stress, particularly measured in unemployment. Thus, they concluded that the recent decline in crime rates in Japan is accounted for by the decrease in economic stress, resulting from the dramatic economic development experienced by the Japanese since WWII—echoing Messner and Rosenfelds' (1994) institutional anomie theory.

Though it is popularly believed that crime rates are much lower in Japan compared to the U.S., there have been only a handful of studies (e.g., Fukushima et al. 2009, Grasmick and Kobayashi 2002, Kobayashi and Grasmick 2002, Kobayashi et al. 2001, Kobayashi et al. 2008, Miller 1992, Tanioka and Glaser 1991, Vazsonyi et al. 2004, Saito 2002) that systematically tested individual level theories of deviance as possible explanations of the lower level of deviance in Japan. This is true for any other non-Western country. For instance a handful of studies tested individual level theories of deviance in China (Zhang and Messner 1995, 1996 and Wang et al. 2002), Egypt (Souryal 1992), Northern Mariana Islands (Cabrera 2001), the Philippines (Shoemaker 1994), Russia (Tittle and Botchkovar 2004), South Korea (Axenroth 1983, Hwang and Akers 2003), and Taiwan (Wang and Jensen 2003).

Among the most frequently tested individual level theories of deviance in a non-Western country are the two theories used in this study (i.e., Hirschi's (1969) social control and Akers's (1985) social learning theories). Generally, past studies conclude that both of these theories are applicable in explaining deviant behaviors in non-Western countries. However, unlike in the U.S. where *attachment to parents* is found to be one of the strongest predictors of deviance, studies conducted in Asian countries tend not to find this variable to be a strong predictor of deviance than other theoretical variables. The past findings seem to indicate, for instance, that though individual level theories developed in the U.S. are generally applicable in explaining deviance in other countries, there are country variation in terms of specifically *how* and *which* measures of each theory explain deviance. Hwang and Akers (2003), for instance, find that when Hirschi's (1969) social control and Akers's (1985) social learning theories are tested separately, both theories are applicable in explaining substance use among youths in South Korea. However, when the theories are included in an analysis together, the effects of attachment to both parents and peers on substance use disappear. Hwang and Akers (2003) conclude that the effect of delinquent peer associations is the best predictor of substance use among South Korean youths. Zhang and Messner (1995) also find that both Hirschi's (1969) social control and Sutherland and Cressey's (1978) differential association theories are applicable in explaining delinquency of youths in China. However, though attachment to parents has the strongest inhibiting effect on association with delinquent peers, association with deviant family members has a significant promoting effect on delinquency. In another study, Zhang and Messner (1996) conclude that Hirschi's (1969) social control theory is applicable in explaining

delinquency among youths in China, but that attachment to parents does not have as strong an effect on the delinquency of youths in China as generally found in the U.S. In another study, Wang, Qiao, and Zhang (2002) find that Hirschi's (1969) social control theory (e.g., belief, attachment to family, and parental supervision) is applicable in explaining substance use among adolescents in China, but not in explaining other deviant behaviors (i.e., fighting, stealing, and lying). Shoemaker (1994) examines the applicability of both Sutherland and Cressey's (1978) differential association and Hirschi's (1969) social control theories in explaining delinquency among youths in the Philippines, and finds that attachment to deviant peers and attachment to conventional peers both have significant effects on delinquency. However, Shoemaker finds attachment to parents to have no significant effect on delinquency, after controlling for other variables—consistent with the findings by Zhang and Messner (1995, 1996) as well as Hwang and Akers (2003). The extant empirical research conducted in these Asian countries seems to indicate that individual level theories of deviance are applicable in explaining deviance in some of the non-Western countries. Interestingly, however, many of these studies (Hwang and Akers 2003, Zhang and Messner 1995, 1996, and Shoemaker 1994) find that attachment to parents is not as important a predictor of deviance in Asian countries as is usually found to be the case in the U.S., particularly when various theoretical variables are examined at once. Additionally, past studies also show that theoretical variables from Akers's (1985) social learning theory, particularly peers' deviance and association with deviant peers, show stronger effects on youths' deviance, compared to the theoretical variables from Hirschi's (1969) control theory.

All of the empirical studies conducted in non-Western countries discussed in this section have one common shortcoming, that is: they are not comparative research because the data are collected from only one country. Thus, the only conclusions such studies can draw are that theories are either applicable or not applicable in explaining deviance in non-Western countries. In terms of offering theory critiques and refinements, such conclusions do not seem as important as, for instance, finding whether a particular theory can account for a gap in deviance across countries or whether a particular theory is equally or not equally applicable in explaining deviance of one group compared to another. To date, cross-cultural research exists testing leading individual level theories of deviance across comparable samples in a non-western and a western country is limited (Fukushima et al. 2009, Kobayashi et al. 2001, Kobayashi et al. 2008, Kobayashi and Grasmick 2002, Vazsonyi and colleagues 2001, 2004). However, none of these studies apply simultaneously and compare the applicability of Akers's (1985) social learning and Hirschi's (1969) social control theories. Kobayashi et al. (2001) and Koyayashi and Grasmick (2002), for instance, use comparable data collected from hospital employees in Japan and the U.S. and examine the effects of deterrence theories as explanations of work-related deviant behaviors. Vazsonyi et al. (2001) use data collected among adolescents in four western countries and Japan to test Gottfredson and Hirschi's (1990) self-control theory. All other articles use the same dataset as the current study. Therefore, this dissertation attempts to offer one of the first empirical studies that tests simultaneously Hirschi's (1969) social control theory and Akers's (1985) social learning theories using cross-cultural survey data.

First, partial correlations (controlling for nationality, gender, *age*, *SES*, and family structure) among deviance measures and Hirschi's (1969) social control measures are shown in Table 4.32 and deviance measures and Akers's (1985) social learning measures are shown in Table 4.33. Bivariate correlations among deviance measures are shown in Table 4.5, and are therefore omitted in Table 4.32. Table 4.32 shows that, as expected, *all* the significant relationships with theoretical variables and deviance scales are negative, controlling for nationality, gender, and other control variables. Interestingly, Hirschi's social control measures are related more strongly to *academic underachievement* than *academic misconduct*. On the other hand, Table 4.33 shows that, consistent with expectations, all significant relationships between Akers's (1985) social learning variables and deviance scales are positive, controlling for nationality, gender, age, SES, and family structure. Though *parents' deviance reinforcement* has significant positive relationships with both types of *general deviance*, it has no significant relationship with either of the academic deviance scales measured in *prevalence* and *frequency*. In the remaining section of this chapter, I first apply the two theories separately as an explanation of deviant behaviors of the Japanese and Americans and assess how well each of the two theories accounts for the two questions stated previously: (1) can the theory account for the *cultural gap* in deviance between the Japanese and Americans? and (2) can the theory explain the deviant behaviors of the Japanese equally as well as the deviant behaviors of Americans? Then, the two theories are applied simultaneously, and the explanatory power of each theoretical measure is assessed, while comparing the empirical validity of two theories when applied in a cross-cultural deviance study.

Table 4.32. Partial Correlations Among Hirschi's (1969) Social Control Measures and Three Deviance Scales Measured in Prevalence and Frequency, Controlling for Nationality, Gender, Age, SES, and Family Structure for the Combined Samples, *n* =801 (one-tailed significance test in parenthesis).

	(01)	*(02)*	*(03)*	*(04)*	*(05)*	*(06)*	*(07)*	*(08)*	*(09)*	*(10)*	*(11)*	*(12)*	*(13)*	*(14)*
(01) Affectional Identification with parents	1.000													
(02) Intimacy of Communication with parents	-	1.000												
(03) Parental supervision	-	-	1.000											
(04) Attachment to parents	-	-	-											
(04) Attachment to peers	-	-	-	1.000										
(05) Attachment to school	-	-	-	-	1.000									
(06) Commitment	-	-	-	-	-	1.000								
(07) Involvement	-	-	-	-	-	-	1.000							
(08) Belief	-	-	-	-	-	-	-	1.000						
(09) General deviance prevalence	-0.057 (0.053)	-0.078 (0.014)	-0.127 (0.000)	-0.119 (0.000)	0.009 (0.398)	-0.065 (0.033)	-0.049 (0.084)	-0.378 (0.000)	1.000					
(10) General deviance frequency	-0.061 (0.043)	-0.097 (0.003)	-0.136 (0.000)	-0.133 (0.000)	-0.010 (0.393)	-0.032 (0.180)	-0.028 (0.213)	-0.419 (0.000)	-	1.000				
(11) Academic misconduct prevalence	0.018 (0.302)	0.014 (0.351)	-0.114 (0.000)	-0.041 (0.123)	0.021 (0.280)	-0.024 (0.252)	-0.037 (0.150)	-0.297 (0.000)	-	-	1.000			
(12) Academic misconduct frequency	-0.023 (0.259)	-0.015 (0.341)	-0.152 (0.000)	-0.089 (0.006)	-0.038 (0.140)	-0.033 (0.177)	-0.063 (0.038)	-0.303 (0.000)	-	-	-	1.000		
(13) Academic underachievement prevalence	-0.123 (0.000)	-0.137 (0.000)	-0.103 (0.002)	-0.161 (0.000)	-0.046 (0.099)	-0.093 (0.004)	-0.124 (0.000)	-0.217 (0.000)	-	-	-	-	1.000	
(14) Academic underachievement frequency	-0.124 (0.000)	-0.136 (0.000)	-0.147 (0.000)	-0.182 (0.000)	-0.075 (0.017)	-0.104 (0.002)	-0.162 (0.000)	-0.248 (0.000)	-	-	-	-	-	1.000

Table 4.33. Partial Correlations Among Akers's (1985) Social Learning Measures and Three Deviance Scales Measured in Prevalence and Frequency, Controlling for Nationality, Gender, Age, SES, and Family Structure for the Combined Samples, *n* =801 (one-tailed significance test in parenthesis).

	(01)	*(02)*	*(03)*	*(04)*	*(05)*	*(06)*	*(07)*	*(08)*	*(09)*	*(10)*	*(11)*
(01) Differential association with deviant peers	1.000										
(02) General definition favoring deviance	-	1.000									
(03) Specific definition favoring deviance	-	-	1.000								
(04) Peers' deviant reinforcement	-	-	-	1.000							
(05) Parents' deviant reinforcement	-	-	-	-	1.000						
(06) General deviance prevalence	0.473 (0.000)	0.267 (0.000)	0.184 (0.000)	0.227 (0.000)	0.110 (0.001)	1.000					
(07) General deviance frequency	0.549 (0.000)	0.346 (0.000)	0.218 (0.000)	0.312 (0.000)	0.114 (0.001)	-	1.000				
(08) Academic misconduct prevalence	0.305 (0.000)	0.269 (0.000)	0.095 (0.004)	0.130 (0.000)	0.027 (0.224)	-	-	1.000			
(09) Academic misconduct frequency	0.340 (0.000)	0.295 (0.000)	0.120 (0.000)	0.135 (0.000)	0.031 (0.189)	-	-	-	1.000		
(10) Academic underachievement prevalence	0.183 (0.000)	0.130 (0.000)	-0.013 (0.361)	0.092 (0.005)	-0.013 (0.353)	-	-	-	-	1.000	
(11) Academic underachievement frequency	0.277 (0.000)	0.213 (0.000)	0.090 (0.006)	0.127 (0.000)	0.007 (0.419)	-	-	-	-	-	1.000

Hirschi's Social Control Theory

General Deviance

First, *general deviance* measured in both *prevalence* and *frequency* are regressed on gender, control variables, and Hirschi's (1969) social control measures separately for the Japanese (shown in Table 4.34) and the Americans (shown in Table 4.35). In these two tables, results with three attachment to parents measures included in the regression analyses (without the global *attachment to parents* measure) are shown. For both the Japanese and the Americans, gender has a significant and positive effect on *general deviance* for both *prevalence* and *frequency*, indicating that both Japanese and American males are significantly more likely to engage in a significantly higher level of *general deviance* than their female counterparts. For both countries, *age* also has a significant and positive effect on *general deviance* (both in terms of *prevalence* and *frequency*), indicating that older respondents in both Japan and the U.S. are significantly more likely to engage in a significantly higher level of *general deviance* than their younger counterparts. Among Hirschi's (1969) social control measures, *parental supervision* and *belief* have significant negative effects on both *prevalence* and *frequency* of *general deviance* for both samples. Contrary to what would be hypothesized by Hirschi (1969), however, other attachment to parents measures have no significant effect on general deviance for either of the samples, with the one exception being that for the Japanese sample, *affectional identification with parents* have a significant positive effect on *general deviance frequency*. In addition, as found in past studies, *involvement* has a significant positive effect on general deviance for the Japanese sample. As seen in the changes in the adjusted R^2 values for the two samples

Table 4.34. OLS Regression Analysis with *General Deviance* Regressed on Gender, Control Variables, and Hirschi's (1969) Social Control Measures for the Japanese Sample, *n* =433.

	Prevalence				Prevalence				Frequency				Frequency			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-18.269	***	5.104		-13.412	**	5.000		-20.831	**	6.614		-14.531	*	6.351	
Male	2.157	***	0.366	0.271	1.796	***	0.361	0.226	2.952	***	0.474	0.286	2.481	***	0.458	0.240
Age	0.780	**	0.259	0.139	0.564	*	0.253	0.101	0.927	**	0.335	0.128	0.645	*	0.322	0.089
SES (1=high)	0.071		0.355	0.009	0.031		0.344	0.004	0.058		0.460	0.006	0.000		0.437	0.000
Two-parent home	-0.775		0.791	-0.045	-1.003		0.763	-0.058	-0.905		1.025	-0.041	-1.212		0.969	-0.054
Affectional identification					0.073		0.057	0.070					0.128	*	0.073	0.094
Intimacy of communication					-0.070		0.089	-0.042					-0.170		0.113	-0.078
Parental supervision					-0.174	*	0.084	-0.095					-0.285	**	0.107	-0.121
Attachment to peers					0.173		0.122	0.063					0.245		0.155	0.069
Attachment to school					-0.105		0.355	-0.014					0.227		0.451	0.023
Commitment					-0.070		0.068	-0.047					-0.028		0.087	-0.014
Involvement					0.024	*	0.013	0.085					0.051	**	0.016	0.139
Belief					-0.376	***	0.066	-0.261					-0.537	***	0.084	-0.286
Adjusted R^2	0.089				0.168				0.093				0.204			
Model *p*	0.000				0.000				0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 4.35. OLS Regression Analysis with *General Deviance* Regressed on Gender, Control Variables, and Hirschi's (1969) Social Control Measures for the American Sample, *n* =369.

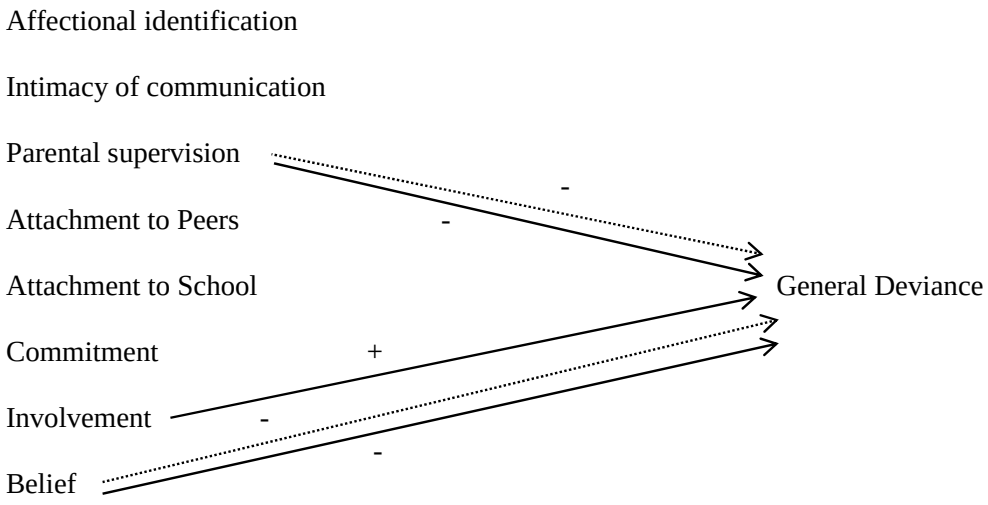
	Prevalence				Prevalence				Frequency				Frequency			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-6.529	*	3.886		-5.460		3.755		-12.036	*	5.416		-11.131	*	5.072	
Male	3.882	***	0.464	0.405	2.935	***	0.438	0.306	4.864	***	0.646	0.370	3.283	***	0.592	0.250
Age	0.385	*	0.192	0.098	0.316	*	0.179	0.080	0.603	*	0.268	0.112	0.517	*	0.242	0.096
SES (1=high)	0.348		0.483	0.034	0.554		0.437	0.054	-0.047		0.673	-0.003	0.307		0.591	0.022
Two-parent home	-0.234		0.636	-0.018	-0.005		0.595	0.000	0.049		0.886	0.003	0.319		0.804	0.018
Affectional identification					0.019		0.076	0.014					0.009		0.103	0.005
Intimacy of communication					0.032		0.141	0.012					0.046		0.191	0.013
Parental supervision					-0.383	**	0.154	-0.117					-0.438	*	0.208	-0.098
Attachment to peers					-0.005		0.139	-0.002					-0.137		0.187	-0.032
Attachment to school					-0.130		0.437	-0.013					0.235		0.590	0.018
Commitment					0.044		0.147	0.014					0.109		0.199	0.025
Involvement					0.013		0.014	0.040					0.028		0.018	0.064
Belief					-0.583	***	0.067	-0.394					-0.920	***	0.091	-0.455
Adjusted R^2	0.185				0.345				0.157				0.363			
Model *p*	0.000				0.000				0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

when theoretical measures are included in the analysis, Hirschi's (1969) social control theory accounts for some of the variance of *general deviance*. The results of the OLS regression analyses conducted separately for the Japanese and American samples show that overall only *parental supervision* and *belief* have expected inhibitive effect on deviance for both samples.

Results of the OLS regression analyses represented in Tables 4.34 and 4.35 are summarized in Figure 4.10. The summary results pertain to *general deviance frequency*. Significant effects for the Japanese are displayed with solid lines and significant effects for Americans are displayed with a dotted line. Figure 4.10 shows that, contrary to expectations based on Hirschi's (1969) social control theory, only *parental supervision* and *belief* have significant negative effects on *general deviance* for both samples. Furthermore, for the Japanese sample, contrary to expectations, *involvement* has a significant positive effect on *general deviance.*

Figure 4.10. Results of the OLS Regression Analyses with *General Deviance* Regressed on Hirschi's (1969) Social Control Variables, controlling for Gender, Age, SES, and Family Structure, Separately for the Japanese Sample (Displayed in Solid Lines) and the American Sample (Displayed in a Dotted Line).



First Theoretical Question. Next, the two samples are combined, and Hirschi's (1969) social control theory is tested as an explanation of deviance, and I assess the first of the three theoretical questions—"can the theory of deviance account for the cultural gap in deviance?" Table 4.36 shows the results of OLS regression analyses with *general deviance frequency* as the dependent variable. In Table 4.7, OLS regression analysis shows that the Japanese respondents engaged in a significantly lower level of *general deviance* than the Americans respondents (β=-0.373), controlling for gender, *age*, *SES*, and family structure. In Table 4.36, the regression analysis with control variables only is replicated (shown in Model 1), Hirschi's (1969) social control measures are entered into the equation (shown in Model 2) and one of the cultural variability measures are entered into the equation along with the theoretical measures (shown in Model 3). In Model 2, three measures from Hirschi's (1969) social control theory (i.e., *affectional identification*, *intimacy of communication*, and *attachment to peers*) are excluded in the equation because they resulted in multicolinearity with nationality, each having a VIF value greater than 2.00. However, since none of these three measures are significant predictors of deviance when examined separately by sample, I expect that the exclusion of these three measures would not result in much difference. Likewise in Model 3, the same three measures from Hirschi's (1969) social control theory are excluded in the equation because they resulted in multicolinearity with nationality, each having a VIF value greater than 2.00. In addition to these three measures, the inclusion of both of the cultural variability measures also caused multicolinearity with nationality, thus Model 3 includes only the *interdependent self-*

Table 4.36. OLS Regression Analyses with *General Deviance Frequency* Regressed on Nationality, Gender, Control Variables, Two Cultural Variability Scales, and Hirschi's (1969) Social Control Measures for the Combined Samples, *n* =801.

	Model 1			Model 2			Model 3		
	b	*S.E.*	*β*	*b*	*S.E.*	*β*	*b*	*S.E.*	*β*
Constant	-13.956 ***	4.001		-11.528 ***	3.660		-11.536 ***	3.663	
Japan	-4.376 ***	0.395	-0.373	-4.052 ***	0.447	-0.345	-4.083 ***	0.471	-0.348
Male	3.867 ***	0.394	0.326	2.841 ***	0.365	0.239	2.844 ***	0.365	0.240
Age	0.734 ***	0.199	0.119	0.568 ***	0.181	0.092	0.569 ***	0.181	0.092
SES (1=high)	0.079	0.395	0.006	0.177	0.357	0.014	0.178	0.357	0.014
Two-parent home	-0.304	0.649	-0.015	-0.182	0.589	-0.009	-0.178	0.589	-0.009
Affectional identification				-	-	-	-	-	-
Intimacy of communication				-	-	-	-	-	-
Parental supervision				-0.294 ***	0.097	-0.094	-0.294 ***	0.097	-0.094
Attachment to peers				-	-	-	-	-	-
Attachment to school				0.282	0.358	0.023	0.292	0.361	0.024
Commitment				0.033	0.084	0.013	0.035	0.085	0.014
Involvement				0.038 ***	0.012	0.099	0.038 ***	0.012	0.099
Belief				-0.771 ***	0.060	-0.375	-0.769 ***	0.061	-0.374
Interdependent self-concept							-	-	-
Independent self-concept							-0.005	0.026	-0.007
Adjusted R^2	0.204			0.356			0.356		
Model *p*	0.000			0.000			0.000		

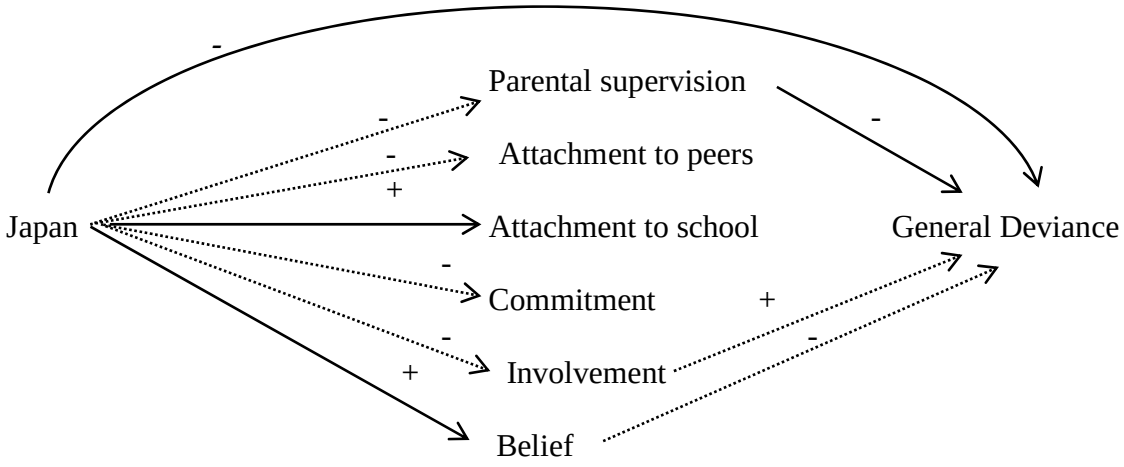
* p <0.05; ** p <0.01; *** p <0.001.

concept measure. Unless otherwise noted, the regression analysis with the *independent self-concept* instead produced the identical results. Model 2 shows that Hirschi's (1969) social control theory cannot explain the *cultural gap* in *general deviance frequency* between the Japanese and Americans, since the effect of *Japan* on this deviance remains significant after controlling for the theoretical measures. This is understandable, however, since as Tables 4.34 and 4.35 show, most of the measures from Hirschi's (1969) social control theory do not have the expected negative effects on *general deviance*, and the effect of one of the social control measures is in fact in the positive direction for the Japanese sample. Among Hirschi's (1969) social control variables, *parental supervision* and *belief* are the only two measures that have significant expected negative effects on *general deviance*. *Involvement* on the other hand, as found among the Japanese sample, though consistent with some past studies, has a significant positive effect on *general deviance*. As expected, Model 3 shows that *interdependent self-concept* does not have a significant effect on *general deviance*, once social control measures are entered into the regression model. A model with *independent self-concept* instead, shows that consistent with the hypothesis, the cultural variability measure has no significant effect on *general deviance*, once social control measures are entered into the regression model.

Results of the OLS regression analyses shown in Table 4.36 (combined with the results from previous tables) are summarized in Figure 4.11 with significant effects in the expected direction displayed with solid lines and those in unexpected directions displayed with dotted lines. Figure 4.11 shows that the answer to the first theoretical question ("can the theory explain cultural gap in deviance?") is "no" when Hirschi's

(1969) social control theory is examined as the explanation of *general deviance*. In fact, Hirschi's (1969) social control theory has very little effect in terms of the cultural gap in *general deviance*. Overall, while Hirschi's (1969) social control theory explains very little variance of *general deviance* in either of the samples, it also fails to explain the cultural gap in *general deviance* between the Japanese and Americans. In addition, as expected, cultural variation in terms of both *independent* and interdependent self-concepts have no direct effect on *general deviance* once theoretical measures from Hirschi's (1969) social control theory are controlled. Thus, as hypothesized, the effects of two cultural variation measures on *general deviance* are indirect through their effects on measures from Hirschi's (1969) social control theory, summarized in Figures 4.5 and 4.6.

Figure 4.11. Results of the OLS Regression Analysis with *General Deviance* Regressed on Nationality, Control Variables, Hirschi's (1969) Social Control Measures, and Two Cultural Variation Scales.



Second Theoretical Question. Next, the second of the three theoretical questions ("can the theory of deviance be as equally applicable in explaining Japanese deviance as American deviance?") is examined for Hirschi' social control theory by entering

interaction terms created for each of the Hirschi's (1969) social control variables one at a time with *Japan* = (without the two cultural variation measures). An interaction term is created, for instance, for the variables *Japan* and *attachment to parents*, by multiplying the two variables. The interaction term captures the possible difference across samples (the Japanese vs. the Americans) in the effect of each of the theoretical variables on the dependent variable. If the coefficient for an interaction term is significant, it indicates that the effect of the theoretical variable (such as *attachment to parents*) on the dependent variable differs for the Japanese and Americans. For instance, with the interaction term *Japan* × *attachment to parents* entered in the equation, the coefficient for the theoretical variable (*attachment to parents*) can be interpreted as the effect of the theoretical variable on the dependent variable (such as *general deviance*) for the group coded 0 on *Japan* (i.e., Americans), while for the effect of the theoretical variable among the group coded 1 on *Japan* (i.e., Japanese) can be determined by summing the coefficient for the first group (i.e., *attachment to parents*) and the coefficient for the interaction term (i.e., *Japan* × *attachment to parents*). In other words, the coefficient for the interaction term measures the *difference* in the effect of the theoretical variable on the dependent variable across groups. If the coefficient for the interaction term is significant, it demonstrates that there is *a significant difference* in the effect of the theoretical variable on the dependent variable across groups. The regression analyses with an interaction term are conducted while exclude the three social control measures that resulted in multicolinearity (i.e., *affection identification*, *intimacy of communication*, and *commitment*). Table 4.37 shows only the model with a

Table 4.37. OLS Regression Analysis with *General Deviance* Regressed on Nationality, Gender, Control Variables, Hirschi's (1969) Social Control Measures, and a Significant Interaction Term for the Combined Samples, *n* =801.

	b		*S.E.*	*β*
Constant	-11.247	**	3.590	
Japan	-3.971	***	0.467	-0.338
Male	2.783	***	0.362	0.234
Age	0.554	**	0.179	0.090
SES (1=high)	0.182		0.354	0.015
Two-parent home	-0.185		0.584	-0.009
Affectional identification	-		-	-
Intimacy of communication	-		-	-
Parental supervision	-0.287	**	0.096	-0.092
Attachment to peers	0.063		0.119	0.019
Attachment to school	0.259		0.351	0.021
Commitment	-		-	-
Involvement	0.038	***	0.012	0.099
Belief	-0.946	***	0.078	-0.460
Japan × Belief	0.42	***	0.118	0.132
Adjusted R^2	0.366			
Model *p*	0.000			

* p <0.05; ** p <0.01; *** p <0.001.

significant interaction term, which for *general deviance* is the model with the significant interaction term for *Japan* and *belief*. Recall that tables 3.34 and 3.35 showed that for both the Japanese and American samples, *belief* has a significant negative effect on *general deviance*. Table 4.37 shows that the inhibitive effect of *belief* on *general deviance* is significantly stronger for the American sample than for the Japanese sample, since the interaction term for *Japan* and *belief* is significant and

negative. Overall, in summary, Hirschi's (1969) social control theory is applicable in explaining some of the individual variations in *general deviance* in both Japan and the U.S. However, the theory fails to explain the cultural gap in *general deviance,* and as far as the *belief* element is considered, Hirschi's social control theory seems to be somewhat more applicable in explaining *general deviance* of the American sample than the Japanese sample; however, the difference is minor.

Academic Misconduct

Next, similar regression analyses are conducted with *academic misconduct* as the dependent variable. First, *academic misconduct* measured in both *prevalence* and *frequency* are regressed on gender, control variables, and Hirschi's (1969) social control measures separately for the Japanese (shown in Table 4.38) and the Americans (shown in Table 4.39). Once again, in these two tables, instead of the global *attachment to parents* measure, three attachment to parents measures are included in the regression analyses. For both the Japanese and the Americans, gender consistently has a significant and positive effect on *academic misconduct* for both *prevalence* and *frequency* when social control measures are not included, indicating that both Japanese and American males are significantly more likely to engage in a significantly higher level of *academic misconduct* than their female counterparts. However, once Hirschi's (1969) social control measures are included in the analysis, the direct positive effect of gender disappears, except for the Japanese sample with *academic misconduct frequency* as the dependent variable. The results suggest that for both samples, the fact that males are more likely to engage in a higher level of *academic misconduct* than females can be explained by the weaker social bonds among males compared to females. For the

Table 4.38. OLS Regression Analysis with *Academic Misconduct* Regressed on Gender, Control Variables, and Hirschi's (1969) Social Control Measures for the Japanese Sample, *n* =433.

	Prevalence			Prevalence			Frequency			Frequency		
	b	*S.E.*	*β*	*b*	*S.E.*	*β*	*b*	*S.E.*	*β*	*b*	*S.E.*	*β*
Constant	6.032	5.650		10.244 *	5.540		-0.427	6.138		3.721	5.917	
Male	0.988 *	0.405	0.117	0.584	0.400	0.690	1.295 **	0.440	0.141	0.734 *	0.427	0.080
Age	-0.251	0.287	-0.042	-0.468 *	0.281	-0.079	0.033	0.311	0.005	-0.193	0.300	-0.030
SES (1=high)	0.585	0.393	0.072	0.560	0.382	0.069	0.677	0.427	0.076	0.640	0.408	0.072
Two-parent home	-1.358	0.875	-0.074	-1.602 *	0.845	-0.088	-0.431	0.951	-0.022	-0.742	0.903	-0.037
Affectional identification				0.044	0.063	0.040				0.044	0.068	0.036
Intimacy of communication				0.063	0.099	0.035				0.050	0.106	0.026
Parental supervision				-0.225 **	0.930	-0.116				-0.288 **	0.099	-0.137
Attachment to peers				0.093	0.135	0.032				-0.082	0.144	-0.026
Attachment to school				-0.122	0.393	-0.015				0.870	0.420	0.010
Commitment				-0.020	0.076	-0.013				-0.029	0.081	-0.017
Involvement				0.016	0.014	0.054				0.024	0.015	0.074
Belief				-0.450 ***	0.073	-0.293				-0.554 ***	0.078	-0.332
Adjusted R^2	0.024			0.124			0.016			0.130		
Model *p*	0.036			0.000			0.027			0.000		

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 4.39. OLS Regression Analysis with *Academic Misconduct* Regressed on Gender, Control Variables, and Hirschi's (1969) Social Control Measures for the American sample, *n* =369.

	Prevalence			Prevalence			Frequency			Frequency		
	b	*S.E.*	*β*	*b*	*S.E.*	*β*	*b*	*S.E.*	*β*	*b*	*S.E.*	*β*
Constant	-4.529	2.932		-4.069	2.942		-2.838	2.203		-2.318	2.192	
Male	1.034 **	0.349	0.156	0.564	0.343	0.085	0.507 *	0.263	0.103	0.085	0.256	0.017
Age	0.122	0.144	0.041	0.034	0.140	0.012	0.043	0.109	0.021	-0.041	0.104	-0.020
SES (1=high)	0.917 *	0.363	0.130	0.958 **	0.343	0.136	0.572 *	0.274	0.109	0.614 *	0.255	0.117
Two-parent home	0.149	0.478	0.016	0.031	0.466	0.003	0.021	0.360	0.003	0.078	0.347	0.011
Affectional identification				0.127 *	0.060	0.136				0.070	0.045	0.101
Intimacy of communication				0.159	0.111	0.087				0.155 *	0.082	0.114
Parental supervision				-0.307 *	0.121	-0.135				-0.302 ***	0.090	-0.179
Attachment to peers				-0.001	0.109	0.000				-0.107	0.081	-0.065
Attachment to school				0.332	0.342	0.050				0.208	0.255	0.042
Commitment				-0.156	0.115	-0.071				-0.169 *	0.086	-0.103
Involvement				-0.001	0.011	-0.003				0.007	0.008	0.044
Belief				-0.349 ***	0.053	-0.342				-0.258 ***	0.039	-0.338
Adjusted R^2	0.046			0.159			0.024			0.187		
Model *p*	.002			0.000			.060			0.000		

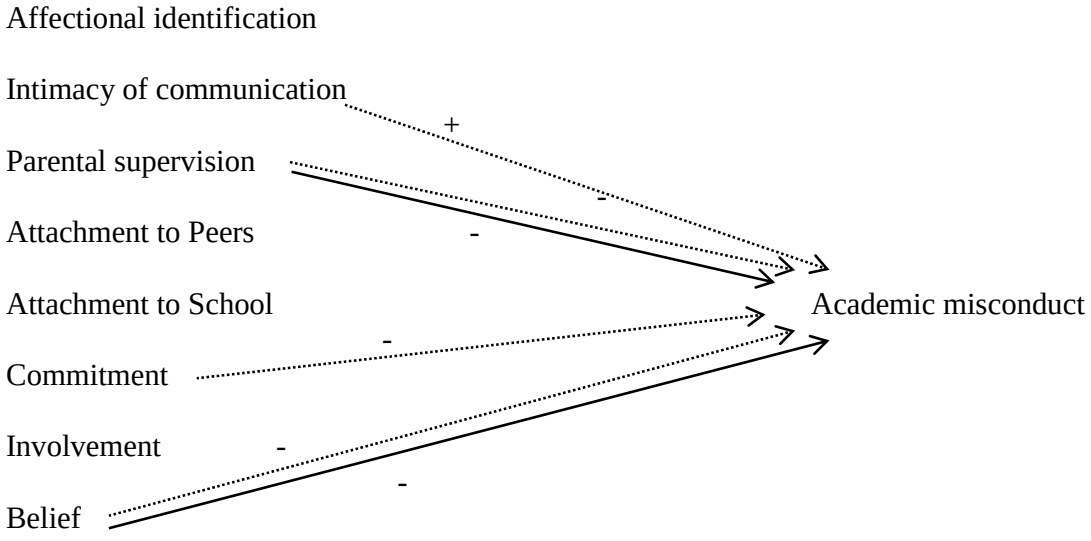
* p <0.05; ** p <0.01; *** p <0.001.

American sample, the respondents with at least one parent with a college degree or higher are significantly more likely to engage in a significantly higher level of *academic misconduct* than the respondents with neither parent with a college degree or higher. These effects of *SES* on both *prevalence* and *frequency* of *academic misconduct* for the American sample remain significant, even after Hirschi's (1969) social control measures are included in the analysis. For the Japanese sample, *SES* has no significant effect on *academic misconduct*. Among Hirschi's (1969) social control measures, for the American sample, contrary to the expectation, *affectional identification with parents* has a significant positive effect on *academic misconduct prevalence* (but not on *frequency*) and *intimacy of communication with parents* has a significant positive effect on *academic misconduct frequency*. These unexpected results with the two measures of Hirschi's (1969) social control for the American sample might shed light on why for the American sample, *SES* has an unexpected positive effect on *academic misconduct*. These unexpected results among the American sample might suggest the importance of considering the possible negative effect of parental expectation on *academic deviance*. For the Japanese sample, all significant effects of Hirschi's social control measures on *academic misconduct* are expected negative effects. In fact, for both the Japanese and American samples, both *parental supervision* and *belief* have significant negative effects on *academic misconduct* measured in both *prevalence* and *frequency*. In addition, for the American sample, *commitment* has a significant negative effect on *academic misconduct frequency* (but not prevalence). Though Hirschi's social control theory account for some of the variance of *academic misconduct* for both samples, they explain very little variance of this type of deviance overall. The results of the OLS

regression analyses conducted separately for the Japanese and American samples show that, consistent with the findings for *general deviance*, overall *parental supervision* and *belief* have expected inhibitive effect on *academic misconduct* for both samples.

Results of the OLS regression analyses represented in Tables 4.38 and 4.39 are summarized in Figure 4.12. The summary results pertain to *academic misconduct frequency*. Significant effects for the Japanese are displayed with solid lines and significant effects for Americans are displayed with a dotted line. Figure 4.12 shows that, contrary to expectations based on Hirschi's (1969) social control theory, only *parental supervision* and *belief* have significant negative effects on *general deviance* for both samples. Furthermore, for the American sample, *commitment* has an expected negative effect but *intimacy of communication with parents* has an unexpected positive effect on *academic misconduct*.

Figure 4.12. Results of the OLS Regression Analyses with *Academic Misconduct* Regressed on Hirschi's (1969) Social Control Variables, controlling for Gender, Age, SES, and Family Structure, Separately for the Japanese Sample (Displayed in Solid Lines) and the American Sample (Displayed in a Dotted Line).



First Theoretical Question. Next, the two samples are combined, and Hirschi's (1969) social control theory is tested as an explanation of *academic misconduct*, and I assess the first of the three theoretical questions—"can the theory of deviance account for the cultural gap in deviance?" Table 4.40 shows the results of OLS regression analyses with *academic misconduct frequency* as the dependent variable. In Table 4.7, OLS regression analysis shows that, unlike *general deviance*, the Japanese respondents engaged in a significantly higher level of *academic misconduct* than the Americans respondents (β=-0.311), controlling for gender, *age*, *SES*, and family structure. In Table 4.40, the regression analysis with control variables only is replicated (shown in Model 1), Hirschi's (1969) social control measures are entered into the equation (shown in Model 2) and one of the cultural variability measures are entered into the equation along with the theoretical measures (shown in Model 3). Once again, in Model 2, three measures from Hirschi's (1969) social control theory (i.e., *affectional identification*, *intimacy of communication*, and *attachment to peers*) are excluded in the equation because they resulted in multicolinearity with nationality, each having a VIF value greater than 2.00. Likewise in Model 3, the same three measures from Hirschi's (1969) social control theory are excluded along with *independent self-control* measure, since the inclusion of both of the cultural variability measures also resulted in multicolinearity with nationality. First, Model 2 shows that Hirschi's (1969) social control theory cannot explain the *cultural gap* in *academic misconduct* between the Japanese and Americans, since the effect of *Japan* on this deviance remains significant after controlling for the theoretical measures. In fact, the direct effect of nationality on *academic misconduct* is decreased only slightly once Hirschi's (1969) social control

Table 4.40. OLS Regression Analyses with *Academic Misconduct Frequency* Regressed on Nationality, Gender, Control Variables, Two Cultural Variability Scales, and Hirschi's (1969) Social Control Measures for the Combined Samples, *n* =801.

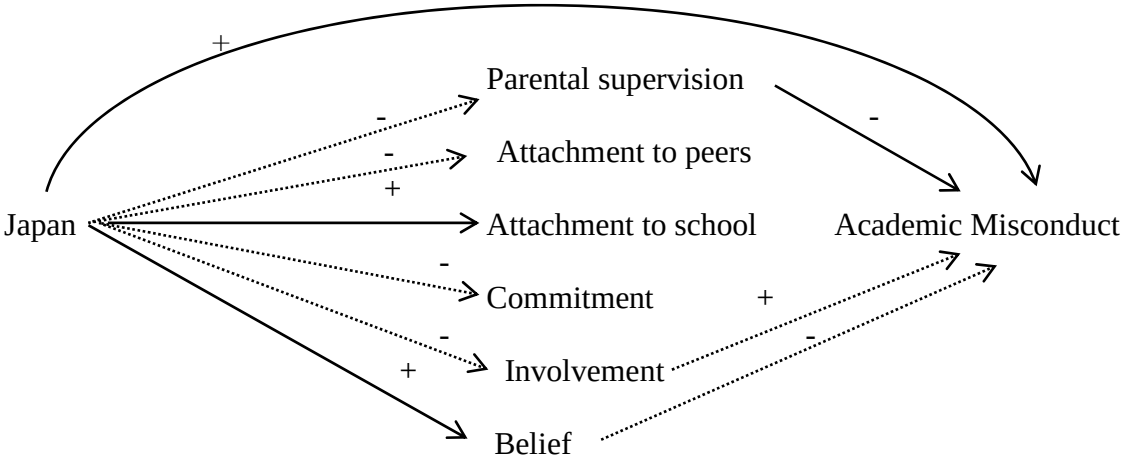
	Model 1				Model 2				Model 3			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-2.453		2.650		-0.544		2.549		-0.508		2.550	
Japan	2.316	***	0.262	0.311	2.139	***	0.310	0.287	2.034	***	0.328	0.273
Male	0.897	***	0.261	0.119	0.358		0.254	0.048	0.361		0.254	0.048
Age	0.017		0.132	0.004	-0.086		0.126	-0.022	-0.085		0.126	-0.022
SES (1=high)	0.607	**	0.261	0.077	0.647	**	0.249	0.082	0.652	**	0.249	0.082
Two-parent home	-0.073		0.429	-0.006	0.013		0.410	0.001	0.012		0.410	0.001
Affectional identification					-		-	-	-		-	-
Intimacy of communication					-		-	-	-		-	-
Parental supervision					-0.241	***	0.067	-0.122	-0.244	***	0.067	-0.123
Attachment to peers					-		-	-	-		-	-
Attachment to school					0.149		0.249	0.019	0.177		0.251	0.023
Commitment					-0.053		0.059	-0.033	-0.460		0.059	-0.029
Involvement					0.014	*	0.008	0.060	0.013		0.008	0.052
Belief					-0.360	***	0.042	-0.277	-0.355	***	0.042	-0.273
Interdependent self-concept					-		-	-	-0.015		0.018	-0.031
Independent self-concept					-		-	-	-		-	-
Adjusted R^2	0.131				0.224				0.223			
Model *p*	0.000				0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

measures are included. Among Hirschi's (1969) social control variables, similar to the results of the analyses conducted separately for the Japanese and Americans as well as to the analyses with *general deviance* as the dependent variable, *parental supervision* and *belief* are the only two measures that have significant negative effects on *academic misconduct*. *Involvement* on the other hand, though consistent with some past studies and with the result when *general deviance* is the dependent variable, has a significant positive effect on *academic misconduct*. Once again, as expected, Model 3 shows that *interdependent self-concept* does not have a significant direct effect on *academic misconduct*, once social control measures are entered into the regression.

Results of the OLS regression analyses shown in Table 4.40 (combined with the results from previous tables) are summarized in Figure 4.13 with significant effects in the expected direction displayed with solid lines and those in unexpected directions displayed with dotted lines. Figure 4.13 shows that the answer to the first theoretical question ("can the theory explain cultural gap in deviance?") is "no" when Hirschi's (1969) social control theory is examined as the explanation of *academic misconduct*. In fact, Hirschi's (1969) social control theory has very little effect in terms of the cultural gap in *academic misconduct*. In addition, as expected, cultural variability in terms of *interdependent self-concepts* have no direct effect on *academic misconduct* once theoretical measures from Hirschi's (1969) social control theory are controlled. Thus, as hypothesized, the effects of two cultural variation measures on *academic misconduct* are indirect through their effects on measures from Hirschi's (1969) social control theory.

Figure 4.13. Results of the OLS Regression Analysis with *Academic Misconduct* Regressed on Nationality, Control Variables, Hirschi's (1969) Social Control Measures, and Two Cultural Variation Scales.



Second Theoretical Question. Next, the second of the three theoretical questions ("can the theory of deviance be as equally applicable in explaining Japanese deviance as American deviance?") is examined for Hirschi' social control theory by entering interaction terms created for each of the Hirschi's (1969) social control variables with *Japan* one at a time (without the two cultural variation measures). The regression analyses with an interaction term are conducted while once again excluding the three social control measures that resulted in multicolinearity (i.e., *affection identification*, *intimacy of communication*, and *commitment*). Table 4.41 shows only the model with a significant interaction term, which for *academic misconduct* is also the model with the significant interaction term for *Japan* and *belief*. Table 4.41 shows that, once again, the inhibitive effect of *belief* on *academic misconduct* is significantly stronger for the American sample than for the Japanese sample, since the interaction term for *Japan* and *belief* is significant and negative. Overall, in summary, Hirschi's (1969) social control theory is applicable in explaining some of the individual variations in *academic*

misconduct for both Japan and the U.S. However, the theory fails to explain the cultural gap in *academic misconduct*, and as far as the *belief* element is considered, Hirschi's social control theory seems to be somewhat more applicable in explaining *academic misconduct* of the American sample than the Japanese sample, similar to the finding for *general deviance*.

Table 4.41. OLS Regression Analysis with *Academic Misconduct* Regressed on Nationality, Gender, Control Variables, Hirschi's (1969) Social Control Measures, and a Significant Interaction Term for the Combined Samples, *n* =801.

	b		*S.E.*	*β*
Constant	-0.570		2.527	
Japan	2.122	***	0.308	0.285
Male	0.400		0.252	0.053
Age	-0.085		0.125	-0.022
SES (1=high)	0.635	*	0.247	0.080
Two-parent home	-0.003		0.406	0.000
Affectional identification	-		-	-
Intimacy of communication	-		-	-
Parental supervision	-0.249	***	0.067	-0.126
Attachment to peers	-		-	-
Attachment to school	0.171		0.247	0.022
Commitment	-0.045		0.058	-0.028
Involvement	0.013		0.008	0.054
Belief	-.228	***	0.054	-0.175
Japan × Belief	-0.314	***	0.082	-0.156
Adjusted R^2	0.236			
Model *p*	0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Academic Underachievement

Next, regression analyses are repeated with *academic underachievement* as the dependent variable. First, *academic misconduct* measured in both *prevalence* and *frequency* are regressed on gender, control variables, and Hirschi's (1969) social control measures separately for the Japanese (shown in Table 4.42) and the Americans (shown in Table 4.43). Once again, in these two tables, instead of the global *attachment to parents* measure, three attachment to parents measures are included in the regression analyses. For both the Japanese and the Americans, gender consistently has a significant and positive effect on *academic underachievement* for both *prevalence* and *frequency* when social control measures are not included, indicating that both Japanese and American males are significantly more likely to engage in a significantly higher level of *academic underachievement* than their female counterparts. However, once Hirschi's (1969) social control measures are included in the analysis, the direct positive effect of gender disappears for the American sample but not for the Japanese sample. The results suggest that for the American sample, the reason males are more likely to engage in a higher level of *academic underachievement* than females can be explained by males' weaker social bonds than females. For the Japanese sample, older respondents and respondents with at least one parent with a college degree or higher are significantly more likely to engage in a significantly higher level of *academic underachievement* than younger respondents and respondents with neither parent with a college degree or higher, even after controlling for social bonds. For the American sample, however, there is no direct effect of *age* and *SES* on *academic underachievement*. It seems then that the strong correlation found between *SES* and this

Table 4.42. OLS Regression Analysis with *Academic Underachievement* Regressed on Gender, Control Variables, and Hirschi's (1969) Social Control Measures for the Japanese Sample, *n* =433.

	Prevalence				Prevalence				Frequency				Frequency			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-8.073	*	3.862		-5.125		3.806		-15.729	**	5.205		-10.938	*	5.013	
Male	1.264	***	0.277	0.214	0.927	***	0.275	0.157	1.659	***	0.373	0.207	1.139	***	0.362	0.142
Age	0.354	*	0.196	0.085	0.219		0.193	0.053	0.772	**	0.264	0.137	0.539	*	0.254	0.095
SES (1=high)	0.504	*	0.268	0.088	0.546	*	0.262	0.096	0.880	**	0.362	0.114	0.857	**	0.345	0.111
Two-parent home	-0.080		0.598	-0.006	-0.103		0.581	-0.008	0.117		0.806	0.007	-0.005		0.765	0.000
Affectional identification					-0.005		0.044	-0.006					0.056		0.057	0.053
Intimacy of communication					-0.094		0.068	-0.076					-0.137		0.089	-0.081
Parental supervision					-0.127	*	0.064	-0.094					-0.255	**	0.084	-0.139
Attachment to peers					-0.055		0.093	-0.027					-0.198		0.122	-0.072
Attachment to school					-0.352		0.270	-0.061					-0.480		0.356	-0.062
Commitment					-0.035		0.052	-0.032					-0.102		0.068	-0.068
Involvement					0.028	**	0.010	0.132					0.056	***	0.013	0.197
Belief					-0.196	***	0.050	-0.183					-0.270	***	0.066	-0.185
Adjusted R^2	0.530				0.125				0.068				0.177			
Model *p*	0.000				0.000				0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 4.43. OLS Regression Analysis with *Academic Underachievement* Regressed on Gender, Control Variables, and Hirschi's (1969) Social Control Measures for the American sample, *n* =369.

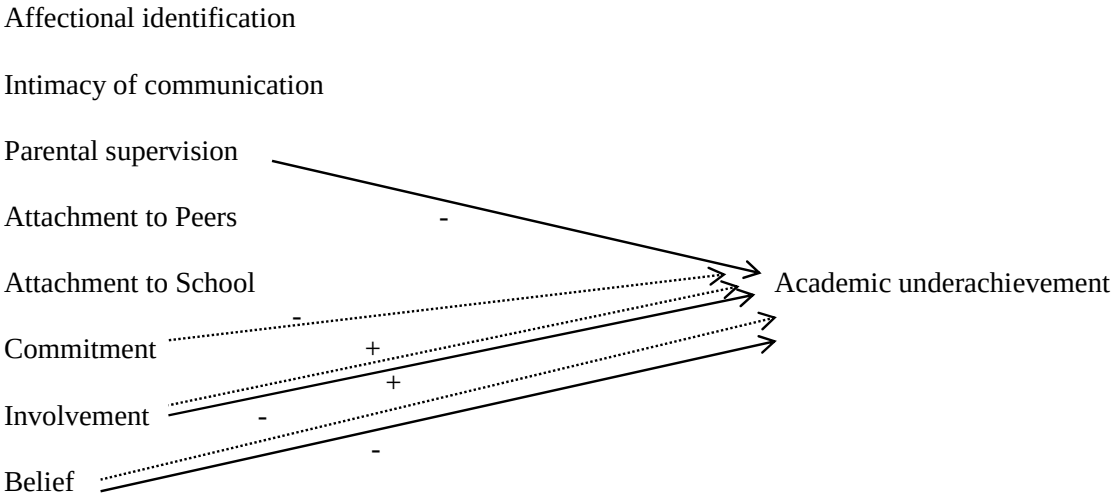
	Prevalence				Prevalence				Frequency				Frequency			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-1.285		2.292		0.772		2.366		-2.210		2.727		0.458		2.720	
Male	0.572	*	0.274	0.111	0.099		0.276	0.019	0.884	**	0.326	0.144	0.196		0.317	0.032
Age	0.062		0.113	0.030	-0.011		0.113	-0.005	0.044		0.135	0.018	-0.083		0.130	-0.033
SES (1=high)	0.279		0.285	0.051	0.317		0.276	0.058	-0.067		0.339	-0.010	-0.027		0.317	-0.004
Two-parent home	-0.378		0.375	0.053	-0.273		0.375	-0.038	-0.360		0.446	-0.043	-0.108		0.431	-0.013
Affectional identification					-0.004		0.048	-0.006					-0.047		0.055	-0.055
Intimacy of communication					-0.088		0.089	-0.062					-0.037		0.102	-0.022
Parental supervision					0.042		0.097	0.024					-0.036		0.112	-0.017
Attachment to peers					-0.026		0.087	-0.015					-0.023		0.100	-0.011
Attachment to school					-0.017		0.275	-0.003					-0.028		0.316	-0.005
Commitment					-0.284	***	0.093	-0.067					-0.389	***	0.107	-0.192
Involvement					0.019	*	0.009	0.115					0.290	**	0.010	0.147
Belief					-0.165	***	0.042	-208.000					-0.252	***	0.049	-0.268
Adjusted R^2	0.012				0.093								0.156			
Model *p*	0.084				0.000				0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

type of academic deviance for the combined sample is largely due to their correlation for the Japanese sample. Among Hirschi's (1969) social control measures, for both the Japanese and American samples, *belief* has a significant negative effect on both *prevalence* and *frequency* of *academic underachievement*, while *involvement* has a significant positive effect on both *prevalence* and *frequency* of this type of academic deviance. Additionally, for the Japanese sample, *parental supervision* has a significant negative effect on both *prevalence* and *frequency* of *academic underachievement*, and for the American sample, *commitment* has a significant negative effect on both *prevalence* and *frequency* of this type of academic deviance. The latter result suggests the importance of individual social control for the Americans, while the importance of parental social control for the Japanese, consistent with the traditional view on the differences between these two countries across I-C.

Results of the OLS regression analyses represented in Tables 4.42 and4.43 are summarized in Figure 4.14. The summary results pertain to *academic underachievement frequency*. Significant effects for the Japanese are displayed with solid lines and significant effects for Americans are displayed with a dotted line. Figure 4.14 shows that, contrary to expectations based on Hirschi's (1969) social control theory, only *belief* has a significant negative effect on *academic underachievement* for both samples. However, in addition to *belief*, for the Japanese sample, *parental supervision* and for the American sample, *commitment* works as significant inhibitive effects on *academic underachievement*. Contrary to expectations, however, for both samples, *involvement* has a significant positive effect on *academic underachievement*.

Figure 4.14. Results of the OLS Regression Analyses with *Academic Underachievement* Regressed on Hirschi's (1969) Social Control Variables, controlling for Gender, Age, SES, and Family Structure, Separately for the Japanese Sample (Displayed in Solid Lines) and the American Sample (Displayed in a Dotted Line).



First Theoretical Question. Next, the two samples are combined, and Hirschi's (1969) social control theory is tested as an explanation of *academic underachievement*, assessing the first of the three theoretical questions—"can the theory of deviance account for the cultural gap in deviance?" Table 4.44 shows the results of OLS regression analyses with *academic underachievement frequency* as the dependent variable. In Table 4.7, OLS regression analyses shows that the Japanese respondents engaged in a significantly lower level of *general deviance* than the Americans respondents (β=-0.299), controlling for gender, *age*, *SES*, and family structure. In Table 4.44, the regression analysis with control variables only from Table 4.7 is replicated (shown in Model 1), Hirschi's (1969) social control measures are entered into the equation (shown in Model 2) and one of the two cultural variability scales are entered into the equation along with the theoretical measures (shown in Model 3). In Model 2, three measures from Hirschi's (1969) social control theory (i.e., *affectional*

Table 4.44. OLS Regression Analyses with *Academic Underachievement Frequency* Regressed on Nationality, Gender, Control Variables, Two Cultural Variability Scales, and Hirschi's (1969) Social Control Measures for the Combined Samples, *n* =801.

	Model 1			Model 2			Model 3		
	b	*S.E.*	*β*	*b*	*S.E.*	*β*	*b*	*S.E.*	*β*
Constant	-6.585 **	2.536		-4214.000 *	2.417		-0.424 *	2.417	
Japan	2.149 ***	0.251	0.299	2.050 ***	0.295	0.285	1.953 ***	0.311	0.272
Male	1.217 ***	0.250	0.168	0.677 **	0.241	0.093	0.688 **	0.241	0.095
Age	0.232 *	0.126	0.062	0.082	0.119	0.022	0.085	0.120	0.022
SES (1=high)	0.482 *	0.250	0.063	0.464 *	0.235	0.061	0.467 *	0.236	0.061
Two-parent home	-0.141	0.411	-0.012	0.065	0.389	0.005	0.075	0.389	0.006
Affectional identification				-	-	-	-	-	-
Intimacy of communication				-	-	-	-	-	-
Parental supervision				-0.206 ***	0.064	-0.108	-0.207 ***	0.064	-0.108
Attachment to peers				-	-	-	-	-	-
Attachment to school				-0.347	0.236	-0.046	-0.319	0.238	-0.043
Commitment				-196.000 ***	0.056	-0.128	-0.187 ***	0.056	-0.123
Involvement				0.043 ***	0.008	0.180	0.042 ***	0.008	0.179
Belief				-0.259 ***	0.040	-0.206	-0.253 ***	0.040	-0.202
Interdependent self-concept							-0.017	0.017	-0.035
Independent self-concept									
Adjusted R^2	0.146			0.251			0.251		
Model *p*	0.000			0.000			0.000		

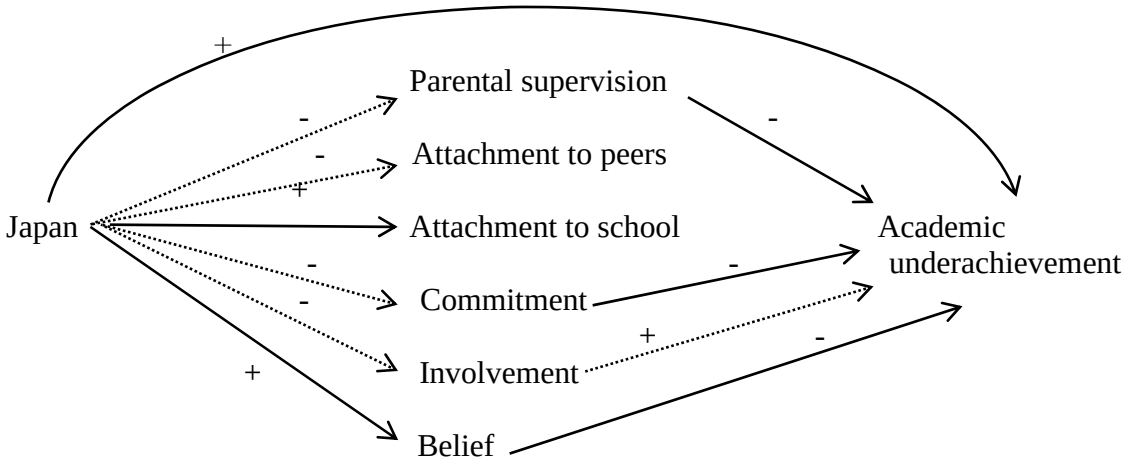
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

identification, *intimacy of communication*, and *attachment to peers*) are once again excluded in the equation because they resulted in multicolinearity with nationality, each having a VIF value greater than 2.00. However, since none of these three measures are significant predictors of deviance when examined separately by sample, I expect that the exclusion of these three measures would not result in much difference. Likewise in Model 3, the same three measures from Hirschi's (1969) social control theory are excluded in the equation along with the *interdependent self-concept* measure (because this measure also resulted in multicolinearity). First, Model 2 shows that Hirschi's (1969) social control theory cannot explain the *cultural gap* in *academic underachievement frequency* between the Japanese and Americans, since the effect of *Japan* on this deviance remains significant after controlling for the theoretical measures. Among Hirschi's (1969) social control variables, as expected from the previous results, *parental supervision, commitment*, belief are the only three measures that have significant negative effects on *academic underachievement* for the combined samples. *Involvement* on the other hand, though consistent with some past studies, has a significant positive effect on *academic underachievement*. As expected, Model 3 shows that *interdependent self-concept* does not have a significant effect on *academic underachievement*, once social control measures are entered into the regression model.

Results of the OLS regression analyses shown in Table 4.44 (combined with the results from previous tables) are summarized in Figure 4.15 with significant effects in the expected direction displayed with solid lines and those in unexpected directions displayed with dotted lines. Figure 4.15 shows that the answer to the first theoretical question ("can the theory explain cultural gap in deviance?") is "no" when Hirschi's

(1969) social control theory is examined as the explanation of *academic underachievement*. In fact, Hirschi's (1969) social control theory has very little effect in terms of the cultural gap in *general deviance*, since the standardized regression coefficient for *Japan* changed only slightly once social control measures are included in the regression. Overall, while Hirschi's (1969) social control theory explains very little variance of *academic underachievement* in either of the samples, it also fails to explain the cultural gap in this type of academic deviance between the Japanese and Americans. In addition, as expected, cultural variation in terms of *interdependent self-concept* has no direct effect on *academic underachievement* once theoretical measures from Hirschi's (1969) social control theory are controlled. Thus, as hypothesized, the effect of variability on *academic underachievement* is indirect through their effects on measures from Hirschi's (1969) social control theory.

Figure 4.15. Results of the OLS Regression Analysis with *Academic Underachievement* Regressed on Nationality, Control Variables, Hirschi's (1969) Social Control Measures, and Two Cultural Variation Scales.



Second Theoretical Question. Next, the second of the three theoretical questions ("can the theory of deviance be as equally applicable in explaining Japanese deviance as American deviance?") is examined for Hirschi' social control theory with *academic underachievement* as the dependent variable by entering interaction terms created for each of the Hirschi's (1969) social control variables with *Japan* one at a time (without the two cultural variability measures). The regression analyses with an interaction term are conducted while excluding the three social control measures that resulted in multicolinearity (i.e., *affection identification*, *intimacy of communication*, and *commitment*). Table 4.45 shows only the models with a significant interaction term, which for *academic underachievement* are the model with the significant interaction term for *Japan* and *parental supervision* and *Japan* and *involvement*. The results indicate that while the inhibitive effect of *parental supervision* on *academic underachievement* is significantly stronger for the Japanese sample than for the American sample, since the interaction term for *Japan* and *parental supervision* is significant and negative, the promoting effect of *involvement* on *academic underachievement* is stronger for the Japanese sample compared to the American sample, since the interaction term for *Japan* and *involvement* is significant positive. Overall, in summary, Hirschi's (1969) social control theory is applicable in explaining some of the individual variations in *general deviance* in both Japan and the U.S. However, the theory not only fails to explain the cultural gap in *general deviance*, it is not equally applicable in explaining this type of deviance across Japan and the U.S. In terms of *parental supervision*, it works stronger as an inhibitive effect for the Japanese, while the Japanese also experience a stronger promoting effect of *involvement* on

Table 4.45. OLS Regression Analysis with *Academic Underachievement* Regressed on Nationality, Gender, Control Variables, Hirschi's (1969) Social Control Measures, and a Significant Interaction Term for the Combined Samples, *n* =801.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-4.627	*	2.427		-3.680		2.430	
Japan	2.165	***	0.303	0.301	1.377	**	0.464	0.192
Male	0.642	**	0.241	0.088	0.691	**	0.240	0.095
Age	0.102		0.120	0.027	0.077		0.119	0.021
SES (1=high)	0.477	*	0.236	0.062	0.451	*	0.236	0.059
Two-parent home	-0.060		0.395	-0.005	0.026		0.388	0.002
Affectional identification	-		-	-	-		-	-
Intimacy of communication	-		-	-	-		-	-
Parental supervision	-0.044		0.116	-0.023	-0.211	***	0.064	-0.110
Attachment to peers	-		-	-	-		-	-
Attachment to school	-0.352		0.236	-0.047	-0.368		0.236	-0.049
Commitment	-0.192	***	0.056	-0.126	-0.193		0.056	-0.127
Involvement	0.043	***	0.008	0.183	0.029	**	0.011	0.122
Belief	-0.266	***	0.040	-0.211	-0.258	***	0.040	-0.205
Japan × Supervision	-0.231	*	0.139	-0.096				
Japan × Involvement					0.030	*	0.016	0.106
Adjusted R^2	0.252				0.263			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

academic underachievement than the Americans.

Additional Analyses. Though not a part of the original hypotheses, additional OLS regression analyses examined the interaction effects between each of the two cultural variability measures and each of Hirschi's (1969) social control measures on three types of deviant behaviors measured in *frequency*. Results are not reported in tables. Once again, the regression analyses with an interaction term are conducted while excluding the three social control measures that resulted in multicolinearity (i.e., *affection identification*, *intimacy of communication*, and *commitment*). In addition, since inclusion of both of the cultural variability measures at once in a full model results

in multicolinearity, the two cultural variability measures are examined one at a time. Overall, similar interaction effects are found for *interdependent self-concept* and *independent self-concept*. When *general deviance frequency* is the dependent variable, interaction terms for *interdependent self-concept* and *parental supervision*, *commitment*, and *belief* are all significant and negative, indicating that the inhibitive effects of these three social bonds on *general deviance* are much stronger for the respondents who have a higher level of *interdependent self-concept* than the respondents who have a lower level of *interdependent self-concept*. For the *independent self-concept*, the interaction terms with it and both *commitment* and *belief* are significant and negative, indicating that the inhibitive effects of the two social bonds on *general deviance* are much stronger for the respondents who have a higher level of *independent self-concept* than the respondents who have a lower level of *independent self-concept*. When *academic misconduct* is the dependent variable, on the other hand, the interaction terms for *interdependent self-concept* and both *involvement* and *belief* are significant and positive. In terms of *involvement*, the result suggest that the promoting effect of *involvement* on *academic misconduct* is much stronger, while the inhibitive effect of *belief* on this type of academic deviance is significantly weaker for the respondents with a higher level of *interdependent self-concept* than the respondents with a lower level of this type of self-concept. Both interaction terms, then, indicate that the effect of social bonds on *academic misconduct* seems to work better in *individualistic* cultures than in *collectivistic* cultures. On the other hand, for the *independent self-concept*, the two interaction terms with it and both *commitment* and *belief* are significant and positive, indicating that the prohibiting effects of both *commitment* and *belief* on *academic*

misconduct are significantly weaker for the respondents with a higher level of *independent self-concept* than the respondents with a lower level of this type of self-concept. When the dependent variable is *academic underachievement*, only one interaction term for *independent self-concept* and *commitment* is significant and positive, indicating once again that the inhibitive effect of *commitment* on *academic underachievement* is significantly weaker for the respondents who have a higher level of *independent self-concept* than the respondents who have a lower level of this type of self-concept.

Akers's (1985) Social Learning Theory

Similar analyses are conducted testing Akers's (1985) social learning theory, first with *general deviance*, then with the two kinds of *academic deviance* as the dependent variable. In addition for Akers's (1985) social learning theory, at the end of this section, the hypothesis that the cultural variability measured in terms of I-C have conditional effects on the relationships between social learning measures on deviance is also examined.

General Deviance

First, *general deviance* measured in both *prevalence* and *frequency* are regressed on gender, control variables, and Akers's (1985) social learning measures separately for the Japanese (shown in Table 4.46) and the Americans (shown in Table 4.47). The results without including social learning measures are the same as those shown previous without social control measures. Once again, for both the Japanese and the Americans, both gender and *age* have significant and positive effects on *general deviance* for both

Table 4.46. OLS Regression Analysis with *General Deviance* Regressed on Gender, Control Variables, and Akers's (1985) Social learning Measures for the Japanese Sample, *n* =433.

	Prevalence				Prevalence				Frequency				Frequency			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-18.269	***	5.104		-13.674	**	4.636		-20.831	***	6.614		-12.989	**	5.521	
Male	2.157	***	0.366	0.271	1.197	***	0.345	0.150	2.952	***	0.474	0.286	1.367	***	0.411	0.132
Age	0.780	**	0.259	0.139	0.604	**	0.236	0.108	0.927	**	0.335	0.128	0.626	*	0.279	0.086
SES (1=high)	0.071		0.355	0.009	-0.140		0.322	-0.018	0.058		0.460	0.006	-0.312		0.383	-0.031
Two-parent home	-0.775		0.791	-0.045	-0.549		0.714	-0.032	-0.905		1.025	-0.041	-0.556		0.850	-0.025
Differential association					0.197	***	0.026	0.344					0.298	***	0.031	0.400
General definitions					0.091		0.063	0.065					0.116		0.075	0.063
Specific definitions					0.630	**	0.024	0.116					0.099	***	0.028	0.140
Peers' deviance reinforcement					0.080	**	0.029	0.125					0.204	***	0.035	0.246
Parents' deviance reinforcement					-0.003		0.029	-0.004					-0.013		0.035	-0.015
Adjusted R^2	0.089				0.261				0.093				0.379			
Model *p*	0.000				0.000				0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Table 4.47. OLS Regression Analysis with *General Deviance* Regressed on Gender, Control Variables, and Akers's (1985) Social learning Measures for the American Sample, *n* =369.

	Prevalence				Prevalence				Frequency				Frequency			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-6.529	*	3.886		-5.304		3.267		-12.036	*	5.416		-9.248	*	4.134	
Male	3.882	***	0.464	0.405	2.037	***	0.417	0.212	4.864	***	0.646	0.370	1.718	***	0.528	0.131
Age	0.385	*	0.192	0.098	0.307	*	0.161	0.078	0.603	*	0.268	0.112	0.446	*	0.204	0.083
SES (1=high)	0.348		0.483	0.034	0.782	*	0.405	0.077	-0.047		0.673	-0.003	0.718		0.513	0.051
Two-parent home	-0.234		0.636	-0.018	-0.174		0.536	-0.013	0.003		0.886	0.003	-0.002		0.679	0.000
Differential association					0.248	***	0.026	0.440					0.375	***	0.032	0.487
General definitions					0.225	***	0.074	0.136					0.527	***	0.093	0.233
Specific definitions					0.031		0.035	0.039					0.020		0.044	0.018
Peers' deviance reinforcement					0.024		0.027	0.041					0.060	*	0.035	0.074
Parents' deviance reinforcement					0.017		0.018	0.036					0.003		0.023	0.005
Adjusted R^2	0.185				0.433				0.093				0.516			
Model *p*	0.000				0.000				0.000				0.000			

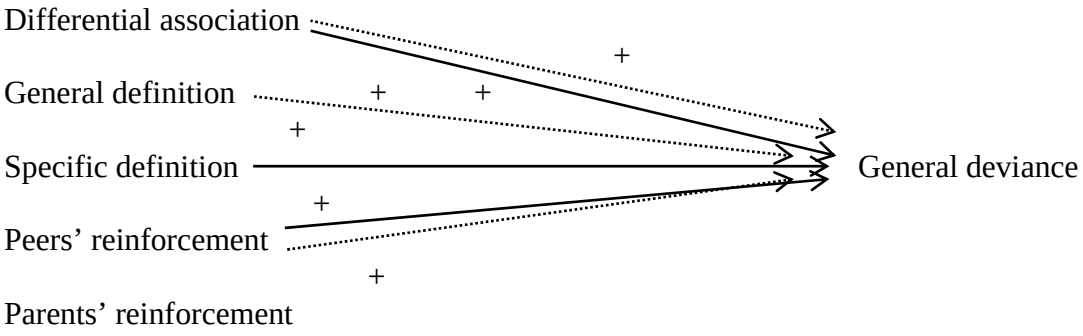
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

prevalence and *frequency*, even after controlling for social learning measures. Furthermore, for the American sample, inclusion of social learning measure makes the effect of *SES* on *general deviance* significant and at the positive direction. Among Akers's (1985) social learning measures for the Americans, *differential association* and *general definitions* both have significant positive effects on *general deviance prevalence*, *differential association*, *general definitions*, and *peers' deviance reinforcement* have significant positive effects on *general deviance frequency*. For the Japanese sample, on the other hand, interestingly, *differential association*, *specific definitions*, and *peers' deviance reinforcement* all have significant positive effects on both *prevalence* and *frequency* of *general deviance*. It is an interesting finding that while for the Americans, *general definitions favoring deviance* is significant, for the Japanese, *specific definitions favoring deviance* is significant in affecting the respondents' deviant behaviors. While overall, Akers's social learning measures explain larger variance of this type of deviance for both samples, the R^2 value is larger for the American sample for both types of *general deviance measures* than those for the Japanese sample, indicating the possibility that as far as *general deviance* is concerned, Akers's (1985) social learning theory is more applicable in explaining deviance of the Americans compared to the Japanese.

Results of the OLS regression analyses represented in Tables 4.46 and 4.47 are summarized in Figure 4.16. The summary results pertain to *general deviance frequency*. Significant effects for the Japanese are displayed with solid lines and significant effects for Americans are displayed with a dotted line. Figure 4.16 shows that both *differential association* and *peers' deviance reinforcement* have expected

positive effect on *general deviance* for both the Japanese and American samples. However, in terms of definitions, only the *specific definitions* has a significant positive effect on *general deviance* for the Japanese, while the *general definitions* has a significant positive effect on *general deviance* of the Americans.

Figure 4.16. Results of the OLS Regression Analyses with *General Deviance* Regressed on Akers's (1985) Social Learning Measures, Controlling for Gender, Age, SES, and Family Structure, Separately for the Japanese (Displayed in Solid Lines) and Americans (Displayed in Dotted Lines).



First Theoretical Question. Next, the two samples are combined, and Akers's (1985) social learning theory is tested as an explanation of *general deviance*, while assessing the first of the three theoretical questions—"can the theory of deviance account for the cultural gap in deviance?" Table 4.48 shows the results of OLS regression analyses with *general deviance frequency* as the dependent variable. In Table 4.7, OLS regression analysis shows that the Japanese respondents engaged in a significantly lower level of *general deviance* than the Americans respondents (β=-0.373), controlling for gender, *age*, *SES*, and family structure. In Table 4.48, the regression analysis with control variables only is replicated (shown in Model 1), Akers's (1985) social learning measures are entered into the equation (shown in Model

Table 4.48. OLS Regression Analyses with *General Deviance Frequency* Regressed on Nationality, Gender, Control Variables, Two Cultural Variability Scales, and Akers's (1985) Social Learning Measures for the Combined Samples, *n* =801.

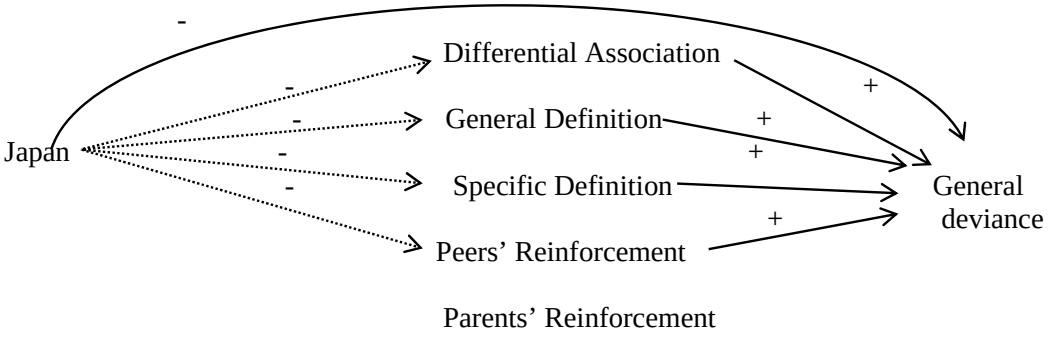
	Model 1			Model 2			Model 3		
	b	*S.E.*	*β*	*b*	*S.E.*	*β*	*b*	*S.E.*	*β*
Constant	-13.956 ***	4.001		-10.422 ***	3.193		-10.439 ***	3.197	
Japan	-4.376 ***	0.395	-0.373	-1.701 ***	0.343	-0.145	-1.536 ***	0.404	-0.131
Male	3.867 ***	0.394	0.326	1.621 ***	0.332	0.137	1.621 ***	0.333	0.137
Age	0.734 ***	0.199	0.119	0.537 ***	0.159	0.087	0.533 ***	0.159	0.086
SES (1=high)	0.079	0.395	0.006	0.140	0.314	0.011	0.147	0.315	0.012
Two-parent home	-0.304	0.649	-0.015	-0.153	0.518	-0.008	-0.157	0.519	-0.008
Differential association				0.337 ***	0.022	0.448	0.338 ***	0.022	0.449
General definitions				0.314 ***	0.060	0.145	0.316 ***	0.060	0.147
Specific definitions				0.070 **	0.025	0.076	0.072 **	0.025	0.078
Peers' reinforcement				0.114 ***	0.024	0.135	0.112 ***	0.024	0.133
Parents' reinforcement				0.008	0.019	0.010	0.008	0.019	0.011
Interdependent self-concept							0.012	0.022	0.016
Independent self-concept							0.012	0.023	0.015
Adjusted R^2	0.204			0.496			0.495		
Model *p*	0.000			0.000			0.000		

* p <0.05; ** p <0.01; *** p <0.001 (based on a single-tailed significance test).

2) and two cultural variability measures are entered into the equation along with the theoretical measures (shown in Model 3). Unlike for the regression analyses with Hirschi's (1969) social control measures, a full models for both Model 2 and Model 3 for Akers's (1985) social learning theory do not cause any multicolinearity, so all variables are retained in the models. First, Model 2 shows that Akers's (1985) social learning theory cannot explain the *cultural gap* in *general deviance frequency* between the Japanese and Americans, since the effect of *Japan* on this deviance remains significant after controlling for the theoretical measures. However, the effect of *Japan* is reduced by half once social learning measures are included, indicating that some of the reason why the Americans engage in a higher level of *general deviance* than the Japanese can be explained by their higher levels of social learning measures than the Japanese. Among Akers's (1985) social learning measures, all measures, except *parents' deviant reinforcement* have significant expected positive effects on *general*

deviance. As expected, Model 3 shows that neither of the cultural variability measures have a significant direct effect on *general deviance*, once social learning measures are controlled.

Figure 4.17. Results of the OLS Regression Analysis with *General Deviance* Regressed on Akers's (1985) Social Learning Measures and Two Cultural Variation Scales, Controlling for Gender, Age, SES, and Family Structure. (Note: all the lines going from Collectivism to Social Learning Variables are Negative).



Results of the OLS regression analyses shown in Table 4.48 (combined with the results from previous tables) are summarized in Figure 4.17 with significant effects in the expected direction displayed with solid lines and those in unexpected directions displayed with dotted lines. Figure 4.17 shows that the answer to the first theoretical question ("can the theory explain cultural gap in deviance?") is "no" when Akers's (1985) social learning theory is examined as the explanation of *general deviance*. However, the theory explains about half of "cultural gap" in *general deviance*. Almost all Akers's (1985) social learning measures have expected positive effects on *general deviance*, and in addition, as expected, cultural variability in terms of both *independent* and *interdependent self-concepts* have no direct effect on *general deviance* once theoretical measures from Akers's (1985) social learning theory are controlled.

Second Theoretical Question. Next, the second of the three theoretical questions ("can the theory of deviance be as equally applicable in explaining Japanese deviance as American deviance?") is examined for Akers's social learning theory by entering interaction terms created for each of the Akers's (1985) social learning variables with *Japan* one at a time (without the two cultural variability measures). Table 4.49 shows only the models with a significant interaction term. The table shows that when *general deviance* is the dependent variable, the interaction terms for *Japan* and *differential association*, *general definitions*, and *peers' deviant reinforcement* all have significant effects. However, the signs of the interactions vary, and while the interaction terms with *Japan* and both *differential association* and *general definitions* are negative, indicating that the promoting effects of these two social learning measures have significantly stronger effects for the Americans compared to the Japanese, the interaction term for *Japan* and *peers' deviant reinforcement* is positive, indicating that the promoting effect of *deviant reinforcement* is weaker for the Americans than for the Japanese. Overall, in summary, Hirschi's (1969) social control theory is applicable in explaining some of the individual variations in *general deviance* for both the Japanese and Americans. However, the theory fails to explain the cultural gap in *general deviance*, and as far as both the *differential association* and *general definitions* are concerned, Akers's social learning theory seems to be somewhat more applicable in explaining *general deviance* of the American sample than the Japanese sample.

Table 4.49. OLS Regression Analysis with *General Deviance* Regressed on Nationality, Gender, Control Variables, Akers's (1985) Social Learning Measures, and a Significant Interaction Term for the Combined Samples, *n* =801.

	Model 1				Model 2				Model 3			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-10.443	***	3.183		-9.540	**	3.180		-10.497	***	3.185	
Japan	-1.746	***	0.342	-0.149	-1.716	***	0.340	-0.146	-1.659	***	0.342	-0.141
Male	1.627	***	0.331	0.137	1.584	***	0.330	0.133	1.609	***	0.331	0.136
Age	0.529	***	0.158	0.086	0.493	***	0.158	0.080	0.542	***	0.158	0.088
SES (1=high)	0.187		0.314	0.015	0.180		0.312	0.014	0.102		0.314	0.008
Two-parent home	-0.125		0.517	-0.006	-0.201		0.515	-0.010	-0.106		0.517	-0.005
Differential assocaition	0.378	***	0.028	0.502	0.334	***	0.022	0.444	0.342	***	0.022	0.454
General definitions	0.316	***	0.059	0.146	0.508	***	0.081	0.235	0.313	***	0.059	0.145
Specific definition	0.069	**	0.025	0.076	0.069	**	0.024	0.075	0.071	**	0.025	0.077
Peers' deviance reinforcement	0.108	***	0.024	0.128	0.110	***	0.024	0.130	0.075	**	0.029	0.090
Parents' deviance reinforcement	0.009		0.019	0.013	0.005		0.018	0.007	0.004		0.019	0.006
Japan × Differential assocaition	-0.100	**	0.041	-0.081								
Japan × General definitions					-0.383	***	0.109	-0.123				
Japan × Peers' reinforcement									0.102	*	0.045	0.073
Adiusted R^2	0.499				0.503				0.499			
Model *p*	0.000				0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001 (based on a single-tailed significance test)

Academic Misconduct

Next, similar regression analyses are conducted with *academic misconduct* as the dependent variable. First, *academic misconduct* measured in both *prevalence* and *frequency* are regressed on gender, control variables, and Akers's (1985) social learning measures separately for the Japanese (shown in Table 4.50) and the Americans (shown in Table 4.51). Once again, the results without Akers's (1985) social learning measures are the same as the ones shown previously. For both the Japanese and the Americans, once Akers's (1985) social learning measures are included in the analysis, the direct positive effect of gender on *academic misconduct* measured in both *prevalence* and *frequency* disappears. The results suggest that for both samples, the fact that males are more likely to engage in a higher level of *academic misconduct* than females can be explained by their higher levels of social learning measures among males compared to

Table 4.50. OLS Regression Analyses with *Academic Misconduct* Regressed on Gender, Control Variables, and Akers's (1985) Social Learning Measures for the Japanese Sample, *n* =433.

	Prevalence				Prevalence				Frequency				Frequency			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	6.023		5.650		8.016		5.399		-0.427		6.138		2.318		5.632	
Male	0.988	**	0.405	0.117	0.276		0.402	0.033	1.295	**	0.440	0.141	0.269		0.419	0.029
Age	-0.251		0.287	-0.042	-0.314		0.273	-0.053	0.033		0.311	0.005	-0.052		0.285	-0.008
SES (1=high)	0.585		0.393	0.072	0.433		0.375	0.053	0.677		0.427	0.076	0.447		0.391	0.050
Two-parent home	-1.358		0.875	-0.074	-1.158		0.832	-0.063	-0.431		0.951	-0.022	-0.141		0.868	-0.007
Differential association					0.153	***	0.030	0.250					0.205	***	0.032	0.309
General definitions					0.258	***	0.073	0.172					0.373	***	0.076	0.229
Specific definitions					0.023		0.027	0.040					0.024		0.029	0.038
Peers' reinforcement					-0.036		0.034	-0.053					-0.025		0.035	-0.034
Parents' reinforcement					-0.015		0.034	-0.022					-0.016		0.036	-0.021
Adjusted R^2	0.015				0.116				0.016				0.186			
Model *p*	0.036				0.000				0.027				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (based on a single-tailed significance test).

Table 4.51. OLS Regression Analyses with *Academic Misconduct* Regressed on Gender, Control Variables, and Akers's (1985) Social Learning Measures for the American Sample, *n* =369.

	Prevalence				Prevalence				Frequency			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-4.529		2.923		-3.148		2.676		-2.002		1.971	
Male	1.034	**	0.349	0.156	-0.115		0.342	-0.017	-0.414		0.252	-0.084
Age	0.112		0.144	0.041	0.045		0.132	0.016	-0.001		0.097	0.000
SES (1=high)	0.917	**	0.363	0.130	1.214	***	0.332	0.172	0.801	***	0.244	0.152
Two-parent home	0.149		0.478	0.016	-0.001		0.439	0.000	-0.060		0.324	-0.009
Differential association					0.098	***	0.021	0.252	0.083	***	0.015	0.287
General definitions					0.240	***	0.060	0.210	0.152	***	0.044	0.179
Specific definitions					-0.002		0.028	-0.004	0.026		0.021	0.065
Peers' reinforcement					0.062	**	0.022	0.153	0.052	***	0.061	0.171
Parents' reinforcement					-0.012		0.015	-0.036	-0.010		0.011	-0.042
Adjusted R^2	0.036				0.205				0.224			
Model *p*	0.002				0.000				0.000			

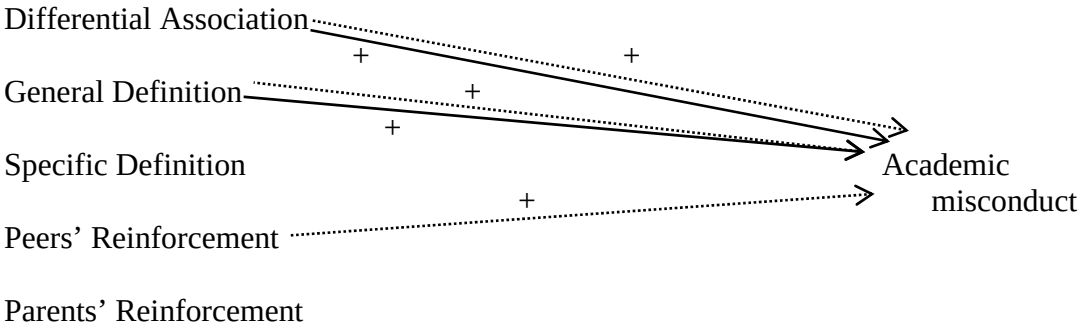
* p <0.05; ** p <0.01; *** p <0.001 (based on a single-tailed significance test).

females. For the American sample, the respondents with at least one parent with a college degree or higher are significantly more likely to engage in a significantly higher level of *academic misconduct* than the respondents with neither parent with a college degree or higher. These effects of *SES* on both *prevalence* and *frequency* of *academic misconduct* for the American sample increase after social learning measures are included in the analysis. Interestingly, the effects of Akers's social learning measures on *academic misconduct* look identical to the previous results with *general deviance* as the dependent variable, except that the significant effects seem to be reversed across countries. More specifically, for both samples, both *differential association* and *general definitions* have significant positive effects on *academic misconduct* measured in both *prevalence* and frequency. For the American sample, in addition, *peers' deviant reinforcement* has a significant positive effect on *academic misconduct* for both measures, however, this variable is not significant for the Japanese respondents. Like *general deviance*, the American respondents have higher R^2 values for the models with

Akers's social learning measures compared to the Japanese, indicating the possibility that this theory is more applicable in explaining this type of deviance for the former group compared to that for the latter.

Results of the OLS regression analyses represented in Tables 4.50 and 4.51 are summarized in Figure 4.18. The summary results pertain to *academic misconduct frequency*. Significant effects for the Japanese are displayed with solid lines and significant effects for Americans are displayed with a dotted line. Figure 4.18 shows that, contrary to expectations based on Hirschi's (1969) social control theory, only *parental supervision* and *belief* have significant negative effects on *general deviance* for both samples. Furthermore, for the American sample, *commitment* has an expected negative effect but *intimacy of communication with parents* has an unexpected positive effect on *academic misconduct*.

Figure 4.18. The Results of the OLS Regression Analysis with Academic Deviance Regressed on Akers's (1985) Social Learning Variables Separately for the Japanese (Displayed in Solid Line) and Americans (Displayed in Dotted Line)



First Theoretical Question. Next, the two samples are combined, and Akers's (1985) social learning theory is tested as an explanation of *academic misconduct,* while assessing the first of the three theoretical questions—"can the theory of deviance

account for the cultural gap in deviance?" Table 4.52 shows the results of OLS regression analyses with *academic misconduct frequency* as the dependent variable. In Table 4.7, OLS regression analysis shows that the Japanese respondents engaged in a significantly higher level of *academic misconduct* than the Americans respondents (β=-0.311), controlling for gender, *age*, *SES*, and family structure. In Table 4.52, the regression analysis with control variables only is replicated (shown in Model 1), Akers's (1985) social learning measures are entered into the equation (shown in Model 2) and two cultural variability measures are entered into the equation along with the theoretical measures (shown in Model 3). First, Model 2 shows that Akers's (1985) social learning theory cannot explain the *cultural gap* in *academic misconduct* between the Japanese and Americans, since the effect of *Japan* on this deviance remains significant after controlling for the theoretical measures. In fact, the direct effect of nationality on *academic misconduct* is increased once Akers's (1985) social learning measures are included. On the contrary, Akers's (1985) social learning theory successfully explains the gender gap in *academic misconduct*, as the direct effect of gender on this deviance disappears once social learning measures are included in the analysis. Akers's (1985) social learning theory, on the other hand, cannot explain the positive effect of *SES* on *academic misconduct*. Among Akers's (1985) social learning variables, only *differential association* and *general definitions* have significant positive effects on *academic misconduct*. Contrary to the expectation, Model 3 shows that *independent self-concept* has a significant direct effect on *academic misconduct*, even after social control measures are entered into the regression, and the effect is negative.

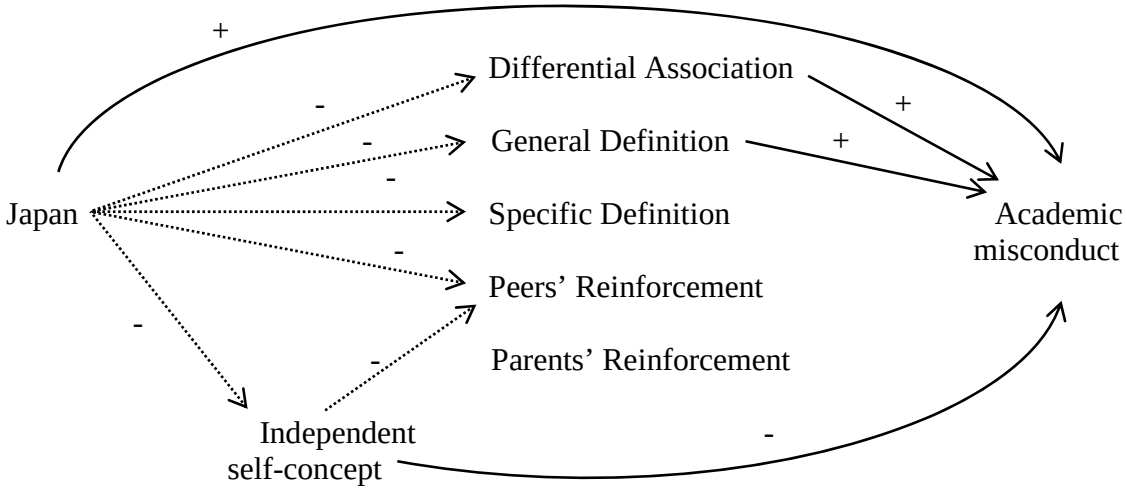
Table 4.52. OLS Regression Analyses with *Academic Misconduct Frequency* Regressed on Nationality, Gender, Control Variables, Two Cultural Variability Scales, and Akers's (1985) Social Learning Measures for the Combined Samples, *n* =801.

	Model 1				Model 2				Model 3			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-2.453		2.650		-0.839		2.444		-0.855		2.442	
Japan	2.316	***	0.262	0.311	3.328	***	0.262	0.447	3.065	***	0.309	0.412
Male	0.897	***	0.261	0.119	-0.064		0.254	-0.009	-0.078		0.254	-0.010
Age	0.017		0.132	0.004	-0.069		0.121	-0.018	-0.060		0.121	-0.015
SES (1=high)	0.607	**	0.261	0.077	0.689	**	0.241	0.080	0.616	**	0.241	0.078
Two-parent home	-0.073		0.429	-0.006	-0.009		0.397	-0.001	-0.013		0.396	-0.001
Differential association					0.133	***	0.017	0.278	0.133	***	0.017	0.278
General definitions					0.264	***	0.046	0.193	0.265	***	0.046	0.194
Specific Definitions					0.025		0.019	0.143	0.024		0.019	0.041
Peers' reinforcement					0.012		0.018	0.022	0.014		0.018	0.027
Parents' reinforcement					-0.012		0.014	-0.026	-0.014		0.014	-0.031
Independent self-concept									-0.031	*	0.017	-0.066
Interdependent self-concept									-0.005		0.017	-0.010
Adjusted R^2	0.131				0.265				0.266			
Model *p*	0.000				0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001 (based on a single-tailed significance test).

Results of the OLS regression analyses shown in Table 4.52 (combined with the results from previous tables) are summarized in Figure 4.19 with significant effects in the expected direction displayed with solid lines and those in unexpected directions displayed with dotted lines. Figure 4.19 shows that the answer to the first theoretical question ("can the theory explain cultural gap in deviance?") is "no" when Akers's (1985) social learning theory is examined as the explanation of *academic misconduct*. In fact, Akers's (1985) social learning theory increased the cultural gap in *academic misconduct*. In addition, as expected, cultural variability in terms of *independent self-concepts* has direct negative effect on *academic misconduct* once theoretical measures from Akers's (1985) social learning theory are controlled.

Figure 4.19. Results of the OLS Regression Analyses with *Academic Misconduct* Regressed on Akers's (1985) Social Learning Measures and Two Cultural Variation Scales, Controlling for Gender, Age, SES, and Family Structure.



Second Theoretical Question. Next, the second of the three theoretical questions ("can the theory of deviance be as equally applicable in explaining Japanese deviance as American deviance?") is examined for Akers's (1985) social learning theory by entering interaction terms created for each of the Akers's (1985) social learning variables with *Japan* one at a time (without the two cultural variation measures). Table 4.53 shows only the models with a significant interaction term. Table 4.53 shows that, the promoting effects of both *differential association* and *general definitions* on *academic misconduct* are significantly stronger for the Japanese sample than for the American sample, since the interaction terms are both positive. Overall, in summary, Akers's (1985) social learning theory is applicable in explaining some of the individual variations in *academic misconduct* for both Japan and the U.S. However, the theory fails to explain the cultural gap in *academic misconduct*. As far as both *differential association* and *general definitions* are concerned when applied to *academic*

Table 4.53. OLS Regression Analyses with *Academic Misconduct* Regressed on Nationality, Gender, Control Variables, Akers's (1985) Social Learning Measures, and a Significant Interaction Term for the Combined Samples, *n* =801.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-0.808		2.413		-1.559		2.432	
Japan	3.394	***	0.259	0.456	3.340	***	0.260	0.449
Male	-0.073		0.251	-0.010	-0.034		0.252	-0.005
Age	-0.059		0.120	-0.015	-0.033		0.121	-0.009
SES (1=high)	0.571	**	0.238	0.072	0.605	**	0.239	0.076
Two-parent home	-0.051		0.392	-0.004	0.030		0.394	0.002
Differential association	0.074	***	0.021	0.154	0.135	***	0.017	0.283
General definitions	0.261	***	0.045	0.190	0.105	*	0.062	0.077
Specific definitions	0.026		0.019	0.044	0.026		0.019	0.044
Peers' reinforcement	0.020		0.018	0.038	0.015		0.018	0.028
Parents' reinforcement	-0.015		0.014	-0.032	-0.010		0.014	-0.022
Japan × Differential association	0.145	***	0.031	0.187				
Japan × General definitions					0.313	***	0.083	0.159
Adjusted R^2	0.283				0.277			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001 (based on a single-tailed significance test).

misconduct, Akers's (1985) social learning theory seems to be somewhat more applicable in explaining such deviance engaged by the Japanese than by the Americans.

Academic Underachievement

Next, regression analyses are repeated with *academic underachievement* as the dependent variable for Akers's (1985) social learning theory. First, *academic underachievement* measured in both *prevalence* and *frequency* are regressed on gender, control variables, and Akers's (1985) social learning measures separately for the Japanese (shown in Table 4.54) and the Americans (shown in Table 4.55). For both the

Table 4.54. OLS Regression Analysis with *Academic Underachievement* Regressed on Gender, Control Variables, and Akers's (1985) Social learning Measures for the Japanese Sample, *n* =433.

	Prevalence				Prevalence				Frequency				Frequency			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-8.073	*	3.862		-7.279	*	3.817		-15.729	**	5.205		-13.060	*	5.022	
Male	1.264	***	0.277	0.214	0.924	***	0.284	0.156	1.659	***	0.373	0.207	0.975	**	0.373	0.122
Age	0.354	*	0.196	0.085	0.333	**	0.193	0.080	0.772	**	0.264	0.137	0.677	**	0.254	0.120
SES (1=high)	0.504	*	0.268	0.088	0.376		0.265	0.066	0.880	**	0.362	0.114	0.693	*	0.349	0.090
Two-parent home	-0.080		0.598	-0.006	0.051		0.588	0.004	0.117		0.806	0.007	0.315		0.774	0.018
Differential association					0.073	***	0.021	0.173					0.156	***	0.028	0.270
General definitions					0.078		0.052	0.074					0.108		0.068	0.076
Specific definitions					-0.025		0.019	-0.062					0.014		0.026	0.026
Peers' deviance reinforcement					0.025		0.024	0.053					0.031		0.032	0.048
Parents' deviance reinforcement					-0.051	*	0.024	-0.105					-0.053	*	0.032	-0.08
Adjusted R^2	0.053				0.091				0.068				0.147			
Model *p*	0.000				0.000				0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (based on single-tailed significance test).

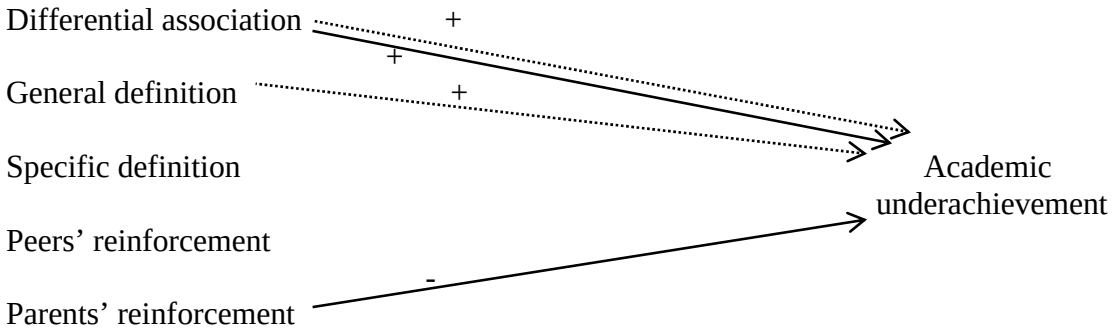
Table 4.55. OLS Regression Analysis with *Academic Underachivement* Regressed on Gender, Control Variables, and Akers's (1985) Social learning Measures for the American Sample, *n* =433.

	Prevalence			Prevalence			Frequency			Frequency		
	b	*S.E.*	*β*	*b*	*S.E.*	*β*	*b*	*S.E.*	*β*	*b*	*S.E.*	*β*
Constant	-1.285	2.292		-0.602	2.255		-2.210	2.727		-1.025	2.575	
Male	0.572 *	0.274	0.111	0.063	0.288	0.012	0.884 **	0.326	0.144	-0.010	0.329	-0.002
Age	0.062	0.113	0.030	0.029	0.111	0.014	0.044	0.135	0.018	-0.013	0.127	-0.005
SES (1=high)	0.279	0.285	0.051	0.423	0.280	0.077	-0.067	0.339	-0.010	0.153	0.319	0.023
Two-parent home	-0.378	0.375	-0.053	-0.471	0.370	-0.066	-0.360	0.446	-0.043	-0.466	0.423	-0.055
Differential association				0.047 **	0.018	0.155				0.071 ***	0.020	0.197
General definitions				0.094 *	0.051	0.106				0.237 ***	0.058	0.225
Specific definitions				-0.028	0.024	-0.066				0.001	0.027	0.022
Peers' deviance reinforcement				0.037 *	0.019	0.116				0.031	0.022	0.082
Parents' deviance reinforcement				-0.004	0.013	-0.017				-0.009	0.014	-0.032
Adjusted R^2	0.012			0.058			0.015			0.136		
Model *p*	0.084			0.000			0.049			0.000		

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (based on single-tailed significance test).

Japanese and the Americans, gender has a significant and positive effect on *academic underachievement* for both *prevalence* and *frequency* when social learning variables are not included. However, once Akers's (1985) social learning measures are included in the analysis, the direct positive effect of gender disappears for the American sample for both *prevalence* and *frequency* but not for the Japanese sample. The results suggest that for the American sample, the reason males are more likely to engage in a higher level of *academic underachievement* than females can be explained by males' higher levels of social learning measures than females. The finding is consistent with when *academic misconduct* is the dependent variable. For the Japanese sample, older respondents and respondents with at least one parent with a college degree or higher are significantly more likely to engage in a significantly higher level of *academic underachievement* than younger respondents and respondents with neither parent with a college degree or higher, even after controlling for social learning measures (except for *SES* when *academic underachievement prevalence* is the dependent variable). Among Akers's (1985) social learning measures, for both the Japanese and American samples, *differential association* has a significant and consistent positive effect on both *prevalence* and *frequency* of *academic underachievement*. Additionally, for the American sample, the *general definitions* measure has a significant positive effect on both measures of *academic underachievement*, and *peers' deviance reinforcement* has a significant positive effect on *academic underachievement prevalence*. For the Japanese sample, interestingly, *parents' deviance reinforcement* has a significant negative effect on both *prevalence* and *frequency* of *academic underachievement*.

Figure 4.20. Results of the OLS Regression Analysis with *Academic Underachievement* Regressed on Akers's (1985) Social Learning Variables Separately for the Japanese (Displayed in Solid Line) and Americans (Displayed in Dotted Line)



Results of the OLS regression analyses represented in Tables 4.54 and4.55 are summarized in Figure 4.20. The summary results pertain to *academic underachievement frequency*. Significant effects for the Japanese are displayed with solid lines and significant effects for Americans are displayed with a dotted line. Figure 4.20 shows that, consistent with the theory, *differential association* has a significant positive effect on *academic underachievement* for both samples. In addition, for the American sample, *general definition* has a significant expected positive effect on *academic underachievement*. Contrary to expectations, however, for the Japanese sample, *parents' deviance reinforcement* has a significant negative effect on *academic underachievement*.

First Theoretical Question. Next, the two samples are combined, and Akers's (1985) social learning theory is tested as an explanation of *academic underachievement*, assessing the first of the three theoretical questions—"can the theory of deviance account for the cultural gap in deviance?" Table 4.56 shows the results of OLS

regression analyses with *academic underachievement frequency* as the dependent variable. In Table 4.7, OLS regression analyses shows that the Japanese respondents engaged in a significantly higher level of *academic underachievement* than the Americans respondents (β=-0.299), controlling for gender, *age*, *SES*, and family structure. In Table 4.56, the regression analysis with control variables only from Table 4.7 is replicated (shown in Model 1), Akers's (1985) social learning measures are entered into the equation (shown in Model 2) and one of the two cultural variability scales are entered into the equation along with the theoretical measures (shown in Model 3). First, Model 2 shows that Akers's (1985) social learning theory cannot explain the *cultural gap* in *academic underachievement frequency* between the Japanese and Americans, since the effect of *Japan* on this deviance remains significant after controlling for the theoretical measures. In fact, the effect of *Japan* on *academic underachievement frequency* increases after social learning measures are included in the analysis. The result is, however, expected since though the Japanese engage in a significantly higher level of *academic underachievement* than the Americans, they score significantly lower on most of the social learning measures that are positively related to this deviance, compared to the Americans. Among Akers's (1985) social learning variables, both *differential association* and *general definitions* have significant positive effects on *academic underachievement* for the combined samples. Interestingly, while *independent self-concept* has a significant negative effect on *academic misconduct*, Model 3 shows that *interdependent self-concept* has a significant negative effect on *academic underachievement*, once social control measures are entered into the regression model.

Table 4.56. OLS Regression Analyses with *Academic Underachievement Frequency* Regressed on Nationality, Gender, Control Variables, Two Cultural Variability Scales, and Akers's (1985) Social Learning Measures for the Combined Samples, *n* =801.

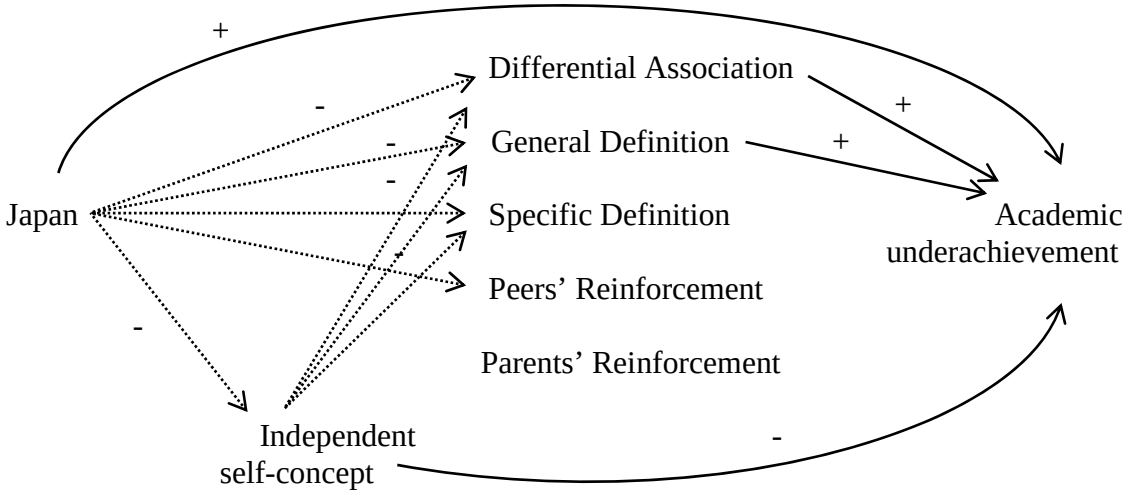
	Model 1				Model 2				Model 3			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-6.585	**	2.536		-5.401	*	2.421		-5.346	*	2.418	
Japan	2.149	***	0.251	0.299	2.969	***	0.260	0.413	2.648	***	0.306	0.368
Male	1.217	***	0.250	0.168	0.470	*	0.252	0.065	0.476	*	0.252	0.066
Age	0.232	*	0.126	0.062	0.168		0.120	0.044	0.174		0.120	0.046
SES (1=high)	0.482	*	0.250	0.063	0.504	*	0.238	0.066	0.495	*	0.238	0.065
Two-parent home	-0.141		0.411	-0.012	-0.092		0.393	-0.007	-0.080		0.392	-0.007
Differential association					0.107	***	0.017	0.231	0.105	***	0.017	0.227
General definitions					0.166	***	0.045	0.126	0.159	***	0.045	0.120
Specific Definitions					0.014		0.019	0.024	0.009		0.019	0.016
Peers' reinforcement					0.023		0.018	0.046	0.027		0.018	0.053
Parents' reinforcement					-0.018		0.014	-0.040	-0.018		0.014	-0.041
Independent self-concept									-0.017		0.016	-0.037
Interdependent self-concept									-0.029	*	0.017	-0.060
Adjusted R^2	0.146				0.226				0.228			
Model *p*	0.000				0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001 (based on a single-tailed significance test).

Results of the OLS regression analyses shown in Table 4.56 (combined with the results from previous tables) are summarized in Figure 4.21 with significant effects in the expected direction displayed with solid lines and those in unexpected directions displayed with dotted lines. Figure 4.21 shows that the answer to the first theoretical question ("can the theory explain cultural gap in deviance?") is "no" when Hirschi's (1969) social control theory is examined as the explanation of *academic underachievement*. In fact, Hirschi's (1969) social control theory has very little effect in terms of the cultural gap in *general deviance*, since the standardized regression coefficient for *Japan* changed only slightly once social control measures are included in the regression. Overall, while Hirschi's (1969) social control theory explains very little variance of *academic underachievement* in either of the samples, it also fails to explain the cultural gap in this type of academic deviance between the Japanese and Americans.

In addition, as expected, cultural variation in terms of *interdependent self-concept* has no direct effect on *academic underachievement* once theoretical measures from Hirschi's (1969) social control theory are controlled. Thus, as hypothesized, the effect of variability on *academic underachievement* is indirect through their effects on measures from Hirschi's (1969) social control theory.

Figure 4.21. Results of the OLS Regression Analyses with *Academic Underachievement* Regressed on Akers's (1985) Social Learning Measures and Two Cultural Variation Scales, Controlling for Gender, Age, SES, and Family Structure (all effects of Independent Self-Concept on the Three Measures of Social Learning are Negative).



Second Theoretical Question. Next, the second of the three theoretical questions ("can the theory of deviance be as equally applicable in explaining Japanese deviance as American deviance?") is examined for Akers's (1985) social learning theory with *academic underachievement* as the dependent variable by entering interaction terms created for each of the Akers's (1985) social learning variables with *Japan* one at a time (without the two cultural variability measures). Table 4.57 shows only the model with a significant interaction term, which for *academic underachievement* is the model with

the significant interaction term for *Japan* and *differential association* and the interaction term is positive. The result indicates that the promoting effect of *differential association* on *academic underachievement* is significantly stronger for the Japanese sample than for the American sample. Overall, in summary, Hirschi's (1969) social control theory is applicable in explaining some of the individual variations in *academic underachievement* of both the Japanese and Americans.

Table 4.57. OLS Regression Analyses with *Academic Underachievement* Regressed on Nationality, Gender, Control Variables, Akers's (1985) Social Learning Measures, and a Significant Interaction Term for the Combined Samples, *n* =801.

	Academic Underachievement			
	b		*S.E.*	*β*
Constant	-5.383	*	2.412	
Japan	3.008	***	0.259	0.419
Male	0.465	*	0.251	0.064
Age	0.174		0.120	0.046
SES (1=high)	0.465	*	0.238	0.061
Two-parent home	-0.115		0.391	-0.009
Differential association	0.072	***	0.021	0.157
General definitions	0.164	***	0.045	0.124
Specific definitions	0.014		0.019	0.025
Peers' reinforcement	0.029		0.018	0.055
Parents' reinforcement	-0.019		0.014	-0.043
Japan × Differential association	0.084	**	0.031	0.112
Adjusted R^2	0.232			
Model *p*	0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (based on a single-tailed significance test).

Additional Analyses. Finally in this section for Akers's (1985) social learning theory, the hypothesis that cultural variation either strengthens or weakens the effects of

the measures of learning measures on deviance is examined. Earlier, I hypothesized that based on the attributes of I-C that while I expected direct effects of *interdependent self-concept* on social bonds, for Akers's (1985) social learning theory, I expected that I-C works as a conditional variable affecting the relationship between social learning measures on deviance. More specifically, I hypothesized that while *interdependent self-concept* strengthens the effects of social learning measures on deviance, *independent self-concept* weakens the effect of social learning measures on deviance. Results are not reported in the tables.

First, as hypothesized, all the interaction terms in the models with *general deviance frequency* as the dependent variable that are significant for *interdependent self-concept* and Akers's social learning measures (including *differential association*, *general definitions*, and *peers' deviance reinforcement*) are positive, indicating that the promoting effects of each of the social learning measures on *general deviance* are significantly stronger for the respondents who have higher *interdependent self-concept* than respondents who have lower *interdependent self-concept*. However, contrary to the hypothesis, all of the significant interaction terms for *independent self-concept* and measures of Akers's (1985) social learning theory (including *differential association*, *general definitions*, and *peers' deviance reinforcement*) are also positive, indicating that the promoting effects of these social learning measures on *general deviance frequency* is stronger for the respondents with higher *independent self-concept* than respondents with lower *independent self-concept.* In fact, the two cultural variability measures are behaving almost identically. As in the case with Hirschi's (1969) social learning theory, the unexpected results might be due to the fact that nationality has significant

relationships with both types of cultural variability measures, and nationality also has significant effects on *general deviance*.

Second, similar analyses are conducted with *academic misconduct* as the dependent variable. For the analysis with an interaction term for each of Akers's social learning measures and *interdependent self-concept*, the results are contrary to the hypothesis. All interaction terms, except for *interdependent self-concept* and *specific definitions*, are significant, but they all have negative values, indicating that the promoting effects of the social learning measures on *academic misconduct* are significantly stronger for the respondents who have a lower level of *interdependent self-concept* than the respondents who have a higher level of this type of self-concept. On the other hand, for the analysis with an interaction term for *independent self-concept* and two of Akers's social learning measures (including *differential association*, *general definitions*) have expected negative values, indicating that the promoting effect of these theoretical measures on *academic misconduct* is weaker for the respondents with a higher *independent self-concept* than the respondents with a lower *independent self-concept*. However, instead of the latter results confirming the hypothesis, it seems more appropriate to say that whatever the conditional effect I-C has on the relationship between Akers's (1985) social learning theory on deviance is identical for both *interdependent* and *independent self-concepts*.

Finally, analyses with interaction terms for the I-C measures and Akers's (1985) social learning measures with *academic underachievement* are conducted. For the interaction terms involving *interdependent self-concept*, its interaction term with *differential association* is the only one that is significant. The interaction term has a

negative effect, indicating that the promoting effect of *differential association* on *academic underachievement* is significantly weaker for the respondents who have a higher value of *interdependent self-concept* than the respondents who have a lower value of *interdependent self-concept*. The finding is contrary to the hypothesis; however, similar to the results with *academic misconduct* is the dependent variable. On the other hand, none of the interaction terms with each of Akers's (1985) social learning measures and *independent self-concept* is significant when *academic underachievement* is the dependent variable.

Comparing Exploratory Power

The final set of analyses in this chapter is concerned with testing the last theoretical questions stated previously ("how well does each of the theories explain deviant behaviors of one group compared to another group?"). This question is concerned with the comparison of the explanatory powers of the two theories as explanations of deviance. In order to answer this question, theoretical variables from both Hirschi's (1969) social control and Akers's (1985) social learning theories are entered into the regression equation all at once, as predictors of each of the three deviance scales measured in terms of *frequency*, and the changes in the coefficients for each of the theoretical measures are compared with the coefficients from previous analyses that tested each theories separately. The results from these previous analyses are also replicated in tables along with the model including all theoretical variables entered into the equation at once. In cases when a regression analysis produces a multicolinearity (IVF larger than 2.0), those variables are excluded from the equation.

Table 4.58. OLS Regression Analyses with *General Deviance Frequency* Regressed on Nationality, Control Variables, and Both Hirschi's (1969) Social Control and Akers's (1985) Social Learning Measures for the Combined Samples, *n* =801.

	Model 1				Model 2				Model 3			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-11.528	***	3.660		-10.422	***	3.193		-10.917	***	3.167	
Japan	-4.052	***	0.447	-0.345	-1.701	***	0.343	-0.145	-1.663	***	0.406	-0.142
Male	2.841	***	0.365	0.239	1.621	***	0.332	0.137	1.622	***	0.325	0.137
Age	0.568	***	0.181	0.092	0.537	***	0.159	0.087	0.521	***	0.156	0.085
SES (1=high)	0.177		0.357	0.014	0.140		0.314	0.011	0.196		0.308	0.016
Two-parent home	-0.182		0.589	-0.009	-0.153		0.518	-0.008	0.024		0.510	0.001
Affectional identification	-		-	-					-		-	-
Intimacy of communication	-		-	-					-		-	-
Parental supervision	-0.294	***	0.097	-0.094					-0.170	*	0.084	-0.054
Attachment to peers	-		-	-					-		-	-
Attachment to school	0.282		0.358	0.023					-		-	-
Commitment	0.033		0.084	0.013					0.091		0.072	0.037
Involvement	0.038	***	0.012	0.099					0.025	**	0.010	0.070
Belief	-0.771	***	0.060	-0.375					-0.427	***	0.056	-0.208
Differential association					0.337	***	0.022	0.448	0.307	***	0.022	0.407
General definition					0.314	***	0.060	0.145	-		-	-
Specific definition					0.070	**	0.025	0.076	0.056	**	0.024	0.061
Peers' Reinforcement					0.114	***	0.024	0.135	0.118	***	0.023	0.141
Parents' Reinforcement					0.008		0.019	0.010	0.010		0.018	0.014
Adjusted R^2	0.356				0.496				0.519			
Model *p*	0.000				0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

General Deviance

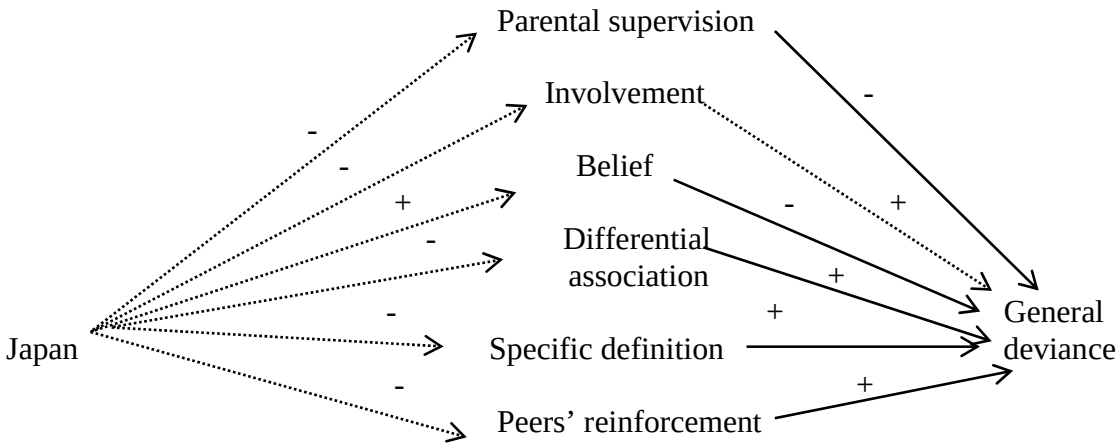
First, Table 4.58 shows that even after most of the theoretical measures from both Hirschi's (1969) social control and Akers's (1985) social learning theories are included, *Japan* still has a significant effect on *general deviance*, indicating that the higher level of *general deviance* among the American sample compared to the Japanese sample cannot be explained by the fact that the Americans overall have lower levels of social bonds and higher levels of measures from social learning theory. Among Hirschi's social control measures, only *parental supervision* and *belief* have significant and expected negative effects on *general deviance*. On the other hand, *involvement* has

significant and unexpected positive effect on *general deviance*, even after controlling for Akers's (1985) social learning measures. Among Akers's (1985) social learning measures, all of the measures that are significant in Model 2 remains significant even after controlling for Hirschi's (1969) social control measures. In particular, *differential association*, *specific definitions*, and *peers' deviant reinforcement* all have significant positive effect on *general deviance*.

Results of the OLS regression analysis shown in Model 3 of Table 4.58 (combined with the results from previous tables) are summarized in Figure 4.22 with significant effects in the expected direction displayed with solid lines and in the unexpected direction displayed with dotted lines. Only the variables with significant coefficients are displayed in the figure. As Figure 4.22 shows, the lower level of *general deviance* among the Japanese sample compared to the American sample is explained by the lower levels of most of the theoretical variables (from both theories) among the Japanese compared to the Americans. Except for *parental supervision*, all theoretical variables have significant positive effects on *general deviance*. In other words, Americans engage in a significantly higher level of *general deviance* than the Japanese, because Americans are more involved, more likely to be associated with deviant peers, more likely to hold specific definitions favoring deviance, and more likely to receive peers' deviant reinforcement than the Japanese. However, these differences alone cannot explain fully the cultural gap in *general deviance*. This finding also indicates the importance of peers for the samples from both countries in terms of explaining deviance, compared to family. Overall, measures from Akers's (1985) social

learning theory are better predictors of *general deviance* than those from Hirschi's (1969) social control theory.

Figure 4.22. Results of the OLS Regression Analyses with *General Deviance* Regressed on Both Hirschi's (1969) social control and Akers's (1985) Social Learning Measures, Controlling for Gender, Age, SES, and Family Structure.



Academic Misconduct

Similarly, the results from the previous analyses with *academic misconduct* as the dependent variable are restated in Table 4.59, along with the model with all theoretical variables entered into the equation at once. Table 4.59 shows that, once again, even with all of the theoretical measures from both of the leading theories of deviance, the effect of *Japan* on *academic misconduct* remains significant and quite strong. The widening of the *cultural gap* in *academic misconduct* from Model 1, after controlling for theoretical measures, can be explained by the fact that, even though the Japanese engage in a higher level of *academic misconduct* than Americans, they have at the same time significantly lower levels on almost all social learning measures, even though

Table 4.59. OLS Regression Analyses with *Academic Misconduct Frequency* Regressed on Nationality, Control Variables, and Both Hirschi's (1969) Social Control and Akers's (1985) Social Learning Measures for the Combined Samples, *n* =801.

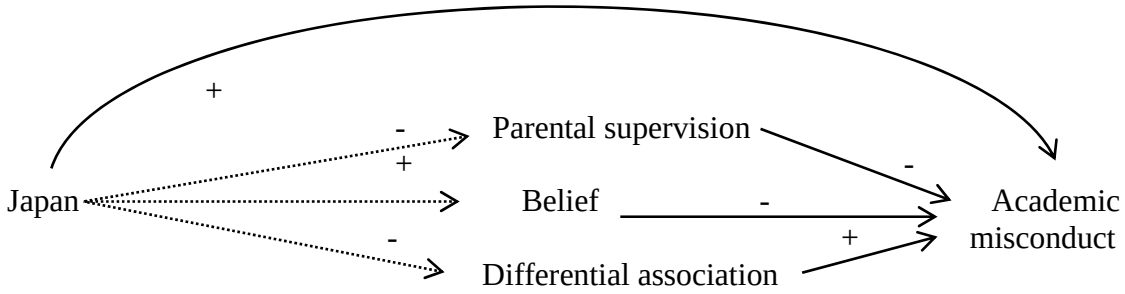
	Model 1				Model 2				Model 3			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-0.544		2.549		-0.839		2.444		-0.411		2.470	
Japan	2.139	***	0.310	0.287	3.328	***	0.262	0.447	2.961	***	0.317	0.398
Male	0.358		0.254	0.048	-0.064		0.254	-0.009	-0.065		0.253	-0.009
Age	-0.086		0.126	-0.022	-0.069		0.121	-0.018	-0.099		0.122	-0.025
SES (1=high)	0.647	**	0.249	0.082	0.689	**	0.241	0.080	0.657	**	0.240	0.083
Two-parent home	0.013		0.410	0.001	-0.009		0.397	-0.001	0.135		0.398	0.011
Affectional identification	-		-	-					-		-	-
Intimacy of communication	-		-	-					-		-	-
Parental supervision	-0.241	***	0.067	-0.122					-0.204	***	0.065	-0.103
Attachment to peers	-		-	-					-		-	-
Attachment to school	0.149		0.249	0.019					-		-	-
Commitment	-0.053		0.059	-0.033					-0.035		0.056	-0.022
Involvement	0.014	*	0.008	0.060					0.009		0.008	0.040
Belief	-0.360	***	0.042	-0.277					-0.239	***	0.044	-0.184
Differential association					0.133	***	0.017	0.278	0.122	***	0.017	0.256
General definition					0.264	***	0.046	0.193	-		-	
Specific definition					0.025		0.019	0.143	0.020		0.019	0.034
Peers' Reinforcement					0.012		0.018	0.022	0.014		0.018	0.027
Parents' Reinforcement					-0.012		0.014	-0.026	-0.010		0.014	-0.022
Adjusted R^2	0.224				0.265				0.272			
Model *p*	0.000				0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001 (based on a single-tailed significance test).

these theoretical measures have significant positive effects on *academic misconduct*. Though overall Akers's (1985) social learning theory has a larger value of R^2 compared to the value of R^2 for the model with only Hirschi's (1969) social control theory, Akers's (1985) social learning theory fares worse than Hirschi's (1969) social control theory in terms of explaining the cultural gap in *academic misconduct*, because the inclusion of the theoretical variables from social learning theory accentuates the cultural gap.

Results of the OLS regression analyses shown in Model 3 of Table 4.59 (combined with the results from previous tables) are summarized in Figure 4.23 with

Figure 4.23. Results of the OLS Regression Analyses with *Academic Misconduct* Regressed on Both Hirschi's (1969) Social Control and Akers's (1985) Social Learning Measures, Controlling for Gender, Age, SES, and Family Structure.



significant effects in the expected direction displayed with solid lines and at an unexpected direction displayed with dotted lines. Only the variables with significant Coefficients are displayed in the figure. As Figure 4.23 indicates, the higher level of *academic misconduct* among the Japanese sample compared to the American sample is partly explained by their lower levels of *attachment to parents* and *commitment* compared to the American sample. However, the lower levels of *differential association* and *specific definition* among the Japanese sample accentuate their higher level of *academic deviance* compared to the American sample. In summary, in order to explain the higher level of *academic deviance* among the Japanese compared to Americans, theories in addition to both Hirschi's (1969) social control and Akers's (1985) social learning theories are required. The contradictory findings across the two types of deviance suggest that in terms of explaining the *cultural gap* in deviance in cross-cultural research, theories might not be consistently adequate as explanations for such a gap, depending on type of deviant behaviors examined. Overall, however, for

both *general* and *academic deviance*, Akers's (1985) social learning theory has a much stronger explanatory power compared to Hirschi's (1969) social control theory for both Japanese and American samples.

Academic Underachievement

Finally, the results from the previous analyses with *academic underachievement* as the dependent variable are restated in Table 4.60, along with the model with all theoretical variables entered into the equation at once. Table 4.60 shows that, once again, even with all of the theoretical measures from both of the leading theories of deviance, the effect of *Japan* on *academic underachievement* remains significant and quite strong. Like *academic misconduct*, the widening of the *cultural gap* in *academic underachievement* from Model 1, after controlling for theoretical measures, can be explained by the fact that, even though the Japanese engage in a higher level of *academic underachievement* than Americans, they have at the same time significantly lower levels on almost all social learning measures, even though these theoretical measures have significant positive effects on *academic underachievement*. Though overall Akers's (1985) social learning theory has a larger value of R^2 compared to the value of R^2 for the model with only Hirschi's (1969) social control theory, Akers's (1985) social learning theory fares worse than Hirschi's (1969) social control theory in terms of explaining the cultural gap in *academic underachievement*, because the inclusion of the theoretical variables from social learning theory accentuates the cultural gap.

Table 4.60. OLS Regression Analyses with *Academic Underachievement Frequency* Regressed on Nationality, Control Variables, and Both Hirschi's (1969) Social Control and Akers's (1985) Social Learning Measures for the Combined Samples, *n* =801.

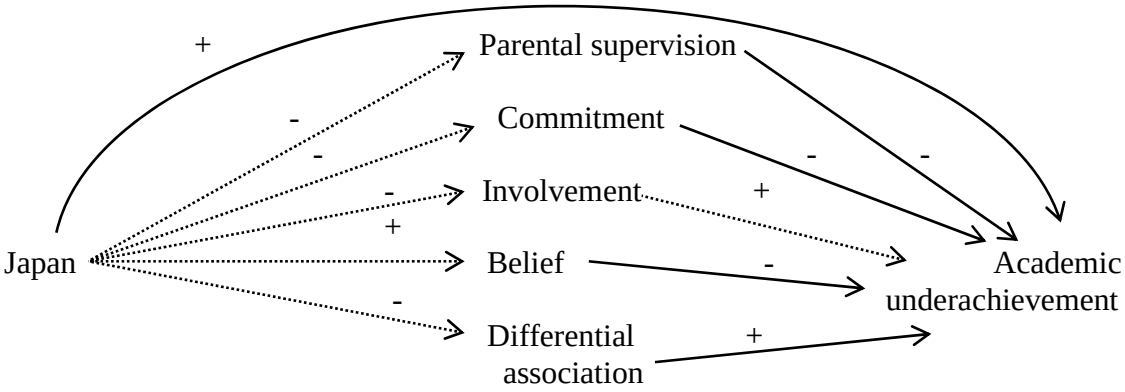
	Model 1				Model 2				Model 3			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-4.214	*	2.417		-5.401	*	2.421		-4.153	*	2.382	
Japan	2.050	***	0.295	0.285	2.969	***	0.260	0.413	2.540	***	0.306	0.353
Male	0.677	**	0.241	0.093	0.470	*	0.252	0.065	0.365		0.244	0.050
Age	0.082		0.119	0.022	0.168		0.120	0.044	0.071		0.118	0.019
SES (1=high)	0.464	*	0.235	0.061	0.504	*	0.238	0.066	0.444	*	0.232	0.058
Two-parent home	0.065		0.389	0.005	-0.092		0.393	-0.007	0.111		0.383	0.009
Affectional identification	-		-	-					-		-	-
Intimacy of communication	-		-	-					-		-	-
Parental supervision	-0.206	***	0.064	-0.108					-0.185	**	0.063	-0.097
Attachment to peers	-		-	-					-		-	-
Attachment to school	-0.347		0.236	-0.046					-		-	-
Commitment	-0.196	***	0.056	-0.128					-0.196	***	0.054	-0.129
Involvement	0.043	***	0.008	0.180					0.034	***	0.007	0.154
Belief	-0.259	***	0.040	-0.206					-0.182	***	0.042	-0.145
Differential association					0.107	***	0.017	0.231	0.087	***	0.017	0.189
General definition					0.166	***	0.045	0.126	-		-	-
Specific definition					0.014		0.019	0.024	0.006		0.018	0.012
Peers' Reinforcement					0.023		0.018	0.046	0.022		0.018	0.043
Parents' Reinforcement					-0.018		0.014	-0.04	-0.013		0.014	-0.029
Adjusted R^2	0.251				0.226				0.273			
Model *p*	0.000				0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001 (based on a single-tailed significance test).

Results of the OLS regression analyses shown in Model 3 of Table 4.60 (combined with the results from previous tables) are summarized in Figure 4.24 with significant effects in the expected direction displayed with solid lines and at an unexpected direction displayed with dotted lines. Only the variables with significant Coefficients are displayed in the figure. As Figure 4.24 indicates, the higher level of *academic underachievement* among the Japanese sample compared to the American sample is partly explained by their lower levels of *parental supervision* and *commitment* compared to the American sample. However, the lower levels of *involvement* and *differential association* among the Japanese sample accentuate their higher level of

academic underachievement compared to the American sample. In addition, the lower level of *commitment* among the Japanese sample related to the American sample also accentuates the cultural gap in *academic underachievement*, since *commitment* has a significant inhibitive effect on this type of deviance.

Figure 4.24. Results of the OLS Regression Analyses with *Academic Underachievement* Regressed on Both Hirschi's (1969) Social Control and Akers's (1985) Social Learning Measures, Controlling for Gender, Age, SES, and Family Structure.



In summary, in order to explain the higher level of *academic deviance* (both in terms of *academic misconduct* and *academic underachievement*) among the Japanese compared to Americans, theories in addition to both Hirschi's (1969) social control and Akers's (1985) social learning theories are required. The contradictory findings across the two types of deviance suggest that in terms of explaining the *cultural gap* in deviance in cross-cultural research, theories might not be consistently adequate as explanations for such a gap, depending on type of deviant behaviors examined. Overall, however, for both *general* and *academic deviance*, Akers's (1985) social learning theory has a much stronger overall explanatory power compared to Hirschi's (1969) social control theory for both Japanese and American samples. However, in terms of

academic deviance, much of the theoretical variables from Akers's (1985) social learning theory actually accentuate the fact that the Japanese engage in a significantly higher level of such deviant behavior than the Americans.

Summary

This chapter has focused on the cross-cultural part of the two major themes of this dissertation, examining both Hirschi's (1969) social control and Akers's (1985) social learning theories as explanations of deviant behaviors of the Japanese and American samples. In this chapter, I specifically assessed how well each of the two theories provides answers the three theoretical questions stated previously. First, based on past research and official crime data, I expected a gap in deviance between the Japanese and American samples, such that Japanese youths overall are less deviant than American youths. Given this expected *cultural gap* in deviance between the two countries, I asked the following for the two theories examined in this study: (1) can the theory account for the *cultural gap* in deviance between the Japanese and Americans? Then, given that both theories are developed in the U.S. to explain deviant behaviors of Americans, I asked for each of the two theories: (2) can such theories explain the deviant behaviors of the Japanese equally as well as the deviant behaviors of Americans? Finally, because the two individual level theories of deviance are tested simultaneously in this study, in addition to the two questions, I asked: (3) are the two theories equally applicable in explaining deviance of the Japanese and Americans, or is one theory more applicable than the other for one country compared to the other country?

In order to answer the three theoretical questions, I first examined the cultural variations in deviance using self-reported data and assessed the expected *cultural gap* in deviance. I found that, consistent with past studies, the Japanese are significantly less deviant than Americans when general deviant behaviors are examined. However, though consistent with the study by Diekhoff et al. (1999), I also found that when academic deviance is examined instead, the Japanese are significantly more deviant than Americans. Next, I examined and analyzed the concept of "culture" using measures from social psychology called *independent* and *interdependent self-concepts*. I found that consistent with past studies, the Japanese are less individualistic (measured in terms of *independent self-concept*) than Americans. However, at the same time, and contrary to the past studies, I also found that the Japanese are less collectivistic (measured in terms of *interdependent self*-concept) than Americans.

Next, referring to the findings of past studies, I hypothesized and tested how the cultural differences between the two countries in terms of *independent* and *interdependent self-concepts* affect variations in the theoretical measures from both Hirschi's (1969) social control and Akers's (1985) social learning theories, specifically in terms of the relationships and interactions with family and peers for the youths. Based on past studies, the general hypotheses originally stated were: (1) members of a country with a higher level of *interdependent self-concept* and a lower level of *independent self-concept* engage in a lower level of deviance because they have higher levels of social bonds compared to the members of a country with a lower level of *interdependent self-concept* and a higher level of *independent self-concept*, and (2) members of a country with a higher level of *interdependent self-concept* and a lower

level of *independent self-concept* experience stronger effects of social learning measures on deviance compared to members of a country with a lower level of *interdependent self-concept* and a higher level of *independent self-concept*. However, due to the fact that the Japanese showed a significantly lower level of *independent self-concept* than the Americans, while also showing a significantly lower level of *interdependent self-concept* than Americans, the examination of these two hypotheses became somewhat problematic. Overall, as expected, *interdependent self-concept* had significant positive effects on most of the social control measures, except on *parental supervision* and *involvement*. However, *independent self-concept* also had significant positive effects on *attachment to school*, *commitment*, and *involvement*—though *involvement* had a significant positive effect on both types of deviance. Only for *parental supervision* did *independent self-concept* have an expected significant negative effect. In addition, as expected from their lower level of *interdependent self-concept*, the Japanese respondents scored significantly lower on most of the elements of Hirschi's (1969) social bonds than the American respondents, expect for *attachment to school* and *belief*—however, the findings are inconsistent with the fact that the Japanese engage in a significantly lower level of *general deviance* than the Americans. On the other hand, consistent with their lower *general deviance*, the Japanese scored significantly lower on much of Akers's (1985) social learning measures, except for *parents' deviant reinforcement*.

Finally, in the last section of this chapter, I tested both Hirschi's (1969) social control and Akers's (1985) social learning theories singularly and in combination as explanations of the three types of deviant behaviors. The three theoretical questions are

also examined in this last section. In terms of the first question ("can the theory account for the *cultural gap* in deviance between the Japanese and Americans?"), results of the analyses indicated that neither of the theories was able to explain away singularly the *cultural gap* of any of the three types of deviance. Moreover, even when all theoretical variables from both theories are entered into an equation, the effect of nationality on all three types of deviance remain significant.

The second theoretical question was examined by entering interaction terms into the regression equation. In terms of Hirschi's social control theory, when *general deviance* is the dependent variable, the interaction term for *Japan* and *belief* was significant and positive, indicating that the inhibitive effect of *belief* on *general deviance* is significantly stronger for the Americans compared to the Japanese. On the other hand, when the *academic misconduct* is the dependent variable, the interaction term for *Japan* and *belief* was significant and negative, indicating that the inhibitive effect of *belief* on *academic misconduct* is significantly stronger for the Japanese compared to the Americans. Furthermore, when the *academic underachievement* is the dependent variable, the interaction term for *Japan* and *parental supervision* was significant and negative, indicating that once again the inhibitive effect of *parental supervision* on *academic underachievement* is significantly stronger for the Japanese compared to the Americans. Thus, it seems that Hirschi's social control theory is applicable in explaining deviance of both the Japanese and Americans, and the applicability depends on the type of deviant behavior examined. In terms of Akers's (1985) social learning theory, when *general deviance* is the dependent variable, the interaction terms for *Japan* and both *differential association* and *general definitions* are

significant and negative, indicating that promoting effects of these two social learning measures on *general deviance* are significantly stronger for the Americans, compared to the Japanese, while the interaction term for *Japan* and *peers' reinforcement* is significant and positive, indicating the stronger effect of this social learning variable on *general deviance* for the Japanese compared to the Americans. On the other hand, when *academic misconduct* is the dependent variable, the interaction terms for *Japan* and both *differential association* and *general definitions* are significant and positive, indicating that promoting effects of these two social learning measures on *academic misconduct* are significantly stronger for the Japanese, compared to the Americans. Similarly, when *academic underachievement* is the dependent variable, the interaction term for *Japan* and *differential association* is significant and positive, indicating the promoting effects of these two social learning measures on *academic underachievement* are significantly stronger for the Japanese, compared to the Americans. Thus, the applicability of Akers's (1985) social learning theory across cultures also varies depending on the type of deviant behaviors.

Finally, in this chapter, the third question was examined by entering all of the theoretical measures at once in an equation, examined for both types of deviant behaviors. The analyses showed that compared to Hirschi's (1969) social control theory, Akers's (1985) social learning theory has a stronger explanatory power overall for both *general* and *academic deviance*. However, though the overall R^2 value of the model with Akers's (1985) social learning theory is consistently larger than the R^2 value of the model with just Hirschi's (1969) social control theory, social learning theory cannot explain much of the cultural gap in *academic deviance*. In fact, inclusion

of Akers's (1985) social learning measures accentuates the cultural gap in *academic deviance*, since though the Japanese engage in a higher level of both types of *academic deviance*, they score significantly lower on most of social learning measures than the Americans, even though these measures have significant positive effects on all three types of deviant behaviors. The inability to distinguish between *belief* and *definitions* when creating these measures in this study causes a problem in terms of comparing the effect sizes of the two theories. In addition, multicolinearity among some of the social bonds measures resulted in incomplete model for this theory, compared to the model for Akers's social learning theory.

CHAPTER FIVE

ANALYSIS ACROSS CULTURE AND GENDER

Introduction

Despite the consistent finding that gender is one of the strongest predictors of deviance (e.g., Steffensmeier and Allan 1995), the effect of gender on deviance is often left unexplained. Naffine (1996) argues that as a scientific and objective approach became prominent in criminology, the object of inquiry (i.e., crime/deviance) became un-gendered, so that the masculine nature of crime/deviance is lost with no further examination. Within mainstream criminology, therefore, gender has been either ignored, when females are excluded in the analysis, or treated with no theoretical significance, when females are added merely as a control variable in the analysis (Chesney-Lind 2006). In an influential article published 20 years ago, Daly and Chesney-Lind (1988) lamented that despite the flood of feminist scholarship in social science during the 1970s, criminology was essentially unaffected by this trend and this vein of thought. Chesney-Lind (2006) states that even today the lack of attention to gender in criminology continues. Indeed, Sharp and Hefley (2007) show that gender is taken into account in only 15.2% of the 317 articles published between the years 2000 and 2004 in three of the most popular academic journals in criminology (i.e., *Criminology*, *Journal of Research in Crime and Delinquency*, and *Justice Quarterly*). In addition, most undergraduate textbooks intended for introductory courses in criminology do not devote even a single chapter to the topic of gender and crime. For instance, a textbook entitled *Criminology* by Adler, Mueller, and Laufer (2004) devotes a mere 4 pages (out of 407 pages total) to the topics related to gender. Another

textbook entitled *The American System of Criminal Justice* by Cole and Smith (2001) devotes 10 pages (out of 659 pages total) to gender issues as they relate to the criminal justice system (e.g., arrest rates, victimization, capital punishment, etc.) spread around in pieces throughout the textbook.

The lack of attention to gender in criminology is understandable and probably nothing new, however, because males are always and everywhere more likely to commit crimes more frequently than females, especially more serious and dangerous crimes (Gottfredson and Hirschi 1990). It is ironic that what makes gender one of the most "important" variables in criminology (because gender, along with age, is among the strongest correlates of crime) is also the reason gender has been ignored in the field. Chesney-Lind (2003: 3) states:

> Girl and women offenders have been largely invisible or "forgotten" by criminology that emerged out of the Industrial Revolution to complement, explain, and occasionally critique state efforts to control and discipline unruly and dangerous men. Male criminality was regarded as an understandable, if not normal, response to the injuries of economic class. Thus, in the classic texts on delinquency and crime, girls and women disappeared from datasets, discussion of crime patterns, and plans for the structure of jails and prisons. It was as if crime and punishment existed in a world in which gender equaled male, and women were correctional afterthoughts.

Females and gender have been ignored in criminology because the majority of crimes, especially those violent, serious, and dangerous crimes that are considered more costly and damaging to the society, and thus of the interest to policy makers and scholars, are

largely committed by males. It seems rational and practical, therefore, to ignore gender and focus on the group whose members are more likely to engage in the behavior of interest than on other groups.

Nevertheless, Chesney-Lind (2003) raises two important concerns regarding the lack of attention to the issues of gender and crime. First, the paucity of the research on crime/deviance that pays attention to females has resulted in the occasional discovery of "bad" women, as exemplified by the continued popularity of the emancipation hypothesis (Adler 1975) that emerged in the 1970s. As Chesney-Lind (2003) points out, furthermore, because the criminality of males is often regarded as "understandable," when females engage in crime, they are regarded as abnormal or more deviant compared to the males who engage in the same criminal behavior. Chesney-Lind (2002) argues that this is a dangerous trend that puts blame on gender equality and women's independence, undermining the progress of the women's movement, and unjustly takes the public's attention away from the real issues at hand. For instance, those who adhere to the liberation hypothesis focus on the liberation and independence among females as the primarily cause of crime and ignore how the increased economic marginalization of females in recent years (for instance) might have affected the increase in female crime rates in the U.S. Second, Chesney-Lind (2002) also argues that the lack of information about female offenders results in a policy crisis, especially as the number of incarcerated females increased in recent years in the U.S. (and elsewhere, including in most Western Europe and Japan).[47] Chesney-Lind (2002:

[47] Not just in the U.S., but also in Japan and other Western European countries, the female incarceration rate is increasing in recent years. However, just like in the U.S., the increase does not seem to be as a result of increase in female crime, rather it seems to be the result of policy changes, particularly the ones related to illegal drugs.

10) argues that such a policy crisis in the U.S. resulted in an "equity with vengeance," wherein policies, programs, and treatments developed for male inmates are applied equally to females (in the name of justice), without consideration that the needs, conditions, and backgrounds of female inmates might differ from those of male inmates. These two major concerns raised by Chesney-Lind (2002) are so important that mere statistical marginality of females among criminals or among those who deviate should not warrant a continued lack of attention to gender in criminology.

Furthermore, as stated in the previous chapter, Daly and Chesney-Lind (1988) raise two specific theoretical questions concerning the adequacy of mainstream theories of deviance in explaining the relationship between gender and crime. The historical exclusion of females in the development of theories of deviance is discussed in the previous chapter (see Clinard 1960, Kempf 1993) and the issues this exclusion raises are noted by Chesney-Lind (2002). Equally important, I might add, is the inclusion of females in empirical study in order to accumulate scientific knowledge on crime/deviance and develop a more comprehensive and universal theory of deviance. To this end, Daly and Chesney-Lind (1988) specifically ask: (1) though males are often found to be more deviant than females, can a theory of deviance explain this *gender gap* in deviance?, and (2) though much of the leading theories of deviance are developed as explanations for male deviance, can such a theory of deviance explain female deviance equally as well as male deviance? In this chapter once again, I apply these two questions raised by Daly and Chesney-Lind (1988), and gender issues are examined specifically within a cross-cultural context between the Japanese and Americans. In other words, this chapter goes a step further from the last chapter, and from traditional

gender research of crime, and examines the effect of the interaction of culture and gender on the effects of theoretical measures on deviance.

Stated more specifically for this chapter, based on past research and data, I expect a *gender gap* in deviance between males and females, such that males are more deviant than females. Given this expected *gender gap* in deviance in both of the countries, combined with the expected *cultural gap* in deviance (from the previous chapter), I ask for each of the two theories tested in this dissertation (i.e., Hirschi's social control and Akers's social learning theories): (1) can a theory account for the intersection[48] of both a *cultural and gender gap* in deviance? Furthermore, given that both theories are developed in the U.S. mainly to explain deviant behaviors of American males, I also ask for each of the two theories: (2) can such a theory explain the deviant behaviors of both males and females in Japan and females in the U.S. equally as well as the deviant behaviors of American males? In other words, relative to the applicability of the theory in explaining deviant behaviors of American males, I assess each theory's applicability in explaining the deviant behaviors of the other three groups. Additionally, because two theories of deviance are tested simultaneously in this dissertation, I compare the explanatory power of the two theories as explanations of deviance, examined separately across gender and cultures. In other words, I ask: (3) are

[48] It should be noted that though I use the term "intersectionality" or "intersection" to denote the effect of the interaction of culture and gender to capture what differences such *interactions* might produce in terms of the relationships between theoretical variables and deviance, I believe such a use of the term "intersection" is not consistent with its originally intended use in sociology. The term, "intersectionality" and "intersection" usually refer to the interactions of *stratification systems*, such as gender, class, race/ethnicity, and sexuality in order to capture the "interlocking system of oppression" (Collins 1990). Though today scholars consider *gender* a stratification system, and global feminists, for instance, emphasizes the negative effects of colonialism for females in the Third World (Tong 1998), it is doubtful that *culture* by itself constitutes a stratification system, at least not as it is measured in this dissertation, granted some might disagree. Thus, in this dissertation, though I use the term "intersection" of culture and gender, I do not necessarily intend this to refer to the intersection of stratification systems.

the two theories equally applicable in explaining deviance of the gap in the intersection of culture and gender, or one theory more applicable than the other for one group compared to the other groups?

This chapter covers the examination of the intersection of gender and culture on deviance, and tests the two theories of deviance both across gender and cultures. In this chapter, I first examine gender variations in deviance. Note that the review of extant studies discussed in this section focuses on the studies conducted in the U.S., since empirical studies examining gender and crime in Japan are even scarcer than in the U.S. I then assess the *cultural* and *gender gap* in deviance using the US-Japan self-reported data. Variations in the nature, degree, and generality of deviance across gender in the two countries are also examined. Next, I analyze the concept of *gender* using measures from social psychology. Then, referring to the findings of past studies, I hypothesize and test how both the cultural and gender variations between the two countries affect the individual characteristics measured by the theoretical variables from both Hirschi's (1969) social control and Akers's (1985) social learning theories for the four groups examined in this study (i.e., Japanese males, Japanese females, American males, and American females), particularly in terms of the relationships and interactions with family and peers. Finally, in the last section of this chapter, I hypothesize how the variations in the theoretical variables across the four groups result in variations in deviance across these groups. I follow the hypothesis with a test of the two theories as explanations of deviant behaviors across the four groups, while assessing how well the two theories provides answers to the three theoretical questions stated previously.

Gender and Cultural Variations in Deviance

Group gaps in crime/deviance can be examined in several different ways. For instance, males and females might differ in terms of *prevalence*, *frequency*, and *type* of offending, arrest, or victimization for a certain offense. *Prevalence* refers to the percentage of the population that has offended, been arrested, or been victimized for a certain offense. For instance, males and females might differ in terms of the *prevalence* of driving under the influence (DUI), such that the percentage of males who have committed a DUI in the past year might be higher than that for females. *Frequency* pertains to the frequency of offending, arrest, or victimization of a certain offense among those who have offended, been arrested, or been victimized. For instance, males and females might differ in terms of *frequency* of DUI, such that the mean frequency (i.e., the number) of DUI in the past year among offenders might be higher for males compared to that for females. Finally, *type* pertains to the differences in offense in terms of seriousness, dangerousness, among other characteristics of offenses (e.g., violent crime vs. property crime). For instance, males and females might differ in terms of both *prevalence* and *frequency* of offending, arrests, and victimization across *types* of offense, such that gender differences in terms of *prevalence* and *frequency* might be wider for more serious and dangerous offenses than less serious an dangerous offenses.

Examining different types of datasets of crimes in the U.S., including official data, victimization data, and self-report data, all three of the general statements concerning *prevalence*, *frequency*, and *type* discussed above in the paragraph are found to be true about gender differences in crime, particularly in terms of offending and arrests. Thus, everything being equal, males are more likely to and more frequently do,

offend, get arrested, and be victimized for most offenses, relative to females. Such gender differences are larger for more serious and dangerous offenses than less serious and dangerous offenses. For instance, official crime data in the U.S. consistently show that except for such crimes as prostitution, shoplifting, and welfare fraud, males are more likely (*prevalence*) to be arrested for crimes than females at all ages. The UCR consistently shows that the arrest ratio is on average about 4 male arrests to 1 female arrest. Contrary to the position of the emancipation hypothesis (that gender difference in terms of *prevalence* is decreasing in recent years), when examining FBI arrest statistics for 1960, 1975, and 1990, Steffensmeier and Allan (1996) found that females constituted less than 15% of all arrests for most offense categories in all three periods, and that the gender difference remained stable over these three periods. Steffensmeier and Allan (1996) note, however, that during these periods, the gender difference in *prevalence* of arrests decreased for minor offenses such as larceny and fraud and substance abuse. In addition, when the NCVS is examined, gender difference in the *prevalence* of offending is generally wider, indicating a possible overrepresentation of females within the criminal justice system in the U.S. On the other hand, some self-reported data, however, find a smaller gender difference in terms of *prevalence* than for official data (Smith and Visher 1980), particularly on minor offenses (Canter 1982). Moreover, aside from *prevalence*, studies also find that among offenders, the *frequency* of offending is higher for males than for females (e.g., Steffensmeier, Allen, and Streifel 1989; Gottfredson and Hirschi 1990). In fact, Steffensmeier and Allan (1996) indicate that self-report data often find gender difference to be more pronounced when *frequency* of offending is compared instead of *prevalence* of offending. Also, studies consistently

find that gender difference in terms of *prevalence* and *frequency* increases as the type of crime increases in the level of violence and seriousness (Daly 1998, Steffensmeier and Streifel 1991, Sutherland, Cressey, and Luckenbill 1992). Thus, gender difference decreases as the offense becomes more minor and less serious. This finding is consistent using different types of datasets (Hinderlang, Hirschi, and Wei 1981) and across cultures and societies (Heidensohn 2002). Additionally, Tittle and Paternoster (2000) find a similar pattern among deviant and delinquent behaviors (e.g., drug use, sexual behaviors)—the gender gap in offending increases as the level of deviance or danger increases (e.g., group sex, hard core drug use). Finally, studies also show that, consistent with the pattern of offending, males are more likely to be the victims of violent and serious crimes than females (Marvell and Moody 1999).

Table 5.1 shows the frequency distribution of arrests by sex based on the UCR for the year 2007 (the most current UCR data available). Table 5.1 shows a total of 10,698,310 arrests occurred in the U.S. for all offenses excluding traffic violations, of which males comprised 75.82% of all arrests. Table 5.1 also shows that the gender gap, in terms of arrests, is wider for more violent and dangerous offenses. For instance, among all arrests reported in UCR (2007), 4.22% of arrests were for violent crimes,[49] of which males comprised 81.83% of all arrests. On the other hand, property crimes[50] comprised about 11.47% of all arrests reported in UCR (2007), of which males

[49] Violent crimes in UCR (2007) include murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault.

[50] Property crimes in UCR (2007) include burglary, larceny-theft, motor vehicle theft, and arson.

Table 5.1. Frequency Distribution of Arrests by Sex Based on the UCR 2007

Type of Offense	Frequency			Rate[c]		Ratio[d]
	Total	Males	Females	Males	Females	Male rate / Female rate
Total	10,698,310	8,111,026	2,587,284	110841263.0	116878161.0	
Murder and nonnegligent manslaughter	10,082	9,051	1,031	8.17	0.88	9.26
Forcible rape	17,132	16,946	186	15.29	0.16	96.07
Robbery	96,720	85,544	11,176	77.18	9.56	8.07
Aggravated assault	327,137	257,568	69,569	232.38	59.52	3.90
Burglary	228,846	195,550	33,296	176.42	28.49	6.19
Larceny-theft	897,626	538,922	358,704	486.21	306.90	1.58
Motor vehicle theft	89,022	73,241	15,781	66.08	13.50	4.89
Arson	11,451	9,645	1,806	8.70	1.55	5.63
Violent crime[a]	451,071	369,109	81,962	333.01	70.13	4.75
Property crime[b]	1,226,945	817,358	409,587	737.41	350.44	2.10
Other assaults	983,964	735,578	248,386	663.63	212.52	3.12
Forgery and counterfeiting	78,005	48,220	29,785	43.50	25.48	1.71
Fraud	185,229	103,621	81,608	93.49	69.82	1.34
Embezzlement	17,015	8,256	8,759	7.45	7.49	0.99
Stolen property; buying, receiving, possessing	92,215	73,429	18,786	66.25	16.07	4.12
Vandalism	221,040	183,506	37,534	165.56	32.11	5.16
Weapons; carrying, possessing, etc.	142,745	131,682	11,063	118.80	9.47	12.55
Prostitution and commercialized vice	59,390	18,940	40,450	17.09	34.61	0.49
Sex offenses (except forcible rape and prostitution)	62,756	57,213	5,543	51.62	4.74	10.88
Drug abuse violations	1,386,394	1,125,138	261,256	1015.09	223.53	4.54
Gambling	9,152	8,332	820	7.52	0.70	10.71
Offenses against the family and children	88,887	66,367	22,520	59.88	19.27	3.11
Driving under the influence	1,055,981	836,671	219,310	754.84	187.64	4.02
Liquor laws	478,671	345,708	132,963	311.89	113.76	2.74
Drunkenness	451,055	378,873	72,182	341.82	61.76	5.53
Disorderly conduct	540,270	398,203	142,067	359.26	121.55	2.96
Vagrancy	25,631	19,943	5,688	17.99	4.87	3.70
All other offenses (except traffic)	2,948,031	2,271,402	676,629	2049.24	578.92	3.54
Suspicion	1,589	1,258	331	1.13	0.28	4.01
Curfew and loitering law violations	109,815	76,025	33,790	68.59	28.91	2.37
Runaways	82,459	36,194	46,265	32.65	39.58	0.82

[a] Violent crimes in UCR include murder and nonnegligent manslaughter, forcible rape, robbery, and aggravated assault.

[b] Property crimes in UCR includeburglary, larceny-theft, motor vehicle theft, and arson.

[c] Each rate is calculated by dividing the frequency by the total number of population (data obtained from U.S. Census 2007) multiplied by 100,000.

[d] Each ratio is calculated by dividing a male rate by female rate.

comprised a relatively lower, but still disproportionally higher, 66.62% of all arrests. Table 5.1 shows the frequency of arrest data for males and females separately for each of the specific offenses reported in the UCR for the year 2007. In addition, the table shows the male and female arrest rate for each offense calculated using the estimated populations taken from the U.S. Census (2007). The arrest rate for murder for males is calculated, for instance, by dividing the number of arrests for murder for males (i.e., 10,082) by the total population for males derived from the U.S. Census for the same year (i.e., 110,841,263) multiplied by 100,000. The final column of the table shows the ratio of the male rate to the female rate for each offense, which is calculated by dividing the male rate for an offense by the female rate for the same offense. When the ratio of

male to female rates is higher than one, it indicates a higher arrest rate for males than females for that offense; when the ratio is smaller than one, it indicates that females have a higher arrest rate than males for that offense; and, when the ratio is close to one, it indicates that females and males have similar arrest rates for that offense. Table 5.1 shows that, except for a few offenses (i.e., embezzlement, prostitution, and runaways) reported in the UCR (2007), males have much higher arrest rates than females. Additionally, Table 5.1 confirms the finding of past studies that the gender gap in *prevalence* (i.e., the ratio of male rate to female rate) is higher for more violent and serious crimes (e.g., murder and nonnegligent manslaughter, robbery, burglary, arson, vandalism, carrying weapons, sex offenses, gambling, drunkenness—all have a ratio greater than 5.0) than less violent and serious crimes.

If the gender difference in terms of *prevalence*, *frequency*, and *type* of offending found in the U.S., more specifically in the UCR (2007), is an universal difference, then a similar gender difference is expected also in Japan, and the self-reported survey data on deviance used in this research should show that males are overall more likely to have engaged in deviance more frequency than females in both countries, and that this *gender gap* should be larger for more serious and dangerous deviance than less serious and dangerous deviance. Moreover, combined with the *cultural gap* in deviance found in the previous chapter (particularly for *general deviance*), I should expect to see that when the Japanese and Americans are compared separately by gender, there is a *cultural gap* in deviance among females across cultures and among males across cultures. In other words, based on the past studies, I should expect that in addition to the gender gap in deviance for each country, comparing the four groups in this study

based on culture and gender, Japanese females should engage in deviance at a lower prevalence and frequency than American females, while Japanese males should engage in deviance at a lower prevalence and frequency than American males. To test this hypothesis, in the remaining section, I first examine the *gender gap* in *prevalence* of deviance across countries by comparing the percentages of respondents who have engaged in each of the 16 general deviant behaviors and 13 academic deviant behaviors across gender and cultures. Then I examine the *gender gap* in *frequency* of engaging in the deviant behaviors among offenders. Finally, this section includes an examination of *gender gap* in both *prevalence* and *frequency* across different *types* of deviance.

Gender and Culture Gap in Prevalence of Deviance

To examine the *gender gap* in the *prevalence of general deviance* for the 16 general deviant behaviors, the percentage of respondents who reported that they have engaged in the behavior in the past year is calculated for each behavior separately for males and females across countries, as shown in Table 5.2. In addition to the percentage of the respondents who offended in each of the deviant behaviors, a ratio of male to female percentages is calculate for each offense separately by country. For instance, the Japanese ratio for drinking alcohol is calculated by dividing the percentage of Japanese males who engaged in the behavior (91.2%) by that for Japanese females (94.4%). A ratio larger than 1 indicates a higher *prevalence* of that behavior among males compared to females, and a ratio smaller than 1 indicates a higher *prevalence* of that behavior among females compared to males. Table 5.2 shows that the gender ratios vary considerably depending on the behavior across the two countries, however, consistent with what was found in past studies, in both Japan and the U.S. the

Table 5.2. Percentage of Respondents Who Have Ever Engaged in 16 *General Deviance* Items Separately by Gender and Country

	Japanese			Americans		
	Males (*n* =308)	Females (*n* =125)	Ratio[a]	Males (*n* =159)	Females (*n* =210)	Ratio[a]
(1) Destroyed property that did not belong to them.	46.8%	27.2%	1.72	50.9%	12.4%	4.10
(2) Stolen something worth $5 or less.	11.4%	3.2%	3.56	43.4%	18.6%	2.33
(3) Stolen something worth more than $5.	5.8%	1.6%	3.63	23.3%	4.8%	4.85
(4) Hurt someone badly enough that they needed bandages or a doctor.	11.0%	8.0%	1.38	19.5%	1.9%	10.26
(5) Smoked cigarettes or used tobacco.	26.6%	12.0%	2.22	64.2%	40.0%	1.61
(6) Cheated in school to get a better grade.	40.6%	36.0%	1.13	52.2%	41.9%	1.25
(7) Engaged in sexual relations with someone they did not consider to their boyfriend or girlfriend.	13.0%	10.4%	1.25	46.5%	28.1%	1.65
(8) Gambled illegally	18.8%	3.2%	5.88	40.9%	9.5%	4.31
(9) Drank alcohol.	91.2%	94.4%	0.97	91.2%	84.8%	1.08
(10) Used Marijuana.	0.6%	0.0%	n/a	45.3%	26.7%	1.70
(11) Used other illegal drugs.	1.0%	0.0%	n/a	17.0%	6.2%	2.74
(12) Driven without a seatbelt.	21.1%	8.8%	2.40	79.2%	59.5%	1.33
(13) Exceeded the speed limit by 15 mph (20 km/hr) or more.	47.4%	23.2%	2.04	94.3%	82.9%	1.14
(14) Ridden a motorcycle without a helmet.	20.8%	8.0%	2.60	17.0%	7.6%	2.24
(15) Sold drugs.	0.6%	0.0%	n/a	8.8%	2.9%	3.03
(16) Driven a car or motorcycle after drinking more than one drink.	17.5%	4.0%	4.38	62.9%	43.8%	1.44

[a] Ratios for both countries are calculated by dividing the male percentage of offending by the female percentage of offending. The creates a ratio of male to female prevalence of engaging in the deviant behavior.

Table 5.3. Prevalence of Respondents Who Have Ever Engaged in 12 *Academic Deviance* Items Separately by Gender and Country

	Japanese			Americans		
	Males (*n* =308)	Females (*n* =125)	Ratio[a]	Males (*n* =159)	Females (*n* =210)	Ratio[a]
(1) Copied or looked at the answers from someone else during a quiz or test.	50.0%	37.6%	1.33	61.6%	55.7%	1.11
(2) Bought or used a paper you obtained over the internet or from someone else and turned it in as your own.	40.3%	27.2%	1.48	13.8%	7.6%	1.82
(3) copied someone else's work and turned it in as your own.	63.3%	59.2%	1.07	37.7%	29.0%	1.30
(4) Used cheat notes, etc., when taking an exam.	36.0%	30.4%	1.18	22.0%	12.4%	1.77
(5) Plagiarized a paper for a class.	48.4%	46.4%	1.04	22.6%	13.8%	1.64
(6) Received an illicit copy of an exam prior to taking the test.	13.3%	8.8%	1.51	13.8%	5.2%	2.65
(7) Lied to an instructor about why you missed an exam.	2.9%	1.6%	1.81	15.1%	13.8%	1.09
(8) Skipped a class.	91.9%	83.2%	1.10	93.1%	91.9%	1.01
(9) Came to class late.	88.6%	84.8%	1.04	80.5%	79.5%	1.01
(10) Didn't finish an assignment on time.	61.4%	38.4%	1.60	68.6%	54.8%	1.25
(11) Forgot to study for an exam.	59.1%	40.0%	1.48	66.0%	51.0%	1.29
(12) Fell asleep in class.	97.7%	97.6%	1.00	57.2%	46.2%	1.24

[a] Ratios for both countries are calculated by dividing the male percentage of offending by the female percentage of offending. The creates a ratio of male to female prevalence of engaging in the deviant behavior.

prevalence of engaging in *general deviance* is overall much higher for males than for females, except for "drinking alcohol" in Japan, "cheating in school" for both Japan and the U.S., and "exceeding in speed limit" for the U.S. Overall, excluding the three illegal drug related deviance items, the mean ratio for the Japanese was (2.55) almost identical to that for Americans (2.89). Similarly, in order to examine the *gender gap* in *prevalence* of engaging in the 13 academic deviant behaviors, percentage of the respondents who reported that they have ever engaged in the behavior in the past year is calculated for each academic deviant behavior separately for males and females across countries, as shown in Table 5.3. Once again, in addition to these percentages, a ratio of male to female percentages is calculated for each academic deviance item separately by country. The ratios for both countries show consistently that males are more likely to have engaged in academic deviance than females for both countries, though the ratios are overall much closer to 1.0 and are all less than 2.0 (except for "received an illicit copy of an exam prior to taking a test" in the U.S.) than those for general deviant behaviors. Overall, the mean ratio for the Japanese was 1.20 for the 13 academic deviant behaviors, slightly smaller than for Americans (1.32).

Next, the effect of the intersection of culture and gender on the three types of deviance *prevalence* scales is examined using an OLS regression analysis. The results for three types of deviance *prevalence* scales as the dependent variables are shown in Table 5.4. For each model, an interaction term for *Japan* and *male* (i.e., *Japan* × *male*) is entered, and only the models with a significant interaction term are reported in the table. Table 5.4 shows that the interaction term for *Japan* and *male* is significant when *general deviance prevalence* is the dependent variable. The interaction term is

Table 5.4. OLS Regression Analyses with Three Types of *Deviance Prevalence* Scales Regressed on Nationality, Gender, Control Variables, and a Gender and Culture Interaction Term for the Combined Samples, *n* =801 (one-tailed significance test in parenthesis).

	General Deviance				Academic Misconduct				Academic Underachievement			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-8.138	**	2.957		-2.691		2.652		-3.071		1.972	
Japan	-4.792	***	0.437	-0.491	1.869	***	0.392	0.251	-0.710	**	0.291	-0.135
Male	3.829	***	0.413	0.388	0.494		0.371	0.066	0.533	*	0.276	0.100
Japan × Male	-1.657	**	0.581	-0.166	0.798		0.521	0.105	0.735	*	0.388	0.137
Age	0.479	***	0.148	0.093	0.039		0.132	0.010	0.145		0.098	0.053
SES (1=high)	0.225		0.292	0.022	0.627	**	0.262	0.079	0.424	*	0.195	0.076
Two-parent home	-0.371		0.479	-0.022	-0.112		0.430	-0.009	-0.276		0.320	-0.031
Adjusted R^2	0.373				0.133				0.035			
Model *p*	0.000				0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

negative, indicating that *gender* has a significantly different effect on the prevalence of general deviance behaviors for the Japanese and Americans. The coefficient for *male* can be interpreted as the effect of gender on *general deviance* for Americans (*b* = 3.829), while the effect of gender on *general deviance* for the Japanese is the sum of the coefficient for Americans (*b* = 3.829) and the coefficient for the interaction term (*b* = -1.657). In other words, the coefficient for the interaction term is the difference in the effect of gender on *general deviance* by nationality. The negative interaction term indicates that though males are significantly more likely to engage in *general deviance* for both the Japanese (*b* = 2.172) and Americans (*b* = 3.829), the *gender gap* in *prevalence* of *general deviance* is significantly wider in the U.S. than in Japan. On the other hand, when the dependent variable is *academic misconduct*, the interaction term for gender and country is not significant, indicating that there is no significant country difference in the gender gap in the *prevalence* of engaging in *academic misconduct*. Note that for this type of deviance, unlike *general deviance*, both *males* and *Japan* have significant positive effects. Finally, the second model of Table 5.4 shows that when the dependent variable is *academic underachievement*, the interaction term for *Japan* and *male* is significant and positive. Unlike the significant negative interaction term found for *general deviance*, the significant positive interaction term for *academic underachievement* indicates that while males are significantly more likely to engage in *academic underachievement* than females for both the Japanese and American samples, , this effect of gender on *academic underachievement* is significantly stronger for the Japanese sample compared to the U.S. sample. In other words, the gender gap in

Table 5.4. OLS Regression Analyses with Three Types of *Deviance Prevalence* Scales Regressed on Nationality, Gender, Control Variables, and a Gender and Culture Interaction Term for the Combined Samples, *n* =801 (one-tailed significance test in parenthesis).

	General Deviance				Academic Misconduct				Academic Underachievement			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-8.138	**	2.957		-1.824		2.730		-3.071		1.972	
Japan	-4.792	***	0.437	-0.491	1.900	***	0.403	0.253	-0.710	**	0.291	-0.135
Male	3.829	***	0.413	0.388	1.060	**	0.382	0.140	0.533	*	0.276	0.100
Japan × Male	-1.657	**	0.581	-0.166	-0.077		0.537	-0.010	0.735	*	0.388	0.137
Age	0.479	***	0.148	0.093	0.001		0.136	0.000	0.145		0.098	0.053
SES (1=high)	0.225		0.292	0.022	0.707	**	0.269	0.088	0.424	*	0.195	0.076
Two-parent home	-0.371		0.479	-0.022	-0.310		0.442	-0.024	-0.276		0.320	-0.031
Adjusted R^2	0.373				0.097				0.035			
Model *p*	0.000				0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

academic underachievement is significantly wider among the Japanese respondents compared to the U.S. respondents.

Gender and Culture Gap in Frequency of Deviance

Gender and culture gaps in the *frequency* of deviance for three types of deviant behaviors are examined by an OLS regression analysis with three deviance scales created using each of the deviance items measured in their original five-point Likert scale coding (ranging from "never" to "almost always") as the dependent variables. The interaction term for *Japan* and *male* is entered into each of the equations to examine the difference in the effect of gender on deviance across countries. Table 5.5 shows the models with a significant interaction term only. Table 5.5 shows that the results using *deviance frequency* measures look almost identical to the ones with *deviance prevalence* measures (shown in Table 5.4). The interaction term is significant for the models with *general deviance* and *academic underachievement* as the dependent variable. Once again, the gender gap in *frequency* of engaging in *general deviance* is significantly wider in the U.S. compared to Japan, while the gender gap in *frequency* of engaging in *academic underachievement* is significantly wider for the Japanese sample than for the American sample.

Gender and Culture Gap in Type of Deviance

The examination of the gender and cultural gap in *type* of deviance is already done by comparing the gender and culture gap in *prevalence* and *frequency* for the three types of deviant behaviors: *general deviance* and two types of academic deviance, including *academic misconduct* and *academic underachievement*. Tables 5.4 and 5.5, for instance, show that the culture gap for both *prevalence* and *frequency* of deviance varies

Table 5.5. OLS Regression Analyses with Three Types of *Deviance Frequency* Scales Regressed on Nationality, Gender, Control Variables, and a Gender and Culture Interaction Term for the Combined Samples, *n* =801 (one-tailed significance test in parenthesis).

	General Deviance				Academic Misconduct				Academic Underachievement			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-13.408	***	3.997		-2.691		2.652		-6.851	**	2.537	
Japan	-3.346	***	0.590	-0.285	1.869	***	0.392	0.251	1.649	***	0.375	0.230
Male	4.797	***	0.559	0.404	0.494		0.371	0.066	0.766	*	0.355	0.105
Japan × Male	-1.841	**	0.766	-0.153	0.798		0.521	0.105	0.893	*	0.499	0.121
Age	0.684	***	0.199	0.111	0.039		0.132	0.010	0.257	*	0.127	0.068
SES (1=high)	0.033		0.394	0.003	0.627	**	0.262	0.079	0.504	*	0.250	0.066
Two-parent home	-0.213		0.648	-0.011	-0.112		0.430	-0.009	-0.185		0.411	-0.015
Adjusted R^2	0.209				0.133				0.148			
Model *p*	0.000				0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

considerably depending on the type of deviant behaviors examined. The Japanese are significantly less likely than Americans to engage in *general deviance* but are significantly more likely than Americans to engage in *academic deviance* (prevalence). Moreover, the Japanese also engage in a significantly lower level of *general deviance* compared to Americans, but engage in a significantly higher level of *academic deviance* than Americans (frequency). The two tables also show that males are significantly more likely to engage in all three types of deviant behaviors than females (prevalence), and they also engage in significantly higher levels of all three types of deviant behaviors than females (frequency). However, in terms of both *prevalence* and *frequency*, the *gender gap* is much smaller for the two types of *academic deviance* than for *general deviance*, which is consistent with past studies that show a smaller *gender gap* for less serious and dangerous crimes and a larger *gender gap* for more dangerous and serious crimes. The effect of the intersection of culture and gender on deviance also differs depending on the type of deviant behaviors examined. The *gender gap* in *prevalence* of *academic misconduct* across countries, for instance, is not significant compared to the *gender gap* in *prevalence* of *general deviance* and *academic underachievement* across countries. More specifically, the *gender gap* in *prevalence* of offending is significantly wider for the Americans compared to the Japanese for *general deviance*, but the gender gap in *prevalence* of offending is significantly wider for the Japanese compared to the Americans for *academic underachievement*. When deviant behaviors are examined in terms of *frequency* of offending, the results are identical—the *gender gap* is significantly wider in the U.S. compared to Japan for *general deviance*, but the gender gap is significantly wider in Japan compared to the U.S. for *academic*

underachievement. The gender gap does not differ across countries when *academic misconduct* is examined.

Examining "Gender"

As with the variable measuring nationality, *Japan*, used in this study, I attempt to examine the underlying concept captured by the variable for the respondents' gender. In empirical studies of deviance, the variable measuring *gender* is often included as a control variable, and denotes a different grouping of the respondents based on their self-reported identification of gender, either male or female, without critically examining what the variable is actually capturing (Chesney-Lind 2006). Like age, race/ethnicity, and SES, gender is usually included as a control variable because of its strong correlation with deviance, hence its consideration as a variable important to control for when testing theories of deviance. It is, however, often not clear what such a variable is measuring, and without critically examining the nature of the variable, it would seem that such studies are not that different from empirical studies that exclude females altogether. Furthermore, though sociological theories of deviance are purported to explain the effects of socio-demographic variables on deviance (thus when theoretical variables are included in the analysis, the direct effects of much of the socio-demographic variables on deviance should disappear), Gottfredson and Hirschi (1990) argue that there currently are no sociological theories of deviance that can explain away the effects of all of the socio-demographic variables, including gender, on deviance.

The term "gender" is often used to distinguish it from sex, which refers to biological characteristics of males and females, and denotes the social constructions and distinctions of males and females, which is thought to have basis in biological sex. The

variable *gender* in empirical studies of deviance usually measures the *gender identity* of respondents, formed through gender socialization, and gender identity is often believed to be a stable and long-lasting component of the identity of an individual. Such a simplistic conceptualization of *gender* came under criticism recently, and *gender* is today considered more complex than mere socially constructed distinction between males and females, prompting scholars to examine gender from many angles, such as through a structural level, an individual level, within interactions, or as a system or institution, emphasizing different aspects of gender, such as identity, traits, socialization, roles, and a stratification system. Furthermore, scholars argue that since *gender* is socially constructed, the classification of *gender*, the characteristics of *gender*, and what one considers feminine/masculine behaviors or attitudes differ by culture. Thus, although empirical studies consistently find that gender is a strong correlate of deviance in any culture (e.g., Adler 1981, Gottfredson and Hirschi 1990), it is important to examine any differences in *gender* captured by the variable in cross-cultural empirical studies.

Unfortunately, examining every aspect of *gender* from every angle is outside the scope of this dissertation. Thus, in this dissertation, *gender* is examined at the individual level, using the self-reported data, and I focus on possible cross-cultural *gender differences*, specifically across Japan and the U.S., that might affect deviance. Today, empirical studies examining *gender* across cultures using various measures and focusing on different aspects of gender abound. For instance, Williams and Best (1982, 1990, 1994) use the Adjective Check List (ACL), containing 300 adjectives, and examine *gender stereotypes* among 30 countries. Interestingly, they find considerable

agreement across all 30 countries in terms of what the people in these countries consider as the stereotypical characteristics of males and females. The agreement is so strong that it prompted Berry et al. (1992) to argue that gender stereotyping characteristics of males and females might be universal. Additionally, Williams, Satterwhite, and Best (1999) use the ACL to examine the gender differences among 25 countries in the Five Factor Model of Personality (i.e., five personality traits/dimension that are considered universal). Both of these empirical studies find the universality and stability of gender stereotype across cultures, suggesting the possibility that gender stereotype is strongly influenced by biological differences of males and females. In addition to the differences in gender stereotypes across countries, Williams and Best (1990) also examine using the ACL cross-cultural differences in *gender role ideology* (i.e., beliefs about what males and females ought to be) and gender differences in *self-concept* (i.e., belief about ideal self). Williams and Best (1990) find that *gender roles ideology* varied across countries, and while the countries considered egalitarian (e.g., Netherlands and Finland) have less gender differentiation, the countries considered traditional (e.g., Pakistan, India, and Nigeria) have greater gender differentiation of *gender roles ideology*. The cross-cultural studies by Hofstede (1980) discussed in the previous chapter also examined gender differences in work-related values across cultures. Hofstede (1980) finds that, of all the countries he examined, Japan scored among the highest on the degree to which culture encourages differences between males and females in terms of work related values. In addition, according to Matsueda and Juang (2004), cross-cultural studies of gender often focus on three overall areas of gender differences that vary considerably across cultures: perceptual/special/cognitive abilities

(as related to math and science), conformity and obedience, and aggressiveness. An empirical study on gender differences in conformity and obedience across cultures, for instance, generally finds that cultures that are considered "tighter" promote a larger gender difference in terms of conformity, such that females are more conforming than males, whereas cultures that are considered "looser" promote a smaller gender difference in terms of conformity (Berry 1976). The "tightness" and "looseness" of cultures relate to the I-C dimensions discussed in the previous chapter, and studies often find that collectivistic cultures tend to facilitate "tighter" cultures, while individualistic cultures tend to facilitate "looseness" among its members (Matsumoto and Juang 2004).

Though not direct measures of gender differences in "conformity and obedience," in order to maintain simplicity while still examining gender differences across Japan and the U.S. that might affect the relationships between theoretical variables on deviance, I examine the gender differences across cultures in terms of the two types of measures of cultural variability, *independent self-concept* and *interdependent self-concept*, already created and used in the previous chapter. I found in the previous chapter that both of these measures have significant effects on theoretical variables from Hirschi's (1969) social control and Akers's (1985) social learning theories. The gender differences across cultures in terms of deviance found in the previous section, then, might be explained by the fact that Japan and the U.S. differ in terms of how much their males and females differ on these two cultural variability measures. To examine this, I enter the interaction term for *Japan* × *male* to the OLS regression analysis with each of the two cultural variability measures (i.e., *individualism* and *collectivism*) as the dependent variable, controlling for *age*, *SES*, and family

structure. The results show that, as discussed in the previous chapter, while the Japanese score significantly lower on both *independent self-concept* and *interdependent self-concept*, there is no gender difference in *independent self-concept* and *interdependent self-concept*, controlling for nationality. Furthermore, the interaction term for *Japan* and *male* is not significant in either model, indicating that there are no significant cultural differences in terms of the effect of gender on *independent self-concept* and *interdependent self-concept*. To be sure of this result, the two cultural variability measures are regressed on gender, *age*, and *SES* separately for the Japanese and American respondents, but gender has no significant direct effect on either of the cultural variability measures for either of the countries.

Culture and Gender Variations in Theoretical Variables

As seen in the UCR (2007), males have much higher arrest rates than females for most offenses in the U.S. The *gender gap* in offending is consistent across datasets (e.g., NCVS, self-reported survey) and across countries. After reviewing extant studies, Gottfredson and Hirschi (1990) argue that empirical studies consistently show that males, compared to females, always and everywhere are more likely to and more frequently do commit crimes that are more serious and dangerous. Nevertheless, past studies indicate a considerable overlap for both males and females in their patterns of offending as well (see Steffensmeier and Allan 1996 for review). For instance, official arrest data indicate that for both males and females the majority of arrests are for minor property and drug related offenses. On the other hand, for both males and females, arrests for more serious crimes, such as murder and robbery constitute only small portions (Steffensmeier and Allan 1996). Additionally, past studies also show

considerable overlaps across gender in terms of the socio-demographic characteristics of those arrested for crimes, suggesting that both male and female deviance is responsive to similar underlying *social forces* (Steffensmeier and Allan 1988, Steffensmeier, Allan, and Streifel 1989). For instance, for both males and females, incarcerated populations are more likely to be racial and ethnic minorities, poor, unemployed, and have a lower level of education (Chesney-Lind and Shelden 1994, Steffensmeier and Allan 1995). Furthermore, the "age-crime" curve, the fact that crime overall peaks during the late teens and declines subsequently over time, looks almost identical for males and females (Gottfredson and Hirschi 1990). Finally, at the macro level in aggregate, similar *structural forces* affect both male and female crime rates, including poverty, unemployment, and other characteristics of social disorganization (Steffensmeier and Haynie 2000). In fact, empirical studies consistently show that the male rate of crime is a significant and strong predictor of the female rate of crime (and vice versa), further indicating the similarity of the *underlying causes* of crime for both males and females (Steffensmeier and Allan 1995). These past studies, therefore, seem to indicate that, for the most part, we should be able to apply the same theories as explanations of male and female deviance, as argued by Smith and Paternoster (1987). However, Gottfredson and Hirschi (1990) argue that, though applied separately by gender, most leading individual theories of deviance are generalizable as explanations of deviance for both males and females, when males and females are examined together, most of these theories fail to explain fully the effect of gender on deviance (or the gender gap in deviance).

Aside from the leading theories of deviance, there are generally five major types of explanations for the gender gap in deviance: biological/evolutionary explanations, gender equity/opportunity explanations, gender socialization explanations, social control explanations, and strain explanations. In this chapter, only two types of explanations are discussed, because they are relevant to the two theories of deviance tested in this dissertation, and thus, the two explanations might offer insights in the possible gender differences in the measures from both social learning and social control theories. The two types of explanations of gender differences in deviance are: gender socialization as it pertains to Akers's (1985) social learning theory and gender social control as it pertains to Hirschi's (1969) social control theory. The other three types of explanations of gender gap in deviance are discussed briefly in Appendix B at the end of this dissertation. These five types of explanations offered specifically to explain gender differences in deviance might fill the gap for the traditional theories of deviance that often fail to explain fully the effect of gender on deviance.

The third type of explanation of gender differences in deviance focuses on gender differences in socialization, and thus, it seems relevant to Akers (1985) social learning theory. Gender socialization is the idea that from a very early age, males and females are socialized differently and are taught differently about appropriate and inappropriate behaviors. For instance, girls are told that physical aggression and violence are not feminine, and thus, are inappropriate behaviors. Moreover, these lessons are reinforced by the responses of others to the actual behaviors as the child grows up, and they are emphasized by customs and social rewards assigned to the behaviors, which is relevant to the *differential reinforcement* component of Akers's

(1985) social learning theory. Furthermore, these lessons and reinforcements affect the beliefs, attitudes, and actual behaviors we choose to perform, which is relevant to the *definitions* component of Akers's (1985) social learning theory. Additionally, gender socialization might also explain gender differences in the *differential association* component of Akers's (1985) social learning theory, because children tend to form same gender peer groups. This seems to be a tautological argument, but since males are more deviant than females, the higher association with more deviant same-sex peers for males, compared to females, might explain some of the gender differences in deviance. In other words, males are more deviant than females because they are more likely to associate with male peers who are more deviant than with female peers who are less deviant. On the same token, it could be said that females are less deviant than males because they are more likely to associate with female peers who are less deviant than with male peers who are more deviant. In support of this, Giordano (1978), for instance, finds that girls who associate with boys are significantly more likely to be delinquent than girls who associate with girls. Thus, in addition to the deviance of peers, the gender of the peers with whom youths associate, is also an important factor to examine. Gender socialization might explain the narrowing of the gender gap for some offenses (especially the minor crimes) in recent years, perhaps because children today are raised by more egalitarian parents who socialize their children similarly regardless of their gender, echoing the argument by power-control theory (see Hagan, Gills, and Simpson 1985). The power-control theory is sometimes considered a control theory perspective, but it should more accurately be considered an integrated theory of deviance, because of the theory's inconsistency in human nature assumptions (see

Chapter Two and Appendix A of this dissertation for more detail about human nature). In support of power-control theory, some studies indicate that the narrowing of the gender gap in crime and deviance is more pronounced among younger generations than older generations in the U.S (Steffensmeier and Allan 1996). However, such a finding is still confounded by possible changes in the criminal justice policy and in the way the criminal justice system operates in the U.S. Simply put, the gender socialization explanation suggests the significantly higher levels of all measures from Akers's (1985) social learning theory among males, compared to females, which then explain why males are more deviant than females. This study found no country differences in terms of *independent* and *interdependent self-concepts*, used in this study to capture "gender" differences. However, based on past studies that show Japan to be more traditional (in terms of gender) and the U.S. to be more egalitarian, we should expect the gender gap in measures of social learning to be wider in Japan than in the U.S. Furthermore, if this expectation about social learning measures is true, this should then explain why there is a wider gender gap in *general deviance* in Japan, compared to the U.S.

The fourth type of explanation for the gender gap in deviance focuses on gendered social control, relevant to Hirschi's (1969) social control theory. Gendered social control explanations come in two major types. The first type focuses on gender differences in *direct control*. According to this explanation, females are subjected to a higher level of direct parental supervision and perhaps also state supervision (if chivalry is in effect) than are males. Thus, males are overall subjected to lower levels surveillance, apprehension, or sanctions against their deviant behaviors than females, which explains the higher levels of deviance among males than females. This type of

explanation actually does not indicate anything about gender differences in criminality, but emphasizes gender differences in the amount of external control and opportunity for deviance. The social control explanation of gender differences in deviance might even assume that there is no gender differences in criminality, or perhaps we need to refer to self-control theory (Gottfredson and Hirschi 1990) along with social control theory (Hirschi 1996), in order to explain gender differences in criminality. According to the social control explanation, a gender gap in deviance results because of a higher level of *direct control* experienced by females compared to males, which decreases the *opportunity* for deviance for females compared to males, and thus, females are less likely to engage in deviance than males. The second type of social control focuses on *indirect social control* in terms of an individual's stake in conformity, which is related to Hirschi's (1969) commitment element of social bonds. According to this type of explanation, social sanctions for deviance are more costly for females compared to the social sanctions for deviance experienced by males, thus making females less free to deviate than males. This explanation seems to also be related to the gender socialization explanation, because gender differences in "social sanctions" experienced by individuals are learned though gender socialization. According to the gendered indirect social control explanation, if many deviant behaviors are considered masculine, engaging in such deviant behaviors results in a violation of gender roles for females but not for males, resulting in stronger social sanctions for females compared to males. So for instance, if sexual promiscuity is considered a behavior that violates a social norm for what females should be like, then engaging in that behavior might result in stronger social sanctions for females than for males, which can explain why there are higher

arrest rates over sexual crimes for males than for females (other than prostitution). In addition, this type of explanation could explain why there is a wider gender gap in deviance for more serious and dangerous crimes, if such behaviors are considered less feminine and more masculine, compared to less serious and dangerous deviance. The gender social control explanation, thus, suggests significantly higher levels of all elements of Hirschi's (1969) social control among females, compared to males, especially for supervision and commitment elements, which then explain why females are less deviant than males. In this dissertation, I examine the effects of both gender and culture (between the Japanese and Americans), and their possible interaction effects, on the theoretical variables from both Hirschi's (1969) social control and Akers's (1985) social learning theories.

Hirschi's (1969) Social Control Theory

First, in order to examine the gender differences in measures from Hirschi's (1969) social control theory, each of the measures from this theory is regressed on gender, *age*, *SES*, and family structure separately for the Japanese and Americans. The results for three components of attachment to parents as the dependent variables are shown in Table 5.6 for the Japanese and Table 5.7 for Americans. Only the significant models are reported in the tables. Tables 5.6 and 5.7 show that in both countries, as expected, males overall have significantly lower levels of attachment to parents than females. However, interestingly, and contrary to the expectation based on gender differences in direct social control, for the American sample, there is no significant gender difference in terms of the results' perceived *parental supervision*. Among the Japanese sample, on

the other hand, consistent with the expectation, males report a significantly lower level of *parental supervision* than females.

Table 5.6. OLS Regression Analyses with *Hirschi's (1969) Attachment to Parents Measures* Regressed on Gender and Control Variables for the Japanese Sample, *n* =433.

	Affectional Identification				Parental Supervision			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-3.094		5.044		1.195		2.91	
Male	-1.184	***	0.361	-0.155	-0.645	***	0.209	-0.147
Age	0.033		0.256	0.006	-0.051		0.148	-0.016
SES (1=high)	0.833	**	0.351	0.113	0.246		0.202	0.058
Two-parent home	0.776		0.781	0.047	-0.552		0.451	-0.059
Adjusted R^2	0.032				0.013			
Model *p*	0.001				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Table 5.7. OLS Regression Analyses with *Hirschi's (1969) Attachment to Parents Measures* Regressed on Gender, Control Variables, and Two Cultural Variability Measures for the Japanese Sample, *n* =433.

	Affectional Identification				Parental Supervision			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-4.012		5.066		0.137		2.898	
Male	-1.163	***	0.361	-0.153	-0.622	**	0.206	-0.142
Age	0.085		0.257	0.016	-0.005		0.147	-0.001
SES (1=high)	0.811	*	0.350	0.110	0.232		0.200	0.055
Two-parent home	0.712		0.780	0.043	-0.575		0.446	-0.061
Individualism	-0.024		0.023	-0.049	-0.045	***	0.013	-0.161
Collectivism	0.043	*	0.025	0.082	-0.007		0.014	-0.023
Adjusted R^2	0.037				0.042			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Table 5.8. OLS Regression Analyses with *Hirschi's (1969) Attachment to Parents Measures* Regressed on Gender and Control Variables for the Americans, *n* =369.

	Affectional Identification				Intimacy of Communication				Parental Supervision			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	5.922		3.13		7.864	***	1.609		3.047	**	1.264	
Male	-0.755	*	0.374	-0.106	-0.358	*	0.192	-0.099	0.096		0.151	0.033
Age	-0.237		0.155	-0.081	-0.013		0.080	-0.009	-0.162	**	0.062	-0.135
SES (1=high)	-0.014		0.389	-0.002	0.166		0.200	0.043	-0.049		0.157	-0.016
Two-parent home	1.633	**	0.512	0.166	0.690	**	0.263	0.138	0.977	***	0.207	0.242
Adjusted R^2	0.047				0.024				0.075			
Model *p*	0.000				0.012				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 5.9. OLS Regression Analyses with *Hirschi's (1969) Attachment to Parents Measures* Regressed on Gender, Control Variables, and Two Cultural Variability Measures for the American Samples, *n* =369.

	Affectional Identification				Intimacy of Communication				Parental Supervision			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	5.773	*	3.081		7.790	***	1.586		3.051	**	1.261	
Male	-0.725	*	0.368	-0.102	-0.344	*	0.189	-0.095	0.096		0.151	0.033
Age	-0.252	*	0.152	-0.086	-0.021		0.078	-0.014	-0.165	**	0.062	-0.138
SES (1=high)	0.025		0.384	0.003	0.185		0.198	0.048	-0.053		0.157	-0.017
Two-parent home	1.592	**	0.504	0.161	0.670	**	0.259	0.134	0.965	***	0.206	0.239
Individualism	0.035		0.028	0.065	0.018		0.014	0.064	-0.002		0.011	-0.010
Collectivism	0.087	***	0.027	0.164	0.043	**	0.014	0.159	0.023	*	0.011	0.105
Adjusted R^2	0.078				0.053				0.081			
Model *p*	0.000				0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

This country difference in *parental supervision* by gender might reflect a higher egalitarianism in the U.S. compared to Japan. To examine this, the two I-C measures are included in the equation with attachment to parents measures as the dependent variable for each country. Table 5.7 shows that for the Japanese sample, even controlling for both *interdependent* and *independent self-concept*, the effect of gender remains significant for both modes with *affectional identification* and *parental supervision* as the dependent variable. Only a small portion of the effects of gender on these two measures of attachment to parents are explained by the two cultural variability measures. Furthermore, as predicted in the previous chapter, for the Japanese sample, while *interdependent self-concept* has a significant and positive effect on *affectional identification*, *independent self-concept* has a significant and negative effect on *parental supervision*. Table 5.9 shows the results for the American sample, which indicates that gender has significant direct effects on all three measures of attachment to parents, except for *parental supervision*, controlling for both *independent* and *interdependent self-concepts*. Furthermore, only small proportions of the effects of gender on the three measures attachment to parents are explained by *independent* and *interdependent self-concepts* for the American sample, too. For the American sample, *interdependent self-concept* has significant positive effects on all three measures of attachment to parents.

Next, in order to examine the significant cultural differences in terms of the effects of gender on the three measures of attachment to parents, an interaction term for *Japan* and *male* is entered into an OLS regression equation for a combined sample with each of the three measures of attachment to parents as the dependent variable. As

expected from the results shown for each sample separately, the interaction term was significant only for *parental supervision*. Table 5.10 shows that while the effect of

Table 5.10. OLS Regression Analyses with Hirschi's (1969) *Parental Supervision* Regressed on Nationality, Gender, Control Variables, an Interaction Term, and Two Cultural Variability Measures for the Combined Samples, *n* =801.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	2.845	*	1.332		2.766	*	1.328	
Japan	-0.913	***	0.197	-0.243	-1.064	***	0.217	-0.283
Male	0.037		0.186	0.010	0.016		0.186	0.004
Japan × Male	-0.687	**	0.262	-0.178	-0.652	**	0.261	-0.169
Age	-0.137	*	0.066	-0.070	-0.128	*	0.066	-0.065
SES (1=high)	0.118		0.131	0.029	0.100		0.131	0.025
Two-parent home	0.535	**	0.216	0.084	0.525	**	0.215	0.082
Independent self-concept					-0.024	**	0.009	-0.101
Interdependent self-concept					0.008		0.009	0.033
Adjusted R^2	0.143				0.149			
Model *p*	0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

male is not significant, the interaction term for *Japan* and *male* is significant and negative, indicating that there is a significant country difference in terms of the effect of gender on *parental supervision*. More specifically, this finding confirms the results shown in the previous two tables, that while there is no significant gender difference in *parental supervision* for the American sample, there is a significant gender difference in *parental supervision* for the Japanese sample, such that Japanese males have a significantly lower level of *parental supervision* than Japanese females. The findings are identical even after controlling for *independent self-concept* and *interdependent self-concept*. This finding is inconsistent with the findings from previous section in terms of

gender gap in *general deviance*, however, which showed that the gender differences in *general deviance* are much larger for the American sample than for the Japanese sample.

In the next several tables, results of the OLS regression analyses with three types of attachment regressed on gender and control variables are shown, including the universal scale of *attachment to parents* (a combination of the three measures of attachment to parents), *attachment to peers*, and *attachment to school*. For the Japanese sample (shown in Table 5.11), only the models with *attachment to parents* as the dependent variable reached significance, so the results for *attachment to peers* and *attachment to school* as the dependent variables for the Japanese sample are not reported in the table. Consistent with previous results with three measures of attachment to parents shown separately, Japanese males overall report a significantly lower level of *attachment to parents* than Japanese females. *Independent self-concept*

Table 5.11. OLS Regression Analyses with Hirschi's (1969) *Attachment to Parents* Regressed on Gender and Control Variables for the Japanese Sample, *n* =433.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-2.273		3.022		-3.144		3.029	
Male	-0.798	***	0.217	-0.174	-0.779	***	0.216	-0.170
Age	0.064		0.153	0.020	0.107		0.154	0.033
SES (1=high)	0.498	**	0.210	0.113	0.483	*	0.209	0.109
Two-parent home	-0.057		0.468	-0.006	-0.094		0.466	-0.009
Independent self-conept					-0.031	*	0.014	-0.106
Interdependent self-concept					0.041		0.015	0.046
Adjusted R^2	0.037				0.046			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Table 5.12. OLS Regression Analyses with Three Types of Hirschi's (1969) *Attachment Element* Regressed on Gender and Control Variables for the American Sample, *n* =369.

	Attachment to Parents				Attachment to Parents				Attachment to Peers				Attachment to School			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	3.55	*	1.607		3.485	*	1.576		-0.164		1.333		-0.079		0.438	
Male	-0.281		0.192	-0.075	-0.268		0.188	-0.072	-0.400	**	0.159	-0.132	-0.003		0.052	-0.003
Age	-0.150	*	0.079	-0.098	-0.158	*	0.078	-0.103	0.051		0.066	0.041	0.028		0.022	0.070
SES (1=high)	0.040		0.200	0.010	0.055		0.196	0.014	0.275	*	0.166	0.085	0.056		0.055	0.053
Two-parent home	1.204	***	0.263	0.234	1.179	***	0.258	0.229	0.114		0.218	0.027	0.040		0.072	0.029
Independent self-concept					0.015		0.014	52.000	0.004		0.012	0.018	0.001		0.004	0.016
Interdependent self-concept					0.051	***	0.014	0.185	0.037	**	0.12	0.165	0.014	***	0.004	0.194
Adjusted R^2	0.076				0.112				0.038				0.032			
Model *p*	0.000				0.000				0.000				0.007			

* p <0.05; ** p <0.01; *** p <0.001.

also has a significant negative effect on *attachment to parents*. Similarity for the American sample (Shown in Table 5.12), neither of the models with *attachment to peers* and *attachment to school* as the dependent variables (without the two cultural variability measures) do not reach significance. In addition, as predicted from previous regression analyses, there is no gender difference for the American sample in terms of *attachment to parents*. For the American sample, on the contrary, males report a significantly lower level of *attachment to peers*. This finding is consistent with what is expected from the theory, but inconsistent with the findings from the previous chapter that *attachment to peers* has a significant positive effect on deviant behaviors. Next, with the three attachment measures as the dependent variable, I entered an interaction term for *Japan* and *male* to examine the differences in the effect of gender on the three types of attachment by country—one without the two cultural variation measures and one with two cultural variation measures. None of the interaction terms were significant, indicating that there is no country difference in terms of the effects of gender on the three types of attachment.

Next, in the next two tables, the remaining three elements of social bonds (including *commitment*, *involvement*, and *belief*) are regressed on gender, *Age*, *SES*, family structure, and two cultural variability measures separately for the Japanese sample (shown in Table 5.13) and the American sample (shown in Table 5.14). Only the significant models are reported in the tables. As expected from the gender gap in deviance, Table 5.13 shows that Japanese males have significantly lower levels of *commitment* and *belief* compared to Japanese females, even after controlling for *independent* and *interdependent self-concepts*. However, there was no gender

Table 5.13. OLS Regression Analyses with Hirschi's (1969) *Commitment, Belief, and Involvement* Regressed on Gender and Control Variables for the Japanese Sample, *n* =433.

	Commitment				Commitment				Belief				Belief				Involvement			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	7.912	*	3.544		8.513	**	3.46		6.041		3.682		5.672		3.69		-20.031		18.881	
Male	-0.787	**	0.254	-0.147	-0.798	***	0.246	-0.149	-0.725	**	0.264	-0.132	-0.716	**	0.263	-0.130	0.294		1.345	0.010
Age	-0.380	*	0.180	-0.101	-0.388	*	0.175	-0.103	-0.274		0.187	-0.071	-0.247		0.187	-0.063	1.998	*	0.957	0.100
SES (1=high)	-0.416	*	0.246	-0.080	-0.423	*	0.239	-0.082	0.004		0.256	0.001	-0.010		0.255	-0.002	1.510		1.304	0.055
Two-parent home	-0.797		0.546	-0.069	-0.851		0.533	-0.073	-0.246		0.570	-0.021	-0.296		0.568	-0.025	-2.083		2.907	-0.034
Independent self-concept					0.048	**	0.016	0.140					-0.002		0.017	-0.004	0.253	**	0.086	0.141
Interdependent self-concept					0.077	***	0.017	0.213					0.044	**	0.018	0.117	-0.071		0.091	-0.037
Adjusted R^2	0.035				0.093				0.014				0.023				0.027			
Model *p*	0.000				0.000				0.041				0.007				0.007			

* p <0.05; ** p <0.01; *** p <0.001.

Table 5.14. OLS Regression Analyses with Hirschi's (1969) *Commitment, Belief, and Involvement* Regressed on Gender and Control Variables for the American Sample, *n* =369.

	Commitment				Commitment				Belief				Belief			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	6.128	***	1.316		6.065	***	1.299		1.505		2.822		1.448		2.775	
Male	-0.362	*	0.157	-0.120	-0.350	*	0.155	-0.166	-1.710	***	0.337	-0.264	-1.697	***	0.331	-0.262
Age	-0.239	***	0.065	-0.193	-0.245	***	0.064	-0.198	-0.039		0.139	-0.015	-0.052		0.137	-0.020
SES (1=high)	-0.177		0.163	-0.055	-0.160		0.162	-0.050	0.362		0.351	0.052	0.370		0.346	0.054
Two-parent home	0.077		0.215	0.019	0.062		0.212	0.015	-0.273		0.462	-0.030	-0.317		0.454	-0.035
Independent self-concept					15.000		0.012	0.067					0.011		0.025	0.022
Interdependent self-concept					0.033	**	0.011	0.146					0.090	***	0.024	0.186
Adjusted R^2	0.055				0.080				0.061				0.093			
Model *p*	0.000				0.000				0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

difference for the Japanese in terms of *involvement*. Likewise, Table 5.14 shows that American males have significantly lower levels of both c*ommitment* and *belief* than American females, even after controlling for *independent* and *interdependent self-concepts*. In addition, for both the Japanese and American samples, *interdependent self-concept* has significant positive effects on *commitment* and *belief*. Next, the two samples are combined once again, and *commitment*, *belief*, and *involvement* are regressed with the interaction term for *Japan* and *male*. Only the interaction term included in the models with *belief* as the dependent variable is significant and it is positive, indicating that while for both the Japanese and American samples, males have a significantly lower level of *belief* than females, the gender gap in *belief* is wider in the U.S. compared to in Japan.

Table 5.15. OLS Regression Analyses with Hirschi's *Commitment*, *Belief*, and *Involvement* Regressed on Nationality, Gender, Control Variables, and a Gender and Culture Interaction Term for the Combined Samples, *n* =801 (one-tailed significance test in parenthesis).

	Belief				Belief			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	2.977		2.141		2.751		2.117	
Japan	-0.244		0.316	-0.043	0.209		0.345	0.036
Male	-1.666	***	0.299	-0.288	-1.664	***	0.296	-0.288
Japan × Male	0.942	*	0.421	0.161	0.951	*	0.417	0.162
Age	-0.107		0.107	-0.036	-0.106		0.106	-0.035
SES (1=high)	0.149		0.211	0.025	0.143		0.209	0.024
Two-parent home	-0.276		0.347	-0.028	-0.318		0.343	-0.033
Independent self-concept					0.005		0.014	0.014
Interdependent self-concept					0.066	***	0.015	0.171
Adjusted R^2	0.042				0.064			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Akers's (1985) Social Learning Theory

Next, country differences in the effect of gender on measures from Akers's (1985) social learning theory are examined. First, *differential association with deviant peers* is regressed on gender, *age*, *SES*, family structure, and both *independent* and *interdependent self-concepts* separately for the Japanese (shown in Table 5.16) and American (shown in Table 5.17) samples. Tables 5.16 and 5.17 show that, as predicted, for both the Japanese and Americans, males have a significantly higher level of *differential association with deviant peers* than females. The significant positive effect of *male* on *differential association* remains, even after controlling for *independent* and *interdependent self-concepts*. Among other variables, only the *interdependent self-concept* measure has a significant effect on *differential association*, and the effect is negative, indicating that the respondents who have a higher level of *interdependent self-concept* have a significantly lower level of *differential association with deviant peers* than the respondents who have a lower level of this self-concept.

Next Table 5.18 shows results for the OLS regression analyses with *differential association with deviant peers* regressed on nationality, gender, control variables, and the interaction term for *Japan* and *male* included. Both models in Table 5.18 (one with and the other without the two cultural variability measures) show that the interaction is significant, indicating that while for both countries, males have a significantly higher level of *differential association with deviant peers* (also shown in the previous two chapters), the gender gap in *differential association* is significantly more wider in the U.S. than in Japan, as the negative interaction term

Table 5.16. OLS Regression Analyses with *Akers's Differential Association* Regressed on Gender and Control Variables for the Japanese Sample, *n* =433.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-13.929		9.015		-12.849		9.034	
Male	3.556	***	0.646	0.256	3.530	***	0.643	0.254
Age	0.509		0.457	0.052	0.432		0.458	0.044
SES (1=high)	0.935		0.627	0.070	0.972		0.624	0.073
Two-parent home	-1.486		1.397	-0.050	-1.359		1.391	-0.045
Independent self-concept					0.011		0.041	0.012
Interdependent self-concept					-0.107	**	0.044	-0.114
Adjusted R^2	0.067				0.076			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Table 5.17. OLS Regression Analyses with *Akers's Differential Association* Regressed on Gender and Control Variables for the American Sample, *n* =369.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-0.131		7.235		-0.481		7.192	
Male	5.489	***	0.864	0.322	5.547	***	0.859	0.326
Age	0.111		0.358	0.016	0.123		0.355	0.018
SES (1=high)	-1.371		0.899	-0.076	-1.237		0.896	-0.068
Two-parent home	-0.851		1.183	-0.036	-0.768		1.176	-0.033
Independent self-concept					0.100		0.065	0.078
Interdependent self-concept					-0.149	**	0.063	-0.118
Adjusted R^2	0.104				0.116			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Table 5.18. OLS Regression Analyses with *Akers's Differential Association* Regressed on Nationality, Gender, Control Variables, Two Cultural Variability Measures, and an Interaction Term for the Combined Samples, *n* =801.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-3.673		5.396		-3.141		5.365	
Japan	-5.118	***	0.797	-0.328	-5.458	***	0.875	-0.35
Male	5.338	***	0.754	0.339	5.384	***	0.750	0.342
Japan × Male	-1.822	*	1.061	-0.114	-1.920	*	1.056	-0.120
Age	0.258		0.259	0.031	0.264		0.268	0.029
SES (1=high)	-0.086		0.532	-0.005	-0.035		0.530	-0.002
Two-parent home	-1.022		0.875	-0.039	-0.935		0.870	-0.035
Independent self-concept					0.049		0.036	0.050
Interdependent self-concept					-0.122	***	0.037	-0.115
Adjusted R^2	0.182				0.193			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

indicates. This result is consistent with the finding from the previous section that the gender gap in *general deviance* is significantly wider for the American sample than for the Japanese sample. Among other variables, Table 5.18 also shows that, as found in the analysis conducted separately by country, *interdependent self-concept* has a significant negative effect on *differential association with deviant peers*.

Next, both *general* and *specific definitions* measures are regressed on gender, *age*, *SES*, family structure, and two cultural variability measures separately for the Japanese (shown in Table 5.19) and American (shown in Table 5.20) samples. Tables 5.19 and 5.20 show that for both the Japanese and American respondents, males have a significantly higher level of both *general definitions* f*avoring deviance* than females, even after controlling for both of the cultural variability measures.

Table 5.19. OLS Regression Analyses with *Akers's Two Types of Definitions* Regressed on Gender, Control Variables, and Two Cultural Variability Measures for the Japanese Sample, *n* =433.

	General Definition				General Definition				Specific Definition			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	0.779		3.76		2.003		3.713		-15.799		9.624	
Male	0.939	***	0.269	0.166	0.911	***	0.264	0.161	0.254		0.685	0.017
Age	-0.080		0.191	-0.020	-0.154		0.188	-0.039	0.684		0.488	0.066
SES (1=high)	0.187		0.261	0.034	0.219		0.256	0.040	-0.652		0.665	-0.046
Two-parent home	-0.102		0.583	-0.008	-0.004		0.572	0.000	1.771		1.482	0.056
Independent self-concept					0.028		0.017	0.076	0.003		0.044	0.004
Interdependent self-concept					-0.072	***	0.018	-0.187	-0.236	***	0.047	-0.238
Adjusted R^2	0.019				0.057				0.054			
Model *p*	0.015				0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Table 5.20. OLS Regression Analyses with *Akers's Two Types of Definitions* Regressed on Gender, Control Variables, and Two Cultural Variability Measures for the American Sample, *n* =369.

	General Definition				General Definition			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-4.722	*	2.496		-4.767	*	2.487	
Male	1.599	***	0.298	0.275	1.605	***	0.297	0.276
Age	0.201		0.123	0.085	0.207	*	0.123	0.087
SES (1=high)	-0.350		0.310	-0.057	-0.329		0.310	-0.053
Two-parent home	0.510		0.408	0.064	0.536		0.407	0.067
dependent self-concept					0.014		0.022	0.033
rdependent self-concept					-0.049	*	0.022	-0.115
Adjusted R^2	0.082				0.090			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Additionally, like *differential association*, *interdependent self-concept* has a significant negative effect on *general definitions* for both samples. On the other hand, the model with *specific definition* as the dependent variable without the two cultural variability measures is not significant for either sample (and therefore not reported in the tables). For the Japanese sample, gender has no significant effect on *specific definitions*, controlling for the two types of cultural variability measures; and for the Japanese sample, *interdependent self-concept* has a significant negative effect on *specific definitions*.

In Table 5.21, the results of the regression equation with the two types of definitions as the dependent variable and the interaction term for *Japan* and *male* are shown. Only the models with a significant interaction term are shown in the table. Similar to the findings for *differential association*, Table 5.21 shows that the

interaction term is significant and negative when the dependent variable is *general definitions*, indicating that for both countries, males have a significantly higher level of *general definition favoring deviance* than females, and that the gender gap in *general definitions* is wider for the American sample than the Japanese sample. However, the models with *specific definitions* as the dependent variable fail to reach significance. Table 5.21 also shows that while *independent self-concept* has a significant positive effect on *general definitions*, *interdependent self-concept* has a significant negative effect on *general definitions*.

Table 5.21. OLS Regression Analyses with *Akers's Two Types of Definitions* Regressed on Nationality, Gender, Control Variables, Two Types of Cultural Variability Measures, and an Interaction Term for the Combined Samples, *n* =801.

	General Definitions				General Definitions			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-3.442	*	2.027		-3.178		2.003	
Japan	-0.155		0.299	-0.028	-0.343		0.327	-0.063
Male	1.601	***	0.283	0.291	1.623	***	0.280	0.295
Japan × Male	-0.682	*	0.398	-0.122	-0.729	*	0.394	-0.131
Age	0.135		0.101	0.047	0.124		0.100	0.043
SES (1=high)	-0.079		0.200	-0.014	-0.055		0.198	-0.010
Two-parent home	0.315		0.329	0.034	0.359		0.325	0.039
Independent self-concept					0.023	*	0.014	0.066
Interdependent self-concept					-0.061	***	0.014	-0.167
Adjusted R^2	0.051				0.074			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

For the last set of analyses in this section, the two types of *differential reinforcement* measures are regressed as dependent variables, separately for the Japanese respondents (shown in Table 5.22) and for the American respondents

Table 5.22. OLS Regression Analyses with Two Types of *Akers's Differential Reinforcement* Regressed on Gender, Control Variables, and Two Types of Cultural Variability Measures for the Japanese Sample, *n* =433.

	Peers' Differential Reinforcement				Peers' Differential Reinforcement			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-9.963		8.284		-8.253		8.300	
Male	1.946	***	0.594	0.156	1.910	***	0.591	0.153
Age	0.378		0.420	0.043	0.314		0.421	0.036
SES (1=high)	0.680		0.576	0.057	0.694		0.573	0.058
Two-parent home	-0.252		1.283	-0.009	-0.251		1.278	-0.009
Independent self-concept					0.084	*	0.038	0.106
Interdependent self-concept					0.050		0.040	0.059
Adjusted R^2	0.020				0.030			
Model *p*	0.012				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Table 5.23. OLS Regression Analyses with Two Types of *Akers's Differential Reinforcement* Regressed on Gender, Control Variables, and Two Types of Cultural Variability Measures for the American Sample, *n* =369.

	Peers' Differential Reinforcement				Peers' Differential Reinforcement			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-4.844		7.118		-5.048		7.128	
Male	3.683	***	0.849	0.227	3.718	***	0.851	0.229
Age	0.188		0.352	0.028	0.191		0.352	0.029
SES (1=high)	-1.149		0.884	-0.066	-1.074		0.888	-0.062
Two-parent home	1.873		1.164	0.083	1.907		1.165	0.085
Independent self-concept					0.057		0.064	0.046
Interdependent self-concept					-0.059		0.063	-0.049
Adjusted R^2	0.049				0.047			
Model *p*	0.012				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

(shown in Table 5.23). For both samples, only the models with *peers' deviant reinforcement* as the dependent variable are significant, so the models with *parents' deviant reinforcement* are not reported in the tables. Tables show that for both samples, males have a significantly higher level of *peers' deviance reinforcement* than females, even after controlling for two cultural variability measures. In addition, for the Japanese sample, *independent self-concept* has a significant positive effect on *peers' deviance reinforcement*.

Finally, with the two types of *differential reinforcement* as the dependent variable, the interaction term for *Japan* and *male* is entered into regression analysis for the combined samples to examine country variations on the effects of gender on these two types of *differential reinforcement* measures, shown in Table 5.24. While as expected, the interaction term is not significant when *parents' deviant*

Table 5.24. OLS Regression Analyses with Two Types of *Akers's Differential Reinforcement* Regressed on Gender, Control Variables, Two Types of Cultural Variability Measures, and an Interaction Term for the Combined Samples, *n* =801.

	Peers' Differential Reinforcement			
	b		*S.E.*	*β*
Constant	-6.227		5.163	
Japan	-1.602	*	0.842	-0.115
Male	3.604	***	0.722	0.256
Japan × Male	-1.734	*	1.016	-0.121
Age	0.235		0.258	0.032
SES (1=high)	-0.094		0.510	-0.006
Two-parent home	1.272		0.837	0.054
Independent self-concept	0.070	*	0.035	0.079
Interdependent self-concept	-0.002		0.036	-0.002
Adjusted R^2	0.063			
Model *p*	0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

reinforcement is the dependent variable, the interaction term is significant in the model with *peers' deviant reinforcement* as the dependent variable and includes the two cultural variability measures, and the value is negative, indicating that while for both samples, males have a significantly higher level of *peers' deviance reinforcement*, the gender gap in this variable is wider in the U.S. than in Japan.

Applying Theories to Assess Cultural and Gender Variations in Deviance

As noted previously, Gottfredson and Hirschi (1990) argue that traditional theories of deviance, including Hirschi's (1969) social control and Akers's (1985) social learning theories, often fail to explain fully in empirical studies the effect of gender on deviance. In other words, though traditional theories of deviance are generally applicable in explaining the deviant behaviors of females (Smith and Paternoster 1987), the direct effect of gender tends to remain significant after all theoretical variables are included in the equation. Perhaps, as some scholars argue, this is evidence that criminology needs to develop gender specific theories to explain female deviance, rather than applying to females theories that were originally developed to explain male deviance. Two of the five major explanations for the gender gap in deviance that are relevant to Hirschi's (1969) social control and Akers's (1985) social learning theories are discussed in the previous sections, namely gender socialization (pertains to Akers's social learning theory) and gender social control (pertains to Hirschi's social control theory). The last section of this chapter pertains to the application of the two leading theories of deviance as explanations of not only the gender gap, but the intersection of gender and cultural gap in deviance.

In the previous chapter, the results of the OLS regression analyses indicate that for both the Japanese and American samples, males are significantly more likely to engage in a significantly higher level of all three types of deviance than females. In the previous chapter, moreover, results of the OLS regression analyses also indicate that Americans are significantly more likely to engage in a significantly higher level of *general deviance* than the Japanese, while the Japanese are significantly more likely to engage in a significantly higher level of *academic misconduct* than Americans. In addition, the Japanese engage in a significantly higher level of *academic underachievement* than Americans. Furthermore, in the previous section, the results of the OLS regression analyses show that the gender gap in *general deviance*, measured in terms of both *prevalence* and *frequency*, is significantly wider in the U.S. compared to in Japan, while the gender gap in *academic underachievement* measured in terms of both *prevalence* and *frequency* is significantly wider in Japan compared to in the U.S.

Then in the last section, gender and cultural variation in theoretical measures from both Hirschi's (1969) social control and Akers's (1985) social learning theories are examined. When examined separately by country, the results of the OLS regression in the previous section show that, consistent with the two explanations of gender gap in deviance, Japanese males report a significantly lower level of parental supervision than Japanese females; however, there were no gender difference for the American sample in terms of parental supervision. This produced a significant country variation in terms of the effect of gender on parental supervision, which might explain why the gender gap in *general deviance* is significantly wider in the U.S. than in Japan. All other regression models that reach significance with attachment to parents measures as the dependent

variable show expected positive effects for *male* for both Japan and the U.S. However, the interaction term for *Japan* and *male* is significant only in the model with *parental supervision* is the dependent variable. For both the Japanese and American samples, as expected, males have significantly lower levels of all other elements of social bonds (i.e., *belief* and *commitment*) than females, except for *involvement* for the Japanese respondents. Moreover, the interaction term for *Japan* and *male* is significant and positive when *belief* is the dependent variable, indicating that though males have a significantly lower level of *belief* than females for both countries, the gender gap is significantly wider in Japan than in the U.S. This finding is inconsistent with the finding for *parental supervision* discussed previously. On the other hand, in terms of Akers's (1985) social learning theory, the results of the OLS regression analysis from the previous section show that among the significant models, males have significantly higher level of all of the social learning measures for both countries, including *differential association*, *general definitions favoring deviance*, and *peers' deviance reinforcement*. The results are consistent with the gender socialization explanation of the gender gap in deviance. In addition, when country difference in the effect of gender on each of the social learning measures is examined, the results of models with the interaction term for *Japan* and *male* show that the significant interaction term is significant and negative for all models with *differential association*, *general definitions*, and *peers' deviance reinforcement* are the dependent variable. The negative interaction terms in each model indicate that though males have significantly higher levels of *differential association*, *general definitions*, and *peers' deviance reinforcement* than females in both countries, the gender gap in these three social learning measures are

significantly wider in the U.S. compared to Japan. The results are consistent with the fact that there is a significantly wider gender gap in *general deviance* for the American sample compared to the Japanese sample. In the remaining section, I review the extant studies that apply Hirschi's (1969) social control and Akers's (1985) social learning theories to explain gender differences in deviance. Then, this section concludes with an examination of the effect of the intersection of gender and culture on the relationship between the measures from the two theories on two types of deviant behaviors.

Naffine (1987) argues that control theories are especially suited to explaining female deviance because they focus on confirming behaviors rather than deviant behaviors. However, Hirschi's (1969) social control theory in particular has been criticized strongly for the lack of female respondents in his original research (see for instance the critique by Messerschmidt 1993). In recent years, recognizing the structural effect of gender (Risman 1998, West and Zimmerman 1987), scholars argue that males and females differ not only in term of the social controls they experience, but also in terms of family process and the types of social bonds that they develop (e.g., Chapple et al. 2005, Hagan et al. 1987, McCarthy et al. 1999, Heimer and DeCoster 1999, Ogle et al. 1995). Overall, however, past empirical research generally find that social bonds are applicable in explaining deviance of both males and females (see review, Chapple 2005). Additionally, most studies also find that the theory is equally applicable in explaining the deviance of males and females. In addition, some studies also find that types of social bonds are similar for males and females (Canter 1982). Furthermore, some studies found that some of the elements of social bonds have stronger inhibitive effects on deviance for females compared to males (e.g., Friedman

and Rosenbaum 1988 for commitment, Seydlitz 1991 for attachment). There are, however, other studies that found inconsistent results in terms of the gender difference in the effect of social bonds on deviance (see review Chapple et al. 2005)—for instance, some studies found that Hirschi's (1969) social bond theory is more applicable in explaining male deviance than female deviance (e.g., Cernkovich and Giordano 1987, Hinderland 1973), while other studies found the theory explains female deviance better than male deviance 9e.g., Friedman and Rosenbbaum 1998). The problem with the empirical status of Hirschi's (1969) social control theory is that, as discussed by Naffine (1987), studies tend to measure social bonds using measures that are not comparable across studies and often times studies do not include a complete set of social bonds.

Because of the importance of social interaction for Akers's (1985) social learning theory, the reactions of an intimate group play an important role in the context of differential reinforcement. For this reason, Warr (2002) posits that a social learning theory emphasizing the social interactions of individuals might be the key to explaining gender differences in crime, and past studies show considerable evidence for his assertion. For instance, Simons, Miller, and Aigner (1980) found that males are more likely to have peers who hold favorable attitudes toward delinquency than females, and that this difference might explain the higher level of delinquency among males. Johnson (1979) found that although the effect of association with delinquent peers was the most important variable predicting male and female delinquency, the effect was stronger for male delinquency than for female delinquency. Smith and Paternoster (1987) likewise found that the effect of association with deviant peers had a stronger effect on marijuana use among males than on marijuana use among females. However,

other studies are mixed. For instance, while some studies (Simons, Miller, and Aigner 1980) found no difference in the effect of peers' deviance by gender, others (Kandel 1974; Margulies, Kessler, and Kandel 1977) found a stronger effect for parental and peer drug use on female drug use than on male drug use. Overall, past studies suggest that the relationship between social learning measures and deviance for males and females is fairly complex. Giordano (1978) indicates the importance of considering the gender of peers in examining its effect on deviance because she found that girls who associate with boys are significantly more likely to be delinquent than girls who associate with girls. Also, Stevensson (2003) found an interaction between differential association and parental supervision on delinquency, such that the effect of exposure to delinquent peers was stronger for female drug use than male drug use when parental supervision was low. Heimer and De Coster (1999) found that adherence to traditional gender roles reduced engagement in violent delinquency among females, but had no effect on males. In more recent studies, both Mears, Ploeger, and Warr (1998) and Piquero, Gover, MacDonald, and Piquero (2005) found that the effect of peers' deviance is not the same for males and females, such that they found that the effect of association with delinquent peers is a stronger predictor for male delinquency than for female delinquency. As argued by Warr (2002), because social learning theory focuses on the social interactions of individuals, it has been used extensively in the past to test gender differences in crime. However, the overall results seem to be mixed. As noted by Smith and Paternoster (1987), while some studies found a much stronger effect for friends' deviance on males than females, others found the opposite, and yet others found no difference in the effect of friends' deviance on deviance by gender.

General Deviance

The analysis of this section begins with the OLS regression analyses examining the effects of theoretical variables on three types of deviant behaviors conducted separately for the Japanese and American samples. First, *general deviance frequency* is regressed

Table 5.25. OLS Regression Analyses with *General Deviance Frequency* Regressed on Gender, Control Variables, Hirschi's (1969) Social Control Variables, and Two Types of Cultural Variability Measures for the Japanese Sample, *n* =433.

	Model 1			Model 2		
	b	*S.E.*	*β*	*b*	*S.E.*	*β*
Constant	-14.489 *	6.353		-12.272 *	6.377	
Male	2.489 ***	0.459	0.241	2.468 ***	0.457	0.239
Age	0.645 *	0.322	0.089	0.553 *	0.322	0.076
SES (1=high)	-0.002	0.438	0.000	0.015	0.435	0.001
Two-parent home	-1.218	0.969	-0.055	-1.156	0.965	-0.052
Affectional identification	0.127 *	0.073	0.094	0.138 *	0.073	0.102
Intimacy of communication	-0.172	0.113	-0.079	-0.181	0.113	-0.083
Parental supervision	-0.283 **	0.107	-0.120	-0.238 *	0.108	-0.101
Attachment to school	0.245	0.155	0.069	0.259	0.161	0.073
Attachment to peers	0.228	0.451	0.023	0.110	0.455	0.011
Commitment	-0.029	0.087	-0.015	-0.056	0.089	-0.029
Involvement	0.049 ***	0.016	0.138	0.044 **	0.016	0.124
Belief	-0.537 ***	0.084	-0.286	-0.520 ***	0.084	-0.283
Independent self-concept				0.075 **	0.030	0.113
Interdependent self-concept				-0.010	0.033	-0.015
Adjusted R^2	0.204			0.213		
Model *p*	0.000			0.000		

* p <0.05; ** p <0.01; *** p <0.001.

on Hirschi's (1969) social control and Akers's (1985) social learning theories separately for the Japanese and American samples. OLS regression analyses with *general deviance* regressed on Hirschi's (1969) social control measures are shown separately for

the Japanese sample in Table 2.25 and for the American sample in Table 5.26. For both the Japanese sample and American sample, males engage in a significantly higher level of *general deviance* than females, and Hirschi's (1969) social control theory cannot explain away this gender gap completely for either sample, since the effect of gender

Table 5.26. OLS Regression Analyses with *General Deviance Frequency* Regressed on Gender, Control Variables, Hirschi's (1969) Social Control Variables, and Two Types of Cultural Variability Measures for the American Sample, *n* =369.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-11.195	*	5.079		-11.204	*	5.100	
Male	3.308	***	0.591	0.252	3.306	***	0.595	0.252
Age	0.525	*	0.242	0.097	0.527	*	0.243	0.098
SES (1=high)	0.305		0.591	0.022	0.293		0.595	0.021
Two-parent home	0.318		0.804	0.018	0.317		0.806	0.017
Affectional identification	0.012		0.103	0.006	0.012		0.103	0.007
Intimacy of communication	0.042		0.190	0.012	0.044		0.192	0.012
Parental supervision	-0.429	*	0.209	-0.096	-0.430	*	0.210	-0.096
Attachment to school	-0.141		0.187	-0.032	-0.140		0.189	-0.032
Attachment to peers	0.225		0.590	0.017	0.226		0.596	0.017
Commitment	0.115		0.199	0.026	0.118		0.201	0.027
Involvement	0.025		0.016	0.064	0.025		0.016	0.065
Belief	-0.923	***	0.091	-0.456	-0.922	***	0.092	-0.455
Independent self-concept					-0.009		0.043	-0.009
Interdependent self-concept					0.001		0.044	0.001
Adjusted R^2	0.363				0.360			
Model *p*	0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

on *general deviance* remains significant after the measures from this theory are included in the analyses. Contrary to expectations, both *affectional identification with parents* and *involvement* have significant positive effects on *general deviance* for the Japanese

sample. Consistent with expectation, both *parental supervision* and *belief* have significant negative effects on *general deviance* for both samples.

In the next two tables, the results of the OLS regression analyses with *academic misconduct frequency* regressed on Hirschi's (1969) social control measures are shown

Table 5.27. OLS Regression Analyses with *Academic Misconduct Frequency* Regressed on Gender, Control Variables, Hirschi's (1969) Social Control Variables, and Two Types of Cultural Variability Measures for the Japanese Sample, *n* =403.

	Model 1			Model 2		
	b	*S.E.*	*β*	*b*	*S.E.*	*β*
Constant	3.788	5.916		3.061	5.968	
Male	0.737 *	0.427	0.080	0.773 *	0.427	0.084
Age	-0.197	0.300	-0.030	-0.177	0.302	-0.027
SES (1=high)	0.637	0.407	0.072	0.652	0.408	0.073
Two-parent home	-0.741	0.903	-0.037	-0.717	0.903	-0.036
Affectional identification	0.044	0.068	0.037	0.040	0.068	0.033
Intimacy of communication	0.049	0.106	0.025	0.052	0.106	0.027
Parental supervision	-0.287 **	0.099	-0.136	-0.314 **	0.101	-0.149
Attachment to school	-0.082	0.144	-0.026	-0.027	0.151	-0.009
Attachment to peers	0.083	0.420	0.009	0.190	0.425	0.021
Commitment	-0.029	0.081	-0.017	0.002	0.083	0.001
Involvement	0.025 *	0.015	0.078	0.026	0.015	0.082
Belief	-0.554 ***	0.078	-0.332	-0.546 ***	0.078	-0.327
Independent self-concept				-0.031	0.028	-0.052
Interdependent self-concept				-0.036	0.031	-0.058
Adjusted R^2	0.131			0.131		
Model *p*	0.000			0.000		

* p <0.05; ** p <0.01; *** p <0.001.

separately for the Japanese sample (in Table 5.27) and for the American sample (in Table 5.28). For the Japanese sample, while the direct and positive effect of *male* remains significant, even after controlling for social control measures, the direct effect

of *male* on *academic misconduct* disappears for the American sample, once social control measures are included in the regression. For both samples, once again, both *parental supervision* and *belief* have significant negative effects on *academic misconduct*. In addition, for the American sample, *commitment* has a significant

Table 5.28. OLS Regression Analyses with *Academic Misconduct Frequency* Regressed on Gender, Control Variables, Hirschi's (1969) Social Control Variables, and Two Types of Cultural Variability Measures for the American Sample, *n* =369.

	Model 1			Model 2		
	b	*S.E.*	*β*	*b*	*S.E.*	*β*
Constant	-2.428	2.193		-2.443	2.189	
Male	0.090	0.255	0.018	0.076	0.255	0.015
Age	-0.038	0.104	-0.019	-0.034	0.104	-0.017
SES (1=high)	0.614 **	0.255	0.117	0.566 *	0.255	0.108
Two-parent home	0.087	0.347	0.013	0.082	0.346	0.012
Affectional identification	0.071	0.044	0.102	0.073 *	0.044	0.106
Intimacy of communication	0.156	0.082	0.114	0.163 *	0.082	0.120
Parental supervision	-0.298 ***	0.090	-0.176	-0.302 ***	0.090	-0.179
Attachment to school	-0.106	0.081	-0.065	-0.104	0.081	-0.064
Attachment to peers	0.204	0.255	0.041	0.202	0.256	0.040
Commitment	-0.166 **	0.086	-0.101	-0.156 *	0.086	-0.095
Involvement	0.008	0.007	0.059	0.009	0.007	0.066
Belief	-0.259 ***	0.039	-0.340	-0.258 ***	0.039	-0.338
Independent self-concept				-0.038 *	0.018	-0.101
Interdependent self-concept				0.006	0.019	0.015
Adjusted R^2	0.161			0.166		
Model *p*	0.000			0.000		

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

negative effect on *academic misconduct*. This finding is consistent with Hirschi's (1969) social control theory, but contrary to what would be expected by Agnew's (1985) strain theory. In addition, for the American sample, once *independent self-*

concept is included in the analysis, the inhibitive effects of *affectional identification* and *intimacy of communication* on *academic misconduct* become significant.

Next, *academic underachievement* is regressed on Hirschi's social control measures separately for the Japanese sample (shown in Table 5.29) and for the

Table 5.29. OLS Regression Analyses with *Academic Underachievement Frequency* Regressed on Gender, Control Variables, Hirschi's (1969) Social Control Variables, and Two Types of Cultural Variability Measures for the Japanese Sample, *n* =433.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-10.912	*	5.017		-11.345	*	5.065	
Male	1.148	**	0.362	0.143	1.175	***	0.363	0.146
Age	0.540	*	0.254	0.096	0.550	*	0.256	0.097
SES (1=high)	0.856	**	0.346	0.111	0.868	**	0.346	0.112
Two-parent home	-0.014		0.765	0.000	0.009		0.766	0.000
Affectional identification	0.056		0.057	0.053	0.053		0.058	0.051
Intimacy of communication	-0.138		0.090	-0.082	-0.137		0.090	-0.081
Parental supervision	-0.253	**	0.084	-0.138	-0.271	***	0.086	-0.481
Attachment to school	-0.198		0.122	-0.072	-0.155		0.128	-0.056
Attachment to peers	-0.477		0.356	-0.061	-0.402		0.361	-0.052
Commitment	-0.104		0.068	-0.069	-0.081		0.071	-0.054
Involvement	0.054	***	0.012	0.194	0.055	***	0.012	0.197
Belief	-0.270	***	0.066	-0.186	-0.263	***	0.066	-0.181
Independent self-concept					-0.019		0.024	-0.038
Interdependent self-concept					-0.029		0.026	-0.053
Adjusted R^2	0.176				0.176			
Model *p*	0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

American sample (shown in Table 5.30). The results differ quite considerably across samples. Once Hirschi's social control measures are controlled, the effect of gender on *academic underachievement* disappears for the American sample, but the direct effect

of gender on this type of academic deviance remains significant for the Japanese sample. In terms of the measures of Hirschi's social control, the results for the Japanese sample look similar to the ones found for *general deviance* and *academic misconduct* as the dependent variable—both *parental supervision* and *belief* have significant negative

Table 5.30. OLS Regression Analyses with *Academic Underachievement Frequency* Regressed on Gender, Control Variables, Hirschi's (1969) Social Control Variables, and Two Types of Cultural Variability Measures for the American Sample, *n* =369.

	Model 1			Model 2		
	b	*S.E.*	*β*	*b*	*S.E.*	*β*
Constant	0.456	2.728		0.501	2.736	
Male	0.224	0.318	0.037	0.209	0.319	0.034
Age	-0.075	0.130	-0.030	-0.074	0.130	-0.030
SES (1=high)	-0.028	0.317	-0.004	-0.048	0.319	-0.007
Two-parent home	-0.115	0.432	-0.014	-0.117	0.432	-0.014
Affectional identification	-0.044	0.055	-0.051	-0.043	0.055	-0.050
Intimacy of communication	-0.043	0.102	-0.025	-0.043	0.103	-0.025
Parental supervision	-0.028	0.112	-0.014	-0.032	0.112	-0.015
Attachment to school	-0.028	0.100	-0.014	-0.031	0.101	-0.015
Attachment to peers	-0.038	0.317	-0.006	-0.052	0.320	-0.008
Commitment	-0.384 ***	0.107	-0.189	-0.383 ***	0.108	-0.189
Involvement	0.025 **	0.009	0.137	0.025 **	0.009	0.140
Belief	-0.254 ***	0.049	-0.270	-0.256 ***	0.049	-0.272
Independent self-concept				-0.017	0.023	-0.037
Interdependent self-concept				0.011	0.023	0.024
Adjusted R^2	0.154			0.151		
Model *p*	0.000			0.000		

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

effects on *academic underachievement*, while *involvement* has a significant positive effect on *academic underachievement*. On the other hand, for the American sample, consistent with the results for *academic misconduct*, in addition to *belief*, *commitment*

also has a significant negative effect on *academic underachievement*, while like the Japanese sample, *involvement* has a significant positive effect on *academic underachievement* for the American sample.

Table 5.31. OLS Regression Analyses with *General Deviance Frequency* Regressed on Gender, Control Variables, Akers's (1985) Social Learning Measures, and Two Types of Cultural Variability Measures for the Japanese Sample, *n* =433.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-12.989	**	5.521		-11.543	*	5.508	
Male	1.367	***	0.411	0.132	1.351	***	0.407	0.131
Age	0.626	*	0.279	0.086	0.568	*	0.279	0.078
SES (1=high)	-0.312		0.383	-0.031	-0.279		0.380	-0.028
Two-parent home	-0.556		0.850	-0.025	-0.556		0.845	-0.025
Differential association	0.298	***	0.031	0.400	0.300	***	0.031	0.403
General definitions	0.116		0.075	0.063	0.117		0.075	0.064
Specific definitions	0.099	***	0.028	0.140	0.108	***	0.029	0.153
Peers' reinforcement	0.204	***	0.035	0.246	0.185	***	0.035	0.223
Parents' reinforcement	-0.013		0.035	-0.015	0.000		0.036	0.000
Independent self-concept					0.069	**	0.026	0.105
Interdependent self-concept					0.036		0.028	0.051
Adjusted R^2	0.379				0.389			
Model *p*	0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Next, each of the three deviance measures are regressed on control variables and Akers's (1985) social learning theory, conducted separately for the Japanese and American samples. First, *general deviance frequency* is regressed on Akers's (1985) social learning variables shown for the Japanese sample in Table 5.31 and for the American sample in Table 5.32. For both samples, the OLS regression analyses indicate that Akers's (1985) social learning theory cannot explain the gender gap in

general deviance, as the direct effect of *male* on this type of deviance remains significant after controlling for the theoretical variables. Among the social learning variables, all significant effects are in the expected positive direction for both samples.

Table 5.32. OLS Regression Analyses with *General Deviance Frequency* Regressed on Gender, Control Variables, Akers's (1985) Social Learning Measures, and Two Types of Cultural Variability Measures for the American Sample, *n* =369.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-9.248	*	4.134		-9.04	*	4.131	
Male	1.718	***	0.528	0.131	1.662	***	0.529	0.126
Age	0.446	*	0.204	0.083	0.452	*	0.204	0.084
SES (1=high)	0.718		0.513	0.051	0.645		0.514	0.046
Two-parent home	-0.002		0.679	0.000	0.000		0.678	0.000
Differential association	0.375	***	0.032	0.487	0.378	***	0.032	0.490
General definitions	0.527	***	0.093	0.233	0.525	***	0.093	0.232
Specific definitions	0.020		0.044	0.018	0.022		0.044	0.020
Peers' reinforcement	0.060	*	0.035	0.074	0.061	*	0.035	0.075
Parents' reinforcement	0.003		0.023	0.005	0.002		0.023	0.003
Independent self-concept					-0.061	*	0.037	-0.062
Interdependent self-concept					-0.003		0.036	-0.003
Adjusted R^2	0.516				0.532			
Model *p*	0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

More specifically, for the Japanese sample, *differential association*, *specific definitions*, and *peers' deviant reinforcement* all have significant positive effects on *general deviance*, while for the American sample, instead of *specific definitions*, *general definitions*, in addition to *differential association* and *peers' deviance* have positive effects on *general deviance*. The values of R^2 are considerably larger the for the American sample, compared to the Japanese sample, indicating that Akers's (1985)

social learning theory explains a larger amount of variance of *general deviance* for the American sample, compared to the Japanese sample.

Table 5.33. OLS Regression Analyses with *Academic Misconduct Frequency* Regressed on Gender, Control Variables, Akers's (1985) Social Learning Measures, and Two Types of Cultural Variability Measures for the Japanese Sample, *n* =433.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	2.318		5.632		1.814		5.672	
Male	0.269		0.419	0.029	0.271		0.420	0.029
Age	-0.052		0.285	-0.008	-0.029		0.287	-0.004
SES (1=high)	0.447		0.391	0.050	0.434		0.392	0.049
Two-parent home	-0.141		0.868	-0.007	-0.157		0.870	-0.008
Differential association	0.205	***	0.032	0.309	0.205	***	0.032	0.309
General definitions	0.373	***	0.076	0.229	0.377	***	0.077	0.232
Specific definitions	0.024		0.029	0.038	0.024		0.030	0.038
Peers' reinforcement	-0.025		0.035	-0.034	-0.020		0.036	-0.028
Parents' reinforcement	-0.016		0.036	-0.021	-0.022		0.037	-0.029
Independent self-concept					-0.022		0.026	-0.038
Interdependent self-concept					0.000		0.029	-0.001
Adjusted R^2	0.186				0.183			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

In the next two tables, *academic misconduct* is regressed on Akers's (1985) social learning variables separately for the Japanese sample (in Table 5.33) and for the American sample (in Table 5.34). The results for the Japanese sample look almost identical to the ones for *general deviance*; however, instead of *specific definitions*, *general definitions* has a significant positive effect on *academic misconduct*. This is understandable considering that while the specific deviant behaviors used to create respondents' *general deviance* correspond with those used to create *specific definitions*,

the specific deviant behaviors used to create respondents' *academic deviance* (both *academic misconduct* and *academic underachievement*) do not correspond with

Table 5.34. OLS Regression Analyses with *Academic Misconduct Frequency* Regressed on Gender, Control Variables, Akers's (1985) Social Learning Measures, and Two Types of Cultural Variability Measures for the American Sample, *n* =369.

	Model 1			Model 2		
	b	*S.E.*	*β*	*b*	*S.E.*	*β*
Constant	-2.002	1.971		-1.822	1.954	
Male	-0.414	0.252	-0.084	-0.466 *	0.250	-0.094
Age	-0.001	0.097	0.000	0.003	0.096	0.001
SES (1=high)	0.801 ***	0.244	0.152	0.742 **	0.243	0.141
Two-parent home	-0.060	0.324	-0.009	-0.063	0.321	-0.009
Differential association	0.083 ***	0.015	0.287	0.086 ***	0.015	0.296
General definitions	0.152 ***	0.044	0.179	0.152 ***	0.044	0.178
Specific definitions	0.026	0.021	0.065	0.028	0.021	0.070
Peers' reinforcement	0.052 ***	0.016	0.171	0.053 ***	0.016	0.173
Parents' reinforcement	-0.010	0.011	-0.042	-0.001	0.011	-0.047
Independent self-concept				-0.051 **	0.018	0.137
Interdependent self-concept				0.007	0.017	0.018
Adjusted R^2	0.224			0.237		
Model *p*	0.000			0.000		

* p <0.05; ** p <0.01; *** p <0.001.

the deviant behaviors used to create either *specific* or *general definitions.* For the American sample, similarly, both *differential association* and *general definitions* have significant positive effects on *academic misconduct*. For the American sample, in addition, *peers' deviant reinforcement* has significant positive effect on *academic misconduct*. For both the Japanese and American samples, Akers's (1985) social learning theory explain gender gap in this type of deviance. However, somewhat perplexingly for the American sample, inclusion of both social learning measures and

the two cultural variability measures resulted in a significant negative effect of *male* on this behavior, indicating that males engage in a significantly lower level of *academic*

Table 5.35. OLS Regression Analyses with *Academic Underachievement Frequency* Regressed on Gender, Control Variables, Akers's (1985) Social Learning Measures, and Two Types of Cultural Variability Measures for the Japanese Sample, *n* =433.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-13.06	**	5.022		-13.28	**	5.048	
Male	0.975	**	0.373	0.122	0.986	**	0.373	0.123
Age	0.677	**	0.254	0.120	0.677	**	0.255	0.120
SES (1=high)	0.693	*	0.349	0.090	0.692	*	0.349	0.089
Two-parent home	0.315		0.774	0.018	0.356		0.774	0.021
Differential association	0.156	***	0.028	0.270	0.153	***	0.028	0.264
General definitions	0.108		0.068	0.076	0.096		0.069	0.067
Specific definitions	0.014		0.026	0.026	0.005		0.026	0.009
Peers' reinforcement	0.031		0.032	0.048	0.039		0.032	0.061
Parents' reinforcement	-0.053	*	0.032	-0.080	-0.053		0.033	-0.080
Independent self-concept					-0.015		0.023	-0.030
Interdependent self-concept					-0.037		0.026	-0.067
Adjusted R^2	0.165				0.148			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

deviance than females once Akers's (1985) social learning measures and two cultural variability measures are controlled. For the Japanese sample, Akers's social learning theory fails to explain the gender gap in *academic underachievement*, since the direct effect of *male* on this type of deviance remains significant after controlling for the variables from Akers's (1985) social learning theory. Among the social learning measures for both the Japanese and American samples, *differential association* has a significant positive effect on *academic underachievement*. For the American sample,

general definitions has a significant positive effect on *academic underachievement*, while for the Japanese sample, *peers' reinforcement* has a significant positive effect

Table 5.36. OLS Regression Analyses with *Academic Underachievement Frequency* Regressed on Gender, Control Variables, Akers's (1985) Social Learning Measures, and Two Types of Cultural Variability Measures for the American Sample, *n* =369.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-1.025		2.575		-0.903		2.571	
Male	-0.01		0.329	-0.002	-0.038		0.329	-0.006
Age	-0.013		0.127	-0.005	-0.007		0.127	-0.003
SES (1=high)	0.153		0.319	0.023	0.108		0.320	0.017
Two-parent home	-0.466		0.423	-0.055	-0.460		0.422	-0.054
Differential association	0.071	***	0.02	0.197	0.072	***	0.020	0.200
General definitions	0.237	***	0.058	0.225	0.234	***	0.058	0.221
Specific definitions	0.011		0.027	0.022	0.012		0.027	0.024
Peers' reinforcement	0.031		0.022	0.082	0.032		0.021	0.084
Parents' reinforcement	-0.009		0.014	-0.032	-0.010		0.014	-0.034
Independent self-concept					-0.038		0.023	-0.081
Interdependent self-concept					-0.011		0.023	-0.025
Adjusted R^2	0.136				0.139			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

on *academic underachievement*, but once the two cultural variability measures are controlled, the direct effect of *peers' deviant reinforcement* disappears.

In the next two tables, *general deviance* is regressed on measures from both Hirschi's (1969) social control and Akers's (1985) social learning theories entered into the equation all at once but separately for the Japanese sample (shown in Table 5.37) and American sample (shown in Table 5.38). Since Hirschi's *belief* element and

Akers's *general definitions* are both created using the same survey items, they are both excluded in the analyses with a full model with all measures from both theories. Table

Table 5.37. OLS Regression Analyses with *General Deviance Frequency* Regressed on Gender, Control Variables, Akers's (1985) Social Learning Measures, and Two Types of Cultural Variability Measures for the Japanese Sample, *n* =433.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-12.094	*	5.553		-10.57	*	5.593	
Male	1.389	***	0.413	0.134	1.387	***	0.413	0.134
Age	0.566	*	0.281	0.078	0.506	*	0.282	0.070
SES (1=high)	-0.227		0.383	-0.023	-0.208		0.383	-0.021
Two-parent home	-0.517		0.849	-0.023	-0.488		0.848	-0.022
Affectional identification	-0.045		0.064	-0.033	-0.036		0.064	-0.026
Intimacy of communication	-0.102		0.1	-0.047	-0.113		0.100	-0.052
Parental supervision	-0.145		0.095	-0.061	-0.105		0.097	-0.045
Attachment to school	0.307		0.137	0.066	0.308		0.143	0.087
Attachment to peers	0.541		0.395	0.054	0.419	*	0.401	0.042
Commitment	0.087		0.077	0.045	0.054		0.080	0.028
Involvement	0.033	*	0.014	0.092	0.030	*	0.014	0.084
Belief	-		-	-	-		-	-
Differential association	0.308	***	0.030	0.414	0.306	***	0.030	0.411
General definitions	-		-	-	-		-	-
Specific definitions	0.102	***	0.028	0.145	0.103	***	0.029	0.146
Peers' reinforcement	0.209	***	0.035	0.252	0.194	***	0.036	0.234
Parents' reinforcement	-0.01		0.036	-0.012	0.008		0.037	0.009
Independent self-concept					0.054	*	0.027	0.081
Interdependent self-concept					0.006		0.030	0.008
Adjusted R^2	0.395				0.397			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

5.37 shows that even after all theoretical measures from both theories are included in the equation, the direct effect of gender on *general deviance* remains significant for the Japanese sample. The results in Table 5.37 are identical to the OLS regression results

Table 5.38. OLS Regression Analyses with *General Deviance Frequency* Regressed on Gender, Control Variables, Akers's (1985) Social Learning Measures, and Two Types of Cultural Variability Measures for the American Sample, *n* =369.

	Model 1			Model 2		
	b	*S.E.*	*β*	*b*	*S.E.*	*β*
Constant	-10.090 *	4.624		-10.278 *	4.626	
Male	2.282 ***	0.551	0.174	2.248 ***	0.553	0.171
Age	0.477 *	0.220	0.088	0.489 *	0.220	0.091
SES (1=high)	0.563	0.538	0.040	0.487	0.540	0.035
Two-parent home	0.749	0.731	0.041	0.729	0.730	0.040
Affectional identification	-0.020	0.094	-0.011	-0.015	0.094	-0.008
Intimacy of communication	-0.082	0.174	-0.023	-0.060	0.175	-0.017
Parental supervision	-0.320 *	0.192	-0.071	-0.318 *	0.192	-0.071
Attachment to school	0.181	0.173	0.042	0.198	0.174	0.046
Attachment to peers	-0.335	0.535	-0.025	-0.298	0.539	-0.022
Commitment	-0.027	0.181	-0.006	-0.001	0.182	0.000
Involvement	0.012	0.015	0.031	0.013	0.015	0.035
Belief	-	-	-	-	-	-
Differential association	0.419 ***	0.034	0.543	0.421 ***	0.034	0.546
General definitions	-	-	-	-	-	-
Specific definitions	0.036	0.046	0.034	0.039	0.046	0.036
Peers' reinforcement	0.074 *	0.036	0.092	0.076 *	0.036	0.094
Parents' reinforcement	0.015	0.024	0.024	0.014	0.024	0.022
Independent self-concept				-0.061	0.039	-0.061
Interdependent self-concept				-0.011	0.039	-0.011
Adjusted R^2	0.475			0.476		
Model *p*	0.000			0.000		

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

shown previously in Table 5.25 with Akers's (1985) social learning theory. Findings for the Americans are also quite similar to the ones shown in Table 5.36 with Akers's (1985) social learning theory. However, for the American sample, the exclusion of *general definitions* item from the equation resulted in a significant effect of gender on *general deviance*. Thus, at least for the American sample, the gender gap in *general deviance* can largely be attributed to the gender difference in *general definitions favoring deviance,* such that American males have a significantly more favorable *general definitions* about deviance than American females. Among other variables, for the Japanese sample, once Akers's (1985) social learning measures are included in the equation, the inhibitive effect of *parental supervision* on *general deviance* is no longer significant. However, for the American sample, *parental supervision* remains significant even after controlling for social learning measures. On the other hand, most of Akers's (1985) social learning measures remain significant, in particular *differential association* and *peers' reinforcement*.

Next, *academic underachievement* is regressed on measures from both Hirschi's (1969) social control and Akers's (1985) social learning theories entered into the equation all at once but separately for the Japanese sample (shown in Table 5.39) and American sample (shown in Table 5.40). Once again, Hirschi's *belief* element and Akers's *general definitions* measure are excluded in the analysis. For the Japanese sample, the gender gap in *academic misconduct* is explained by the gender difference in two variables: *parental supervision* and *differential association*, indicating that Japanese males engage in a significantly higher level of *academic misconduct* than Japanese females because they have a significantly lower level of *parental supervision* and a

significantly higher level of *differential association* than Japanese females. For the American sample, once *belief* and *general definitions* are excluded in the analysis, *intimacy of communication with parents* has a significant positive effect on *academic*

Table 5.39. OLS Regression Analyses with *Academic Misconduct Frequency* Regressed on Gender, Control Variables, Akers's (1985) Social Learning Measures, and Two Types of Cultural Variability Measures for the Japanese Sample, *n* =433.

	Model 1			Model 2		
	b	*S.E.*	*β*	*b*	*S.E.*	*β*
Constant	3.998	5.876		2.960	5.930	
Male	0.247	0.437	0.027	0.262	0.438	0.028
Age	-0.187	0.298	-0.029	-0.150	0.299	-0.023
SES (1=high)	0.544	0.406	0.061	0.540	0.406	0.061
Two-parent home	-0.184	0.898	-0.009	-0.168	0.899	-0.008
Affectional identification	-0.075	0.068	-0.063	-0.081	0.068	-0.067
Intimacy of communication	0.090	0.106	0.047	0.096	0.106	0.049
Parental supervision	-0.237 **	0.100	-0.113	-0.268 **	0.103	-0.128
Attachment to school	0.015	0.145	0.005	0.048	0.151	0.015
Attachment to peers	-0.031	0.418	-0.003	0.089	0.425	0.010
Commitment	0.010	0.082	0.006	0.045	0.085	0.026
Involvement	0.015	0.015	0.047	0.017	0.015	0.053
Belief	-	-	-	-	-	-
Differential association	0.246 ***	0.032	0.371	0.245 ***	0.032	0.370
General definitions	-	-	-	-	-	-
Specific definitions	0.039	0.029	0.062	0.032	0.031	0.051
Peers' reinforcement	-0.008	0.037	-0.011	0.006	0.038	0.008
Parents' reinforcement	-0.034	0.038	0.044	-0.043	0.039	-0.056
Independent self-concept				-0.037	0.029	-0.064
Interdependent self-concept				-0.027	0.032	-0.044
Adjusted R^2	0.146			0.146		
Model *p*	0.000			0.000		

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

misconduct—perhaps consistent with the fact why *SES* also has a significant positive effect on *academic misconduct*. In addition for the American sample, while both *commitment* and *parental supervision* have significant negative effects on *academic*

Table 5.40. OLS Regression Analyses with *Academic Misconduct Frequency* Regressed on Gender, Control Variables, Akers's (1985) Social Learning Measures, and Two Types of Cultural Variability Measures for the American Sample, *n* =369.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-2.380		2.107		-2.473		2.088	
Male	-0.224		0.251	-0.045	-0.264		0.249	-0.053
Age	-0.048		0.100	-0.024	-0.039		0.099	-0.019
SES (1=high)	0.702	**	0.245	0.133	0.636	*	0.243	0.121
Two-parent home	0.131		0.333	0.019	0.117		0.330	0.017
Affectional identification	0.055		0.043	0.079	0.059		0.042	0.085
Intimacy of communication	0.146	*	0.079	0.107	0.161	*	0.079	0.118
Parental supervision	-0.261	**	0.087	-0.155	-0.262	**	0.086	-0.155
Attachment to school	-0.045		0.079	-0.028	-0.035		0.079	-0.022
Attachment to peers	0.098		0.244	0.020	0.111		0.243	0.022
Commitment	-0.190	*	0.083	-0.116	-0.172	**	0.082	-0.105
Involvement	0.007		0.007	0.046	0.008		0.007	0.056
Belief	-		-	-	-		-	-
Differential association	0.091	***	0.015	0.314	0.094	***	0.015	0.323
General definitions	-		-	-	-		-	-
Specific definitions	0.031		0.021	0.076	0.033		0.021	0.081
Peers' reinforcement	0.060	***	0.017	0.198	0.061	***	0.016	0.202
Parents' reinforcement	-0.005		0.011	-0.022	-0.006		0.011	-0.027
Independent self-concept					-0.055	***	0.018	-0.146
Interdependent self-concept					0.002		0.018	0.004
Adjusted R^2	0.229				0.246			
Model *p*	0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

misconduct, *differential association* and *peers' reinforcement* both have significant positive effects on *academic misconduct*.

Table 5.41. OLS Regression Analyses with *Academic Underachievement Frequency* Regressed on Gender, Control Variables, Akers's (1985) Social Learning Measures, and Two Types of Cultural Variability Measures for the Japanese Sample, *n* =433.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-10.656	*	4.965		-11.547	*	5.010	
Male	0.798	*	0.369	0.100	0.812	*	0.370	0.101
Age	0.539	*	0.252	0.095	0.570	*	0.253	0.101
SES (1=high)	0.766	*	0.343	0.099	0.763	*	0.343	0.099
Two-parent home	0.296		0.759	0.017	0.311		0.760	0.018
Affectional identification	-0.011		0.057	-0.011	-0.016		0.057	-0.015
Intimacy of communication	-0.100		0.089	-0.059	-0.096		0.089	-0.057
Parental supervision	-0.234	**	0.085	-0.128	-0.261	**	0.087	-0.142
Attachment to school	-0.168		0.122	-0.061	-0.139		0.128	-0.050
Attachment to peers	-0.484		0.353	-0.062	-0.380		0.359	-0.049
Commitment	-0.065		0.069	-0.043	-0.034		0.072	-0.022
Involvement	0.047	***	0.012	0.170	0.049	***	0.012	0.175
Belief	-		-	-	-		-	-
Differential association	0.146	***	0.027	0.252	0.145	***	0.027	0.251
General definitions	-		-	-	-		-	-
Specific definitions	0.015		0.025	0.027	0.009		0.026	0.016
Peers' reinforcement	0.024		0.031	0.037	0.036		0.032	0.055
Parents' reinforcement	-0.054	*	0.032	-0.080	-0.061	*	0.033	-0.092
Independent self-concept					-0.032		0.024	-0.063
Interdependent self-concept					-0.025		0.027	-0.045
Adjusted R^2	0.197				0.198			
Model *p*	0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

Next, *academic underachievement* is regressed on measures from both Hirschi's (1969) social control and Akers's (1985) social learning theories entered into the equation all at once but separately for the Japanese sample (shown in Table 5.41)

Table 5.42. OLS Regression Analyses with *Academic Underachievement Frequency* Regressed on Gender, Control Variables, Akers's (1985) Social Learning Measures, and Two Types of Cultural Variability Measures for the American Sample, *n* =369.

	Model 1				Model 2			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	0.694		2.720		0.673		2.725	
Male	0.010		0.324	0.002	-0.017		0.326	-0.003
Age	-0.086		0.129	-0.034	-0.082		0.130	-0.033
SES (1=high)	0.035		0.317	0.005	-0.001		0.318	0.000
Two-parent home	-0.023		0.430	-0.003	-0.029		0.430	-0.003
Affectional identification	-0.055		0.055	-0.064	-0.053		0.055	-0.061
Intimacy of communication	-0.071		0.102	-0.042	-0.064		0.103	-0.038
Parental supervision	-0.011		0.113	-0.005	-0.013		0.113	-0.006
Attachment to school	0.035		0.102	0.018	0.039		0.103	0.019
Attachment to peers	-0.165		0.315	-0.027	-0.167		0.318	-0.027
Commitment	-0.415	***	0.107	-0.204	-0.407	***	0.107	-0.200
Involvement	0.022	**	0.009	0.123	0.023	**	0.009	-0.128
Belief	-		-	-	-		-	-
Differential association	0.090	***	0.020	0.249	0.091	***	0.020	0.254
General definitions	-		-	-	-		-	-
Specific definitions	0.015		0.027	0.031	0.017		0.027	0.034
Peers' reinforcement	0.037	*	0.021	0.099	0.038	*	0.021	0.101
Parents' reinforcement	-0.003		0.014	-0.010	-0.004		0.014	-0.012
Independent self-concept					-0.031		0.023	-0.067
Interdependent self-concept					0.006		0.023	0.013
Adjusted R^2	0.163				0.163			
Model *p*	0.000				0.000			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

and American sample (shown in Table 5.42). Hirschi's *belief* element and Akers's *general definitions* variable are both excluded in the analyses. The tables show that while the direct effect of gender on *academic underachievement* disappears for the American sample once measures from both theories are included in the analyses, for the Japanese sample, even the two theories combined cannot explain the gender gap in this type of deviant behavior. For the Japanese sample once again, *parental supervision* has an expected negative effect on *academic underachievement*, while both *involvement* and *differential association* have significant positive effects on this type of deviance. For

Table 5.43. OLS Regression Analyses with *Three Types of Deviance* Regressed on Gender, Control Variables, Measures from Both Hirschi's (1969) Social Control and Akers's (1985) Social Learning Theories, and An Interaction Term for the Combined Samples, *n* =369.

	General Deviance				Academic Misconduct				Academic Underachievement			
	b		*S.E.*	*β*	*b*		*S.E.*	*β*	*b*		*S.E.*	*β*
Constant	-10.695	***	3.310		-1.563		2.544		-4.279	*	2.453	
Japan	-0.824		0.609	-0.070	2.732	***	0.468	0.367	1.787	***	0.446	0.249
Male	2.355		0.471	0.198	-0.433		0.362	-0.058	-0.097		0.345	-0.013
Japan × Male	-1.068	***	0.640	-0.089	0.970	*	0.492	0.127	0.983	*	0.469	0.133
Age	0.498	*	0.163	0.081	-0.067		0.125	-0.017	0.133		0.120	0.035
SES (1=high)	0.135	***	0.320	0.011	0.632	**	0.246	0.080	0.521	*	0.235	0.068
Two-parent home	0.298		0.530	0.015	0.136		0.407	0.011	0.218		0.388	0.018
Affectional identification	-0.053		0.054	-0.038	-0.003		0.042	-0.003	-0.025		0.040	-0.029
Intimacy of communication	-0.062		0.091	-0.026	0.078		0.070	0.051	-0.097		0.057	-0.065
Parental supervision	-0.179	*	0.090	-0.057	-0.226	***	0.069	-0.114	-0.141	*	0.066	-0.074
Attachment to peers	0.231	*	0.109	0.068	0.011		0.083	0.005	-0.050		0.079	-0.024
Attachment to school	0.043		0.323	0.004	-0.005		0.248	-0.001	-0.393	*	0.237	-0.053
Commitment	0.065		0.076	0.026	-0.054		0.059	-0.035	-0.168	***	0.056	-0.111
Involvement	0.023	*	0.010	0.063	0.009		0.008	0.038	0.033	***	0.007	0.150
Belief	-		-	-	-		-	-	-		-	-
Differential association	0.365	***	0.022	0.485	0.155	***	0.017	0.325	0.110	***	0.016	0.240
General definitions	-		-	-	-		-	-	-		-	-
Specific definitions	0.077	***	0.025	0.083	0.035	*	0.019	0.061	0.013		0.018	0.023
Peers' reinforcement	0.124	***	0.024	0.148	0.022		0.019	0.041	0.028		0.018	0.055
	0.013		0.019	0.018	-0.011		0.014	-0.024	-0.011		0.014	-0.025
Adjusted R^2	0.487				0.246				0.265			
Model *p*	0.000				0.000				0.000			

* p <0.05; ** p <0.01; *** p <0.001.

the American sample, *involvement*, *differential association*, and *peers' reinforcement* all have significant positive effects on *academic underachievement*, while *commitment* has a significant negative effect on this deviance.

Finally, in the last table of this chapter, Table 5.43, the results of the regression analyses for the combined sample with measures from both theories and the interaction term for *Japan* and *male* (without the two cultural variability measures) are shown. The results show that for all three types of deviance, the interaction term remains significant, even after including measures from both theories. Moreover, consistent with the directions of the interaction term when theoretical measures are not included in the analyses, the interaction term is positive when *general deviance* is the dependent variable and it is negative when the two types of academic deviance are the dependent variable. However, the *male* coefficient is not significant in any of the three models, indicating that for the American sample, there is no gender gap for any of the three types of deviant behaviors, while the effect of gender on all three types of deviance differ by country. More specifically, even after controlling for the measures of theoretical variables from both theories, the country difference in the gender gap in three types of deviance remain significant.

Summary

This dissertation is among the first studies to examine the effect of the *interaction* of *culture* and *gender* on the relationship between theoretical variables and deviance. Gender is consistently one the strongest correlates of deviance; however, as Gottfredson and Hirschi (1990) argue, most leading individual level theories of deviance are not equipped to fully explain the effect of gender on deviance. Therefore, when the direct

effect of gender on deviance remains unexplained by theories, researchers often resort to biological differences of sex to explain the unexplained gender difference in deviance. However, cross-cultural empirical research, like the one comparing the Japan and the U.S., often shows that the effect of nationality on deviance is almost as strong as the effect of gender on deviance, providing strong evidence that *social* factors, rather than *biological* factors, might offer a much better explanation for the gap in deviance across groups, be it gender or country, since almost everyone agrees that biological differences between Japanese and Americans (if there are any) cannot explain the differences in deviance between these two groups. Furthermore, because of the scarcity of cross-cultural survey data, no empirical studies in the past have examined the interactive effect of culture and gender on the effects of measures from leading individual level theories of deviance on the respondents' deviant behaviors.

This chapter began with an analysis of both the *frequency* and *prevalence* of the three types of deviant behaviors (including *general deviance*, *academic misconduct*, and *academic underachievement*) across the intersection of gender and culture. Past studies consistently show that, everything being equal, males are more likely to, and more frequently do offend, get arrested, and be victimized for most offenses relative to females, and that such gender differences are larger for more serious and dangerous offenses than less serious and dangerous offenses. Thus, in this study I expected to see that deviance is more prevalent and frequent among males compared to females, and that the gender gap in deviance to be wider for general deviance than the two types of academic deviance. Moreover, based on the results from the previous chapter and past research, I expected that deviance is less prevalent and frequent among the Japanese

sample, compared to the Americans sample. In addition, combining these two hypotheses, one for gender and the other for country, I expected the gender gap in deviance to be wider in the U.S. than in Japan. The OLS regression analyses conducted in this study show that consistent with past studies, males are significantly more likely to engage in all three types of deviant behaviors at significantly higher levels than female. However, while the American sample is significantly more likely to engage in *general deviance* at a significantly higher level than the Japanese sample, contrary to the expectation, the Japanese sample is significantly more likely to engage in both types of *academic deviance* at significantly higher levels than the American sample. Furthermore, the interaction term for *Japan* and *male* is significant when *general deviance* and *academic underachievement* are the dependent variable, though the signs are not the same, indicating that while the gender gap in *general deviance* measured in both *prevalence* and *frequency* is wider in the U.S. compared to Japan, it is wider in Japan than in the U.S. when *academic underachievement* measured in both *prevalence* and *frequency* are the dependent variable. OLS regression analyses also showed that gender gap is significantly wider overall for *general deviance* compared to the two types of *academic deviance,* as expected.

Though there are numerous ways to empirically examine the concept of "gender," in this dissertation, I examined gender in terms of how it might vary within a cross-cultural context. Thus, I chose to examine gender in terms of the gender differences in conformity and obedience across Japan and the U.S. To simplify the analysis and maintain consistently, I used two measures created to capture cultural variability from the earlier analyses: *independent* and *interdependent self-concepts*.

However, the OLS analyses with these two cultural variability measures regressed with the interaction term for *Japan* and *male* showed that the interaction term is not significant, indicating that there is no country difference in terms of the gender differences in both *independent* and *interdependent self-concepts*. Thus, though both *independent* and *interdependent self-concepts* have significant effects on deviance, mostly through their effects on the measures from both Hirschi's (1969) and Akers's (1985) theories, there is no country difference in terms of the effect of gender on the two self-concept measures.

Next in this chapter, I examined the interactive effect of gender and culture on each of the theoretical measures from both Hirschi's (1969) social control and Akers's (1985) social learning theories. Based on the two major types of explanations for the gender gap in deviance—gender socialization and gender social control—I hypothesized that females would have significantly higher levels of all elements of social bond than males (particularly parental supervision and commitment) while males would have significantly higher levels of measures from social learning theory than females (particularly differential reinforcement). The results generally support these hypotheses for both samples. However, contrary to expectations, American males and females did not differ in terms of their perceived level of *parental supervision*—while for the Japanese sample, females perceived a significantly higher level of *parental supervision* than Japanese males. This country difference in terms of the gender difference in *parental supervision* is significant in another analysis when the interaction term for *Japan* and *male* is entered into the regression with *parental supervision* as the dependent variable. Among other elements of social bonds, OLS regression analyses

also showed that consistent with past studies, males have significantly lower levels of both *commitment* and *belief* than females for both samples. Furthermore, like *parental supervision*, the interaction term for *Japan* and *male* is significant when *belief* is the dependent variable and positive, indicating that, though for both countries, males report a significantly lower level of *belief* than females, the gender gap in *belief* is significantly wider in the U.S. than in Japan. On the other hand, among the measures from Akers's (1985) social learning theory, OLS regression analyses show that for both samples, males have higher levels of *differential association*, *general definitions favoring deviance*, and *peers' deviance reinforcement* than females, consistent with the hypothesis. In addition, the interaction term for *Japan* and *male* is significant when *differential association* is the dependent variable and it is negative, indicating that the gender gap in *differential association* is significantly wider in the U.S. compared to Japan. On the other hand, the significant interaction term for *Japan* and *male* is negative when *general definitions* is the dependent variable, indicating that gender gap in *general definitions* is wider in Japan than in the U.S. The same result is found for *peers' differential reinforcement*, where the interaction term for *Japan* and *male* is negative, indicating the significantly wider gender gap for this measure in Japan than in the U.S.

In the last set of analyses in this chapter, I examined whether the theoretical variables from both Hirschi's (1969) and Akers's (1985) theories can explain the interactive effects of gender and culture on deviance found for both *general deviance* and *academic underachievement*, while specifically focusing on the five theoretical variables—*parental supervision*, *belief*, *differential association*, *general definitions*, and

peers' reinforcement—found to differ significantly across the intersection of gender and culture. The results overall show that be it singularly or in combination neither Hirschi's (1969) social control nor Akers's (1985) social learning theories can explain fully the interactive effect of gender and culture on neither *general deviance* nor *academic underachievement*. In other words, even after all theoretical variables are included in the equation (granted that both *belief* and *general definitions* are excluded); the significant country variations in terms of the gender gap in deviance for both types of deviant behaviors remain significant. This result adds an interesting twist to the current state of criminology, particularly in theory testing, and leaves open an important question for both research in gender and deviance and cross-cultural deviance.

CHAPTER SIX

DISCUSSIONS AND CONCLUSIONS

Introduction

This study addressed the lack of cross-cultural research of deviance at the individual level and, and using comparable self-report data collected in Japan and the U.S, tested two of the leading individual level theories of deviance: Hirschi's (1969) social control and Akers's (1985) social learning theories. Examining social control and social learning theories simultaneously is particularly interesting, because both theories focus on the effects on deviance of the relationships with a primary group. However, while social control theory focuses on the negative (or inhibiting) effects on deviance through the mechanisms of social control, social learning theory focuses on the positive (or promoting) effects on deviance through the mechanisms of social learning. In this study, using comparable self-report data on deviance collected from Japanese and American samples, I first examined differences in the prevalence, nature, and degree of deviant behaviors between the two samples. Then, I assessed to what extent the two individual level theories of deviance explain (1) the expected lower level of deviance among the Japanese compared to Americans (the gap issue) and (2) the deviant behaviors of the Japanese compared to those of Americans (the generality issue). Finally, I also compared (3) the applicability of the two theories across Japanese and American samples (the explanatory power issue). Furthermore, this dissertation went a step further by assessing the two theories of deviance not only across cultures, but also across the intersection of culture and gender. In other words, I examined the variations in the effects of the theoretical variables on deviant behaviors comparing four distinct

groups: (1) Japanese males, (2) Japanese females, (3) American males, and (4) American females. All three issues stated in relation to cross-cultural theory testing apply when gender is also taken into account, including issues concerning gap, generality, and explanatory power. More specifically, I examined the difference in the effect of gender and culture on deviance, and second, I also examined the possibility that gender differences in the effects of theoretical variables on deviance might vary by country. This dissertation not only examined and compared how the two individual level theories of deviance address the three theoretical issues across cultures and across the intersection of culture and gender, but also challenged the theories' claims on "universality." Beyond these intellectual merits, through this research, I also attempted to join the efforts of non-western and other international criminologists in bridging the collaborative gap between research on deviance conducted all over the world, and the efforts of many American minority scholars in promoting empirical studies and theory development based on groups historically left out of research. In doing so, I assessed how well the field of criminology overall accounts for cultural diversity in the world.

Summary and Results

This dissertation consisted of two major parts: theory testing of deviance across cultures and theory testing of deviance across the intersection of culture and gender. For both parts, I first examined the variations in deviance using the self-reported data, examining two major types of deviant behaviors: *general* and *academic deviance* (consisting of *academic misconduct* and *academic underachievement*). Next, I analyzed the concept of *culture* and *gender* using measures from social psychology and examined country variations in those measures. Then, referring to the findings of the past studies, I

hypothesized and tested country variations in the theoretical variables, particularly in terms of the relationships and interactions with family and peers. Finally, I hypothesized how the variations in the theoretical variables affect deviance across countries and across the intersection of country and gender. I followed the hypotheses with a test of the two theories as explanations of deviant behaviors, while focusing on how well each of the two theories provides answers to the three theoretical questions stated above.

Chapter Four focused on the cross-cultural part of the two major themes of this dissertation, examining both Hirschi's (1969) social control and Akers's (1985) social learning theories as explanations of deviant behaviors of the Japanese and American samples. In Chapter Four, I specifically assessed how well each of the two theories provides answers to the three theoretical questions. First, based on past research and official crime data, I expected a gap in deviance between the Japanese and American samples, such that Japanese youths overall are less deviant than American youths. Given this expected *cultural gap* in deviance between the two countries, I asked the following three theoretical questions for each of the two theories examined in this dissertation: (1) can the theory account for the *cultural gap* in deviance between the Japanese and Americans? Then, given that both theories are developed in the U.S. to explain deviant behaviors of Americans, I also asked for each of the two theories: (2) can such theories explain the deviant behaviors of the Japanese equally as well as the deviant behaviors of Americans? Finally, because the two individual level theories of deviance are tested simultaneously in this dissertation, in addition to these two theoretical questions, I asked: (3) are the two theories equally applicable in explaining

deviance of the Japanese and Americans, or is one theory more applicable than the other for one country compared to the other country? In order to answer the three theoretical questions, in Chapter Four I first examined the cultural variations in deviance using self-reported data and assessed the expected *cultural gap* in deviance. I found that, consistent with past studies, the Japanese are significantly less deviant than Americans when *general deviant behaviors* are examined. However, though consistent with the study by Diekhoff et al. (1999), I also found that when *academic deviance* is examined instead, in terms of both *academic misconduct* and *academic underachievement*, the Japanese are significantly more deviant than Americans. Next, I examined and analyzed the concept of "culture" using measures from social psychology called *independent* and *interdependent self-concepts*. I found that consistent with past studies, the Japanese are less individualistic (measured in terms of *independent self-concept*) than Americans; however, contrary to past studies, I also found that the Japanese are less collectivistic (measured in terms of *interdependent self*-concept) than Americans. Then, referring to the findings of past studies, I hypothesized and tested how the cultural differences between the two countries in terms of *independent* and *interdependent self-concepts* affect variations in the theoretical measures from both Hirschi's (1969) social control and Akers's (1985) social learning theories, specifically in terms of the relationships and interactions with family and peers for the youths across the two countries. Based on past studies, the general hypotheses originally stated were: (1) members of a country with a higher level of *interdependent self-concept* and a lower level of *independent self-concept* engage in a lower level of deviance because they have higher levels of social bonds, compared to the members of a country with a lower level

of *interdependent self-concept* and a higher level of *independent self-concept*, and (2) members of a country with a higher level of *interdependent self-concept* and a lower level of *independent self-concept* experience stronger effects of social learning measures on deviance compared to members of a country with a lower level of *interdependent self-concept* and a higher level of *independent self-concept*. However, due to the fact that the Japanese showed a significantly lower level of *independent self-concept* than the Americans, while also showing a significantly lower level of *interdependent self-concept* than Americans, the examination of these two hypotheses became somewhat problematic. Despite this, as expected, *interdependent self-concept* overall had significant positive effects on most of the social control measures, except for *parental supervision* and *involvement*. At the same time, *independent self-concept* also had significant positive effects on *attachment to school*, *commitment*, and *involvement*—though *involvement* had a significant positive effect on both types of deviance. Only for *parental supervision* did *independent self-concept* have an expected significant negative effect. In addition, as expected from their lower level of *interdependent self-concept*, the Japanese respondents scored significantly lower on most of the elements of Hirschi's (1969) social bonds compared to the American respondents, except for *attachment to school* and *belief*—however, the findings are inconsistent with the fact that the Japanese overall engage in a significantly lower level of *general deviance* than the Americans. On the other hand, consistent with their lower *general deviance*, the Japanese scored significantly lower on much of Akers's (1985) social learning measures, except for *parents' deviant reinforcement* (which showed no significant country difference).

Finally, in the last section of Chapter Four, I tested both Hirschi's (1969) social control and Akers's (1985) social learning theories singularly and in combination as explanations of all three types of deviant behaviors. The three theoretical questions are also examined in this last section. In terms of the first question ("can the theory account for the *cultural gap* in deviance between the Japanese and Americans?"), results of the analyses indicated that neither of the theories was able to explain singularly the *cultural gap* of any of the three types of deviance. Moreover, even when all theoretical variables from both theories are entered into an equation, the effect of nationality on all three types of deviance remained significant. The second theoretical question was examined by entering interaction terms into the regression equation. In terms of Hirschi's social control theory, when *general deviance* was the dependent variable, the interaction term for *Japan* and *belief* was significant and positive, indicating that the inhibitive effect of *belief* on *general deviance* is significantly stronger for the Americans compared to the Japanese. On the other hand, when *academic misconduct* was the dependent variable, the interaction term for *Japan* and *belief* was significant and negative, indicating that the inhibitive effect of *belief* on *academic misconduct* is significantly stronger for the Japanese compared to the Americans. Furthermore, when *academic underachievement* is the dependent variable, the interaction term for *Japan* and *parental supervision* was significant and negative, indicating that, once again, the inhibitive effect of *parental supervision* on *academic underachievement* is significantly stronger for the Japanese compared to the Americans. Thus, it seems that Hirschi's social control theory is applicable in explaining deviance of both the Japanese and Americans, and the country difference in applicability depends largely on the type of

deviant behavior examined. In terms of Akers's (1985) social learning theory, when *general deviance* is the dependent variable, the interaction terms for *Japan* and both *differential association* and *general definitions* are significant and negative, indicating that promoting effects of these two social learning measures on *general deviance* are significantly stronger for the Americans, compared to the Japanese, while the interaction term for *Japan* and *peers' reinforcement* is significant and positive, indicating the stronger effect of this social learning variable on *general deviance* for the Japanese compared to the Americans. On the other hand, when *academic misconduct* is the dependent variable, the interaction terms for *Japan* and both *differential association* and *general definitions* are significant and positive, indicating that promoting effects of these two social learning measures on *academic misconduct* are significantly stronger for the Japanese, compared to the Americans. Similarly, when *academic underachievement* is the dependent variable, the interaction term for *Japan* and *differential association* is significant and positive, indicating that the promoting effects of these two social learning measures on *academic underachievement* are significantly stronger for the Japanese, compared to the Americans. Thus, the country differences in the applicability of Akers's (1985) social learning theory across cultures also vary depending on the type of deviant behaviors.

Finally, in Chapter Four, the third question was examined by entering all of the theoretical measures at once in an equation, examined for all three types of deviant behaviors. The analyses showed that compared to Hirschi's (1969) social control theory, Akers's (1985) social learning theory overall has a stronger explanatory power for both types of deviance: *general* and *academic deviance*. However, though the

overall R^2 value of the model with Akers's (1985) social learning theory is consistently larger than the R^2 value of the model with just Hirschi's (1969) social control theory, social learning theory cannot explain much of the cultural gap in *academic deviance*. In fact, inclusion of Akers's (1985) social learning measures tended to accentuate the cultural gap in *academic deviance*, since though the Japanese engage in a higher level of both types of *academic deviance*, they score significantly lower on most of social learning measures than the Americans, even though these measures have significant positive effects on all three types of deviant behaviors. The inability to distinguish between *belief* and *definitions* when creating the two measures in this dissertation caused a problem in terms of comparing the effect sizes of the two theories. In addition, multicolinearity among some of the social bonds measures resulted in an incomplete model for this theory, compared to the model for Akers's social learning theory, which tended to include all of its measures.

Chapter Five pertains to theory testing across the intersection of gender and culture and began with an analysis of both the *frequency* and *prevalence* of the three types of deviant behaviors across the intersection of gender and culture. Past studies consistently show that, everything being equal, males are more likely to, and more frequently do offend, get arrested, and be victimized for most offenses relative to females, and that such gender differences are larger for more serious and dangerous offenses than less serious and dangerous offenses. Thus, in this study I expected to see that deviance is more prevalent and frequent among males compared to females, and that the gender gap in deviance is wider for general deviance than the two types of academic deviance. Moreover, based on the results from the previous chapter and past

research, I expected that deviance to be less prevalent and frequent among the Japanese sample, compared to the Americans sample. In addition, combining these two hypotheses, one for gender and the other for culture, I expected the gender gap in deviance to be wider in the U.S. than in Japan. The OLS regression analyses conducted in this study showed that consistent with past studies, males are significantly more likely to engage in all three types of deviant behaviors at significantly higher levels than females. However, while the American sample is significantly more likely to engage in *general deviance* at a significantly higher level than the Japanese sample, the Japanese sample is significantly more likely to engage in both types of *academic deviance* at significantly higher levels than the American sample, contrary to the expectation. Furthermore, the interaction term for *Japan* and *male* is significant when *general deviance* and *academic underachievement* are the dependent variable, though the signs are not the same, indicating that while the gender gap in *general deviance* measured in both *prevalence* and *frequency* is wider in the U.S. compared to Japan, when *academic underachievement* measured in both *prevalence* and *frequency* are the dependent variable, it is wider in Japan than in the U.S. OLS regression analyses for the combined samples also showed that gender gap is significantly wider overall for *general deviance* compared to the two types of *academic deviance*, as expected. Though there are numerous ways to empirically examine the concept of "gender," in this dissertation, I examined gender in terms of how it might vary within a cross-cultural context. Thus, I chose to examine gender in terms of the gender differences in conformity and obedience across Japan and the U.S., since such characteristics also seem to be relevant for deviance studies. To simplify the analysis and maintain consistently, I used two

measures created to capture cultural variability from previous chapter: *independent* and *interdependent self-concepts*. However, the OLS regression analyses with these two cultural variability measures regressed with the interaction term for *Japan* and *male* showed that the interaction term is not significant, indicating that there is no country difference in terms of the gender differences in *independent* and *interdependent self-concepts*. Thus, though both *independent* and *interdependent self-concepts* have significant effects on deviance, mostly through their effects on the measures from both Hirschi's (1969) and Akers's (1985) theories, there is no country difference in terms of the effect of gender on the two self-concept measures.

Next in Chapter Five, I examined the interactive effect of gender and culture on each of the theoretical measures from both Hirschi's (1969) social control and Akers's (1985) social learning theories. Based on the two major types of explanations offered for the gender gap in deviance (i.e., gender socialization and gender social control), I hypothesized that females would have significantly higher levels of all elements of social bond than males (particularly parental supervision and commitment) while males would have significantly higher levels of measures from social learning theory than females (particularly differential reinforcement). The results generally supported these hypotheses for both samples. However, contrary to expectations, American males and females did not differ in terms of their perceived level of *parental supervision*, while for the Japanese sample, females perceived a significantly higher level of *parental supervision* than Japanese males. This country difference in terms of the gender gap in *parental supervision* is significant in another analysis when the interaction term for *Japan* and *male* is entered into the regression with *parental supervision* as the

dependent variable. Among other elements of social bonds, OLS regression analyses also showed that consistent with past studies, males have significantly lower levels of both *commitment* and *belief* than females for both samples. Furthermore, like *parental supervision*, the interaction term for *Japan* and *male* was significant when *belief* is the dependent variable and positive, indicating that, though for both countries, males reported a significantly lower level of *belief* than females, the gender gap in *belief* is significantly wider in the U.S. than in Japan. On the other hand, among the measures from Akers's (1985) social learning theory, OLS regression analyses showed that for both samples, males have higher levels of *differential association*, *general definitions favoring deviance*, and *peers' deviance reinforcement* than females, consistent with the hypothesis. In addition, the interaction term for *Japan* and *male* was significant when *differential association* was the dependent variable and it was negative, indicating that the gender gap in *differential association* is significantly wider in the U.S. compared to Japan. On the other hand, the significant interaction term for *Japan* and *male* was negative when *general definitions* was the dependent variable, indicating that gender gap in *general definitions* is wider in Japan than in the U.S. The same result was found for *peers' differential reinforcement*, where the interaction term for *Japan* and *male* was negative, indicating the significantly wider gender gap for this measure in Japan than in the U.S.

In the last set of analyses in Chapter Five, I examined whether the theoretical variables from both Hirschi's (1969) and Akers's (1985) theories can explain the interactive effects of gender and culture on deviance found for both *general deviance* and *academic underachievement*, while specifically focusing on the five theoretical

variables—*parental supervision*, *belief*, *differential association*, *general definitions*, and *peers' reinforcement*—found to differ significantly across the intersection of gender and culture. The results overall showed that, whether tested singularly or in combination, neither Hirschi's (1969) social control nor Akers's (1985) social learning theories could explain fully the interactive effect of gender and culture on either *general deviance* or *academic underachievement*. In other words, even after all theoretical variables are included in the equation (granted that both *belief* and *general definitions* are excluded); the significant country variations in terms of the gender gap in deviance for both types of deviant behaviors remain significant. This result adds an interesting twist to the current state of criminology, particularly in theory testing, and leaves open an important question for both research in gender and deviance and cross-cultural deviance.

Limitations and Suggestions for Future Research

There are several major limitations within this study that need to be addressed. However, because this is one of the first individual level studies to test major theories of deviance across-culture, this study should be considered an exploratory study, and one of the major contributions of such an exploratory study is precisely the suggestions for future research that its limitations offer. Limitations and suggestions for future research deriving from this study focus specifically on the three methodological issues discussed in the chapter on methods: (1) the definition of crime, (2) the comparability of samples/data, and (3) measurement validity.

First, one of the major limitations of this study is the lack of a clear definition of deviance and measurements based on such a definition. Instead, this study employed one of the most popularly used general deviance scales and its measurements.

However, while some behaviors clearly resulted in problems for this study when used to measure deviant behaviors of the Americans and Japanese (e.g., illegal drug use and sales), others also posed some questions about the comparability of the validity of measures across countries. For instance, while it is illegal in Japan to ride a motorcycle without a helmet, such behavior is not illegal in some states in the U.S. In addition, while some deviant behaviors used in this study were more common in the U.S. than in Japan (e.g., illegal drug use), this study did not include any deviant behaviors that might be more common in Japan but rare in the U.S. (e.g., *enjyokosai* or young girls dating older men for material gain). In other words, though in terms of the general deviance measures developed in the U.S., the American sample in this study was found to be more deviant than the Japanese sample, it is not clear if this reflects the difference in criminality across countries. It is possible that the general deviance measures often used in the U.S. are the kinds of deviant behaviors that are more common in the U.S. compared to other countries, and in Japan, youths might be engaged in other types of deviant behaviors as prevalently and as frequently. In order to counter such limitations, the definition of deviance, the dependent variable, must be clearly stated and the validity of measurements for the definition should be examined and compared across countries. Such a study could supplement with qualitative research of deviance in each country.

Second, the difficulties associated with conducting cross-cultural research at the individual level have already been discussed, but another major limitation of this study is the use of a non-probability sampling method to collect comparable data in the two countries. Because the samples from both countries are non-probability samples, the

results found in each country cannot be generalizable to the larger population. However, if the two datasets are comparable, the differences found in these two samples should be generalizable to the differences in the larger populations between Japan and the U.S. Even so, the sampling frame used to collect the data in two countries might pose some problems, because as discussed in previous chapter, Japan and the U.S. differ significantly in terms of the population of the students who make up college students, especially at the national level. It is possible that such differences might produce a more homogenous and less deviant sample of youths for the Japanese sample (relative to the population of youth in Japan) compared to the U.S. A preferable sampling frame for cross-cultural deviance research would be much younger youth at an earlier schooling stage before many of the social factors (such as SES, family process, etc) start to cause selection effects. However, of course, surveying younger youths would invite a different set of issues that researchers need to deal with such as the difficulties getting permission to collect sensitive data among younger youths.

Lastly, as it relate to the definitions of deviance, this study lacks examination of measurement validity of each measure used. Because all of the measures used in this study are developed in the U.S. and are popularly tested, the measures might be fundamentally biased when tested and compared across an American sample and another sample. The issue associated with one of Hirschi's (1969) social bond measures is discussed previously. The difficulty associated with the measures used in both Hirschi's (1969) social control and Akers's (1985) social control is that they both rely on the respondents' own *subjective* perceptions and attitudes, instead of relying on objective measures (e.g., a researcher might observe the interactions between a child

and a parent and use an objective method to classify the level of intimacy of communication). Such subjective measures can be more problematic when used cross-culturally, because the standard against which each respondent decides on his or her answer might vary by country. So for instance, the respondents' perceived level of parental supervision might be affected by what their society or culture considers as high or low parental supervision. Thus, for instance, if parental supervision is more common and high in Japan compared to the U.S., the same level of parental supervision experienced by a Japanese respondent and an American respondent might in fact be considered too high in the U.S. while considered too low in Japan. In order to examine the validity of each measures used in a cross-cultural deviance research, an extensive qualitative study might be required to shed light on the underlying cultural differences that might affect the measurements used in a survey research.

Summary

Overall this study raised more questions than it attempted to answer, but this is expected for an exploratory study. An analysis using OLS regression revealed that the Japanese engage in a significantly lower level of *general deviance*, compared to Americans, consistent with the expectation based on past studies (particularly macro level studies). However, an OLS regression analysis also revealed that the Japanese are more deviant than Americans in terms of academic deviance. This study also found that Japanese have significantly lower levels of both individualism and collectivism, compared to the Americans. Moreover, contrary to the hypothesis, but consistent with the fact that they are low on collectivism, the Japanese have significantly lower levels of social bonds, compared to the Americans. In other words, while the Japanese have significantly

lower levels of social bonds than the Americans, and social bonds have significant negative effects on deviance, the Japanese engage in a significantly higher level of *general deviance* than the Americans. This is a perplexing result that raises an important question for Hirschi's (1969) social control theory. On the other hand, consistent with their lower level of deviance, the Japanese respondents have significantly lower levels of most of social learning measures, including *differential association*, *general definitions*, and *peers' reinforcement*. However, social learning theory still failed to explain fully the country gap between Japan and the U.S. in all three types of deviant behaviors. These two major results suggest that in order to explain why Japanese are less deviant than Americans in terms of general deviant behaviors, we need to examine factors other than social bonds or social learning.

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APPENDIX A

ADDITIONAL DISCUSSION OF THEORY CLASSIFICATION

To examine how criminology differentiates individual level theories of deviance, I refer to the following textbooks written by leading criminologists: (1) *A General Theory of Crime* by Gottfredson and Hirschi (1990), (2) *Causes of Delinquency* by Hirschi (1969), (3) *Social Deviance and Crime: An Organizational and Theoretical Approach* by Tittle and Paternoster (2000), and (4) *Criminological Theories: Introduction, Evaluation, and Application* by Akers and Sellers (2009). Gottfredson and Hirschi (1990) and Hirschi (1969) describe their theories of deviance by drawing clear distinctions from other individual level theories of deviance and by making it apparent that their theories offer solutions to the limitations and criticisms that accompany other leading individual level theories of deviance. Akers (1985, 1990), on the other hand, argues that his social learning theory is an all-encompassing theory that can therefore account for most of the theoretical variables from other individual level theories of deviance. Perhaps because of this, when Akers explains his social learning theory along with other individual level theories of deviance (see for instance Akers and Sellers 2009), he does not explain it in terms of how his theory can be differentiated from other leading sociological theories of deviance.[51] I therefore focus on the distinctions of theories offered by Gottfredson and

[51] Going back to Sutherland's (1947:3) statement that "[c]riminology is the body of knowledge regarding crime as social phenomenon. It includes within its scope the processes of making of laws, of breaking laws, and of reacting toward the breaking of laws," Akers and Sellers (2009) classify theories of deviance into three major groups depending on their focus: (1) theories that focus on making laws, (2) theories that focus on breaking laws, and (3) theories that focus on reactions toward the breaking of laws.

Since both Hirschi's (1969) social control and Akers's (1985) social learning theories are considered theories that focus on breaking laws, Akers and Sellers (2009), focusing on this type of theory, further classify them into two major groups: one emphasizes social *structure* and the other emphasizes *process* that affects crimes. Essentially, the theories that focus on social structure, called macro level theories, emphasize the group differences that result in group variations in deviance, while the theories

Hirschi (1990) and Hirschi (1969), while supplementing them with counterarguments offered by Akers and Sellers (2009).

One of the most important distinctions to be made between the leading individual level theories of deviance is one based on "tradition," discussed in Hirschi (1969) and in Gottfredson and Hirschi (1990). Tradition functions as a school of thought that sets the ground for the development and underlying premises of theories. According to Gottfredson and Hirschi (1990), control theories, such as their own self-control theories, Hirschi's (1969) social control, and an early version of social disorganization theory (Shaw and McKay 1942), follow the *classical* tradition of criminology, while other leading individual level theories of deviance, such as Akers's (1985) social learning and Agnew's (1985) strain theories, follow the *positivist*[52] tradition of criminology. Views on the following seven points are important in distinguishing the *classical* from the *positivist* traditions: (1) consensus vs. conflict models of society, (2) human nature, (3) free-will vs. determinism, (4) locus of the causes of deviance (5) the nature of deviance, (6) logical deduction vs. induction, and (7) the causes, correlates, and explanations of deviance.

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that focus on process, also called micro level theories, emphasize the individual variations that explain why some individuals commit deviance while others do not.

In addition to the macro level vs. micro level distinction of theories of deviance, according to Akers and Sellers (2009), crime theories can also be classified based on the unit of analysis or based on scientific discipline. Thus theories might be classified into biological theories, psychological theories, and sociological theories. However, such distinctions are not clear cut, according to Akers and Sellers (2009). For instance, many psychological theories emphasize physiological and neurological characteristics that are also considered in biological theories. However, none of these distinctions are relevant in differentiating Akers's (1985) social learning theory from other leading individual level theories of deviance, such as Hirschi's (1969) social control, Agnew's (1985) strain, and Gottfredson and Hirschi's (1990) self-control theories.

[52] Positivism is a philosophy of science influenced by the enlightenment philosophy referring to the idea that true knowledge comes only through our direct experiences and the use of scientific methods. Positivism was founded by the father of modern sociology, August Comte, in response to theology and metaphysics, the two influential philosophies of science at that time.

First, the classical tradition follows Durkheim's view on the *consensus model* of society, as opposed to the *conflict* or *sub-cultural model* of society, and therefore holds that social norms are, by definition, shared by the people in a society. This is an important point in distinguishing between classical theories and "cultural deviance theories," such as Akers's (1985) social learning theory, and conflict theories on deviance—both of which, unlike the classical tradition, view society as comprised of the conflicting normative and value systems of its various subgroups. It should be noted that the term "cultural deviance" is first used by Hirschi (1969) and then by other control theorists (e.g., Gottfredson and Hirschi 1990, Kornhauser 1978, and Costello 1997) in a somewhat derogatory way to emphasize their critique against one of the premises of social learning theories, but it is not a term accepted by social learning theorists themselves (see for instance the counter argument by Akers 1996 and Matsueda 1997). While social learning theorists do not deny holding assumptions about the existence of conflicting cultures in a society, which is comprised of a dominant culture and subcultures with competing norms and values, they posit that nobody exclusively belongs to either group. Furthermore, social learning theorists also posit that most of us belong to several groups, in which we are constantly exposed to conflicting norms and values about a certain behavior (Sellers and Akers 2006). Those youths who belong to gangs are, for instance, also exposed to the norms and values of the dominant culture, as well as other conventional smaller cultures—all of which influence the definitions of deviant behaviors that youths develop.

Second, the classical tradition views human nature such that humans always behave in "the self-interested pursuit of pleasure or the avoidance of pain" (Gottfredson

and Hirschi 1990: 5)—an idea influenced by the utilitarian philosophy of the 18th century social philosophers Thomas Hobbes, Jeremy Bentham, and Cesare Beccaria. According to the classical tradition, criminal behaviors are merely those behaviors that satisfy our innate desire for self-interested pursuit, and are the "expression of fundamental human tendencies" (Gottfredson and Hirschi 1990: 5). Furthermore, the classical tradition holds that the motivation for deviance is *universal*. Therefore, anyone is capable of committing deviance unless somehow restrained from doing so, and thus, classical traditions focus on the factors that *prevent* individuals from deviance. On the other hand, according to Gottfredson and Hirschi (1990), the positivist tradition of criminology, such as Agnew's (1985) strain and Akers's (1985) social learning theories, reject the classical traditions' assumption of human nature,[53] and instead hold that humans are inherently social beings[54] who "must therefore be compelled to commit

[53] Reading Akers's explanation of his social learning theory in the newest version of his textbook (Akers and Sellers 2009), the nature of human being envisioned by his social learning theory is unclear. In Sutherland's (1947: 6-7) original formulation of his differential association theory, however, he states that "[a]lthough criminal behavior is an expression of general needs and values, it is not explained by those general needs and values, because noncriminal behavior is an expression of the same needs and values." Here, "general needs and values" might imply a fundamental human nature, but it is not clear from this proposition alone. In any case, since such "general needs and values" explain both deviant and conforming behaviors, the human nature suggested by Sutherland (1947) is probably different from the one held by classical tradition.

[54] Though it might be premature to assume that the idea that humans are inherently *social beings*, as Gottfredson and Hirschi (1990) argue is implied by the positivist tradition of criminology, equals the idea that humans are inherently *moral*, the doctrine of innate purity argued by Jacques Rousseau, it could be argued that while Agnew's strain theory is more in line with the doctrine of innate purity, Akers's social learning theory is more in line with John Lock's idea of *tabula rasa*.

Given the blank slate assumption in Akers's (1985) social learning theory, what seems to be most problematic is that, though the theory is based on the idea of "differential reinforcement" or learning through rewards and punishments, it cannot explain where these reinforcement, rewards, or punishments originate. Akers (1998) cannot explain, for instance, why babies consider being held by their mother to be rewarding compared to being left alone in a crib. It seems that social learning theory must accept the fact that there is some fundamental value that is innate and unlearned and that we seek in order to explain why babies consider a certain behavior to be rewarding or not rewarding.

If social learning theory accepts the human nature assumption of classical criminology, i.e., hedonism, however, the theory seems to be almost indistinguishable from rational choice theory. Nevertheless, Akers (1998: 61) seems to argue further that because of differential "normative content" shared by different groups, people come to value certain behaviors.

deviant or criminal acts by forces over which they have no control" (Gottfredson and Hirschi 1990: 11). Using deductive reasoning, Gottfredson and Hirschi (1990: 75) argue that the human nature implied in Akers's (1985) social learning theory suggests that "people always act in the interest of the groups to which they belong."[55] For the positivist tradition, or at least for Akers's (1985) social learning theory, conformity (not deviance) is *universal*, so the positivist tradition's theoretical focus is on those factors that *motivate* individuals to commit deviance or factors that *motivate* individuals *not* to confirm.

Third, the classical tradition assumes that we are free to choose our own behavior, be it confirming or deviating, and that we choose our behavior using *rational choices* based on the perceived pleasurable and painful consequences of the behavior (Gottfredson and Hirschi 1990). On the other hand, according to Gottfredson and Hirschi (1990), the positivist tradition is influenced by Charles Darwin's theory of evolution, replacing rationalism with empiricism and the use of scientific methods. The positivist tradition, therefore, views human behaviors the same as any other natural phenomenon, governed by the laws of nature (i.e., cause and effect). By applying the laws of nature, the positivist tradition abandons the idea of human free-will over the idea of determinism. The idea that positivist theories are based on determinism (Gottfredson and Hirschi 1990) resulted in heated debates between control theorists and social learning theorists. Sellers and Akers (2006) argue that by abandoning B.F. Skinner's radical behaviorism and accepting instead Albert Bandura's cognitive

[55] Gottfredson and Hirschi's claim that Akers's (1985) social learning theory suggests that individuals always conform to the norms of the group to which they belong resulted in a stir between control theorists and social learning theorists (see Akers 1973, 1977, 1985, 1996, 1998, Costello 1997, 1998, Gottfredson and Hirschi 1990, Hirschi 1969, 1996, Hirschi and Gottfredson 1979, Kornhauser 1978, Matsueda 1988, 1997, Sellers and Akers 2006).

learning as the foundation of their social learning theory, Akers's social learning theory should more correctly be characterized as a "soft determinism." Additionally, Akers and Sellers (2009) argue that by incorporating the effect of human cognition and agency in the newer version of social learning theory, their theory avoids the criticism of Gottfredson and Hirschi (1990). Specifically, they avoid Gottfredson and Hirschi's (1990) criticism concerning a specific implication in Akers's (1985) social learning theory: that conformity and learning occur *perfectly* upon exposure to definitions favorable toward a certain behavior, or that definitions favorable to crime "require" criminal behavior. Instead, according to Akers and Sellers (2009), an effect (i.e., deviance) is not guaranteed by the mere presence of stimuli (e.g., exposure to definitions favorable to deviance by belonging to a deviant subgroup), because we also have to take into account the differences in how each individual processes such stimuli.

Fourth, views on human nature affect the *locus* of the causes of deviance. According to Gottfredson and Hirschi (1990), deviance for classical theories is merely an expression of human nature, explained by our inherent desire for a self-interested pursuit. Therefore, the *causes* of deviance for the classical traditions lie within the individual's inherent and universal *motivation* for deviance. For this reason, classical theories focus instead on the *constraints* acting against deviance (not the *causes*) to explain the variation in deviance. On the other hand, with the advent of positivist criminology, the central question within criminology shifted from "what constrains individuals from committing crimes?" to "what causes crime?" Since positivist criminology abandons the classical tradition's assumption of human nature, and instead

accepts the assumption of human nature as inherently *social beings*, they focus their theories on the causations and determinants of deviance.

Fifth, in the classical tradition, the newer version of the control theory (Gottfredson and Hirschi 1990) focuses on the criminal behaviors themselves, rather than on criminals, a notion that has become especially prominent. Gottfredson and Hirschi (1990) argue that the classical tradition derives theories by examining the *nature of crime* and by offering its own definition of crime, which is not based on the legal definition of crime, but is consistent with views on the nature of criminal behavior and on the assumptions of human nature. Therefore, Gottfredson and Hirschi (1990: xiv, xv, & 23) can provide a general definition of crime that (1) does not restrict crimes to those proscribed acts in legal codes at a particular time or place; (2) views crimes as "only part of a much larger set of deviant acts;" and (3) is thus able to provide a "conception of criminal consistent with the nature of crime," for "it is as axiomatic that theories of crime and theories of criminality must be consistent." On the other hand, positivist criminological theories, like Akers's (1985) social learning theory, shift the focus away from the dependent variable, deviance, and focus instead on the independent variables, the causes of deviance, while taking for granted the legalistic definitions of crime and placing an emphasis on distinctions among statutory crimes (Gottfredson and Hirschi 1990). Because of this, Gottfredson and Hirschi (1990) argue that positivist theories not only fail to explain in their own words what "crimes" are, but also that when their theories fail to explain some behaviors that are considered crimes, positivist theorists resort to developing theories that are unique to a specific deviant behavior as

opposed to developing a general theory of deviance (see Akers and Sellers 2009, Agnew 2001, 2006).

Sixth, the method of empiricism used by positivist criminology assumes that, like other scientific phenomenon, the causes and effects operating though human behaviors also "operate at the measurable variables" (Hirschi and Gottfredson 1994: 253). In order to be scientific, early positivist criminology avoided the use of substantive theory, abstract concepts, and methods of analytical deduction when developing a theory, which is particularly apparent in Sutherland's (1947) formation of differential association theory. Positivist criminology instead seeks to develop a theory by observing the differences between criminals and non-criminals. This tradition holds that it is the differences between criminals and non-criminals that are responsible for the criminal behaviors of the former group. This is in stark contrast to the approach taken by the classical tradition. Furthermore, devoid of the notion of human free-will, positivist criminology fails to take into account the nature of crime in a causal mechanism, because seeing crime, or the nature of crime, as an independent variable violates the rule of a logical order for causation for those who adhere to strict empiricism (Hirschi and Gottfredson 1994). Moreover, while avoiding the use of abstract concepts to explain observed phenomenon, positivist criminology relies on a seemingly tautological assumption that "nature has its own categories, and that phenomena within them can be assumed to respond to the same causal forces" (Hirschi and Gottfredson 1994: 253-254). In order to define such natural categories, positivist criminology therefore has to rely on a purported "cause," thereby producing the

tautology—effects within a causal mechanism can only be explained by their causes.[56] Furthermore, Hirschi and Gottfredson (1994) argue that, by avoiding the use of abstract concepts to explain observed phenomenon and by instead relying entirely on empiricism, the positivist tradition also fails to distinguish between *criminality*, the potential to commit crime given opportunity, and *crime*, the actual commission of crime, both of which are very important and distinctive concepts for control theories (see for instance, Gottfredson and Hirschi 1990, Laub and Sampson 2003). However, positivist criminology emphasizes empiricism in order to develop a theory for a causal relationship between the cause and the effect. Thus, unless the relationship is examined through observable measures and *crimes actually occur* or *are committed*, such a relationship cannot be explained because it cannot be observed. Positivist criminology, therefore, cannot distinguish between those individuals who have high criminality and others who have low criminality, unless one group (preferably the former) has a much higher level of actual criminal offending compared to the other group (preferably the latter). The inability of positivist theories to distinguish criminality from crime results in several limitations for these theories. In particular, the positivist tradition fails to explain the following using their theories: (1) individual variations in analogous behaviors (e.g., car accident), (2) group stability in criminality over time, and (3) individual variations in crime over time.

Finally, because the classical tradition holds a view in which "deviance is taken for granted" and "conformity must be explained," instead of focusing on what *causes* individuals to deviate, the classical tradition focuses on *controls* or *constraints*

[56] See also Sellers and Akers (2006) and Burgess and Akers (1966) for social learning theorists' responses to this criticism.

experienced by individuals that prevent them from engaging in deviance (Hirschi 1969: 10). Hirschi's (1969) social control theory focuses on the individual's *bond to society*, which works as a social control mechanism against deviance, while Gottfredson and Hirschi's (1990) self-control theory focuses on the individual's *self-control* that works as a control against deviance. On the other hand, since the positivist tradition holds that humans are inherently *social beings* and that the *motivation* for deviance is not inherent, and thus the *motivation* for deviance is unexplained, the positivist theories of deviance focus on the *motivation* for deviance and locate such *motivation* somewhere outside of human nature. In addition, the positivist tradition offers theories of deviance that are derived by examining the nature of those individuals who commit crime and the characteristics that distinguish criminals from non-criminals. Thus, while Agnew's (1985) strain theory posits that the *motivation* for deviance is produced by the socially inducted *strain* and focuses on how such strain *pushes* individuals to deviate, Akers's (1985) social learning theory posits that the *motivation* for deviance is produced through *learning of the motivation* and the *social reinforcement of behaviors*, focusing on the processes of such learning.

Along the same lines as the differentiation made by Hirschi (1969) and Gottfredson and Hirschi (1990), discussed previously, in their textbook on deviance and crime, Tittle and Paternoster (2000) classify the leading individual level theories of deviance based on their views on two important factors: (1) the *nature* of the cause of deviance and (2) the *location* of the cause of deviance.

First, Tittle and Paternoster's (2000) account of the nature of causes of deviance is similar to human nature. They classify theories that consider humans to be inherently

social and conforming as *motivational* theories, because such theories focus on the *motivation* to commit deviance. These theories are what Gottfredson and Hirschi (1990) consider positivist theories of deviance, and include sociological positivist theories, like Akers's (1985) social learning and Agnew's strain theories, and biological positivist theories—such as those emphasizing biological and psychological characteristics of criminals. On the other hand, Tittle and Paternoster (2000) classify those theories that assume humans to be inherently motivated to deviate as *constraint* theories, because such theories focus on the *constraints* against deviance. Gottfredson and Hirschi (1990) consider these theories classical theories of deviance, and include Hirschi's (1969) social control and Gottfredson and Hirschi's (1990) self-control theories.

Second, Tittle and Paternoster (2000) state that the location of causes of deviance has to do with the primary location of where the theory considers the causes of deviance to lie, either motivational or inhibitive. Those theories that consider the motivation or the inhibitions of deviance to be primarily located within individual are classified as *internal* theories, while those theories that consider the motivation or the inhibitions of deviance to be primarily located outside of the individual are classified as *external* theories. The distinction between *internal* and *external* theories seems to be relative. But when the motivational or inhibitive cause is seen to be located *primarily* within the individual, Tittle and Paternoster (2000), argue that such a cause can be considered a relatively persistent individual trait or distal cause of deviance, as seen in Gottfredson and Hirschi's self-control theory (1990), biological, psychological, or personality theories. On the other hand, Tittle and Paternoster (2000) state that external

theories locate the motivational or inhibitive cause of deviance outside the individual but inside the social environment, the situation, or the interaction with others and focus on more proximate causes of deviance. Thus, since both Akers's (1985) social learning and Hirschi's (1969) social control theories emphasize interaction with others in explaining deviance, Tittle and Paternoster (2000) argue that both of these theories are considered external theories.

As shown in Figure A.1, based on the classification of individual level theories of deviance developed by Tittle and Paternoster (2000), both Akers's (1985) social learning and Agnew's (1985) strain theories are classified as *external motivation* theories: Hirschi's (1969) social control theory is classified as *external constraint* theory, and Gottfredson and Hirschi's (1990) self-control theory is considered *internal constraint* theory.

Figure A.1. Classicization of Individual Level Theories of Deviance.

	Location of Cause	
Nature of cause	*External*	*Internal*
Motivation	Social learning theory Strain theory	Biological theories
Constraint	Social control theory	Self-control theory

Source: Tittle and Paternoster (2000)

Appendix B. Additional Explanations of Gender Gap in Deviance

The first and perhaps most popular explanation of gender differences among the general population in deviance are *biological or evolutionary explanations*. There are two major types of biological explanations. The first type focuses on *physical characteristics*, and posits that sex differences in physical characteristics (e.g., strength) produce sex differences in criminality. This explanation might be plausible if all criminal and deviant behaviors involve some kind of strength, but we know that most deviant behaviors do not require strength, and as shown earlier, the majority of arrests in the U.S. for both males and females are for minor property offenses and drug related offenses that do not require strength. Furthermore, as we know, most people apply their strength in non-illegal manners such as in athletics and other strenuous legitimate employment (e.g., law enforcement). The second type of biological explanation focuses on *hormones* (particularly testosterone and serotonin), and how they affect levels of aggression and the propensity for risk-taking. We know that testosterone affects aggressiveness, which is the tendency to be active, take risks, compete, and overcome fear. Perhaps differences in levels of testosterone in males and females explain the gender differences in deviance. However, hormones (and any other physical and biological characteristics) cannot explain the gender differences in deviance that exist among very small children and young adolescents. Studies consistently find that though age affects the level of criminality, the gender gap in criminality is stable across age (Gottfredson and Hirschi 1990). Both biological explanations seem plausible perhaps in providing initial sex differences. However, neither of them seems to fully explain how such sex differences result in differences in deviance. Moreover, scholars argue that

social variables that temper and channel the effects of hormones and physical strength are much more important predictors of deviance. Furthermore, neither of the biological explanations can provide appropriate explanations as to why there are contextual effects on the gender differences in deviance. For instance, it is not clear how biological differences might explain why the gender gap in crime is wider in urban areas than in rural areas, why it is wider among whites than among blacks, or why the gender gap varies depending on the type of offense. Finally, similar to biological explanations, *evolutionary explanations* focus on genetic impulses for effective reproduction, which they posit have compelled different adaptation mechanisms for males and females, making males more competitive and greater risk takers (to succeed and become attractive to females), while giving females a more risk averse and conservative disposition. Such gender differences resulting from evolution then result in the gender differences as we see in deviance. How evolution affects criminality might be a very interesting area of study. However, evolutionary theories are difficult to test empirically, and fall under similar criticisms leveled against the biological explanations.

The second major explanation of gender differences in deviance is the gender equality explanation, also called the emancipation hypothesis, which became popular in the 1970s in the U.S. According to Freda Adler (1975), as the social and economic roles of women changed in the legitimate word, their participation in the illegitimate world also changed. In other words, she expected that equalization of social and economic roles leads to similar behavior patterns, both legal and illegal, for both males and females. Rita Simon (1976) also argued that female deviance has undergone changes, particularly within property crimes, because women have more opportunities

to commit these crimes today. Coincidently, since the 1960s, the U.S. and other western countries have seen a considerable increase in female arrests and incarceration, as well as an increase in the female share of arrests and incarceration. At the face value, this trend seems to support a *gender convergence* in deviance as argued by Adler (1975) and Simon (1976). For instance, according to Chesney-Lind (2003), between 1960 and 2007, the female share of the total number of arrests in the U.S. increased from 11% to 24.2%. Additionally, since the 1980s, the U.S. started incarcerating increasingly larger numbers of women, and the increase in women's incarceration rates began outpacing men's. Between the years 1980-1999, the number of women in U.S. state and federal prisons increased from 12,000 to 90,000. These recent trends seem to suggest that the emancipation hypothesis has some merit. However, the emancipation hypothesis is strongly discredited and widely criticized by most criminologists today. For one thing, if equality results in higher crime rates among the less privileged group, then it cannot explain the fact that racial and ethnic minority groups compared to whites in the U.S. have always had much higher crime rates even before their equality seem to have been achieved. Furthermore, though female arrests for property crimes might have increased (as we also saw in Table 1), the majority of increase occurred among minor, petty property crimes. Scholars argue that increases in minor property crimes committed among poor women suggest increases in the *economic marginalization* of women, such as the increase in single motherhood, is responsible for the increase in female arrests and incarceration, rather than equality. The gender equality hypothesis also fails to explain both geographic variations in gender differences in crime and the increase in female crime. For instance, the female incarceration rates by state for 2006 show that

the South tends to have higher female incarceration rates than the North East. It is very difficult, however, to think that women in the South have higher criminality than the women in the North East. Thus, these differences seem to indicate policy changes rather than changes in female criminality as a result of increased equity. In line with this argument, after analyzing the changes in arrest data, scholars found that the recent upsurge in arrests and incarceration rates for females since the 1980s is the result of a get tough on crime movement, especially concerning drug offenses. Additionally, as discussed previously, while some offenses saw a gender convergence in arrests, other offenses, especially the most violent and serious offenses, such as murder, saw the gender gap in arrests remain constant. It seems, then, that gender equity does not explain gender differences in criminality, but rather explains the gender differences in opportunity. Furthermore, the current upsurge in female incarceration is better explained by changes in responses to crime at the state level than by gender equity.

The last type of explanations is the strain explanations. Among the major individual level theories of deviance, strain theory devotes more time specifically examining the gendered nature of deviant behavior than perhaps any other theory. Broidy and Agnew (1997), for instance, argue that not only might females and males experience different types of strains, but females and males might experience different emotional responses to the same strain, and thus project different types of deviance. Furthermore, they suggest that because of the importance of relationships for females, females are more likely to engage in self-directed deviance compared to the overt forms of deviance more commonly committed by males. In examining both types of deviant behaviors – those that are more commonly observed among males (a scale measuring

general crime/delinquent behavior) and those that are more commonly observed among females (e.g., eating-disorders), Sharp, Brewster, and Love (2005) found that males and females differ in terms of how negative emotions that result from a certain strain lead to these two types of deviant behaviors. Thus, in their study, strain theory explained the deviant behaviors of males and females differently depending on whether the deviance was male-oriented or female-oriented behavior.