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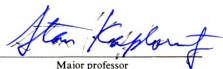
Cross-Cultural Differences in Attributions of  
Responsibility to The Self, The Family, The Ingroup,  
and The Outgroup in the USA and Saudi Arabia: Western  
Versus Non-Western Cultural Attributional Patterns  
of Responsibility

Presented by

Saad Said A. Al-Zahrani

has been accepted towards fulfillment  
of the requirements for

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Major professor

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**CROSS-CULTURAL DIFFERENCES IN ATTRIBUTIONS  
OF RESPONSIBILITY TO THE SELF, THE FAMILY,  
THE INGROUP, AND THE OUTGROUP IN THE USA  
AND SAUDI ARABIA: WESTERN VERSUS  
NON-WESTERN CULTURAL ATTRIBUTIONAL  
PATTERNS OF RESPONSIBILITY**

**BY**

**SAAD SAID A. AL-ZAHRANI**

**A DISSERTATION**

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## **ABSTRACT**

# **CROSS-CULTURAL DIFFERENCES IN ATTRIBUTIONS OF RESPONSIBILITY TO THE SELF, THE FAMILY, THE INGROUP, AND THE OUTGROUP IN THE USA AND SAUDI ARABIA: WESTERN VERSUS NON-WESTERN CULTURAL ATTRIBUTIONAL PATTERNS OF RESPONSIBILITY**

**BY**

**SAAD SAID A. AL-ZAHRANI**

The present study examined attribution of responsibility for achievement and social desirability outcomes with regard to the self, the family, the ingroup, the outgroup in a cross-cultural setting. The sample included 325 college students in both countries, 163 Americans and 162 Saudis. Respondents were given four between-subject treatments corresponding to the four categories of target actors mentioned above. There were also two within-subject variables: Whether the outcome was positive or negative one and whether the situation involves achievement or social desirability. Finally, the respondents were asked to answer a modified version of the Individualism-Collectivism Index and a 20-item stereotyping scale about ingroup and outgroup to see what the overall image each cultural group had about themselves and about the other group.

Results supported the hypotheses that Americans show

greater internality, greater self-serving bias for social desirability, and that both cultures would be influenced by the favorableness of the outcomes. In addition, the hypothesis that Saudis would show ethnocentric bias for social desirability outcomes was also supported. The hypothesis testing the Ultimate Attribution Error (i.e., both cultures would show an overall ethnocentric bias) was only partially supported. In addition, Americans showed more tendency toward individualism than the Saudis. On the stereotyping scale, while the Americans showed similar stereotypes toward both ingroup and outgroup members, the Saudis showed less positive stereotypes of ingroup than of outgroup members.

I predicted but did not find, that while Americans would make more self-serving attribution Saudis would make more family-serving attribution. I also found that Americans were more inclined to show leniency bias (a tendency to make internal attributions for good outcomes and external attributions for bad outcomes) toward all kinds of actors (self, family, ingroup, outgroup).



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## ***DEDICATION***

***This work is dedicated to my father Said Al-Zahrani and to my mother Maleeha Hussain who did not only make so many sacrifices to raise me to be what I am today, but also continue to be the my never-ending source of love, emotional support, and encouragement.***

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I would like to express my thanks to other individuals who contributed, in some way, to the completion of this

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## TABLE OF CONTENTS

LIST OF TABLES.....	X
CHAPTER	
I. THEORETICAL FRAMEWORK.....	1
Introduction.....	1
Theoretical Background.....	3
Theoretical Argument: Social Basis of	
Attribution.....	7
Objectives of the study.....	11
II. LITERATURE REVIEW	
A- Differentiating Cultures: Collectivism Versus	
Individualism.....	14
B- Attribution Biases.....	21
C. Cross-cultural Differences in Attribution.....	25
1- Fundamental Attribution Error.....	26
2- Self-Serving Bias.....	30
3- Group-Serving Bias.....	34
D. Hypotheses.....	40
III. METHODOLOGY AND DATA COLLECTION.....	47
1- Sample.....	47
2- Recruitment and Administration Procedures.....	49
3- Instruments.....	52
A. Attribution Scenarios and Measures.....	52
. Variables.....	53
. Description Of The Situations.....	54
. Coding.....	57
. Internal Vs. External Attribution.....	57
B- Other Measures.....	58
. The Collectivism-Individualism Index.....	58
. Stereotype Measure.....	59
4- DESIGN.....	60
IV. RESEARCH FINDINGS: PART ONE.....	61
. Summary.....	90
V. RESEARCH FINDINGS: PART TWO.....	93
. Additional Questions.....	104
. Ethnocentric Bias and Ethnic Stereotypes....	109
. Summary.....	115
. Footnotes.....	118
VI. DISCUSSION, SUMMARY, RECOMMENDATIONS	
AND CONCLUSIONS.....	119
1- Overall Internality.....	120
2- Attribution to Oneself.....	124
3- Attribution About One's Family.....	125
4- Influence of Positive or Negative	
Outcomes on Attribution.....	128
5- Ethnocentric Bias For Achievement Outcomes.....	129
6- Ethnocentric Bias For Social Desirability	

Outcomes.....	130
7- Influence of Positive Outcomes on Ethnocentric Bias.....	135
8- Summary and Conclusions.....	138
9- Theoretical Implications and Contributions.....	143
10- Suggestion For Future Research.....	147
11- Personal Reflections.....	151
12- Footnotes.....	153
BIBLIOGRAPHY.....	154
Appendices.....	161
A- Attribution Scenarios.....	161
B- Stereotype Measure.....	190
C- Collectivism-Individualism Index.....	193
D- Additional Analyses with gender being added to the independent variables .....	195

## List of Tables

### Table

3.1:	Age, gender, school, GPA, Race, Major area of study of both American and Saudi samples.....	48
3.2:	Subjects fields of specialization by culture.....	49
3.3:	Descriptive statistics for treatment by culture.....	60
4.1:	Means (standard deviation), F values, and F level of significance for internality made by American and Saudi students across eight situations.....	66
4.2:	The overall internal attribution means (standard errors) for situation 1 to 4 (family or self) by culture.....	69
4.3:	The overall means (standard error) of internal attribution for situations 5 to 8 (ingroup vs. outgroup) for American and Saudi students by culture.....	70
4.4:	Means (standard errors) of internal attribution of socially desirable and undesirable personal outcomes by culture.....	72
4.5:	Means (standard errors) of internal attribution made for personal success and failure by culture.....	74
4.6:	The means (standard errors) of leniency bias for personal social desirability vs. leniency bias for achievement by culture.....	77
4.7:	Means (standard errors) of internal attribution of socially desirable and undesirable outcomes for a family members by culture.....	79
4.8:	Means (standard errors) of the difference in attribution of success and failure outcomes (leniency bias) for a family members by culture.....	81
4.9:	Mean leniency bias (standard errors) for self versus family (situations 1-4) by culture.....	84
4.10:	Mean leniency bias (standard errors) by ingroup vs. outgroup members and culture (situations 5-8) by culture.....	85
4.11:	Means (standard errors) of the differences in leniency bias for social desirability and achievement of the FAMILY by culture.....	87
4.12:	Means (standard errors) of the differences in leniency	

	bias for social desirability and achievement of the SELF by culture.....	89
5.1:	The means (standard errors) of internal attribution of success and failure of INGROUP protagonists by culture.....	94
5.2:	The means (standard errors) of internal attribution of success and failure of OUTGROUP protagonists by culture.....	95
5.3:	The overall means leniency bias for achievement outcomes (situations 5 and 6) of INGROUP VS. OUTGROUP protagonists by culture.....	96
5.4:	Means (standard errors) of internal attribution of socially desirable and undesirable outcomes for INGROUP protagonists by culture.....	98
5.5:	Means (standard errors) of attribution of socially desirable and undesirable outcomes for OUTGROUP protagonists by culture.....	99
5.6:	Means of leniency bias for social desirability outcomes (situations 7 and 8) of INGROUP and OUTGROUP protagonists by culture.....	100
5.7:	Means (standard errors) of Grand Leniency Bias Score (situations 5-8) by Culture and INGROUP vs. OUTGROUP Protagonist by culture.....	102
5.8:	Means (standard errors) of the differences in leniency bias for social desirability and achievement of the INGROUP by culture.....	105
5.9:	Means (standard errors) of the differences in leniency bias for social desirability and achievement of the OUTGROUP by culture.....	106
5.10:	Means (standard errors) of the of the overall differences in leniency bias for social desirability and achievement of the INGROUP and OUTGROUP members combined by culture.....	108
5.11:	Means of rating scores of positive stereotypes of ingroup and outgroup members by culture.....	111
5.12:	Means of rating scores of negative stereotypes of ingroup and outgroup members by culture.....	112
5.13:	Means (standard errors) of an overall stereotyping score of ingroup and outgroup members by culture....	114



# CHAPTER ONE

## Theoretical Framework

### INTRODUCTION

The main focus of attribution theories is on how ordinary people try to explain what they perceive. In other words, how do lay individuals search for causes and assign credit or blame for positive or negative outcomes? Fiske and Taylor (1984) point out that it is Heider's ideas about the common person's inferences about the meanings and causality of what takes place in their environment that gave birth to attribution theory. Heider (1958) also suggested the notion of internal vs. external dimension of causality when he talked about personal vs. environmental forces that people use to make attribution of causality. This dimension has become the most basic dimension of causality that all attribution theorists seem to incorporate in their formulations.

According to attribution theorists, attribution process is an important cognitive process in people's daily life (Heider, 1958), or "a pervasive activity" (Harvey, Weary, and Stanley, 1985). Attribution researchers offer several reasons or functions for why people make attributions. Heider (1958) points to the role of attribution on making the individual's life more comfortable because of his ability to predict the occurrence of events around him.

Allport (1958) suggests that all of us engage in "cause and effect" thinking because we need to simplify the environment around us. For some other scholars, attribution gives a person the sense of control over his/her environment (Burger, and Hemans 1988). In other words, attributions allow people to make inferences about causes and be able to explain or understand--although not necessarily accurately-- why certain events occur in the way they do, or why an individual or a group of individuals behave in a particular way.

Pittman and Pittman (1980) found that people make attributions to gain and maintain control over their environment. Liu and Steele (1986) examined the validity of the control-motivation hypothesis in attribution. Their findings revealed that people make attributions to maintain control over their environment only to protect their self-esteem. But when losing control did not involve losing self-esteem, control over the environment did not mean much to the subjects. In other words, the control-attribution relationship is moderated by ego-enhancement tendency.

Researchers have identified two general categories of attributions. The first category are attributions made by individuals about themselves and the second category includes the kind of attributions which individuals make of others. For example, Jones and Nisbett (1972) point to the actor-observer differences in which the individuals have a tendency to make external attributions of their own behavior and make

dispositional attributions of others' behavior. This is because individuals view their own behavior as being more variable and others' behavior as being more stable across situations. Both of these two categories are equally susceptible to attribution biases and errors (Harvey, Ickes, and Kidd, 1976 ).

### **Theoretical Background**

There are currently several theoretical formulations within the framework of attribution theory. In addition to Heider's (1958) formulation of common-sense psychology, there is Jones and Davis's (1965) theory of correspondent inference which is concerned with the way in which people make inferences about what causes others' behavior across situations.

There is also Kelley's (1967,1973) covariation principle formulation which is concerned with making attribution about both single and multiple occurrences of events. According to Kelley (1973) and Kelley and Michela (1980), people use these three principles to determine causality. Different combinations of these principles will result in different causal attributions along the internal-external dimension of causality.

Another formulation which has stimulated a lot of research is Weiner's model. According to Forsterling (1988), Weiner's model "is the most comprehensive theoretical model that deals with the influence of attributions on behavior, affect, and cognitive processes" (p.47). Weiner's model is basically an advancement of Heider's internal-external dimension of causality.

Weiner (1979) proposes two more dimensions: Controllability and stability dimensions. Specifically, Weiner (1985) suggests that among both the internal and external causes, some causes fluctuate and others remain constant. So, in achievement-related situations individuals explain their success and failure in terms of one of four causal reasons: ability, effort, task difficulty, and luck. These reasons result in different attributions along the three proposed dimensions. For instance, ability is viewed as internal, stable and uncontrollable; effort is internal, unstable and controllable; luck is external, unstable and uncontrollable; and task difficulty is external, stable and uncontrollable.

Weiner (1986) incorporated two other dimensions to the three mentioned above. He points out that in addition to locus, stability, and controllability, people were found to utilize intentionality (Weiner, 1979) and global-specific (Abramson, Seligman, and Teasdale, 1978) dimensions in their



attribution of causality. However, the evidence for the last two dimensions have not been conclusive.

According to Weiner (1986), his model has been applied to many non-achievement related events such as helping behavior, depression, crime, cigarette smoking. For example, Weiner (1973) empirically showed that this model can be applied to achievement and non-achievement situations. Others have also utilized this model to study anger, helplessness, loneliness, anxiety, and coping with illness (Forsterling, 1988). Some components of Weiner's model have been criticized by some researchers for being loose. For example, controllability has been viewed by some researchers as not important to understand achievement-related outcomes (Fiske and Taylor, 1984).

Finally, there is Rotter's (1966) theory of the locus of control which claims that individuals differ in their tendency to make attribution about themselves and others. The essence of this formulation is that some individuals tend to assign environmental or contextual causes (external attribution), and others are prone to assign internal causes for behavior outcomes and events (internal attribution ), and those who make internal attributions see themselves as having more control over their destiny.

It is clear that these formulations have some common elements among them. For instance, Weiner's model has been shown to be related to Kelley's model. In an early study, Frieze and Weiner (1971) found that high consensus between the

individual's outcome and others' outcomes led to attributions to task easiness or difficulty. However, low consensus led to attributions to ability, effort, and luck.

Read and Stephan (1979) have also showed that high consistency led to more stable attributions. In other words, when the present performance of an individual is consistent with previous ones, it was attributed to the individual's own ability. However, low consistency led to greater attributions to luck, which is external and unstable.

For the present research, the main common dimension that we think all these theoretical models have emphasized is the Internal-External dimension. It is evident that when people make attribution they attempt to use this dimension to show that the individual actor is essentially responsible or not responsible depending on the other external factors they think are involved.

Attribution biases evolved from people's perception of causality as they utilize this dimension. Research findings have shown --discussed below-- that people make attribution biases (i.e., self-serving bias, group-serving bias or ethnocentric bias) by assigning relatively inaccurate weight to either internal or external causes based on one or more of several factors which may include their knowledge or perception of, similarity or dissimilarity, relationship to, prejudice toward, and like or dislike of the evaluated target.

### **Theoretical Argument: Social Basis of Attribution**

The problem with all of those formulations discussed above is that they seem to emphasize the individualistic aspect of attribution and insist on the notion that attribution is an individual rather than a social phenomenon (Hewstone and Jaspars, 1982, 1984; Howard and Leber, 1988 ).

Fincham and Jaspars (1980) point out that attribution of responsibility is not only determined by social factors but also is a social act which has social consequences. Guimond, Begin, and Palmer (1989) have made similar argument supporting the notion of making attribution more social. They state:

there is still very little research showing the extent to which attribution may be shaped by social and cultural factors." (p.126).

Hamilton (1978) argued that attribution model of responsibility "should be modified to include the potential impact of social roles on responsibility" (p.326). Her argument is centered around the idea that both the causes and the expectations by others of one's action are necessary to explain his/her behavior. Therefore, when people make responsibility attributions of an individual's behavior, the individual "is judged on the basis of causality (what was done) and expectations (what should have been done)." (p.316) which are both socially determined.

For example, when Americans see Arab males kiss each others when they meet, they will make different attributions, probably negative (e.g., homosexuality) from those made by

other Arabs who understand the act and why was it done. The same applies to those Arab males watching an American boy kissing his girlfriend in public. They may make negative attributions of this act (e.g., indecency) compared to other Americans who may make positive attributions or at least feel indifferent about it. Hamilton views roles as "normative contexts" within which judgment attributions of responsibility should be understood. She states:

attributionally, roles can best be viewed as normative contexts that determine the standards of accountability of the actor, rather than as external compulsions imposed upon the actor. (p.326).

It's only recently that researchers have started to focus on the importance of socio-cultural determinants of attribution process. More and more we see researchers pointing to the role of *language, status, class, religiosity, and culture* as important determinants of attributions. Those researchers reject the predominately cognitive approach interpretation of attribution, which emphasizes the role of cognitive processes as the chief determinant of attribution as well as other social cognition processes.

According to Hewstone and Jaspars (1982), explaining the behavior of an individual in terms of purely individual processes ignores the social nature of attribution processes. They call for more research on attributions at the intergroup level. Specifically, attribution should be more social by focusing on explaining individuals' behavior as behavior of

individuals "who act as members or representatives of social groups." (p.100).

Although many social psychologists do believe that culture has a profound effect on people's perception of themselves and of others, and on the attribution biases which people make about themselves and about other people or groups (e.g., Crittenden, 1989; Miller, 1984; and Triandis et al., 1988) , only a few social psychologists have actually attempted to examine the assumption that people's attributional style may be culturally determined (Taylor and Jaggi, 1974; Hewstone and Ward, 1985; Hewstone, Wagner, and Machleit, 1989). However, of those who have tried, only a minority of them used a cross-cultural research design to test their assumptions (Kashima and Triandis, 1986; Bond, Hewstone, Wan, and Chiu, 1985; Hewstone and Ward, 1985; and Miller, 1984).

Even when such a design is used, the researchers have paid little attention to why differences in perception of causality and/or responsibility exist among people from different cultures. With few exceptions, it is almost always the case that a particular researcher would dig and find cultural differences in people's attributional style and then attribute these differences to the mere diversity in culture without trying to examine the real mechanisms or determinants that are peculiar to the one or more cultures where differences were found.

Howard and Leber (1988) have examined the role of social status on attribution judgments and found that both social status characteristics and social contexts had significant

effects on attributions. Guimond, Begin, and Palmer (1989) contend that person-blame and system-blame causal attributions may be the result of the kind of socialization in a particular culture.

In their attempt to emphasize the role of social factors on attribution, Hewstone and Jaspars (1984) introduced a tentative theory of social attribution. They incorporated three theoretical concepts taken from other theories which, they argue, represent the bases for social attribution. The first concept is notion of categorization which asserts that individuals view the world in terms of social categories. Second, the concept of Moscovici's social representation is incorporated to explain how shared social cognition, such as norms, social stereotypes, and beliefs, about the ingroup and outgroups are used as "causal schemata" in making attribution of responsibility (Hewstone and Jaspars, 1984).

The two concepts are then integrated with social identity theory to explain attributions in intergroup contexts. The social identity theory (Tajfel and Turner, 1986) simply asserts that individuals are motivated to seek positive social identity which, in turn, activates the categorization of people by the individuals into ingroup and outgroup members. To maintain positive social identity, the individuals will tend to evaluate his/her ingroup more positively than other outgroups given that the individual values his membership to the ingroup, the situation allows for social comparison, and that "the outgroup must be perceived a relevant comparison group." (Tajfel and Turner, 1986, p.16).

From the foregoing discussion, we can see how social phenomena such as stereotypes, attitudes, and norms may affect people's attributions of either positive or negative behavioral outcomes displayed by outgroup members vs. their own group members. These social phenomena, or "representations" as they are called by some social psychologists, are probably influenced, to a great extent, by the type of culture people live in.

#### OBJECTIVES OF THE STUDY

The main objective of this research is to examine the cultural differences in attributions of responsibility using cross-cultural comparison. At the theoretical level, the research will provide additional evidence for either the generalizability, modification, or limitation of attribution theory in non-Western culture.

In addition, this study will provide some evidence for the notion of social attribution by examining how group membership affect attribution. Finally, the study will give us more insight into the differences involved in making attributions about achievement and non-achievement related outcomes by individuals in intergroup attribution contexts.

At the practical level, the research will provide new evidence about the Saudis' attribution of responsibility patterns. Until now, there has never been, to my knowledge, any research to examine the issue of attribution of responsibility among Saudis. Furthermore, the study will examine how the individual members of American culture

(Western and individualistic) and Saudi culture (Arabic-Islamic and probably collectivistic) will explain self, ingroup and outgroup behavioral outcomes whether those outcomes are achievement-related or nonachievement-related, and whether they are positive or negative outcomes.

In other words, do individuals become culturally socialized into the tendency to make one kind of attribution rather than the other (e.g., internal instead of external) regardless of who the actor is or what the outcomes are? Or will such attributional patterns be influenced by the actor's identity and/or by the kind of the outcomes? I predict that there will be significant differences between members of the two cultures examined here in their attributional patterns when they make causal attributions of their own personal outcomes, their ingroup members' outcomes, and of the outcomes of outgroup members.

My own argument is that preferred style of explanations are culturally learned. In this respect, I am in agreement with the conclusion made by Crittenden (1989) who emphasizes the role of norm and values which exist in a particular culture. She states:

Cultural context influences the relative values associated with particular images. We might expect fatalism and low emphasis on individualism to be reflected in an attributional style more external than the American pattern. A culture that values individual achievement over modesty and responsibility to others should encourage egotism. A culture that values social relationships over individual initiative and achievement might nurture the opposite pattern." (p.10).

Therefore, it is not surprising to find that some cultures are more prone to external explanations and others are more prone to internal explanations. The implication for



responsibility attributions is obvious: members of a culture in which modesty, fatalism, member interdependence, group honor and shame are important values are more likely to use external instead of internal attributions than members of a culture in which individual achievement, personal pride, self-reliance, and personal guilt are highly held values. In the latter, internal explanations are more preferred.

## CHAPTER TWO

### LITERATURE REVIEW

#### Differentiating Cultures: Collectivism versus Individualism

One of the issues that cross-culturally-oriented social psychologists face is making sense of their cross-cultural findings. It is almost always the case that a researcher would examine a social phenomenon cross-culturally and attribute the differences to cultures studied. This research approach may not always be accurate because differences may be caused by the researcher's own incompetence. Researchers have recently expressed some concern about making claims and generalizations based on such studies (Finifter, 1977; Poortiga and Malpass, 1986).

There has been some active effort by some researchers to avoid such a problem. For example one group of researchers point to the need to identify the specific socio-cultural components, which differentiate cultures from each others, as being an essential starting point. They argue that the researcher has to show that the examined cultures differ along some identifiable dimensions before making any claim about cultural differences in a particular phenomenon.

Those researchers mention socio-cultural components such as values, norms, attitudes, belief systems, differences in child rearing practices, differences in viewing the self,

differences in demographic variables...etc as examples of such dimensions.

One particular approach has been to examine the most basic dimensions along which cultures differ. This approach, which has gained high acceptance and generated extensive research, is based on the idea that different cultures vary along the collectivism-individualism dimension. Collectivism and individualism are viewed as cultural patterns related to people's values and belief systems regarding the priorities in their lives .

According to Triandis, Brislin, and Hui (1988), individualism is a more common cultural pattern in Western Europe and the U.S. It emphasizes "subordination of a group's goals to a person own goals" (p.269). Collectivism, on the other hand is a more common cultural pattern in Asia, Africa, South America, and the Pacific. It is" characterized by the individuals subordinating their personal goals to the goals of some collectives. The collective is often the extended family, although it can also be a work group (e.g., Japan)." (p.269).

Hofstede (1984) points out some of the differences between high and low individualism cultures. He showed that while nuclear family, self-orientation, individual identity, and universalism (same value standards for all) are characteristics of individualistic culture, the extended family, collectivity-orientation, social identity, and

**particularism** (different value standards for ingroups and outgroups) are characteristic of collectivistic cultures. His research showed that the United States, Australia, and England were the highest on individualism. In addition, he found strong correlation (.82) between individualism and high economic achievement.

Hui and Triandis (1986) surveyed a sample of 49 psychologists and anthropologists from all parts of the world to identify how individualist and collectivist persons act in different situations. Their findings indicated that the main differences between the two were as follows: The collectivist persons were viewed as more likely to be subjected to their ingroup influence, to have more consideration for ingroup members' opinion when making major personal decisions, and to have more tendency for sharing material resources than individualist persons.

Triandis (1988) points out to the link between collectivism and ethnocentrism. He defines collectivism as: great emphasis on: (a) the views, needs, and goals of the ingroup rather than of oneself, (b) social norms and duty defined by the rather behavior to get pleasure, (c) beliefs shared with ingroup, and (d) great readiness to cooperate with ingroup members. (p.74).

Triandis points out that individuals in collectivistic cultures are seen as representative of the ingroup rather than as persons. Unlike in individualistic cultures, the ingroups

are " defined through traditions" (p.75) in collectivistic cultures. Therefore, only one or two ingroups usually become dominant in collectivistic cultures (e.g., the family, and the nationality).

Triandis et. al. (1988) maintain that in a complex society where the number of the possible ingroups is unlimited, individualism is more likely to increase because interdependence among the individuals becomes less important since the existence of many ingroups provides each individual with more alternative for social support. This, in turn, leads to the individual being less inclined to be totally attached to any particular ingroup.

Triandis et al. point out that there are several stable characteristics or qualities in which individualistic and collectivistic cultures can be differentiated along. One of these differences relates to Self-reliance which means freedom to do whatever one chooses. Another difference is related to competition with others which characterizes people in individualistic culture. However, in collectivistic cultures, the group has to take care of its members and compete as a group rather than as separate individuals either with ingroup or outgroup members.

Another attribute is related to the idea of achievement. Individual achievement is more emphasized in individualistic cultures than in collectivistic cultures where achievement is

a duty of the whole group, and the individual is only a representative of the group.

Finally, the quality of interdependence which is seen as a very positive thing in collectivistic cultures, but only as mutual interest necessity or "social exchange" in individualistic cultures.

Increasingly, the individualism-collectivism dimension is being used in studying social issues to see how the characteristics associated with these two patterns may influenced individuals' behavior. For example, Gudykunst, Yoon, and Nishida (1987) examined how individualism and collectivism cultural orientations affect patterns of communication behavior among individuals from Japan, Korea, and the U.S with either ingroup or outgroup members.

Hui and Triandis (1986) have identified several characteristics in which the collectivist and individualist persons differ:

- (1) Consideration of the implications of one's decision and actions for other members of the collective or ingroup.

- (2) Sharing of material and nonmaterial (e.g., effort, time) resources is more prevalent among the ingroup members of collectivistic rather than individualistic cultures.

- (3) Members are more susceptible to social influence by ingroups in collectivistic cultures than those in individualistic cultures.

(4) Concern for social approval: Unlike persons in individualistic cultures, persons in collectivistic cultures are highly concerned about social approval and strive to gain it. Shame rather than guilt is the stronger mode of social control in collectivistic cultures. However, Triandis (1988) report that both guilt and shame may exist in some collectivistic cultures as it is the case in India.

(5) Sharing of outcomes: People in collectivistic cultures value interdependence and tend to emphasize the social consequences of the person's behavior. Sharing of outcomes among members of collectivistic cultures is important value. Whether it is success, pride and honor, or failure or undesirable behavior, the outcome is shared by not only the actor but the whole group. However, persons in individualistic cultures feel less disgrace for an ingroup member's bad behavior.

(6) Feeling of involvement in others' lives is higher in collectivistic than in individualistic cultures. Marriage, job, friendship, and major life investment, such as the kind of business one would start, are decided not only by the individual but also by other members of his/her ingroup in the collectivistic cultures, but considered as private matters of the individual in individualistic cultures.

We can say with relative confidence that American culture is individualistic and Saudi culture is collectivistic. There is strong agreement among social psychologists that American

culture is highly individualistic (Sampson, 1988; Miller, 1984).

Cross-cultural research findings point to the strong relationship between high authoritarianism of and loyalty to the ingroups, especially the family, and collectivism (Triandis, 1988). This may be a true characteristic of the family in Saudi culture. Some researchers have found that loyalty and duty to the family are greater than other social or business related responsibility in Saudi culture because "status of the individual in Saudi Arabia is derived from his membership in the group family, village and tribe, and is not determined by his individual capacity" (Abdrabboh, 1984, p.37); and that the entire family feels ashamed and equally responsible when one member is engaged in a dishonorable act (Patai, 1974). In addition, Al-Juwayer (1984) found strong family solidarity among Saudi college students. High percentage of the sample (99%) overwhelmingly felt being obligated to assist relatives in need. The support for immediate family, like brothers or sisters, felt by all the sample (100%). However, when asked about success "The important thing in life is to be a success no matter how you get the success." (p.240), 85% of the student did not think that success is the objective of life.

In conclusion, I believe that the use of this measure will be useful in giving us some indications or better understanding of the determining factors about cultural



differences between Saudis and Americans in attribution of responsibility. The assumption here is that those differentiating qualities mentioned above about the two cultures will have some effects on people's expectations of themselves, their ingroups, and the outgroups and will play very important role in determining how people make their attributions of responsibility either about their own behavior or that of the others.

#### **ATTRIBUTION BIASES**

The social psychological literature discusses several kinds of attribution biases or errors people make in explaining personal and social events. These biases and errors include the so-called:

1- **Fundamental Attribution Error (FAE):** Defined as the tendency to over-estimate the role of the personality dispositions and underestimate the role of situational factors in explaining the causes of the actor's behavioral outcomes (Ross, 1977). In other words, it emphasizes internality.

2- **Self-Serving Bias:** It refers to the tendency to take full credit for success or other desirable outcomes and deny taking blame or responsibility for failure or undesirable outcomes by attributing positive outcomes to internal causes (e.g., ability, effort), and negative outcomes to external

causes (e.g., luck, task difficulty) (Kashima and Triandis, 1986).

This bias is considered to be the most important bias and probably the most investigated by attribution researchers. In fact, two of the other three biases are just variations of this bias. It is related to the locus of causality assumption, which is based on Heider's (1958) notion of personal vs. environmental forces of causality. This notion asserts that people usually explain the causes of events either internally or externally.

Rotter (1966) stretched this notion further and came up with "the locus of control" notion in which he indicates that some people tend to be more external in thinking that what happens to them is externally controlled and others tend to be more internal in thinking that what happens to them is internally controlled.

**3- Group-Serving Bias:** It is also called ethnocentric or intergroup attribution bias. According to Fletcher and Ward (1986), here the individuals tend to make internal attributions for positive outcomes and make external attributions for negative outcomes of ingroup members. However, those individuals also will tend to make internal attributions for negative outcomes and external attributions for positive outcomes of the outgroup members. This bias is also known as the ethnocentric attribution bias (Taylor and Jaggi, 1974).

A similar bias called the "Ultimate Attribution Error" (UAE) has been proposed by Pettigrew (1978, 1979). This phenomenon is an extension of the Fundamental Attribution Error (FAE) and similar to the group-serving bias discussed above. Pettigrew argued that although people have the tendency to underestimate the situational factors and therefore make FAE, this might not be the case when individuals make attributions about ingroup and outgroup outcomes.

According to Pettigrew, UAE refers to the tendency of an individual to make internal attributions of the positive outcomes of ingroup members and the negative outcomes of outgroup members, and to make external attributions of the negative outcomes of ingroup members and the positive outcomes of outgroup members. Pettigrew (1979) states:

The ultimate attribution error will be greatest when the groups involved have history of intense conflict and possess especially negative stereotypes of each other. It will also be greatest when racial and ethnic differences covary with national and socioeconomic differences; or, more strongly phrased, the more bound the two groups, the greater the ultimate attribution error is likely to be (p.469).

He indicates that to test UAE, we need to measure prejudice or stereotypes in order to examine how the individuals evaluate their ingroup and the outgroup members on the same attributes. Pettigrew mentions some exceptions to FAE. One of these exceptions is the tendency of actors to attribute their behavior to external causes if there is a

**"salient extrinsic reward"**. That is to say an individual may show some modesty by not taking the full credit for positive, or by taking more responsibility for negative outcomes when **modesty** more rewarding (e.g. a football coach whose team has just won the game) or is the salient value in the culture. Could this be considered a self-serving bias? Probably, but no study has been done to examine this possibility.

Another exception is the case in which the attribution is to be made about the outcomes of an intimately loved one. Individuals tend to make external attributions about negative outcomes and internal attributions about positive outcomes of a loved one.

In addition, some groups may become socialized to expect less of themselves and, therefore, show less tendency toward FAE. For example, Deaux and Emswiller (1974) found that in contrast to group-serving bias hypothesis, female subjects attributed ingroup (i.e. female actors) positive outcomes to luck but attributed female positive outcomes to luck rather than to ability.

Finally, there is the exception found in teacher attributions for student outcomes. Numerous studies, although not consistent, have shown that teachers take less credit for students' success but yet take more responsibility for students' failure (Arkin, Cooper, and Kolditz, 1980).

It seems that these attributional errors evolve around the notion of internal versus external attribution. The

differences stem from who is making the attribution, for what kind of outcome, and about whom it is made.

Theoretically, the relationship among these notions starts with the idea that people want to have answers to every why question, some of them are prone to seeking external causes and others to seeking internal causes, but the majority tend look for internal rather than external causes. However, the kinds of behavioral outcomes seem to interact with who is the actor to produce certain attributional biases or errors to serve some psychological and social functions, both at the individual and at the group levels.

Based on group-serving bias discussed above, we can assume that although both the American and the Saudi students will make ethnocentric attributions, there will be greater family-serving bias, especially on the social desirability outcomes, among the Saudis than among the Americans. However, for achievement-related outcomes, there will less significant difference between the two groups.

### CROSS-CULTURAL DIFFERENCES IN ATTRIBUTION

Cross-cultural studies have revealed that differences exist among members of different cultures in making attribution biases suggesting interaction between culture and attributions. Many researchers have done cross-cultural studies to examine cultural differences on self-serving bias,

especially with regard to success and failure attributions, and other attribution biases.

In the following sections, I will briefly discuss some of the cross-cultural research on each the three main attribution biases discussed above.

I- Fundamental Attribution Error: The notion that people tend to overestimate the role of dispositions and underestimate the role of external factors is not universal. The question here is: Do all cultures engage in this error, or do some of them overestimate external rather than internal factor in general?

Cross-cultural studies suggest that cultures differ in their emphasis on either of these two explanations. There are some evidence showing significant differences between people of Western and non-Western cultures. For example, Bond and Tornatzky (1973) compared American and Japanese students and found that the Japanese were more external than the American students as manifested by their responses on Rotter's scale. Holloway, Kashiwagi, Hess, and Azuma (1986) examined the explanations of low performance in math given by a sample of American and Japanese mothers and their children .

They found that Japanese mothers and their children were more likely to accept responsibility for negative outcomes than their American counterparts. They, the Japanese, attributed the low performance of the children to lack of

effort (internal and controllable) rather than to ability (internal but not controllable) or to the school. In other words, while the American sample made internal and external attributions for negative outcomes, the Japanese made only internal attributions.

Munro (1979) examined the locus of causality in African cross-cultural contexts. His sample included Zambian africans, Zimbabwe-Rhodesian Africans and Zimbabwe-Rhodesian Europeans. His findings showed that both whites and blacks in Africa displayed a similar attribution pattern. Both white and black Africans used efforts and abilities (internal), and chance and supernatural forces (external) to explain specific events. In other words, there was no difference between whites and blacks in making internal vs. external attributions.

These results contradict Miller's (1984) findings which showed that Anglo-Indians made more internal attributions than other Indians indicating that Westerners kept their "Westernized cultural meaning system" regardless of their long-time staying in India (a collectivistic culture).

One comment about this study is that it showed that culture has profound effects on people's social cognition as manifested by the similarity in attribution patterns of black Africans and Europeans who lived long enough in African-cultural context. In contrast to other Europeans living in Europe, Europeans living in Africa, according to this study,

seem to utilize both internal and external attributions in the same way as black Africans.

Betancourt and Weiner (1982) had Chilean and American students responding to a questionnaire about eight situations of success and failure. The findings showed that the two samples were similar in their attributions. These findings have not been replicated in other cross-cultural studies outside Western cultures.

In another study, Louw and Louw-Potgieter (1986) found that college students of three of South African ethnic groups (Whites, Blacks, and Indians) made similar causal attributions of their success and failure on both internal and external causes. However, the white students were the least external, and the black students were the most likely to attribute their success and failure to external causes.

More recently, Miller (1984) has provided some insight on the differences between Western and non-Western cultures regarding dispositional versus contextual attributions in the two cultures. Miller attempted to show the influence of "cultural meaning systems" on how people make attributions. She contends that the difference in the cultural belief systems about the person plays, as an independent variable, a major role in explaining the diversity in attributions of causality rather than only "cognitive or experiential" determinants offered by social psychologists.



According to Miller, while conception of the person in Western culture tend to emphasize "individualistic notions", it tends to emphasize "holistic views" in non-Western cultures. Specifically, the individual is perceived to have more control over the environment than the individual in non-Western cultures, where much more interdependence between dispositional and contextual factors is conceived.

In a sample of 60 Americans and 70 Indians, she asked the participants to describe one pro-social and one anti-social behavior done by persons they knew and explain the reasons behind such behaviors. As predicted, the results showed that American adults had made more attributions to the individual's general dispositions than the Hindus. The difference was even more significant in giving reasons for the antisocial behaviors. Furthermore, when cultural subgroups within India were compared, the Anglo-Indian adults (people from British origin who settled in India and became Indians for many generations) made more dispositional attributions than other Hindus.

Miller's study, however, examined attribution of causality only with regard to persons' causal attributions of negative and positive behaviors of ingroup members rather than both ingroup and outgroup members. Therefore, we still do not know if the Hindu and American respondents would show the same pattern of causal attributions in explaining the behavior of outgroup members or not.

Schuster, Forsterlung, and Weiner (1989) examined cross-cultural differences in attributions of success and failure in five countries. They asked a group of taxi drivers and civil servants in Belgium, West Germany, India, South Korea, and England to rate 22 possible reasons regarding success and failure. They found that the two occupational groups were similar in their attributions. In addition, all of the cultural groups, with the exception of Indians, made mostly internal attributions for both success and failure. The Indians, on the other hand, made mostly external attributions for both success and failure.

**II- Self-Serving Bias:** The accumulated research findings on individuals from Western cultures show that they tend to attribute success to internal causes and failure to some contextual or external causes (e.g., Bradley, 1978; Miller, 1976; Ross and Fletcher, 1985; Zuckerman, 1979). However, Cross-cultural studies also suggest that people of non-Western cultures seem to have less tendency to attribute their success purely to internal and their failure to external factors than people in Western cultures (e.g., Chiu, 1986, 1988; Kashima and Triandis, 1986; Hui, 1982).

When applied to interpersonal or other behavior, self-serving bias involves the tendency to make dispositional or internal attributions for one's positive behavior and

situational or external attributions for negative behavior (Mullen and Riordan, 1988).

Bradley (1978) reviewed some studies and found strong evidence for self-serving bias in Western cultures. Furthermore, he argued that because self-serving bias is motivated by the tendency to protect one's self-esteem, in some situations individuals have made counter-attributions to self-serving bias probably because modesty served ego-enhancement in some situations (e.g., when asking about one's altruistic behavior) better than self-serving bias.

For example, Chiu (1986) conducted a study using sixth and eighth grade students in the U.S and Taiwan, and found that American children were more internal in explaining success but more external in explaining failure than their counterpart Chinese. In other words, American students were more self-serving.

In another study, Chiu (1988) examined the differences between American and Chinese adolescents in their belief about their personal responsibility for success and failure. He found that the Chinese adolescents (both males and females) showed less self-serving bias than the American adolescents. In particular, the Chinese adolescents made more external attributions about their success and more internal attributions about their failure than the American adolescents.

In an early study, Shaw and Iwawaki (1972) examined attribution of responsibility by American and Japanese school children. They found that the Japanese children assumed about the same responsibility for both positive and negative outcomes. However, the American children assumed greater responsibility for negative than for positive outcomes. These findings were replicated for the Japanese (see below) but not for the Americans who were usually found to display a self-serving bias.

Recently Yamauchi (1988) has examined the attributions for success and failure among Japanese students. These students were asked to make attributions about their own outcomes and their opponents' outcomes in achievement task. He found that when the students were the actors, they made more external attributions about their success and more internal attributions about their failure than when they were the observers (i.e., judging their opponents' outcomes). In other words, self-serving bias was reversed. It would be interesting to see if the Japanese would display such a reversed attribution bias with outgroup members too.

Kashima and Triandis (1986) studied the differences between American and Japanese students in an achievement-related activity and found that American students displayed more tendency to use self-serving bias than their Japanese counterparts. However, the Japanese students showed greater

tendency to attribute their failure rather than their success to themselves.

In explaining the difference, they point out that the self-serving bias is probably an individualistic coping strategy which doesn't fit in collectivistic cultures where "several people cope together " (P.84). However, if it is true that self-serving bias is a way of maintaining a positive self-image, then modesty might lead to the same result in non-Western cultures. Identifying the dominant values and norms in each culture will help us understand why differences in social cognition processes, such as attribution, exist among members of different cultures.

Hui (1982) pointed out that although the findings showing Americans to engage in more self-serving bias than the Japanese seem to be consistent, the findings are not as consistent with regard to American and Chinese samples. One reason Hui gives is that the majority of those studies used subjects from Hong Kong where people are more Westernized than are other Chinese.

Boski (1983) examined self-attributions among three ethnically, and religiously different Nigerian groups: Hausa (Muslims) and Ibo and Yoruba (Christians). The manipulation to examine ethnocentric bias was not successful and no meaningful results were obtained.

The findings showed that the Hausas made more external attributions about their success than did the other two

groups who attributed their success to ability. However, all three groups were similar in making internal attributions about their failure. Of course, we do not know whether the Hausas's tendency to make less ego-centric attributions than the other groups is because of their religion, culture, or a combination of both.

Chandler, Shama, Wolf, and Planchard (1981) examined the attributions of success and failure made by students from India, Japan, South Africa, United States, and Yugoslavia. Their findings showed that except for the Japanese, respondents of all countries, including Indian subjects who are assumed to represent a collectivistic culture, displayed more internal attributions of their success than their failure. The Japanese, on the other hand, made more internal attributions (i.g., lack of effort) of their failure than their success. In other words, the Japanese were the least self-serving bias of all groups. However, no attempt was made to see how each of these groups would attribute success and failure of outgroup members.

**III- Group-Serving Bias:** As I indicated above, this bias is called ethnocentric or intergroup attribution bias. Nevertheless, there have been only few studies examining this bias in cross-cultural contexts. A landmark study was conducted by Taylor and Jaggi (1974). This study has been acknowledged by some social psychologists to be the first



study on social attribution ( Hewstone, 1988; Hewstone and Jaspars, 1984) and the first to show Ultimate attribution error ( Pettigrew, 1979).

In this study, Taylor and Jaggi first asked 30 Hindus to rate both Hindus and Muslims on 12-evaluative trait scale and found that Hindus held different social stereotypes of their ingroup vs. the outgroup Muslims. Then they gave those subjects some descriptions of either a Hindu or a Muslim's positive or negative outcomes and were asked to make attributions of these behaviors.

They found that Hindus displayed a tendency to attribute socially desirable behavior of an ingroup member to internal causes, but to attribute socially undesirable behavior by the same member to external causes. However, when the behavior was performed by the outgroup members, opposite attributions were given. Desirable behavior of an outgroup member was attributed to external causes, but undesirable behavior of that member was attributed to internal causes, specifically, to dispositional characteristics of that member. The main problem with this study is that no data was collected from Muslim subjects (Hewstone and Jaspars, 1984).

This is an example of the so-called "ultimate attribution error " in which the individual explains the same behavioral outcomes of the ingroup and outgroup members in almost opposite directions, for no reason except the membership of the actors.



Hewstone and Ward (1985) conducted a study to examine Taylor and Jaggi's (1974) hypothesis about ethnocentric attributions. Hewstone and Ward included two ethnic groups, Malays and Chinese, in Malaysia and replicated the study in Singapore with the two same ethnic groups. The Chinese were living under two different political climates in these countries, and had, therefore, different situations governing their intergroup relations. In Malaysia, the Chinese were regarded as an outgroup minority, but in Singapore, however, the Chinese were politically equal to the Malays and were not regarded as a minority.

The findings of the first experiment supported partially the findings of Taylor and Jaggi. While the Malays made group serving-bias, the Chinese, on the other hand, made no self-serving bias. In fact, they made more internal than external attributions for positive behavior of outgroup members, and made more internal than external attributions of negative behavior of ingroup members.

The findings of the second experiment also showed that the Singaporean Malays made the same group-serving bias found among their fellows in Malaysia. However the Chinese although did not make group-serving bias, they did not make internal attributions of ingroup negative behavior as they did in Malaysia. In other words they did not derogate their ingroup members where they were not a minority. Taken together, the

findings of both experiments showed that the Chinese did not make group-serving bias in either country.

The question of why the Chinese didn't show any ethnocentric attribution as predicted by the theory remains to be answered. However, these results may also be explained in terms of status differences of the Chinese in the two countries. Research findings have shown that low-status groups do give outgroup members more positive ratings than ingroup members. The reason is that a low-status group may be less prejudiced, or have less salient group identification (Pettigrew, 1979).

Recently, Boski (1988) showed video-tape interviews with either ingroup or outgroup members to Nigerian and Canadian students and asked them to evaluate the actor's likelihood of achieving a degree and how much they like him. He found that although people showed ingroup favoritism in liking ingroup members, there were no attribution biases in predicting the success or failure in achievement by ingroup and outgroup members.

Bond, Chiu and Wan (1984) showed that although Chinese do like modesty when making "individual-level attributions", students rated their partners (a confederate) more highly when he made a group-serving bias. The researchers explained this tendency to make group-serving bias in terms of a Chinese cultural norm to "serve, enhance, and defend the reputation of the groups they constitute" (p.338). The Chinese individuals

are socialized into members' interdependence in order to maintain the group's positive reputation and identity.

To summarize, the findings of cross-cultural research suggest that attributional biases do not exist in all cultures. However, these findings show that there are some general patterns regarding how people of different cultures make attributions. These patterns are:

1- Except for few studies, all research findings seem to suggest that individuals of Western cultures, especially that of the U.S., make more internal attributions of their success and more external attributions of their failure than individuals of non-Western cultures.

2- Although the phenomenon of self-serving bias seems to be robust in Western culture, it appears to be less universal in cross-cultural contexts. The available research showed that:

A- The Japanese have, in general, made similar attributions of both their success and their failure. In other words, they make internal attributions as well as external attributions of both their success and their failure.

B- The Chinese have not been as consistent as the Japanese, but they tend to make more internal attributions of their failure than of their success.

C- Except for a few studies, the Indians showed less tendency toward self-serving bias than Westerners (especially Americans and Canadians). Indians also tend to make, in

general, more external rather than internal attributions about both positive and negative personal outcomes.

D- Several studies using African subjects showed the tendency to use both internal and external attributions in explaining personal success and failure. However, in intergroup contexts, there was no indication of group-serving bias in explaining ingroup and outgroup members' achievement-related outcomes.

E- There seems to be some lack of research on how attribution of responsibility is made in many cultures in the world. For example, there is a need to do research regarding this issue in North Africa, Arabian peninsula, Iran, Pakistan, and other countries in the mediterranean region. There are many ethnic, religious and other cultural variations that may have great impact on attribution of responsibility in those cultures.

3- In intergroup contexts of attribution (ingroup-outgroup attributions), the available research is still very limited and does not allow for any clear conclusion. Few studies however suggest that individuals of Western and non-Western cultures make similar biases about the outgroup members.

There are some qualifying points that need to be made concerning these research findings. They might give some insight into the apparent differences among cultures in attributions.

First, there has to be some distinction between the attributions of achievement and non-achievement-related outcomes. It appears that success and failure evaluation is a less significant value in many non-Western cultures than Western culture. In many cultures, modesty and group harmony are the dominant values (Bond, Leung, and Wan, 1982).

Second, in many of these cultures, the individual always thinks of him/herself as a part of the group and therefore does not see himself as totally responsible for success and the group usually acts as a support to moderate the individual failure as Kashima and Triandis (1986) have suggested.

### **HYPOTHESES**

There are several basic assumptions and conclusions about the differences between individualistic and collectivistic cultures which can be drawn from what has been discussed so far. I will utilize these conclusions and assumptions to make some predictions about American and Saudi cultural differences in attributions. Some of the main assumptions and conclusions drawn from cross-cultural studies are:

A- Empirical studies showed that members of Western cultures emphasize internal causes and members of non-Western cultures emphasize external causes in attribution (Miller, 1984; Bond and Tornatzky, 1973).

The difference in emphasis in the two types of cultures may be related to the way of celebrating positive and dealing with negative outcomes which is individually-oriented in the first and group-oriented in the second (Kashima and Triandis, 1986).

There are also some socio-cultural factors which may have significant effects on people's causal explanations of events. For instance, while believing in supernatural power is a common characteristic of most non-Western cultures and has always been an important factor in explaining daily life events, secular thinking, which emphasizes the role empirical explanations and human potential, goes against such belief in the highly advanced Western cultures.

Any attempt to examine attributions in cross-cultural contexts has to take into consideration all these factors. It is predicted here that members of collectivistic cultures will show greater tendency to make more external attribution than members of individualistic cultures.

B- Because persons in collectivistic cultures are more interdependent on each other than in individualistic cultures, group membership is more important. Therefore, ingroup harmony, loyalty for the family and the ingroup, and group goals are emphasized over the individual's goals (Triandis, 1988; Triandis et al. 1988). It is, then, possible to predict that the stronger the sense of collectivism in a culture, the greater the group-serving bias in that culture.

C- In collectivistic culture, the need for affiliation is a more important value than the need for competition. Sharing of outcomes is a very strong norm and achievement is more important for the group than for individuals. In fact, some collectivistic cultures, such as Indian and Chinese cultures, have low need for achievement. Even in a culture where the need for achievement seems to be high such as Japanese culture, it is viewed as a way of satisfying the need for affiliation and cooperation with others (Devos, 1968).

It can be predicted that individuals in collectivistic cultures are less motivated to make self-serving bias when making success and failure attributions.

D- There are usually only few ingroups in which a person may belong to in collectivistic cultures, but relatively high number of possible ingroups in individualistic cultures (e.g., professions, clubs, companies, associations). Therefore, the feeling of group identity is stronger in collectivistic than in individualistic cultures where personal identity is much emphasized (Gudykunst, 1988). It is predicted that:

(1) Group-serving bias is stronger in collectivistic cultures than in individualistic ones.

(2) Self-serving bias is stronger in individualist cultures than in collectivistic cultures.

E- The ingroup (whether it is the family, the tribe, or the nation) in collectivistic cultures provides protection and support for its members and expects unquestioned loyalty from

them (Verma, 1988). The individual identity in those cultures is an extension of the ingroup. Because individuals derive their identity from their ingroup, they hold very "positive attitudes" of their extended family and other ingroups (Triandis, Brislin, and Hui 1988).

The extended family is more important as an ingroup in collectivistic than in individualistic cultures. In fact, one of the main differences between collectivistic and individualistic cultures is family integrity, which is stronger in the first and weak in the second type of culture (Triandis et. al. 1988). It is predicted that members of collectivistic cultures will make significantly more family-serving bias than members of individualistic cultures.

F- Group honor, group disgrace and shame are important modes of social reinforcement in collectivistic cultures. In addition, people of such cultures are more homogeneous and have strongly-adhered-to social norms. If achievement is a collective responsibility, seeking honor and avoiding disgrace are every member's responsibility.

However, self-reliance, personal independence, personal freedom, and individual achievement are strong values in Western cultures. Therefore, it is predicted that with regard to social desirability outcomes, members of collectivistic cultures will show greater tendency to make attribution biases than members of individualistic cultures.



G-According to social identity theory (Tajfel and Turner, 1986) and Hewstone and Jaspars (1982), a person will tend to favor the ingroup more than outgroups to maintain positive image of the ingroup. However, Wilder (1986) reviewed research on intergroup bias and concluded:

It must be pointed out that ingroup favoritism observed in this literature is tempered with fairness. Subjects rarely maximize positive outcome for the ingroup. Overall, ingroup favoritism is a consistent, significant, and modest consequence of social categorization that occurs across gender, age, and nationalities (p. 312).

Triandis (cited in Gudykunst, 1988), argues that there should be no difference between collectivistic and individualistic cultures in dealing with the outgroups. However, although group membership is more salient in collectivistic than in individualistic cultures (Gudykunst, 1988), some research showed that members of collectivistic cultures (Chinese) had made no ethnocentric bias (Hewstone and Ward, 1985). In addition, they have low need for achievement (DeVos, 1968). On the other hand, members of individualistic culture (German students) were found to make more ingroup attribution bias than members of collectivistic culture (Turkish students).

However, because persons in individualistic cultures have many ingroups, their group identity is not confined to or invested in only one particular ingroup as it is in

collectivistic cultures. Therefore in intergroup-contexts, although members of both cultures are predicted to make ethnocentric attribution bias, members of collectivistic cultures will show greater attribution bias for the ingroup than members of individualistic cultures when making attributions, especially of non-achievement-related outcomes.

With these predictions in mind, the following specific hypotheses about Saudi and American cultures will be tested:

**Hypothesis 1:** American students will tend to make more internal attribution than Saudi students in general.

**Hypothesis 2:** In explaining their own social desirability outcomes, the American students will also make a greater leniency bias than the Saudi students.

**Hypothesis 3:** In explaining their own personal achievement-related outcomes, the American students will show a greater leniency bias than the Saudi students.

**Hypothesis 4:** The difference between the American and Saudi students on leniency bias will be greater on personal achievement attribution than on personal social desirability attribution.

**Hypothesis 5:** In explaining their family's social desirability outcomes, the Saudis will show more leniency bias than the Americans.

**Hypothesis 6:** In explaining their family's achievement outcomes, although both group will show leniency bias, the Saudi students will make relatively greater leniency bias than the American students.

Hypotheses 2, 3, 5 and 6 suggested additional hypotheses:

**Hypothesis 6a:** Taking both desirability and achievement situations into account, the Saudis should show more leniency bias for family and Americans more leniency bias for themselves.

Hypothesis 6b. The Saudis will show more leniency bias for social desirability outcomes while the Americans show more for achievement outcomes.

Hypothesis 7: There is generally a tendency for both groups' attributions (for self or for those whom they care about) to be influenced by the outcome, with favorable outcomes being more internally attributed than unfavorable ones.

Hypothesis 8: For achievement outcomes, the Americans and the Saudis will engage in ethnocentric attribution, but the Americans will show more ethnocentric bias than the Saudis.

Hypothesis 9: For social desirability outcomes, the Saudis will show more ethnocentric bias than the Americans.

Hypothesis 10: Taking both achievement and social desirability outcomes into account, both American and Saudi students will show ethnocentric bias.

## CHAPTER THREE

### METHODOLOGY AND DATA COLLECTION

#### Sample

The sample used for the present research included a total of 325 college students, 163 Americans and 162 Saudis. The American sample was selected from among the students of Michigan State University and Lansing Community College. All of the subjects included in the study paid.

The Saudi sample was selected from among the students of Islamic University of Imam Muhammad Bin Saud University and its Extension Center for Female Studies in Riyadh, the capital city of Saudi Arabia. The Center provides a college degree in several areas of study such as Arabic Literature and Islamic Laws.

The criteria for both samples were the same. They include cultural membership to either American or Saudi culture, being enrolled in college at the time of the study, and being an undergraduate students.

Table 3.1, 3.2, and Table 3.3 show some of the descriptive statistics for the sample of both cultures. Table 3.1 shows the culture, gender, race, average age and average GPA.

These demographic information was obtained during the recruitment stage in order to exclude those subjects who did not fit the criteria which the researcher established for



inclusion in the sample. For example, this kind of information made it possible to exclude several foreign students who signed up for the study by not calling them to come to the lab for participation.

Table 3.1: Age, gender, school, GPA, Race, Major area of study of both American and Saudi samples.

Variables	American Culture	%	Saudi Culture	%	Total
Males	53	33%	123	76%	175
Females	110	67%	39	24%	149
Whites	145	89%	*	*	145
Blacks	18	11%	*	*	18
ARABS	*	*	162	100%	162
AVER. AGE	21.13	*	21.01	*	
AVER. GPA	2.85	*	3.12	*	

\*. Does not apply.

the total sample also included students from several disciplines. However, the majority were majoring in social sciences. Table 3.2 shows the descriptive statistics related to this dimension.

**Table 3.2: Subjects fields of specialization by culture.**

Fields	Americans	Saudis	total
SOC. SCI.	65	102	167
COMMUN.	20	21	41
HUMANITY	22	37	59
BUSINESS	24	0	24
SCIENCES	11	0	11
OTHERS	21	2	24
Total	163	162	325

**Recruitment and Administration Procedures**

Except for one small class which the instructor invited the researcher to do the study, all the American students were recruited through a recruitment letter, read by cooperating instructors, which explained broadly the nature of the study and asked students to participate. They were told about the expected time (45 to 60 minutes which was decided based on the pilot). They also were told of how much they were to be paid for their participation. Each American student was paid \$5 for his/her participation in the study.

A recruitment sheet was passed on to the students and those who had interest in the study put their names, phones, and best time to call. The researcher then called those who signed up and they were brought to the lab in a group of 5-10 students per session.

For the Saudi male students, the researcher made an effort to first get permission from each professor to use his class, and then went in each of the volunteering class and read an equivalent recruitment letter to the class. The only difference was that no payment was offered to the Saudi students because an equivalent amount (\$5) would have been seen as an insult.

For the Saudi female students, the researcher gave the same instructions to a female instructor who had access to female college students and made sure that the same procedure of random assignment was exactly adhered to.

Both the American and the Saudi samples were randomly assigned to the Family-Ingroup Form or to the Self-Outgroup Form. For example, for the American sample, we randomized the English version using a Flip-A-Coin procedure in which heads were assigned to Form one and tails to Form two. After each time of flipping the coin, we put the form selected in the piled order till we finished all of the forms (i.e., randomization of the Forms rather than the respondents).

The randomized forms were put in several small boxes and distributed then to each respondent in each session by asking each respondent to take one of the forms in the box and pass the remaining forms to the rest of the group in the room.

The study was described for all of the respondents as an investigation of proper explanation of certain events or behavior which people may engage in their daily life. The



study did not attempt to deceive the respondents. In other words, the questions were direct and the answers were taken at their face value to mean the respondents' explanation of what caused the behavioral outcomes of the actor(s).

At the beginning of each session, the participants were asked to read a consent form and sign it. Then, they were asked to fill out a background information sheet (names were not required) after which they then started the session.

Subjects of both cultural groups were randomly assigned to one of the two possible manipulation forms. Specifically, in each of the two cultural groups, half of the subjects were asked to make attributions about behavioral outcomes of a family member and about other ingroup members (Form One). The others half were asked to make attributions about very similar behavioral outcomes of themselves and some outgroup members (Form Two).

Immediately following the eight situations, the respondents were asked to answer the items of Collectivism-Individualism Index, which was followed by the Stereotype Scale. The whole study took an average of 50 minutes from each subject.

Although the present study did not include deception, the researcher did not want to include respondents who knew the kind of biases or the theory being tested. To check for any intentional bias resulting from the respondents's knowledge of the purpose of the study, the researcher asked the respondents

some questions at the end of the study about what they thought the real purpose of the research? Did they figure out what theory was the researcher trying to examine? No students, however, was excluded as a result of these questions.

## **INSTRUMENTS**

### **A- Attribution Scenarios and Measures**

The main focus in the present study was to examine the cultural differences in attribution of responsibility between Americans and Saudis. To achieve this task, we had two forms with eight situations in each to manipulate the Within Subject Variables.

The situations in each form (see Appendix A) were designed to examine the respondents's attribution of responsibility about the behavioral outcomes of different actors presented in those situations. Basically, there were some situations in which the respondents made attribution about the behavioral outcomes of actors they know personally (self or family members) and other situations in which the respondents did not know the actors personally but knew them as members of the (ingroup or outgroup).

### **Variables**

We had several Within and Between Subjects Variables. The Within Subject Variables were manipulated by the eight situations which in all treatments included either social desirability or achievement outcomes. The social desirability situations included either socially desirable outcomes (situations 1 and 7) or socially undesirable outcomes (situations 2 and 8). The achievement situations included either success outcomes (situations 3 and 5) or failure outcomes (situation 4 and 6).

In other words, we had several positive outcome situations (i.e., success and socially desirable outcomes) which included situations 1, 3, 5, and 7; and the negative outcome situations (i.e., failure and socially undesirable outcomes) which included situations 2, 4, 6, and 8.

**For the Between Subject Variables**, the first variable was **Culture**, which included American and Saudi culture. The American culture was assumed to be a highly individualistic culture. The Saudi culture was assumed to be more of a collectivistic culture.

The second Between Subject variable was **Treatments**. The four treatments were presented in the two forms and were as follows: (1) Situations 1 to 4: Family Treatment (Form 1) versus Self Treatment (Form 2). (2) Situations 5 to 8: Ingroup Treatment (Form 1) versus Outgroup Treatment (Form 2).

For the ingroup- outgroup treatment manipulation, situations 5-8 (treatment 2 in each form) were the same in both forms except the nationality of the actor which was changed to describe either an ingroup or an outgroup member.

Hence, in the English version, which was given to the Americans, for the Ingroup Treatment, the actor(s) were described as Americans and for the Outgroup Treatment, the actor(s) were described as Saudis. For the Arabic version, the Ingroup Form described the ingroup as Saudis while the Outgroup Forms described them as Americans.

Finally, the Arabic version contained the same situations and was an equivalent translation of the English version. The English version was the original one which was given to two Ph.D Arab students who spoke both languages fluently. They then individually translated the English version into Arabic version. The two versions then were given to two other qualified persons in both languages who compared the two versions and separately agreed that they were equivalent.

#### **Description Of The Situations**

Situations 1-4 were for self or family while situations 5-8 were for people the respondent did not know. For all treatments, situations were similar in that they included scenarios that asked about attributions of the same behavioral outcomes. namely, while situation 1 and 7 were about socially

desirable outcome, situation 2 and 8 were about socially undesirable outcome. Situation 3 and 5 were about success and situation 4 and 6 were about failure.

For the Family versus Self Treatments (situations 1-4):

The social desirability situations were similar in both treatments. In situation 1, we asked the respondents to remember a situation in which the target actor (i.e., self or family member) performed a behavior which benefitted or pleased other(s). In situation 2, we asked the respondents to remember a situation in which the target actor performed a behavior which harmed or displeased other(s).

However, for the achievement situations, we had little bit of difference in the situations presented in the self versus those presented in the family treatments. In the family treatment (Form One), we asked the respondents to remember a situation in which a member of their extended family was given some recognition for some achievement-related task (Situation 3) or to remember a situation in which a family member failed to achieve some achievement goal (Situation 4) and then make attribution of why either outcome occurred.

In the self treatment, we asked the respondents to remember three exams in which they had achieved high scores (situation 3), and to remember three exams in which they had failed to achieve good scores (Situation 4) and then make

attribution about why they succeed or why they failed in those exams.

In the analysis, we treated each of the three exams as one situation by dividing the total score by the number of exams described. For example, when the respondent described three exams, the score was divided by three, but when he/she described only two or one the answer was divided by 2 or 1 so that the final score does not exceed 100.

For the Ingroup versus Outgroup Treatments (situations 5-8):

The situations in both treatments were exactly the same except for the nationality of the actor(s) which was changed to accommodate the desired treatment for each culture.

For the achievement outcomes, situation 5 (successful outcome) asked the respondents to make attribution about an ingroup or outgroup brain surgeon who was given the highest reward in his field for his achievement. Situation 6 (failure outcome) asked the to make attribution about an ingroup or outgroup high school team that did not do well in an international academic competition.

In situation 7, we asked the respondents to give his/her attribution about a Famine Relief Team who were portrayed as either ingroup or outgroup members. And in situation 8, we asked the respondents to make attribution of an ingroup or outgroup person who passed by an accident victim without stopping to help.

**CODING**

For each situation, the respondents were asked to make attribution on why the particular outcome took a place in each situation. The respondents had the choice to choose from the alternative given to them or to offer their own explanations which they thought were the reasons. They were told in the instructions that they would be:

...asked about some common situations to explain why certain things happened or why certain people behaved in a certain way....You may feel that there is only one cause of the outcome, or you may feel that an outcome has more than one cause. To allow for this possibility, we will allow you to indicate what percentage of the total responsibility you would give to each possible cause, including the alternative causes which you give, either instead of or in addition to the reasons being offered to you after each situation.

For any of the situation you will be asked, you may divide up the responsibility in any way you see fit. But all of the numbers you choose for a specific case, or story, including those alternative causes you add, should add up to 100.

**Internal Vs. External Attribution**

Because we were interested in examining internal versus external attribution biases, we coded the reasons given for each outcome into either external or internal reasons for each particular behavioral outcomes of the situation under question. For example, ability, effort, mood, personality characteristics, personally rewarding, and emotional reasons such as fear were coded as Internal causes. But task easiness or difficulty, luck, the system (educational or political





systems), other people influencing the actor, special circumstances, God, and external pressure were coded as being external causes.

### **B- Other Measures:**

**1- The Collectivism-Individualism Index:** This was a 29-item scale (see Appendix B) based on some items from INDCOL Scale developed by Hui (1984, 1989) and other items adopted by Triandis et. al (1988) were used to examine the differences on collectivism-individualism between American and Saudi culture. Although the whole set of items were administered, only the answer to collectivism items were analyzed.

The respondents were given this measure after they completed the eight scenarios. They were asked to indicate on a scale of 100 how much they agree or disagree with each statement.

The aim of using this measure was to be used to see if our notions about collectivism- individualism characterization of the two groups is accurate or not. If there are significant differences on this measure, they may help us understand the differences in attribution between individuals of the two cultures.

**2- Stereotype Measure:** This instrument was constructed to measure of the stereotypically-held attitudes by people of both Saudi and American cultures about themselves and about each others. This was undertaken to see if such stereotypes would affect the overall ethnocentric bias shown when making causal attributions about the behavior of the members of the other group. This will give us some idea about whether or not attributions of the outcome of the outgroup members will be influenced by shared positive or negative stereotypes of the outgroup.

A list of attributes which included 20 adjectives (10 positive and 10 negative) was given to each culture at the end of the experiment. The respondents were to rate their agreement or disagreement with these stereotypes on a five point scale. The scale was presented in two forms:

In Form One, the scale asked the respondents to rate the stereotypes held about their ingroup members (i.e., Americans rated Americans and Saudis rated Saudis). In Form Two, the scale asked the respondents to rate the stereotypes held about the outgroup (i.e., Americans rated Saudis and Saudis rated Americans).

We then re-coded the ten positive stereotypes and the ten negative stereotypes into two variables representing an overall score of positive stereotypic image and an overall score of negative stereotypic image.

**DESIGN**

The research was based on four treatments. Each two were given together in one form: (1) family member and ingroup member situations; and (2) oneself and outgroup member situations. Subjects in both cultures were assigned randomly to one of the two forms. The combination of forms was determined by the condition that ingroup and outgroup treatments had to be in separate forms so no sense of comparison or group bias would be invoked by the mere combination of the two treatments.

We had two forms given to each culture with two treatment included in each. The descriptive statistics for the four treatments are shown in Table 3.3 below:

Table 3.3: Descriptive statistics for treatment by culture.

Treatments	Americans	Saudis	Total
Family	40	41	81
Self	41	41	82
Ingroup	40	41	81
Outgroup	41	41	82

## **CHAPTER FOUR**

### **Research Findings: Part One**

This chapter will focus on the findings related to leniency bias in attribution toward family and self, and the next one will focus on the findings related to ethnocentric bias toward ingroup and outgroup members.

The present research has been undertaken to test how people from different cultures differ on attribution of responsibility for good and bad outcomes. I varied whether attribution was about themselves, members of their families, members of their ingroup, and members of the outgroup, which were individuals of the other culture in the present study.

Several hypotheses were proposed to be tested. These hypotheses were based on several assumptions drawn from the literature about cross-cultural differences in attribution of responsibility. The underlining assumption was that cultures are different in the kinds of behavior, belief systems, norms and other social cognitive components which all contribute to distinguishing one culture from the others. In the current research, the researcher wanted to examine the main differences between American and Saudi cultures regarding the hypothesized differences of social life aspects.

A number of the hypotheses assume that Saudis are more collectivistic than Americans. To test this assumption, I used

the Individualism-Collectivism Index, which is about patterns of behavior and belief systems differentiating cultures.

Triandis et al.'s 1988 analyses of the original scale found that there were three factors: 1- Self-Reliance With Competition (items 1-12), 2- Individualism-Collectivism Scale which addresses concern for ingroup (items 13-22), and 3- Distance From Ingroups (items 23- 29). While the entire set of items was administered (see Appendix B for list of items), for the purpose of the present study, only the items of individualism-collectivism scale were used to compare American and Saudi students along this dimension. Some of these items were dropped to increase reliability. The overall reliability coefficient (Cronbach's alpha) for the whole scale was .82, and for the individualism-collectivism scale was .60. In order to have an overall difference between the two groups on this scale, the items that I used here were combined and treated as one variable during the analysis .

The analysis of the data for this measure was based on T-test. A separate Variance Estimate t-test was used instead of the Pooled Variance Estimate t-test in the reported t-tests here. The first was preferred because the second method is based on the assumption that the population variances in the two groups are equal, an assumption that appeared questionable from the data.

The findings show that the two groups displayed some differences on the Individualism-Collectivism scale. The

Saudi students displayed a greater tendency toward collectivism (Mean=272.71, SD= 10.14, and N=139) than their American counterparts (Mean=130.22, SD= 5.06 , and N=163).

This suggests that the Saudis were more likely to be concerned with the welfare of the ingroup members than the American students. This difference is highly significant,  $t(204.55) = 12.57$ ,  $P < .001$ . In other words, this finding supports our assumptions that American and Saudi cultures are different on the individualism-collectivism continuum, and that Saudi culture is more collectivistic than the American culture.

For testing the main hypotheses, Multivariate analysis of variance (MANOVA) was performed to test these hypotheses. However, because of the nature of the experimental design, a special method of MANOVA called Repeated Measures, with a full factorial design, has been used. In this procedure, the statistical program (SPSS/PC+ Advanced Statistics, V.30) transforms the original variables and analyzes the linear combinations of the differences among the variables. This method is called "contrast", a term which I will use to refer to this procedure throughout this text. The use of Repeated Measures method is necessary since every subject in each treatment was given a total of eight situations to answer, all of which were measuring some aspect of attribution of responsibility.

Based on the design illustrated in the methods chapter above, several factors were taken into account as Between-Subject factors. They include the following: Culture of respondent ( Americans vs. Saudis), relationship to the rater (i.e., self vs. family being the actor for situations 1-4), and nationality of protagonists in the scenarios (i.e., ingroup vs. outgroup members being the actor(s) for situation 5-8 ). There were two Within-Subject factors, each with two levels. The first factor was called DESACH distinguishing desirability from achievement situations. The second factor was called OUTCOME distinguishing positive (i.e., desirable and successful) from negative (i.e., undesirable and failure) outcomes.

I should mention here that I have asked in the instructions that the respondent's answer to any situation must add up to a total of 100. Part of the instructions states that:

You are going to be asked about some common situations to explain why certain things happened or why certain people behaved in a certain way. In this study, I want to know how you explain what various people have done and what has happened to them.

You may feel that there is only one cause of the outcome, or you may feel that an outcome has more than one cause. To allow for this possibility, I will allow you to indicate what percentage of the total responsibility you would give to each possible cause, including the alternative causes which you give, either instead of or in addition to the reasons being offered to you after each situation.... For any of the situation you will be asked, you may divide up the responsibility in any way you see fit. But all of the numbers you choose for a specific case, or story, including those alternative causes you add, should add up to 100.

For the few cases which their answers added up to over a

100, I included the highest values given by the respondent until the number added up to a 100. The answers following each situation were then coded into either internal or external attribution for the analysis.

In addition, for the achievement situations in the Self Treatment where the respondents were asked to remember three exams, I took the average score of the number of exams remembered to be the final score for the respondent.

**Hypothesis 1: American students will tend to make more internal attribution than Saudi students in general.**

This hypothesis asserts that regardless of the kind of the outcomes, American students will tend to explain outcomes in terms of internal rather than external causes more often than the Saudi students. In other words, if all situations are considered together, American students are more likely to give internal reasons for the outcomes, regardless of who the actors were or what kind the outcomes were, than their Saudi counterparts.

To examine this hypothesis, two methods were used. The first was using MANOVA without Within-Subject Factors (thereby performing univariate significant test) to see the difference between the two groups on internality for each situation separately. Specifically, I wanted to know how many situations, in general would the American students show greater tendency toward internality than the Saudis.



Table 4.1 illustrates the results of this method. On six of the eight situations, there were significant differences between the two cultures.

Table 4.1: Means (standard deviation), F values, and F level of Significance for internality made by American and Saudi students across eight situations.

Univariate F-test with (1,254) D.F.				
Variables (Situations)	Americans Means ( SD )	Saudis Means ( SD )	F value	F Signif.
Self or Family as Actors				
1- Good behav.	56.38 (33.81)	43.21 (37.30)	8.49	.004
2- bad behav.	46.52 (36.74)	49.24 (37.40)	0.33	.566
3- success	83.17 (21.28)	64.85 (29.79)	32.74	.000
4- failure	55.68 (30.71)	46.55 (30.86)	5.35	.022
Ingroup outgroup protagonist as actors				
5- success	88.97 (18.38)	74.21 (28.58)	26.36	.000
6- failure	20.89 (24.74)	43.69 (34.22)	37.82	.000
7- good behav.	77.75 (20.98)	57.38 (37.28)	31.24	.000
8- bad behav.	88.20 (17.58)	84.12 (23.77)	2.56	.111
N= (Listwise Deletion):				
For Americans= 157		For Saudis= 99		

In five of those six situations, the American students showed greater tendency toward internality than the Saudi students. But only in situation 6 (i.e., unsuccessful achievement outcome for ingroup and outgroup protagonists) did the Saudi students show more internality. These differences were significant, in fact, in four of the six situation,  $P < .001$ . However, the American and the Saudi students showed no significant difference on internality for both situation 2 and situation 8 which were about socially undesirable outcomes for self and family and ingroup outgroup actors.

For the most part, the hypothesis was supported by the statistical test presented here. As seen in Table 4.1, only in one situation out of the six situations in which the two cultures differed significantly did the Saudis show more internality than the Americans.

The second method was intended to find the overall differences in internality on each set of four situations. In this method, I construct an overall internality score which shows the respondent's overall tendency to make internal attribution toward people whom the respondents knew personally (self and family members) and toward people whom the respondents did not know personally (ingroup and outgroup) across all situations (both social desirability and achievement, on both favorable outcomes and unfavorable ones).

This score represents the overall average of internality for each cultural group across all situations, regardless of

the treatments, for situations 1-4 (i.e., the self and family treatments) and the average internality for situations 5-8 (i.e., ingroup and outgroup treatments).

Hence for situations 1-4:

Internality score = .5 (INTR1+ INTR2+ INTR3+ INTR4)/4

For situations 5-8:

Internality score = .5 (INTR5+ INTR6+ INTR7+ INTR8)/4

Where the number .5 is a constant used with all equations involving four situations, and INTR and each number following it stand, here and in all encounters to follow, for Internality of attribution and the particular situation of the 8 situations given to the respondents in each of the two forms (e.g., INTR1 means internal attribution made by the respondents on Situation 1).

The numbers on the bottom margin of Table 4.2 show that the overall mean of internality for the Americans is 60.54 and the overall means for their Saudi counterparts is 51.26. By comparing the average means for the two groups on internality for situations one through four, we see that the American students showed greater tendency to make internal attributions than the Saudi students.

Moreover, the numbers in the inside cells of Table 4.2 show that the Americans were more internal for both family and self than the Saudis.

Table 4.2: The overall internal attribution means (standard errors) for situations 1 to 4 (family and self) by culture.

		Cultures of respondents		average for both groups
		American	Saudi	
Treatment	Family	62.55 (3.78) N= 75	57.17 (5.53) N=51	59.86
	Self	58.52 (3.023) N=82	45.35 (4.04) N=58	51.93
average for both forms		60.54	51.26	

A MANOVA was performed to examine the significance of the effect of culture on internality. The findings are consistent with this hypothesis. The difference between the two groups for the effect of culture was significant,  $F(1,262)=19.61$ ,  $P<.001$ , and  $R\text{ Squared}=.075$ . However, the culture by treatment (self vs. family) interaction effect did not reach the .05 significance level,  $F(1,262)=3.64$ ,  $P=.057$ .

Although not originally predicted, it appears from Table 4.2 that both the American and the Saudi students showed more tendency to make internal attributions for their family (59.86) than for themselves (51.93). This difference is however consistent with Jones and Nisbitt's (1972) views on the actor-observer difference in attribution. They claim that while individuals tend to view other peoples' behavior as caused by internal factors, they tend view their own behavior as more determined by external factors.

Nevertheless, the result of the treatment effect was significant at the .05 level of significance,  $F(1,262)=14.22$ ,  $P < .001$ .

The two cultural groups have also differed significantly on internality when explaining the reasons for the behavior outcomes of people whom they did not know personally (i.e., actors who were identified only by nationality). By comparing the average means for the two cultures in situations five through eight, the reader can see that, as in Table 4.3 below, the overall mean for the American students (69.02) is again greater than that of their Saudi counterparts (65.03).

Table 4.3: The overall means (standard error) of internal attribution for situations 5 to 8 (ingroup vs. outgroup) for American and Saudi students by culture.

		Culture of respondents		
		American	Saudi	
Ingr. protag.		73.38	61.34	67.36
Treatment		(2.29)	(4.30)	
		N=79	N=73	
Outgr. protag.		64.65	68.71	66.68
		(2.15)	(4.02)	
		N=83	N=74	
Average for both forms		69.02	65.03	

A MANOVA statistical test showed that the effect of culture on internality was significant,  $F(1,305) = 10.02$ ,  $P = .002$ , and  $R^2 = .033$ .

The second hypothesis is a more specific one. It is concerned with the difference between Americans and Saudis in leniency bias on social desirability attribution of own personal outcomes (the difference in making attribution about their own good versus bad behavioral outcomes).

**Hypothesis 2: In explaining their own social desirability outcomes, the American students will show greater leniency bias than the Saudi students.**

For this hypothesis, situation one (i.e., socially desirable outcome) and situation two (i.e., socially undesirable outcome) of the self treatment were used to test for leniency bias.

*Leniency bias (L.B.)* is defined in this research as the difference in attribution bias made by the respondents between positive and negative outcomes (i.e., the difference in internal attribution made for success and failure and/or the difference in internal attribution made for socially desirable and socially undesirable outcomes).

To test hypothesis 2, I contrast situation 1 and 2 for each cultural group in treatment two (self). Then the difference in internality between the two situations was compared to arrive at the leniency bias. The higher positive

number is an indication of higher leniency bias. In other words, higher positive numbers mean that the respondents were more likely to make internal attribution of socially desirable than of socially undesirable behavioral outcomes.

Table 4.4 shows the difference between the means of American and Saudi students on internal attributions of socially desirable and socially undesirable behavioral outcomes.

Table 4.4: Means (standard errors) of internal attribution of socially desirable and undesirable personal outcomes by culture.

	Culture of respondents		
	American	Saudi	
good behav. outcome (situation 1)	56.83 (3.65)	41.72 (4.36)	49.28
bad behav. outcome (situation 2)	40.61 (3.87)	39.78 (4.29)	40.20
Leniency Bias= (INTR1- INTR2)	16.22 N=83	1.94 N=67	9.06

A MANOVA was performed to examine the overall cultural difference in leniency bias in relation to social desirability outcomes in general. The result of the contrast is shown on the bottom margin of Table 4.4 above. Although both groups

show leniency bias, as predicted, these numbers show that the American students (16.21) displayed greater leniency bias for social desirability behavior than the Saudis (1.94).

This is consistent with the hypothesis. The MANOVA test indicates that the culture by outcome interaction effect is significant,  $F(1,148) = 3.75$ ,  $P = .055$ , and  $R^2 = 0.024$ .

The third hypothesis is similar to hypothesis 2 above in the sense that dealt with difference in leniency bias regarding personal achievement outcomes. However, the present hypothesis is concerned with attribution of personal achievement rather than with social desirability outcomes.

**Hypothesis 3: In explaining their own personal achievement-related outcomes, the American students will show a greater leniency bias than the Saudi students.**

To test this hypothesis, I examined attributions in situations three and four of the self treatment, in which subjects were making attribution about their own behavior. The third situation dealt with a successful achievement outcome and the fourth situation dealt with a failure.

In Table 4.5, we see that although the American students displayed a greater tendency towards internal attribution of success (76.15) than the Saudi students (60.10), they also displayed a greater tendency toward internal attribution of failure (60.44) than Saudis (41.34).



Table 4.5: Means (standard errors) of internal attribution made for personal success and failure by culture.

	Culture of respondents		Average mean for treatment by outcome
	American	Saudi	
Success (situation 3)	76.15 (2.04)	60.10 (2.56)	68.13
Failure (situation 4)	60.44 (2.48)	41.34 (3.00)	50.89
Leniency Bias= (INTR3-INTR4)	15.71 N=82	18.76 N= 66	17.24

In other words, the Americans were more internal for both success and failure than the Saudis. This is consistent with the overall pattern of greater internality for the Americans discussed in hypothesis one above.

However, what the researcher is interested in here is the difference in leniency bias between the two groups. The leniency bias here contrasts attributions made for personal success versus personal failure. Here, the contrast is the overall difference between the internality of success situation (INTR3) and the internality of failure situation (INTR4). In other words, the contrast gives us the overall attribution bias of each group because it represent the difference between internal attribution for success and failure (INTR3- INTR4). A positive number would indicate that

internality for success was higher than internality for failure by either group.

The results from the contrast is presented in the bottom margin of Table 4.5, which shows the difference in leniency bias between the two cultures with regard to achievement outcomes (i.e., success and failure) for the self.

It appears from the bottom margin of Table 4.5 that the Saudis showed slightly more leniency bias (18.76) than the Americans (15.71). The difference on leniency bias between the two groups was opposite to the hypothesized patterns of attribution for the American and Saudi students.

To examine the statistical significance of this finding, a MANOVA was performed to see how the American and Saudi students would differ in leniency bias for achievement outcomes. However, the difference between the two groups for culture by outcome interaction was not significant at the .05 level,  $F(1,146) = .38$ ,  $P = .54$ . Here, I have not found a cultural difference in leniency bias for these situations.

Hypothesis 4 is related to both hypothesis 2 and 3. It is concerned with the difference between Americans and Saudis in making leniency bias for personal achievement versus personal social desirability outcomes.

**Hypothesis 4: The difference between the American and Saudi students on leniency bias will be greater on personal achievement attribution than on personal social desirability attribution.**

For this hypothesis, all four situations in the self treatment were used in the analysis. Because of including all four situations and because of using listwise deletion, the number of cases included in the analysis and the values of leniency bias for each group were lower than those numbers found in the tables for hypotheses 3 and 4, where only two situations were used for each at a time.

To test the hypothesis, the researcher examined the size of the difference between American and Saudi students on leniency bias made for achievement (i.e., success vs. failure) and leniency bias made for social desirability (i.e., good vs. bad behavior).

What the researcher is interested in here is the magnitude of the difference on achievement vs. the magnitude of the difference on social desirability between the two cultural groups. To arrive at magnitude of the cultural differences in leniency bias in these two kinds of outcomes (i.e., achievement versus social desirability outcomes), I calculated the cultural difference for (1) social desirability:  $(16.22 - 1.94=14.28)$ ; and the cultural difference for (2) achievement:  $(15.71 - 18.76= -3.05)$ .

Table 4.6 shows the results of our calculation for both cultures. The numbers on the right-side margin of Table 4.6 show the differences between American and Saudi students on both social desirability and achievement outcomes. It appears from these numbers that the difference between the two groups

is greater for social desirability (14.28) than for achievement (-3.05).

This indicates that the American and the Saudi students were more similar on leniency bias for achievement than for social desirability. This finding is the opposite direction of the hypothesis which predicted that the difference would be greater on achievement rather than social desirability.

Table 4.6: The means (standard errors) of leniency bias for personal social desirability vs. leniency bias for achievement by culture.

	Culture of respondents		
	American	Saudi	
Social Desir. (Intr1- Intr2)	16.22 (4.91) N=83	1.94 (5.51) N=67	Cultural differences in L.B. 14.28
Achievement (Intr3- Intr4)	15.71 (3.33) N=82	18.76 (3.62) N=66	-3.05
means of L.B. for both achiev. & soc. desir.	15.97	10.35	5.62
Difference in L.B. between soc. desir. & achiev.	0.51	-16.82	

A MANOVA statistical test of significance shows that the interaction of Culture by DESACH ( a within subject variable distinguishing desirability from achievement) by Outcome is significant,  $F(1,138) = 4.48$ ,  $P = .04$ , and  $R\text{ Squared} = .031$ .

The fifth hypothesis was intended to examine the cultural differences on attributions of social desirability outcomes of a member of the individual's family.

**Hypothesis 5: In explaining their family's social desirability outcomes, the Saudis will show more leniency bias than the Americans.**

To test this hypothesis, situation 1 (desirable behavior) and situation 2 (undesirable behavior) of treatment 1 (family) were used for the analysis. Table 4.7 shows below the difference in internal attribution made about a family member's desirable and undesirable outcomes.

The first two cells show the means of the Americans (55.24) and the of the Saudis (47.12) for internal attribution made about socially desirable outcomes, and the second two cells show the means for internal attribution made by American (52.96) and Saudi (57.54) students for socially undesirable outcomes.

However, as in the previous hypothesis, the main objective here is the difference in leniency bias between the two cultural groups. The leniency bias here contrasts attributions made for a family member's socially desirable outcome versus socially undesirable outcome. The researcher wanted to see the overall difference between the internality made for desirable outcome situation (INTR1) and the internality made for undesirable outcome situation (INTR2).

The contrast here gives us the overall attribution bias

regarding social desirability because it represents the difference between internal attribution for good and bad behavioral outcomes (INTR1- INTR2). A positive number would indicate that internality was higher for socially desirable outcome than socially undesirable outcome, but a negative number would indicate that there was not a leniency bias for socially desirability outcomes.

The result presented in the bottom margin of Table 4.7 shows that the Americans (2.28) showed more leniency bias for family than the Saudis (-10.42). The Saudis, in fact, seemed to make greater internal attribution about socially undesirable rather than socially undesirable outcome of a family member.

Table 4.7: Means (standard errors) of internal attribution of socially desirable and undesirable outcomes for a family members by culture.

	Culture of respondents		Average mean
	American	Saudi	
good behav. outcome (situation 1)	55.24 (3.88)	47.12 (4.93)	51.18
bad behav. outcome (situation 2)	52.96 (4.17)	57.54 (4.74)	55.25
Leniency Bias= (INTR1- INTR2)	2.28 N=80	-10.42 N=65	

Hence, the difference in leniency bias between the two groups was in the opposite direction of what has been hypothesized regarding family members for the American and Saudi students.

A MANOVA was performed to examine the statistical significance of this difference. The culture by outcome interaction did not reach the .05 level of significance,  $F(1,143) = 2.30$ , and  $P = .13$ .

**Hypothesis 6:** In explaining their family's achievement outcomes, although both group will show leniency bias, the Saudi students will make relatively greater leniency bias than the American students.

To test this hypothesis, situation 3 (successful outcome) and situation 4 (unsuccessful outcome) of treatment 1 (family) were used for the analysis. The same procedure used in testing hypothesis 5 was followed here. Table 4.8 shows the difference in internal attribution of made American and Saudi students about a family member's success and failure outcomes.

To arrive at the leniency bias values for American and Saudi students, I subtract the mean of failure (situation four) from the mean of success (situation three). The difference was used to compare the overall leniency bias made about a family member's achievement outcomes by the two groups.

The numbers on the bottom margin of Table 4.8 show the value of the leniency bias for a family member for each

cultural group. Although both groups showed leniency bias, it appears from these numbers that the Americans (40.38) had greater leniency bias for their family members than the Saudis (24.07).

Table 4.8: Means (standard errors) of the difference in attribution of success and failure outcomes (leniency bias) for a family members by culture.

	Culture of respondents	
	American	Saudi
Success (situation 3)	90.85 (2.50)	73.22 (4.60)
Failure (situation 4)	50.47 (4.30)	49.15 (4.73)
Leniency Bias= (INTR3- INTR4)	40.38 N=75	24.07 N=59

A MANOVA statistical test was performed to examine the significance of the overall cultural differences in leniency bias made toward a family member's achievement outcomes by the two cultures. The contrast here is based on the difference between subjects' internal attribution of success (situation three) and their internal attribution of failure (situation four).



This difference for culture by outcome effect was significant at the .05 level,  $F(1,132) = 3.91$ ,  $P = .05$ , and  $R^2 = .02$ . The findings, however, were in the opposite direction of the hypothesis which predicted that the Saudi rather than the American students would show greater leniency bias for a family member's achievement outcomes.

Hypotheses 2, 3, 5 and 6 suggested additional hypotheses:

**Hypothesis 6a: Taking both desirability and achievement situations into account, the Saudis should show more leniency bias for family and Americans more leniency bias for themselves.**

To test this hypothesis, I examined the difference in the overall leniency bias toward the family and toward one's self in both achievement and social desirability outcomes combined (situations 1-4). In other words, I compared the overall leniency bias toward one's self with the overall leniency bias towards one's family members to see if the difference is significant.

Here, the objective is the difference in leniency bias toward the self vs. toward the family members. A positive number would mean that the cultural group had more leniency bias toward the family members than toward the self.

The results of our calculation are shown on the bottom margin of Table 4.11. As the reader can see, the numbers indicate that while the Americans appear to show greater leniency bias toward family members (6.38), the Saudi students appear to show greater leniency bias toward themselves (-5.49). This was contrary to our expectations.

A MANOVA was performed to examine the significance of the difference between the two groups. The test shows that the effect of Treatment (self vs. family) by Outcome by Culture did not, however, reach the .05 level of significance,  $F(1,262)=2.47, P=0.12$ .

The previous hypotheses also led me to pose another hypothesis:

**Hypothesis 6b. The Saudis will show more leniency bias for social desirability outcomes while the Americans show more for achievement outcomes.**

To test this hypothesis, data from situations 1-4 were used in both the self and the family treatments. I contrasted situation one and two (social desirability outcome) with situation three and four (achievement outcomes) in each treatment as follows:

$$(INTR1 - INTR2) - (INTR3 - INTR4)$$

For situations 1-4, the researcher needed to examine separately the difference between the two cultures on social desirability and achievement outcomes for the family (Table 4.9) and then for the self ( see Table 4.6 above).

The numbers on the bottom margin of Table 4.9 represent the difference in leniency bias for social desirability versus achievement outcomes. These numbers suggest that with regard to family members, both American and Saudi cultures showed more leniency bias for achievement than social desirability outcomes.

Table 4.9: Means (standard errors) of the differences in leniency bias for social desirability and achievement of the FAMILY by culture.

	Culture of Respondents	
	Americans	Saudis
Soc. Desir. (INTR1-INTR2)	2.28 (5.68) N=80	-10.42 (6.11) N=65
Achievement (INTR3-INTR4)	40.39 (5.29) N=75	24.07 (6.43) N=59
Difference in leniency Bias	-38.11	-34.49

The second set of numbers on the bottom margin of Table 4.6 above represent the difference in leniency bias for social desirability versus achievement outcomes for the self. These numbers suggest that while the Saudis showed greater leniency bias for achievement than for social desirability, the Americans showed almost no difference between leniency bias for achievement and social desirability outcomes with regard to the self.

I then combined leniency bias scores for family and self treatments by adding the average numbers of social desirability outcomes and dividing them by two and the average numbers of achievement outcomes and dividing them by two.

Next, I subtracted the overall means of leniency bias on achievement from the overall leniency bias on social desirability for each culture. A negative number here would

mean that there was greater leniency bias for achievement rather than for social desirability. The results of this is shown in the inside cells of Table 4.10.

The differences between the two cultures on the overall leniency bias for social desirability and achievement outcome is shown on the bottom margin of Table 4.10. While both cultures showed greater overall leniency bias for achievement outcomes, the Saudi students showed the effect more strongly than the Americans, contrary to the hypothesis.

Table 4.10: Means (standard errors) of the of the overall differences in leniency bias for social desirability and achievement of the SELF and FAMILY combined by culture.

	Culture of Respondents	
	Americans	Saudis
Soc. Desir. (INTR1-INTR2)	9.25 (3.78) N=163	-4.24 (4.13) N=132
Achievement (INTR3-INTR4)	28.05 (3.21) N=157	21.42 (3.58) N=125
Differ. in L.B. for Soc. Des. vs. Achievement outcomes.	-18.80	-25.66

A MANOVA test indicated that the difference between the two cultures did not reach the .05 level of significance. For

the effect of Culture by DESACH (social desirability versus achievement) by Outcome,  $F(1,262)=0.76$ . The MANOVA test also indicated that the Culture by Treatment by DESACH by Outcome did not reach the .05 level of significance,  $F(1,262)=3.16$ , and  $P=.077$ .

**Hypothesis 7: There is generally a tendency for both cultures' attributions (for self or for those whom they care about) to be influenced by the outcome, with favorable outcomes being more internally attributed than unfavorable ones.**

To test this hypothesis, an overall difference on internal attribution between subjects' attribution of socially desirable outcome (situation one) and socially undesirable outcome (situation two) plus the difference between subjects' attribution of successful outcome (situation three) and failure outcome (situation four) were calculated. This was done in the following manner: Internal attribution values in situation one and three (positive outcomes) were contrasted against the internal attribution values in situation two and four (negative evaluations). The purpose is to see the difference between the two groups in the overall leniency bias.

Hence the variable which measures the outcome or leniency bias for situation 1 to 4 is =

$$.5 [ (INTR1 - INTR2) + (INTR3 - INTR4) ].$$

Where .5 is a constant used in all of the 4-variable contrast equations to average the leniency bias scores for

desirability (Situations 1 and 2) and achievement (Situations 3 and 4) .

The hypothesis was supported by the data. The results are illustrated in Table 4.11 below. By examining Table 4.11, the reader can see that the within-cell values, which represent the differences between positive and negative outcomes, for both cultural groups are all positive. This means that subjects from both cultures, thinking about themselves or their family, gave higher internal attributions for positive outcomes than for negative outcomes.

Table 4.11: Mean leniency bias (standard errors) for self versus family (situations 1-4) by culture.

		Culture of respondents		Average
		American	Saudi	
Treatments	Family	22.01 (4.00) N=75	4.44 (4.92) N=51	13.23
	Self	15.63 (2.79) N=82	9.93 (3.33) N=58	12.78 12.78
average leniency		18.82	7.19	
bias for both treatments				
Difference in L.B.		6.38	-5.49	

In addition, Table 4.11 shows that there are cultural differences between the two groups based on the outcomes evaluated. Looking to the average leniency bias on the bottom

margin, the reader also can see that the mean for the Americans (18.82) is higher than the Saudi students (7.19). This culture by outcome interaction effect suggests that the attributions American subjects gave are more influenced by the favorableness of the outcome than are those of the Saudis.

A MANOVA test of showed that two cultures differed significantly in leniency bias. For the Culture By Outcome,  $F(1,262)=9.52$ ,  $P=.002$ , and  $R\text{ Squared}=.03$ . In addition, the MANOVA showed that the Outcome effect, which indicates the overall leniency bias for both cultures, was significant,  $F(1,262)=47.54$ ,  $P<.001$ , and  $R\text{ Squared}=.15$ .

However, the Culture by Treatment by Outcome effect was not significant at the .05 level,  $F(1,262)=2.47$ ,  $P=.12$ .

In addition, the researcher wanted to test hypothesis seven with regard to making attributions about ingroup and outgroup protagonists (i.e., people the respondents did not know personally). The same procedure was followed here except that only situations 5 through 8 were utilized.

The hypothesis was partially supported. As seen in Table 4.12 below, the leniency bias, which represents the difference between successful and unsuccessful (situations 5 and 6) and desirable and undesirable outcomes (situation 7 and 8) are all positive except for the Saudis' attribution of outgroup protagonist. For the positive values, this means that respondents gave higher internality scores for favorable outcomes than for unfavorable outcomes.

Table 4.12: Mean leniency bias (standard errors) by ingroup vs. outgroup members and culture (situations 5-8).

		Culture of respondents		Average mean for both treatments
		American	Saudi	
Treatments	Ingroup	24.00 (2.27) N=79	13.38 (3.31) N=73	18.69
	Outgroup	33.83 (2.23) N=83	-12.41 (3.48) N=74	10.71
Average mean for leniency bias for both cultures		28.92	0.49	

If we take a closer look at Table 4.12, we can see that the American students were more likely to be influenced by the favorableness of the outcomes in their attributions of the ingroup (24.00) and the outgroup (33.83) members' favorable outcomes than the Saudis. In fact, although the Americans showed more leniency bias toward both their ingroup and the outgroup members, they even showed greater leniency bias toward the Saudis (outgroup members).

On the other hand, the Saudi students showed greater positive leniency bias for the ingroup protagonists (13.38) but negative for the outgroup protagonists (-12.41), and overall showed little if any leniency bias.

The effects of outcome shows significant differences,  $F(1,305)=107.81$ ,  $P<.001$ , and  $R\text{ Squared}= .19$ .



In addition, the culture by outcome interaction shows a significant difference between the two cultural groups. The values on the bottom margin of Table 4.12 show that the American students displayed a greater overall tendency toward leniency bias for both ingroup and outgroup protagonists (28.92) than their Saudi counterparts (0.49). The difference between the two groups for the culture by outcome interaction was significant,  $F(1,305) = 100.80$ ,  $P < .001$ , and  $R^2 = .18$ .

### Summary

In the previous pages, the researcher tested several hypotheses. Some of them were fully supported, some other ones were partially supported, and others were not supported at all.

Because some of our hypotheses were partially based on the assumption that American culture is more individualistic and the Saudi culture is more collectivistic, I tested it and found that it was supported assumption.

Hypothesis 1, which claims that American will generally show more internality than the Saudi students was fully supported by the data.

for those hypotheses regarding attribution about the self, although the data supported hypothesis 2, which assumes that the Americans would show more leniency bias than the Saudis in social desirability, it did not support hypothesis

3, which also claims that the Americans would show greater leniency bias than the Saudis for achievement. In other words, there was no significant difference between the two cultures for leniency bias in achievement.

Hypothesis 4, which claimed that the difference between the two cultures on leniency bias would be greater on personal achievement than on personal social desirability was not supported. Although there was significant cultural differences, it was greater on social desirability than on achievement outcomes.

Hypothesis 5, which asserted that for family's social desirability outcomes, the Saudis would show greater leniency bias than the Americans, the data was not supported. There was no significant difference between the two cultures.

In addition, the data did not support Hypothesis 6, which asserted that the Saudis would show more leniency bias toward their family than the Americans in achievement outcomes. Although there was a significant difference between the two cultures, it was the Americans who showed greater leniency bias toward their family for achievement outcomes.

Hypothesis 6a, which predicted that the Saudis would show greater leniency bias for family and the American would show it for themselves, was not supported.

In addition, hypothesis 6b, which predicted that the Saudis would show more leniency bias for social desirability and the Americans would show more of it for achievement was

not supported. Contrary to the hypothesis, both culture showed leniency bias for achievement. Although the Saudis seem to have higher mean than the Americans, the difference between the cultures did not reach the .05 level of significance.

Finally, hypothesis 7, which asserted that both cultures would make more internal attribution of favorable than unfavorable outcome for both themselves or those who they care about, was supported by the data.

## CHAPTER FIVE

### RESEARCH FINDINGS: PART TWO

In the remaining sections of part two of the research findings, I will be examining several hypotheses dealing with ethnocentric bias: It is defined here as the difference between leniency bias for ingroup and the leniency bias for outgroup.

**Hypothesis 8: For achievement outcomes, both the Americans and the Saudis will engage in ethnocentric attribution, but the Americans will show more ethnocentric bias than the Saudis.**

To examine this hypothesis, situation 5 and 6 of treatment one (ingroup) and treatment two (outgroup) were used to manipulate the subjects' attributions. The fifth situation dealt with a successful achievement outcome and the sixth situation dealt with an unsuccessful achievement outcome.

To create a leniency bias score, I contrasted internal attribution made for success with internal attribution for failure (INTR5-INTR6). I compared these Leniency Bias scores for the ingroup protagonist (treatment 1) and the outgroup protagonist (treatment 2).

As indicated previously, a positive number would indicate greater leniency bias because it means that internality for success was higher than internality for failure.

Table 5.1 shows the results for leniency bias toward ingroup protagonists by American and Saudi students.

Table 5.1: The means (standard errors) of internal attribution of success and failure of INGROUP protagonists by culture.

		Culture of respondents	
		American	Saudi
Success (situation 5)		89.22 (2.04)	78.38 (2.75)
		30.44 (3.14)	38.98 (3.68)
Failure (situation 6)			
Leniency Bias=		58.78 N=79	39.09 N=76

From the numbers on the bottom margin of Table 5.1, the reader can see that both cultures showed leniency bias toward ingroup, but the Americans showed more of it.

For the outgroup protagonist's achievement outcomes, Table 5.2 shows the difference on leniency bias between the American and Saudi students.

Although both cultural groups showed leniency bias toward the outgroup, the numbers on the bottom margin of Table 5.2 suggest that the Americans also showed greater leniency bias toward the outgroup than their Saudi counterparts. Looking at the numbers in the inside cells of Table 5.2, the reader can see that the Saudis did not only show less internal attribution than the Americans of the outgroup's success, but

also showed greater internal attribution of the outgroup's failure.

Table 5.2: The means (standard errors) of internal attribution of success and failure of OUTGROUP protagonists by culture.

		Culture of respondents	
		American	Saudi
Success (situation 5)		89.07 (2.06)	67.13 (3.72)
Failure (situation 6)		11.51 (1.84)	49.88 (4.07)
Leniency Bias=		77.56 N=83	17.25 N=76

However, what of interest here is in the difference on ethnocentric bias shown by the two cultures. To calculate ethnocentric bias, the researcher subtracted the leniency bias for achievement outcomes shown toward the ingroup from leniency bias shown toward the outgroup by each cultural group:

**Leniency Bias= (L.B. For Ingroup) - (L.B. For Outgroup)**

**Where L.B.= Leniency Bias.**

Table 5.3 below shows the result of our calculation. Positive numbers mean that there was ethnocentric bias

favoring the ingroup and negative numbers mean that there was some bias toward the outgroup.

As we see, the numbers on the bottom margin of the Table 5.3 indicate that while the Saudis (21.84) showed ethnocentric bias, the Americans (-18.78) were more lenient toward outgroup than toward ingroup members. However, this results is in the opposite direction of the hypothesis which predicted that the Americans would show more ethnocentric bias than the Saudis in achievement-related outcomes.

Table 5.3: The overall means leniency bias for achievement outcomes (situations 5 and 6) of INGROUP VS. OUTGROUP protagonists by culture.

		Culture of respondents	
		American	Saudi
Treatment	Ingr.protag.	58.78 (3.91) N= 79	39.09 (4.23) N= 76
	Outgr.protag.	77.56 (2.82) N= 83	17.25 (4.83) N=76
Ethnocentric Bias=		-18.78	21.84

A MANOVA statistical test was performed to see if the difference between culture in ethnocentric bias was significant. The test shows that the effect of culture by

treatment (ingroup vs. outgroup) by outcome was significant at the .05 level,  $F(1,310) = 26.01$ ,  $P < .001$ , and  $R^2 = .03$ .

**Hypothesis 9: For social desirability outcomes, the Saudis will show more ethnocentric bias than the Americans.**

This hypothesis claims that individuals from both cultures would show some leniency bias in favor of ingroup versus the outgroup protagonists. To test the hypothesis, situation 7 (socially desirable outcome) and 8 (socially undesirable outcome) of treatment one (ingroup) and treatment 2 (outgroup) were used for the contrast to create leniency bias score for ingroup and outgroup members.

For the ingroup, Table 5.4 shows the difference between the American and Saudi students on leniency bias toward ingroup protagonists. To arrive at the leniency bias values for each group, I calculated the overall difference of internal attribution for desirable (situation 7) and undesirable outcomes (situation 8) for the ingroup protagonist (i.e.,  $INTR7 - INTR8$ ) of treatment 1. As indicated previously, positive numbers suggest that the respondents showed greater internality for socially desirable outcome than for socially undesirable outcome.

The numbers on the bottom margin of Table 5.4 show that both the American (-10.70) and the Saudi students (-13.84) made greater internal attribution of socially undesirable than



socially desirable outcomes of ingroup members. In other words neither group showed leniency bias for the ingroup members.

Table 5.4: Means (standard errors) of internal attribution of socially desirable and undesirable outcomes for INGROUP protagonists by culture.

	Culture of respondents	
	American	Saudi
Socially Des. outcome (situation 7)	81.53 (2.05)	71.27 (3.81)
Socially Undes. outcome (situation 8)	92.23 (1.54)	85.11 (2.54)
Leniency Bias=	-10.70 N=80	-13.84 N=75

For the outgroup members, the numbers in the bottom margin of Table 5.5 represent the leniency bias for each group. Both groups gave greater internal attribution of socially undesirable rather than of social desirable outcomes outgroup. It is clear that both the American (-9.93) and the Saudi (-44.26) students showed negative leniency bias toward outgroup members.

However, the Saudis appear to have assigned greater internality to socially undesirable outcome than the Americans. While the negative leniency bias shown in Tables

5.4 and 5.5 may seem surprising, it should not be taken very seriously because the two situations (7 and 8) may not be comparable in people tendency toward internality.

Table 5.5: Means (standard errors) of attribution of socially desirable and undesirable outcomes for OUTGROUP protagonists by culture.

	Culture of respondents	
	American	Saudi
Socially Des. outcome (situation 7)	74.22 (2.49)	38.28 (3.98)
Socially Undes. outcome (situation 8)	84.15 (2.18)	82.54 (2.85)
Leniency Bias=	-9.93 N=83	-44.26 N=78

To examine the Ethnocentric Bias with regard to social desirability outcomes, I followed the same procedure presented in the testing of the previous hypothesis. I subtracted the value of leniency bias made toward outgroup from the leniency bias made toward ingroup by both groups.

Three of the four means inside the cells of Table 5.6 are negative which suggests that both American and Saudi students showed no leniency bias regarding social desirability outcomes either for ingroup or for outgroup members. Both groups

assigned greater internal attribution for socially undesirable rather than for socially desirable outcomes.

Table 5.6: Means of leniency bias for social desirability outcomes (situations 7 and 8) of INGROUP and OUTGROUP protagonists by culture.

		Culture of respondents	
		American	Saudi
Ingroup prot.		-10.70 (2.28) N= 80	-13.84 (3.84) N= 75
Treatment			
Outgroup prot.		-9.93 (3.46) N=83	-44.26 (4.55) N=78
Ethnocentric Bias=		-0.77	30.42

However, for the difference on ethnocentric bias, the numbers on the bottom margin of Table 5.6 show the difference between American and Saudi students on ethnocentric bias. A positive number indicates that the group showed ethnocentric bias by favoring ingroup over outgroup members. As I hypothesized, the numbers show that the Saudis (30.42) seem to have displayed greater ethnocentric bias toward ingroup than the Americans (-0.77) who appeared to have made similar leniency bias toward both ingroup and outgroup.

A MANOVA statistical test was performed and the result showed that the difference between the two cultures in



ethnocentric bias was significant. For the effect of culture by treatment by outcome,  $F(1,312) = 16.01$ ,  $P < .001$ , and  $R^2 = 0.04$ .

**Hypothesis 10: Taking both achievement and social desirability outcomes into account, both American and Saudi students will show ethnocentric bias.**

This hypothesis is intended to test what is called the **Ultimate Attribution Error**. It suggests that the American and Saudi students will make more internal attributions of ingroup success and outgroup failure than of outgroup success and ingroup failure.

To test this hypothesis, both achievement (situations 5 and 6) and social desirability situations (situations 7 and 8) were used. The objective here is to create an overall Grand Ethnocentric Bias Score (GEBS) by combining leniency bias for achievement and leniency bias for social desirability made for either ingroup or outgroup members. The following contrast was done:

$$GEBS = .5(INTR5 - INTR6 + INTR7 - INTR8)$$

Where INTR = internal attribution made about each of the particular situations which are represented here by the numbers following INTR.

Contrary to hypothesis 10, Table 5.7 shows that the American students showed no ethnocentric bias. In fact, they showed more leniency bias toward the outgroup than toward the ingroup. Using a t-test, the difference in leniency bias made

by Americans toward ingroup and toward outgroup was significant,  $t(1,159)=3.09$ , and  $P=.002$ .

The Saudi students, on the other hand, showed ethnocentric bias by making more leniency bias toward ingroup than toward outgroup. The difference in leniency bias made by the Saudis toward ingroup vs outgroup was significant,  $t(1,144)=5.37$ , and  $P<.001$ .

Table 5.7: Means (standard errors) of Grand Leniency Bias Score (situations 5-8) by Culture and INGROUP vs. OUTGROUP Protagonist.

		Culture of respondents		Averagemean for both treat.
		American	Saudi	
Treatments	Ingroup Prot.	24.00 (2.27) N=79	13.38 (3.31) N=73	18.69
	Outgroup Prot.	33.83 (2.23) N=83	-12.41 (3.48) N=74	10.71
Difference in Ethnocentric Bias=		-9.83	25.79	
Average L.B. for both treatments=		28.92	0.49	

Hypothesis 10 seems to be partially supported by the findings since only one cultural group (i.e., the Saudis) showed ethnocentric bias.

A MANOVA statistical test showed that the interaction of culture by outcome was significant,  $F(1,305)=100.80$ ,  $P<.001$ , and  $R\text{ Squared}=.18$ .

For the Americans, the findings here are consistent with the findings on situations 1-4 above. In both cases, the Americans showed greater leniency bias than the Saudis. In other words, the American students appeared to show generally more leniency bias toward those whom they knew as well as toward those whom they did not personally know everyone than the Saudi students.

In addition, a MANOVA was performed to see whether the difference between the two cultures was significant. The results of the test showed that the culture by treatment by outcome effect was highly significant,  $F(1,305)=39.54$ ,  $P<.001$ , and  $R\text{ Squares}=.07$ .

Although not hypothesized, there was a significant difference between the treatments (ingroup versus outgroup treatments). As the reader can see in Table 5.7, the values along the side margin show that combining both culture, the average mean of leniency bias was stronger for ingroup (18.69) than for outgroup (10.71) protagonists. The effect of the Treatment by Outcome effect was significant,  $F(1,305)=7.93$ ,  $P=.005$ , and  $R\text{ Squared}=.014$ .

### Additional Questions

From the previous results, the researcher wanted to know the cultural differences, if any, in the overall tendency to show leniency bias in general, regardless of who would be the target actors. The researcher asked the following question:

**QUESTION.** Taking both treatments (i.e., ingroup and outgroup) and all situations into account, will there be a difference in the overall leniency bias between the American and the Saudis?

To answer this question, I have to examine the average of the overall leniency bias toward ingroup and toward outgroup in both achievement and social desirability outcomes combined (situations 5-8):

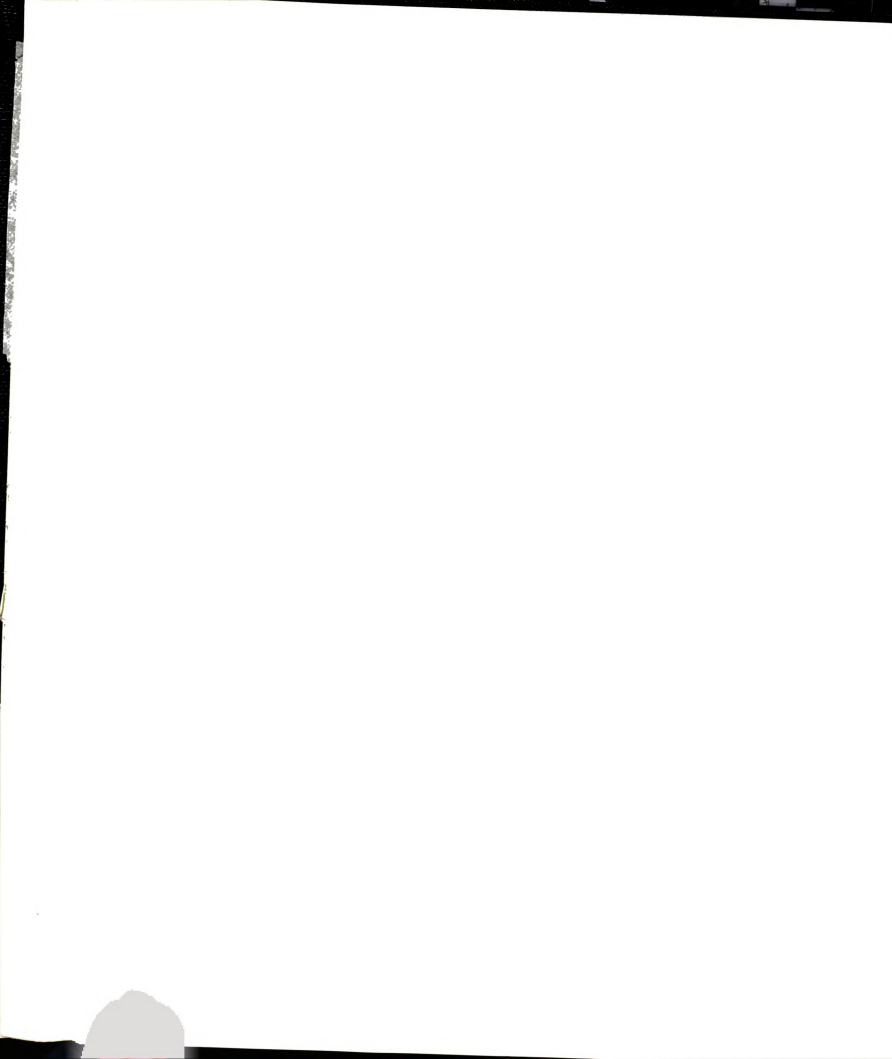
$$(INTR5-INTR6+INTR7-INTR)/2$$

The average numbers on the bottom margin of Table 5.7 show the results of the difference in leniency bias between the two cultures. The numbers indicate that while the Americans showed a highly positive overall leniency bias (28.92) for both their ingroup and the outgroup, the Saudis showed apparently very slim overall leniency bias, partly because they showed a low positive leniency bias for ingroup and a negative leniency bias toward outgroup.

A MANOVA test indicated that the Culture by Outcome interaction effect was significant,  $F(1,305)=100.80$ ,  $P<.001$ , and  $R\text{ Squared}=.18$ .

Another question I asked had to do with the cultural difference in the overall leniency bias (LB) for social





desirability versus achievement outcomes when both ingroup and outgroup treatments are considered together. The following question was asked:

**QUESTION.** Will the two cultures show a significant difference in the overall leniency bias for social desirability vs. achievement outcomes?

For this question, data from situations 5-8 were used in both the ingroup and the outgroup treatments. To answer this question for situations 5-8, I had to examine separately the difference between the two cultures on social desirability and achievement outcomes for the ingroup (Table 5.8 ) and then for the outgroup (Table 5.9) using the following formula:

L.B. for Social Desirability vs. Achievement =  $(INTR7 - INTR8) - (INTR5 - INTR6)$

Table 5.8: Means (standard errors) of the differences in leniency bias for social desirability and achievement of the INGROUP by culture.

	Culture of Respondents	
	Americans	Saudis
Soc. Desir. (INTR7-INTR8)	-10.70 (2.28) N=80	-13.84 (4.55) N=76
Achievement (INTR5-INTR6)	58.77 (3.91) N=79	39.09 (4.23) N=75
Difference in leniency Bias	-69.47	-52.93

Using the above formula, the numbers on the bottom margin of Table 5.8 represent the difference in leniency bias for social desirability versus achievement outcomes for the ingroup. These numbers suggest that both American and Saudi cultures showed more leniency bias for achievement than social desirability outcomes.

Similarly, the numbers on the bottom margin of Table 5.9 represent the difference in leniency bias for social desirability versus achievement outcomes for the outgroup. They also suggest that while both cultures showed greater leniency bias for achievement than for social desirability, the Americans seemed to show a greater difference in leniency bias than the Saudis.

Table 5.9: Means (standard errors) of the differences in leniency bias for social desirability and achievement of the OUTGROUP by culture.

	Culture of Respondents	
	Americans	Saudis
Soc. Desir. (INTR7-INTR8)	-9.93 (3.46) N=83	-44.26 (4.91) N=78
Achievement (INTR5-INTR6)	77.59 (2.82) N=83	17.25 (4.83) N=76
Difference in leniency Bias	-87.52	-61.51

After combining leniency bias scores for both treatments, I calculated the averages from Tables 5.8 and 5.9, and subtracted the average means of leniency bias for achievement from that of social desirability for both ingroup and outgroup members to arrive at the overall difference in leniency bias for achievement and social desirability outcomes. The calculation was done for each group as follows:

For the Americans, the average L.B for ingroup and outgroup:

a- Social desirability=  $(-10.70) + (-9.93)/2 = -10.32$

b- Achievement =  $(58.77) + 77.59/2 = 68.18$

For the Saudis, the average L.B for ingroup and outgroup:

a- Social desirability=  $(-44.26) + (-13.84)/2 = 29.05$

b- Achievement =  $(39.09) + (17.25)/2 = 28.17$

Then the differences between social desirability and achievement outcomes were calculated for each cultural group by subtracting the total L.B scores of achievement from the total L.B scores for social desirability.

The results are shown on the bottom margin of Table 5.10 below. the reader can see that both cultures showed greater leniency bias for achievement than for social desirability outcomes. This is consistent with the pattern seen on situations 1-4 above.

However, here I found that the Americans showed a greater difference between the leniency bias shown for social

desirability (-10.32) and the leniency bias shown for achievement (68.18) situations than the Saudis who showed less striking difference (-29.05 versus 28.17).

Table 5.10: Means (standard errors) of the of the overall differences in leniency bias for social desirability and achievement of the INGROUP and OUTGROUP members combined by culture.

	Culture of Respondents	
	Americans	Saudis
Soc. Desir. (INTR7-INTR8)	-10.32 (2.08) N=163	-29.05 (3.56) N=153
Achievement (INTR5-INTR6)	68.18 (2.50) N=162	28.17 (3.32) N=152
Differ. in L.B. for Soc. Des. vs. Achievement outcomes.	-78.50	-57.22

A MANOVA test was performed to see if the difference between the two cultures was significant in this respect. The effect of Culture by DESACH (i.e., social desirability versus achievement outcomes) by Outcome was highly significant,  $F(1,305)=16.36$ ,  $P<.001$ , and  $R\text{ Squared}=.02$ . In addition, the MANOVA indicated that the Culture by Treatment by Outcome

interaction effect was significant,  $F(1,305)=39.54$ ,  $P<.001$ , and  $R^2=.07$ .

The MANOVA, however, showed that the Culture by Treatment by DESACH by Outcome did not reach the .05 level of significant,  $F(1,305)=.46$

### **Ethnocentric Bias and Ethnic Stereotypes**

Ethnocentric bias is said to be related in part to the notion of social identity which assume that people will evaluate their own group more positively than the outgroup, especially in the case where one or both groups have any negative stereotypes or animosity toward the other. In other words, there should be a positive correlation between ethnocentric bias and the ethnocentric stereotypes held of the outgroup members.

As mentioned above, the basis for this hypothesis is theoretical. Specifically, the theoretical argument made by Pettigrew (1979) is that people are more likely to show ethnocentric attribution bias, especially when they have negative images of the outgroup members.

In order to find out if Americans and Saudis have negative images of each other, the researcher had to examine the stereotypic images of both the American and the Saudi

students about their ingroup and the other group (outgroup). I constructed a stereotype scale which included 20 adjectives (10 positive and 10 negative). The respondents were to rate their agreement or disagreement with these stereotypes on a five point scale.

Form one asked them questions about the ingroup and Form two asked them about the Outgroup. Half of the respondents in each culture rated the stereotypes held about one's ingroup and the other half rated stereotypes held about the outgroup. After re-coding the ten positive stereotypes and the ten negative stereotypes into two variables representing an overall score of positive stereotypic image and an overall score of negative stereotypic image, a Two-Way ANOVA test (stereotypic attitude by culture by treatment) was used to analyze the response of the two groups on this scale.

The numbers in Table 5.11 show that for the ingroup members, the American students showed a slightly higher tendency to evaluate ingroup members more favorably than the Saudis. The difference was significant,  $F(1,143)=6.84$ ,  $P=.01$ , and  $R\text{ Squared}=.05$ .

For the outgroup, the lower two cells of Table 5.11 show that the Saudis evaluated the outgroup more favorably than the Americans did. The difference here was also significant,  $F(21.07)$ ,  $P<.001$ , and  $R\text{ Squared}=.35$ .

Table 5.11: Means of rating scores of positive stereotypes of ingroup and outgroup members by culture.

	Culture of respondents	
	American	Saudi
Ingroup were being rated Treatments	71.28 N=78	69.07 N=67
Outgroup were being rated	72.07 N=81	76.07 N=68
Difference= Ingroup- Outgroup	-0.79	-6.00

I also wanted to know if the difference is significant when rating ingroup versus outgroup by each culture. The reader can see from the numbers in Table 5.11 that the American evaluated the ingroup and the outgroup members almost similarly (71.28 vs. 72.07). The difference was not significant,  $F(1,157)=1.05$ . The Saudis, however, rated the outgroup (76.07) more favorably than the ingroup (69.07). The difference was highly significant,  $F(1,133)=53.98$ ,  $P<.001$ , and  $R\text{ Squared}=.29$ .

The findings also showed that with regard to the positively held stereotypes, the Culture By Treatment interaction effect was significant,  $F(1,290)=26.15$ ,  $P<.001$ , and  $R\text{ Squared}=.11$ .

I have also examined the cultural differences with regard to negative stereotypes of ingroup and outgroup members. As



Table 5.12 illustrates, for the rating of the ingroup, the upper two cells show that the Americans rated their ingroup less negatively than did the Saudis. The difference was significant,  $F(1,148)=38.28$ ,  $P<.001$ , and  $R\text{ Squared}=.21$ .

For the rating of the outgroup, the lower two cells of Table 5.12 suggest that the Americans rated the outgroup more negatively than the Saudis. The difference was highly significant,  $F(1.145)=60.52$ ,  $P<.001$ , and  $R\text{ Squared}=.30$ .

Table 5.12: Means of rating scores of negative stereotypes of ingroup and outgroup members by culture.

		Culture of respondents		
		American	Saudi	
Ingroup were being rated		76.60 N= 80	81.71 N= 69	79.16
Treatments				
Outgroup were being rated		79.44 N=82	73.63 N=64	76.54
Difference=		-2.84	8.08	

The researcher also compared the difference in negative ratings of ingroup versus the outgroup by each of the two cultures. It appears from the numbers on the bottom margin of Table 5.12 that the Americans showed more negative rating of

the outgroup than of the ingroup. The difference was significant,  $F(1,158)=8.98$ ,  $P<.001$ , and  $R\text{ Squared}=.10$ .

The Saudis, however, rated the ingroup more negatively than the outgroup. The difference was also highly significant,  $F(1,132)=82.87$ ,  $P<.001$ , and  $R\text{ Squared}=.39$ .

The Culture by Treatment interaction also was significant,  $F(1,291)=95.90$ ,  $P<.001$ , and  $R\text{ Squared}=.04$ .

To examine the Overall Leniency Bias in stereotyping of ingroup vs. outgroup, I created an overall stereotyping score (OSS) for each group. The total score is calculated by subtracting the overall negative rating from the overall positive rating done by American and Saudi students for both ingroup and outgroup members:

$$\text{OSS} = \text{Positive stereotypes} - \text{Negative Stereotypes}$$

Table 5.13 shows the outcome of our calculation. From the numbers in the upper two cells of Table 5.13, we see that with regard to the ingroup, the Americans showed less negative views of their ingroup (-5.21) than the Saudis (-12.45). The difference was significant,  $t(1,141)=5.41$ , and  $P<.001$ .

However, for the outgroup members, the numbers in the lower two cells of Table 5.13 suggest that the Americans showed more negative views of the Saudis (-7.45) than did the Saudis of the Americans (2.50). The difference was significant,  $t(1,140)=6.78$ , and  $P<.001$ .

Table 5.13: Means (standard errors) of an overall stereotyping score of ingroup and outgroup members by culture.

		Culture of respondents	
		American	Saudi
Treatments	Ingroup being rated	-5.21 (0.91) N= 78	-12.45 (0.99) N=80
	Outgroup being rated	-7.45 (0.90) N=65	2.50 (1.12) N=61
Ethnocentric Stereotypes=		2.24	-14.95
(Ingroup Rating- Outgroup Rating)			

I also examined the overall difference in stereotypes of ingroup versus outgroup by each culture. It appears that the Americans held a slightly more negative views about the Saudis (-7.45) than about their ingroup (-5.21). However, the difference did not reach the .05 level of significant,  $t(1,156)=176$ , and  $P=.08$ .

The Saudis, on the other hand, showed negative views toward their ingroup (-12.45), but slightly positive views toward the Americans (2.5). The difference was significant,  $t(1,125)=9.83$ , and  $P<.001$ .

In addition, the researcher tested the significance of the difference between the two groups in the overall stereotyping of the outgroup. The two bottom cells of Table 5.13 indicate that while the Americans (-7.45) showed an



overall negative stereotype of the outgroup, the Saudis (2.50) showed positive stereotypes of the outgroups. This difference was significant,  $t(1,140)=6.78$ ,  $P<.001$ .

Finally, I tested the Culture by Treatment interaction effect. A Two-Way ANOVA statistical test showed that the effect of Culture by Treatment (ingroup vs. outgroup) is significant,  $F(1,276)=74.49$ ,  $P<.001$ , and  $R^2=0.09$ . This showed that the two cultures had different levels of ethnocentric stereotypes.

### Summary

I have presented in the previous sections of this chapter the findings related to ethnocentric bias. I had three hypotheses, one was fully supported, the second was partially supported and the third one was not supported by the data.

Hypothesis 8, which claimed that the Americans would show more ethnocentric bias in achievement outcomes, was not supported. Although there was a significant difference, it was in the opposite direction of the hypothesis. In other words, the data indicated that the Saudis showed greater ethnocentric bias than the Americans.

Hypothesis 9, which assumed that in social desirability outcomes the Saudis would show more ethnocentric bias than the Americans, was supported.

Hypothesis 10, which asserted that taking both achievement and social desirability outcomes into account, both American and Saudi students will show ethnocentric bias, was partially supported. The hypothesis held true for the Saudis who showed an overall ethnocentric bias favoring the ingroups. However, unlike the Saudis and contrary to hypothesis 10, the Americans showed significantly more leniency bias toward the outgroup than toward the ingroup members.

I examined ethnocentric stereotypes held by the two cultures about themselves and about the other culture. I found that although the Americans had slightly more negative overall views of the Saudis than of Americans, the Saudis, however, showed more negative views toward themselves than toward Americans.

Moreover, I found that the American students had similar negative rating bias for ingroup and outgroup members. The Saudi students, on the other hand, showed more negative stereotypes toward ingroup and positive stereotypes toward the outgroups.

Finally, the researcher presented additional analysis for some questions which were not hypothesized. The answers to

those questions complimented the testing of the hypotheses and could used to guide us in later research project

For example, I found that Americans showed more leniency bias than the Saudis whether in family and self or in ingroup and outgroup treatments. I also found that with regard to leniency bias for family vs. self, while the Americans showed greater leniency bias toward their family, the Saudis showed greater leniency bias toward themselves. This was contrary to our expectation.

In addition, the answer to the question about the cultural difference in the overall leniency bias for social desirability versus achievement for the ingroup and outgroup treatment, the same pattern (greater leniency bias for achievement) was found with the Americans showing greater leniency bias for achievement than the Saudis.

## Footnotes

1- Although not predicted, it appears from Table 5.2 that both the American and the Saudi students showed more tendency to make internal attributions for their family than for themselves (59.86 versus 51.93) when treatment only is taken into account. The result of treatment by outcome was significant at the .05 level of significance,  $F(1,262)=14.22$ ,  $P<.001$ .

2- A MANOVA was performed to test the difference between American and Saudi leniency bias toward ingroup members (Table 5.12). The effect of culture by outcome between the two groups was significant at the .05 level,  $F(1,153)=11.68$ ,  $P=.001$ , and  $R\text{ Squared}=.08$ .

3- A MANOVA was done to examine the significance of the difference between the two the two groups on leniency bias toward outgroup achievement. The effect of culture by outcome was significant at the .05 level,  $F(1,157)=121$ ,  $P<.001$ , and  $R\text{ Squared}=0.77$ .

4- A MANOVA was performed to test for the significance of the difference on leniency bias between the two cultures about the social desirability outcome of ingroup protagonists. The difference of culture by outcome was not significant at the .05,  $F(1,153)=0.40$ .



## CHAPTER SIX

### DISCUSSION, SUMMARY AND CONCLUSIONS

The present study has been concerned with cross-cultural differences on attribution of responsibility regarding the self, the family members, the ingroup and the outgroup members. The American and Saudi cultures were compared across four treatments, each treatment corresponding to one of these four categories. Four situations in each treatment were used to manipulate successful, failure, desirable and undesirable outcomes.

Of the several hypotheses which were tested, some were supported but others were only partially supported or in some cases were not supported at all.

One of the aspects which I wanted to establish was the cultural difference on collectivism-individualism dimension between Americans and Saudis. The findings of several studies indicated that the American culture is an individualistic culture.

I have also made the assumption that the Saudi culture is more collectivistic or at least less individualistic than the American culture. This assumption was based on the notion that Saudi culture is more similar to traditional cultures, such as those of Indian, African and Chinese cultures, which have been found to be collectivistic cultures.

The results of our study showed clearly that our assumption about cultural differences regarding collectivism-individualism was supported. The Saudis showed significantly higher tendency toward collectivism than the Americans. This means that the members of the Saudi culture are more likely to be susceptible to social influence, prone to sharing material and nonmaterial resources, concerned about social approval, and to emphasize the group goals and objectives over their own individual ones.

This was true even though Saudi sample consisted of university students who are probably more achievement-oriented segment of the society and more exposed to Western individualistic values (e.g., through the mass media and traveling) than other groups in the society.

#### Overall Internality:

Our first hypothesis tested the notion that Americans tend to be more internal than the Saudis. The data has, for the most part, supported this hypothesis. In most situations, American students were more likely to explain the actor's behavioral outcomes in terms of internal causes than the Saudis, regardless of who was the actor(s) or how favorable or unfavorable was the outcomes.

This finding is consistent with other cross-cultural research findings which indicated that Americans were also

more internal than Indian, (Miller, 1984) and Japanese respondents (Bond and Tornatzky 1973; and Holloway et. al. 1986).

The implication of this results is that when offered external and internal reasons for behavioral outcomes, unlike the Americans, the Saudi respondents preferred external explanation of particular behavioral outcomes. Because all situations were taken into account, regardless of the actors or the nature of the outcomes, we may conclude that the observed general tendency of the Saudis to show more external attribution than the Americans is probably culturally determined.

This finding advances Beauvois and Dubois's (1988) notion that internality is a learned norm. They cited some findings on subjects from Western countries which indicate that as children grow, they become more internal. They concluded that internality is more likely to be induced because people are approval-seekers. To present themselves in favorable way, they attribute good outcome to internal causes knowing that this will give them that sought-after approval.

Beauvois and Dubois (1988) also pointed out that social groups differ on the norm of internality. For example, they cited the findings of one of the authors (Dubois, 1987; in French) which showed that relatively "privileged social group" were more internal than those who were not.

One obvious component of the Saudi culture which may explain their tendency toward external attribution is their religion, which is Islam. According to the Koran, the Muslim holy book, God has the ultimate power and has already prescribed the life of each individual before his birth. An individual is only an agent of God on earth and will always have to be guided by God's will. This notion has been repeated in several verses in the Koran. For example, in one of these verses the Koran states " You shall have no will but God's will".

Another component of the Saudi culture is their social background. Most Saudis come from very ingrained tribal systems which look favorably to membership to the tribes. In this regard, the tribal social systems have often been one of the main sources, if not the main source, in developing the social identity for the tribes' members. The goals, objectives, norms, and rules of the tribe were always to take precedent over those of the individual members.

Although group membership is an essential component of the self-concept in collectivistic cultures (Marsella, et. al., 1985), it also means taking less personal responsibility of one's behavior outcomes (Triandis, 1989). Triandis states:

So that in collectivist societies the self is a bundle of roles while in individualist cultures people conceive themselves as separate from their roles. This separation of self from the ingroup allows for personal responsibility, so that if a person commits a crime he is the only one that should be punished. In collectivist societies, his ingroup must be punished. Similarly the benefits of a person (income, good crop) must be shared

with the ingroup in collectivist, but can be used as the individual sees fit in individualist cultures (p.62).

Both of these components (i.e., religion and tribal systems) have probably contributed to this tendency of Saudis to give external factors more weight because they have been socialized into believing that an individual can only do his/her best and hope that the outcome materialized as planned. In addition, when the behavioral outcomes take place, the sharing of the glory of good outcomes or the responsibility for bad outcomes is the norms. This is why shame works very well as a deterrence for many socially unacceptable behavior

On the other hand, the general tendency of Americans toward internality may be explained in terms of the need for control over environment. One way to assert an individual's control over his/her environment is the need to take responsibility for his/her behavioral outcomes (Pittman and Pittman, 1980).

Some researchers have viewed this tendency of the Americans toward internality to be a consequence of individualism (Triandis, 1989; Triandis et. al., 1988;). As I discussed above, the notion of individualism, which characterizes American as well as other Western cultures, suggests that personal autonomy and self-reliance are very important values in such cultures. Members of these cultures are socialized to believe in individual merit and individual

responsibility far more than individuals of collectivistic cultures. Therefore, members of individualistic cultures are more likely to look for internal than for external causes to explain daily events. As Miller (1984) states:

The Western cultural emphasis on the agent's autonomy from contextual influences and on individual responsibility for action, for example, is viewed as encouraging attributors to search for internal factors predicting behavior across contexts and distinguishing one agent's behavior from that of another" (p.963).

#### **Attribution to Oneself:**

In this research, one of our treatment focuses on the attribution of the self outcomes. In hypothesis 2, the researcher predicted that in explaining their own social desirability outcomes, the Americans would show greater leniency bias than the Saudis.

The data supported this hypothesis. The American respondents showed greater leniency bias than the Saudi respondents. This means that while the Americans had made more internal attribution of their socially desirable behavior than of their socially undesirable behavioral outcomes, the Saudis made similar internal attribution of both socially desirable and socially undesirable behavioral outcomes.

One explanation for why individuals engage in leniency bias is to protect one's ego. According to Forsyth (1980), people have an egocentric need and they will often attempt to utilize their attributions to serve that need. Therefore it

is not surprising to see people engage in internal attribution when the outcome is positive to fulfill their egocentric need.

Another hypothesis predicted that in achievement-related situations, the Americans would also show greater leniency bias in explaining their outcomes than the Saudi students. The data did not support this hypothesis, and the two cultural groups showed similar leniency bias.

Specifically, Americans showed greater internality for success than the Saudis, but they also took more responsibility for failure than their Saudi counterparts. So, while the Americans made bias in taking more credit for success, the Saudis made bias by taking less responsibility for failure. This is because Americans are more internal in general.

#### **Attribution About One's Family:**

As in the self treatment, I had two hypotheses regarding attribution about the family members. I asked the respondents to make attribution about social desirability (desirable vs. undesirable) and achievement (success vs. failure) outcomes of a family member.

The researcher had two hypotheses to examine about the attribution of family outcomes. In these hypotheses, I predicted that the Saudis would show more leniency bias for social desirability (Hypothesis 5) and for Achievement

(Hypothesis 6) outcomes than the Americans. The findings did not support either of the two hypotheses. Specifically, I did not find a significant difference between the two cultures with regard leniency on social desirability. In fact, the Saudis made greater internal attribution of socially undesirable outcomes than of socially desirable outcomes of family members.

With regard to achievement, although both group showed leniency bias toward family members, it was the Americans who displayed significantly higher leniency bias than the Saudis. In other words, the difference was in the opposite direction of the hypothesis.

One explanation is that Americans have a tendency to show leniency bias toward everyone (i.e., toward self and family).

For the social desirability outcomes, I found that the Saudis had evaluated their family members harshly. They made greater internal attribution for bad than for good behavioral outcomes. This finding was surprising in light of our hypothesis, which was based on the assumption that the extended family constitutes an important source of social identity for Saudis.

The present results may be explained in terms of trying to show how much they dislike the member's behavior which in their view is a discredit for the family and therefore has to be judged harshly. In other words, the Saudis are being indirectly biased toward their family by explaining the



socially undesirable outcomes of a family member as being a personal rather than familial characteristic.

Further research may be needed to examine in what cases do the Saudi family members reject or protect another member. What are the most likely kinds of behavior that would make the family members reject or dissociate themselves from other family members who engage in such behavior?

Another possible explanation is that the family is not an important source of social identity for the Saudis as I thought, either because the tribe is the dominant source of identity or that the attitude toward the family is no different between the two cultures because extended family has become less important in Saudi culture as it is in the American culture. In fact, recent findings suggest that this is the case for the Saudis. For example, Al-Juwayer (1984) found that 68% of his respondents described their family structure as nuclear family (i.e., couples with children living alone).<sup>1</sup>

However, it should be mentioned here that the importance of the family as a social institution in Saudi culture is still very strong and far from being similar to that in the American culture. For example, the majority of the families in Saudi culture still regard parents' involvement in marriage, sharing of resource in terms of taking care of needy relatives, expected emotional support, and family loyalty by all family members to be important functions of the family.



### Influence of Positive or Negative Outcomes on Attribution

Hypothesis 7 in the present research dealt with the influence of a positive outcome on people's leniency bias toward themselves and those others whom they care about. I predicted that individuals from both cultures would show more internal attribution for positive rather than for negative outcomes.

This hypothesis was fully supported by the finding. As illustrated in Table 4.10 above, both the American and Saudi respondents gave higher internal attribution for both themselves and their family members for positive outcomes than for negative outcomes.

The findings also showed some cultural differences in this regard. The Americans respondents were more influenced by the favorableness of the outcomes (i.e., showed more leniency bias) than the Saudi respondents for both attributions about self and family.

There are possible explanations for why people make greater internal attribution for positive than for negative outcomes:

- (1) According to the cognitive approach, people, in general, have high expectations of themselves so that they think their behavior would result in desired outcomes. Therefore, they tend to make internal attribution of their positive outcomes because this corresponds to their own expectations of themselves (Ross and Fletcher, 1985).

(2) From a sociological perspective, this result may be explained in terms of self-presentation mechanism. According to this perspective, most people have positive image of themselves and those whom they love, therefore, making internal attribution of positive outcomes is an important mechanism which is used by people for self presentation (see Crittenden, 1989).<sup>2</sup>

Our findings here are consistent with those results mentioned above in the sense that they showed people's tendency toward greater internality for positive outcomes, although the two cultures here showed differences in the magnitude of this tendency toward internality.

### **Ethnocentric Bias For Achievement Outcomes**

After examining personal and family attribution, the researcher dealt with intergroup attribution, which is mainly concerned with the way respondents make attribution about actors whose group membership was made salient. The results presented in chapter five are concerned with ethnocentric or intergroup biases regarding achievement and social desirability outcomes.

To examine how American and Saudi respondents make attributions about their ingroup and the outgroup members, I tested three hypotheses. The first hypothesis asserted that for achievement outcomes, although both Americans and Saudis

would engage in ethnocentric bias, the Americans would show greater ethnocentric bias than the Saudis.

This hypothesis was tested by examining the differences between Americans and Saudis on leniency bias shown toward ingroup protagonists versus that shown toward outgroup protagonists. This hypothesis was not supported. Although the results showed a significant difference between the two cultures, it was in the opposite direction of the hypothesis. Unlike the Saudis, the Americans showed no ethnocentric bias. In fact, while the Saudis showed more leniency bias for achievement outcomes toward the ingroup, the Americans showed more leniency bias toward the outgroup members.

This finding is inconsistent with previous findings which showed that members of individualistic culture (German) displayed greater group-serving bias than members of collectivistic culture (Turkish) (DeVos, 1988).

However, the present findings suggest that the two cultures differed because the Americans showed greater leniency bias towards both ingroup and outgroup than the Saudis. The difference in latter result between the two cultures was big enough to account for why the Americans appeared to have less ethnocentric bias than the Saudis.

As I mentioned above, I had no prior empirical data about the Saudi culture. In addition, cross-cultural findings have indicated that some collectivistic cultures (Chinese) showed no ethnocentric bias (Hewstone and Ward, 1985), and showed

that members of collectivistic cultures have low need for achievement. For these reasons I predicted that the Americans would display more ethnocentric bias for achievement, since achievement is an important need in individualistic culture.

Apparently, our assumption needs some qualifications so that the present finding can be explained. As I indicated, the Saudis showed less leniency bias toward their ingroup than the Americans, but when it came to the outgroup, the Saudis showed even lesser leniency bias than the American which then resulted in greater ethnocentric bias by the Saudis.

One possible explanation is that although the Saudis, which are members of a collectivistic culture, have less emphasis on individual achievement than the Americans, they still see group achievement as an important component of group pride and therefore must be emphasized.

Another explanation, which is more plausible one, is that Saudis as a homogeneous culture have very strong feeling of their social identity. Therefore, when it comes to judging outgroup members, they are more likely to judge them harshly compared to judging there ingroup in order to maintain that strong sense of social identity which entails that one's own group be favored in most instance over all other groups (Tajfel and Turner, 1986).

A third explanation, which is supported clearly by the present finding, is that Americans did not make a distinction between ingroup and outgroup protagonists when they made their



attribution. In other words, as an individualistic culture, American culture may be permissive and lenient toward everyone and in all aspects of social life.

Some research findings seem to support this characterization of the members of individualistic cultures. Triandis McCusker and Hui (1990) state " Individualists also have ingroups and outgroups, but they do not see as sharp a contrast between them and do not behave as differently toward ingroup and outgroup members as do collectivists." (p.1007).

#### **Ethnocentric Bias For Social Desirability Outcomes**

Our second hypothesis dealt with ethnocentric bias concerning social desirability outcomes. The hypothesis asserted that for social desirability outcomes, the Saudis would show greater ethnocentric bias than the Americans. As I mentioned previously, this hypothesis was based on both theoretical (Tajfel and Turner, 1986) and empirical (Marsella, DeVos, and Hsu, 1985; and Triandis et. al. 1988) evidence which suggests that members of collectivistic cultures, such as the Saudis, have a set of values which emphasizes group identity, group honor, and group norms.

Our data supported this hypothesis. The Saudis made greater positive ethnocentric bias than the Americans.

In Table 5.6 the reader can see that both groups showed negative leniency bias on these situations (i.e., were more



internal for the undesirable than for the desirable outcomes).

However, while the Americans made similar negative leniency bias toward both the ingroup and the outgroup members, the Saudis showed less negative leniency bias toward the ingroup than toward the outgroup.

The main difference between the two cultures is that the Saudis gave less credit than Americans for outgroup positive outcomes (Table 5.5). In other words, Saudis appeared to make less internal attribution of socially desirable and greater external attribution of socially undesirable outcomes of the outgroup than of the ingroup.

The present findings are also interesting for two reasons: First, the respondents in both cultures showed a similar negative leniency bias for both the ingroup and the outgroup protagonists (Tables 5.4 and 5.5). That is they made greater internal attribution of socially undesirable than of socially desirable outcomes. Second, the two cultures showed no significant difference in making internal attribution about socially desirable outcomes of ingroup.

Nevertheless, the similarity between the two cultures in making more internal attribution of undesirable than of desirable outcomes of ingroup and outgroup members may be explained as follows:

- (1) It is possible that the undesirability of the behavioral outcome in situation 8 (failing to help an accident victim) was too disgraceful to try to protect the actor by

assigning the blame to external factors. In other words, the behavior of the actor was a clear-cut violation of moral standard and common-sense human decency in both cultures. For such a behavior, it was probably easier for the respondents in both cultures to condemn it for all actors, rather than to try to justify it for an ingroup member.

(2) There was a single actor committing the bad behavioral outcome in the situation. This may not have made the respondents think of the behavior as a characteristic of the group which the actor was a member of. In other words, the situation may not have been viewed as "Us" versus "Them", and therefore did not induce group-serving bias to protect the social identity of the ingroup.

(3) Since there are not only motivational reasons for making attribution but also cognitive reasons, it may be said that the situation here involved a clearly bad behavior (cognitive reasoning) by the actor and therefore respondents of both cultures made internal attribution of the actor's behavior. In other words, the personal responsibility of the actor was very salient to be ignored for the respondents in both cultures.

Nevertheless, with regard to the Saudis showing negative leniency bias of the ingroup (Table 5.4), our findings are similar, to some extent, to those reported by Hewstone and Ward (1985) (study 1) in which the Chinese (collectivists)

showed greater internal attribution of negative than positive outcomes of the ingroup members (i.e. negative leniency bias).

However, with regard to the Americans (individualists) showing negative leniency bias of the ingroup (Table 5.4), our findings has no precedent and should be examined further in future research. In other words, the Saudis as members of collectivistic culture did what the Chinese did in Hewstone and Ward's study, but to this researcher's knowledge, no study has shown the Americans making negative leniency bias of their ingroup.

#### **Influence of Positive Outcomes on Ethnocentric Bias**

The final hypothesis was to examine the overall ethnocentric bias shown by the respondents in each cultures when attributions of both achievement and social desirability situations are combined. It stated that when achievement and social desirability outcomes are both taken into account, both American and Saudi cultures will show ethnocentric bias.

This hypothesis was intended to test the so-called "the Ultimate Attribution Error" which suggest that individuals tend to make greater internal attribution of ingroup positive outcomes and outgroup negative outcomes than ingroup negative outcomes and outgroup positive outcome.

The hypothesis was partially supported because only the Saudis showed ethnocentric bias. The Americans, on the other

hand, did not show ethnocentric bias as I hypothesized. They showed greater leniency bias (e.g., greater internal attribution of positive than negative outcomes) toward the outgroup than toward the ingroup.

The present results, however, do suggest that the Saudis have engaged in what is called the ultimate attribution error because they showed an overall greater internal attribution of ingroup positive and outgroup negative outcomes as specified in the definition of this error.

Was this in any way a reflection of prejudiced attitudes toward the Americans? In other words, do the Saudis hold negative attitudes or negative stereotypes toward the Americans? Our findings from the stereotype measure do not seem to indicate that.

In fact, the Saudis held a more positive image of the Americans than of themselves. Yet they (the Saudis) showed more ethnocentric bias when making judgment about positive versus negative outcomes. These findings on stereotypes are interesting in light of the finding of Hypothesis 10. It appeared that while the Americans rated themselves and the Saudis similarly, and they did not make the ultimate attribution error as did the Saudis.

One possible explanation of this finding is that the Americans are more lenient in their judgment and tolerant in their attitudes toward both ingroup and outgroup than the Saudis. Our results support this explanation.

However, while Saudis engaged in ethnocentric attribution they showed more positive image of the Americans than of their own countrymen.

It is possible, at least in this case however, that ethnocentric bias does not have to be based on negative stereotypes of the outgroup because stereotypes can be both positive and negative but maintaining higher self image requires positive social identity which, in turn, also requires favorable evaluation of the ingroup. In other words, although the Saudis admire the Americans, they still see their ingroup as the source of their social identity and therefore make ethnocentric attributions.

Another explanation is that the overall stereotypic image was limited by the scope of the traits that were presented to the respondents and therefore may not reflect the degree of ethnocentric bias held by each cultures.

One may ask why did not the Americans engage in ethnocentric bias as did the Saudis? A possible reason is that the Americans have probably less attachment to the ingroup than the Saudis because they are much more heterogeneous society than the Saudis. This would be consistent with the characteristics which distinguish collectivistic from individualistic cultures. On this point, Triandis, Brislin, and Hui (1988) state:

In individualist culture the self is autonomous and separate from groups. While one can be a member of many groups, no one group defines one's identity in its entirety and determines one's behavior, except under very

unusual circumstances, such as in war. In collectivist cultures people are attached to fewer groups, but the attachment is highly defining of one's identity. In collectivist cultures the attachment is very strong; in individualist cultures it is mild (p.273).

Finally, our findings regarding the Americans here and the findings of Hewstone and Ward's 1985 study showed are additional evidence to the argument that ethnocentric bias may not be a universal phenomena. However, it is possible that attribution theory is perhaps limited perspective with regard to explaining all aspects of ethnocentrism.

### **Summary and Conclusions**

The data collection was done before the crisis of the Gulf after which the United States and Saudi Arabia became allies. It would be very interesting to see how the two culture make attribution about each other during the current situation in the Gulf.

Never the less, our data showed several important findings:

(1) Attribution was influenced by culture. It is probably safe to make the argument that one's cultural background has a significant effect on his/her attribution of responsibility. Although attempting to make sense of the world around us involves some basic cognitive processes, the focus and reasoning are learned, acquired, and shaped through



the socialization processes adapted by each culture.

People have different beliefs, norms and understanding about the role of each causal agent in their environment. An individual who believes that he has a total control over every aspect of his/her life will have different reasoning to explain success and failure in his/her life from those who have different beliefs.

In addition, there are cultural differences in the emphasis on what may be considered success, failure, desirable, and undesirable outcomes. These differences are caused, in part, by the different views of the sense of community and group membership. Individuals in different cultures have views with regard to the importance of the group membership and how to maintain it. Any time the ingroup is the only source of social identity, the individual members will find it more important to maintain his/her membership at all cost, which, in turn, leads to favoritism and biased evaluation of his/her ingroup.

(2) Cultures have great influence on the extent of internality individuals display. It was clear from the findings reported here that the American culture tends to foster greater internality than Saudi culture. This was explained in terms of collectivism-individualism dimension which characterized the two cultures.

(3) There was a clear evidence for leniency bias in both the American and the Saudi cultures.



(4) There were some similarities between the two cultures in the sense that no significant differences were found. These patterns of similarities were:

A- Respondents of both cultures were influenced by favorableness of the outcomes when making attribution toward themselves and those whom the care about.

B- There was similar leniency bias for achievement outcome of the self in both cultures (Hypothesis 4).

C- There was a similar pattern in both cultures regarding overall leniency bias for the family. Both cultures showed greater leniency bias for achievement than for social desirability outcomes.

(5) There were clear differences in some of the patterns of attribution bias between the two cultures. These differences include:

A- The two cultures differed on the leniency bias toward oneself for social desirability outcomes, with the Americans showing greater leniency bias than the Saudis (Hypothesis 3).

B- The two cultures differed on the leniency bias toward oneself for achievement outcomes with the Saudis showing greater leniency bias than the Americas (Hypothesis 4). This was, however, contrary to our hypothesis.

C- The notion of "Ultimate Attribution Error" proposed by Pettigrew (1979) was partially supported in the present study. Although both cultures gave ingroup members harsher evaluation when making attributions about socially undesirable

than socially desirable outcomes, the Saudis seemed to engage in the ultimate attribution error because they made greater internal attribution of outgroup socially undesirable than socially desirable outcomes.

In other words, when the Americans helped famine victims, the Saudis explain the actors's behavior in terms of external reasons, but when an American bystander failed to help an accident victim, they Saudis gave explain the actor's behavior in terms of internal reasons.

This attribution bias was not found among the Americans making attribution about Saudi actors. There are two possible reasons. First, there is no history of prejudice or "intense conflict" between American and Saudi respondents. Second, Americans may have a general tendency to show leniency bias toward almost everyone.

D- The two cultures differed on the leniency bias toward one's family for achievement outcomes with the Americans showing greater leniency bias than the Saudis. This result was in the opposite direction of the hypothesis.

E- The two cultures differed on the leniency bias for achievement versus social desirability toward the self. While the Saudis showed greater leniency bias for achievement than for social desirability outcomes, the Americans showed no significant difference on the two outcomes.

F- The two cultures differed on ethnocentric bias of achievement with the Saudis showing greater ethnocentric bias than the Americans (Hypothesis 8).

G- As expected, the two cultures differed on ethnocentric bias for social desirability with the Saudis again showing greater ethnocentric bias than the Americans (Hypothesis 8).

H- There seems to a pattern among Saudis to show bias more often by denying responsibility for negative outcome rather than by taking full credit for positive outcomes. This is probably related to notion mentioned previously (Hui and Triandis, 1986) about how members of collectivistic cultures seek social approval and avoid shameful behavior. It is possible that taking responsibility for socially undesirable outcomes would result in losing social approval and bringing shame on the individual members.

I- The Americans appeared to show greater leniency bias, both for those whom they know (situations 1-4) and those whom they do not know (Situation 5-8).

J- The two groups differed on stereotypes of ingroup and outgroup members. While the Americans showed no difference in their stereotypes of ingroup and outgroup members, the Saudis showed the more positive stereotypes of the Americans than of their own countrymen.



### **Theoretical Implications and Contributions**

This research has dealt with the role of culture on attribution of responsibility as manifested by members of American and Saudi cultures. The main objective was to examine the differences in attribution with the assumption that this social phenomenon does exist in all cultures but with some variations in the patterns of attribution styles among cultures. The variations are presumed to occur because different cultures emphasize different values, beliefs, and norms.

This argument is based on our understanding, as social scientists, of the concept of culture. The concept of culture has usually been used in two ways:

(a) as an explicit product that evolves from social interaction in some observable forms; and (b) as "built into" social meaning systems which define the social norms and expectations which social interaction depends on. (Wuthnow and Witten, 1988).

The second is the one used in this study. Basically, culture is used in the context of this study to mean what Geertz (1973) called meaning systems which include value, norms, and belief systems. Culture was treated here as an independent variable which was varied to include: a- American (Western) and Saudi (non-Western) cultures.

Without engaging in the seemingly endless dispute about the appropriateness of **Emic versus Etic** approaches to studying

cultures, the researcher adopted the etic approach in the present research. In other words, although I acknowledge that cultural differences exist, I think that there are some aspects of human behaviors which are universal and others which are culture-specific.

The difference between these two approaches is in the assumptions underlying each one of them. According to Kline (1989) the emic approach is based on the assumption each culture is a unique and has to be understood as such, therefore cultures are not to be compared to each others because behaviors may not have the same meanings " It is, however, almost an implicit assumption of the emic approach (indeed the whole point of it) that behaviors are not culturally equivalent" (p.5).

The etic approach, according to Kline assumes that there are some universals of human behavior which can be found given that both conceptual equivalence and functional equivalence are met.

However, to do cross-cultural research, investigators have to make sure that they are examine the same thing in the compared cultures. This leads us to emphasize the importance of cross-cultural equivalence which Kline stressed strongly. He pointed out that researchers have to consider functional equivalence (behaviors are equivalent with regard to the phenomenon being examined) as well as conceptual equivalence (concepts have similar meaning in the cross-cultural setting).

The issue of equivalence was given a high priority in the present study. This was especially important because American and Saudi cultures were dissimilar across several components including religion, language, educational systems, and to some extent the codes of moral conduct.

Therefore, in addition to the pilot study which I did before executing the study, I made special effort --through group discussion with other Saudi graduate students and through reading books on Arabic culture and literature, social customs, moral codes and some social psychological textbooks-- to see: first, if attribution does exist as a social phenomenon in Saudi culture; and second, to find out the best approach to examine the different kind of attribution biases discussed above (i.e., attributions of achievement and social desirability outcomes).

I believe my attempt was successful and should benefit future researchers who may investigate any other aspects of attribution phenomenon in Saudi culture as well as in other cross-cultural domain. The procedure as well as findings of the present research have attempted to expand the current understanding of attribution theory in several ways:

(1) I utilized an existing instrument (the Individualism-Collectivism Index) to make sure that the two cultures being studied differ significantly along several empirically identified factors and not take the difference between the two cultures as a given. This method of testing

basic assumptions about cultural differences, which may not seem necessary to test the main hypotheses, should be adopted especially when the researcher knows very little about either or both cultures under investigation.

(2) The present research has also examined attribution about the behavioral outcomes of family members, a category that has seldom been examined, by attribution researchers. Family is the basic unit in society and is one of the essential, if not the essential, source of social identity in some cultures. There should be more research that focus on the differences in the mechanism of attribution biases regarding the family in cross-cultural context as well as across situations.

(3) The present research was an attempt to examine the differences between attribution bias in achievement versus social desirability. The assumption here was that cultures have different value priorities with regard to how each evaluates success, failure, good behaviors, and bad behaviors. These differences in value priorities may influence the way in which individuals of a particular cultures engage in attribution biases.

(4) The present research is probably the first empirical attempt to examine the cross-cultural differences in attribution of responsibility between American and Saudi cultures. It is also the first, to the researcher's knowledge, to examine cross-culturally attributions of self,



family, ingroup, and outgroup categories in combination. Future research may utilize this approach to examine the differences in attribution biases toward each category of these four categories.

In other words, is there a cross-cultural pattern where one of these category induces the highest or lowest attribution bias? Would the difference be related to a specific norm across cultures and/or situations (e.g., would the norm of modesty in collectivistic cultures often lead to less leniency bias toward the self than toward the ingroup)?

#### Suggestions For Future Research

The present research was undertaken to test several hypotheses about the differences in attribution of responsibility between American and Saudi cultures. Several hypotheses were supported and some cultural differences were found. However, some of our hypotheses were supported and other were only partially supported.

Part of the problem was related to the exploratory nature of the hypotheses about the Saudi culture. Because of the lack of empirical research on some of the basic social psychological phenomena in general and the lack of research on the area of social cognition or attribution biases in particular with regard to Saudi culture, the hypotheses about



the Saudi culture were built on extrapolation from research done on other collectivistic cultures that I thought had some similarity to the Saudi cultures (e.g. Easter and African cultures).

Unfortunately, although there is so much theorizing about social life in Arab cultures, many of the most basic social phenomena, which may help in distinguishing these cultures from others, have not been empirically examined either in Saudi or other Arab or cultures in the Middle East. These phenomena are so essential for understanding those cultures.

For example, I have tried unsuccessfully to find any published research on Saudi culture about social identity, the basic values, dominant attitudes, level of religiosity, stereotyping of self and other groups, attribution or social cognition topics, the importance of achievement, the view of the self, the view of the family and/or the ingroup... etc but could not. All these topics are very basic to our understanding of a culture and therefore should be addressed by social scientists studying Arabic culture.

Future research should specifically focus on examining basic issues such as the conception of the self, family, ingroup and outgroup in Saudi cultures. In addition, there has to be some elaborate research on how individuals in the Saudi culture view the notion of causality and the notion of responsibility: Are they viewed as being the same or different? Do those individuals view responsibility as a

notion subjected to individual morality or as a social norms that has clear social and/or legal implications?

There is also a need to find out what is the main source of social identity in the Saudi culture: Is it the family, the tribe, the region, or some thing else that constitutes the main source of social identity?

We need to know what are the dominant value in the Saudi culture. Such knowledge will help us understand the common-sense psychology used to explain daily events in this culture.

There should be some kind of replication of the present study with each treatment being given to different group so that no possible carry-over effects may occur and, perhaps, contribute to bias in the results.

Some of the hypotheses tested here showed no significant cultural differences. Future research should be done to find out the reason(s) for such findings. Do the findings of no differences mean that the phenomenon of attribution bias is "a universal property" of human social cognition? Were there some methodological problems that caused the present results? Or, was our sample too small to detect cultural differences?

Research is also needed to examine further the differences between cultures in their attribution patterns regarding the self, the family, the ingroup, and the outgroup members. In other words, where are the most pronounced biases? What causes the cultural differences in those biases? And how does each cultural group deal with positive

versus negative outcomes which are of a moral nature versus those which are not?

Finally, because of time and money strains, this research was done on college students which may not be representative of the total population. Future research should test the same hypotheses on non-college populations.

### Personal Reflections

Cross-cultural research has much complexity. In addition to the methodological difficulty, there is the difficulty of having the time and resources to do such research. For this researcher, the task was also complicated by many factors, all of which have made this research not only time-consuming but also very challenging and strenuous.

The two cultures are different in many respects. The language of each is different, the religious background is different, the history is different, and norms, and value system are different. To add to the complexity of the task was lack of social psychological research on Saudi culture related to the present study or any other topic in area of social cognition.

Collecting the data on Saudi female respondents was also another problem which I had to deal with, especially with an experimental design like what I had. Getting official permission to recruit Saudi subjects (especially females) was also challenging.

The respondents, however, were very cooperative in both cultures. The Saudi respondents had more questions to asked about the study, and what and how to do it. The researcher repeated the same written instructions to avoid any bias related to giving additional instructions. These questions may have resulted from the fact that most of the Saudi

students were apparently less familiar with this kind of social research than their American counterparts.

In conclusion, the experience of doing cross-cultural research is not only challenging and probably difficult to execute, but also it is enriching and invaluable one for the researchers themselves as well as for the field of social psychology. There are many theories and countless studies of social behavior, which have mostly been done on Western cultures but claim that their assumptions are universal properties of human behavior.

However, it seems to me that the only way to validate those claims is to test them cross-culturally. If only for the sake of social psychological research, we, as social scientists, should not accept any assumption of the universality of a particular notion unless we have ample evidence that support such claim. This goal was one of the reasons this researcher has undertaken the present study. I hope that this modest contribution benefit the field of cross-cultural social psychology, expand the interest in cross-cultural research, and stimulate the thinking of future researchers to examine other social behavior and social cognitive processes in cross-cultural contexts.

1. Some findings appear to show that Americans and Arabs have similar attitudes toward their family. Using semantic differential scale, Sander (1986) studied the attitudes of American and Egyptian college students toward their family. The two cultures showed favorable attitudes toward their family and the only significant difference was that the Egyptians viewed their family to be more relaxed and more serious than did their American counterparts. However, since "likability" is different from the notion of "importance", it is still not clear how the two cultures would differ on their views of the importance of family for one's social identity.

2. However, it should be mentioned here that this phenomenon is not a universal one. In fact, some research findings have shown that when individuals become over the age of 60, they become less internal than individuals between the age of 25 to 59 (Lumpkin, 1986). Perhaps because older people have less control over their lives. Knoop (1989) found that unlike people under 20 or over 65, adults in the working age bracket (20-65) showed greater internality, probably because working require some sense of personal control.



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## APPENDICES



## APPENDIX A: ATTRIBUTION SCENARIOS

Eight scenarios were presented to each group in the two cultures. There were two group treatments in both cultures. The first group was asked to explain situations which portray four different (i.e., success, failure, socially desirable and socially undesirable) outcomes about the self and the outgroup members. The second group was asked to explain the same four outcomes for a family member and ingroup members. However, each subject will be used in more than one condition. In other words, the subjects had a chance to give explanations for success, failure, socially desirable and socially undesirable outcomes for two principle targets (self vs. outgroup, or family vs. ingroup).

So, there will be two main forms:

- A- Family and Ingroup Attribution Scenarios.
- B- Self and Outgroup Attribution Scenarios.

## FORM A

## Instructions

Dear Respondent:

You are going to be asked about some common situations to explain why certain things happened or why certain people behaved in a certain way. In this study, we want to know how you explain what various people have done and what has happened to them.

Since we have more situations than we could ask of one person, we had to have more than one form and the forms have somewhat different questions. Please look only at your own form.

Some of the things you are asked to explain may be things involving you or other people you know. At other times, you may be asked to explain the behavior of people you have never met. At times, you may feel that you do not have enough information to make a definite judgment. However, often people in real life feel they have to make judgments about things about which they have little or no information. But even if you can not be certain, you may still have an opinion or a hunch. Please put this down even if you are not sure it is correct.

You may feel that there is only one cause of the outcome, or you may feel that an outcome has more than one cause. To allow for this possibility, we will allow you to indicate what percentage of the total responsibility you would give to each possible cause, including the alternative causes which you give, either instead of or in addition to the reasons being offered to you after each situation.

For example, suppose you are told that a driver has had an auto accident and you are asked to consider the following explanation:

- a) the driver is a careless person
- b) the other car was at fault
- c) the driving conditions were bad
- d) the driver was upset because of a bad day at work.

If you felt that the cause was entirely that the driver was careless, then you would mark 100% next to that choice, and 0% next to all others, so your answer looks as follows:

a) the driver is a careless person	100%
b) the other car was at fault	0%
c) the driving conditions were bad	0%
d) the driver was upset because of a bad day at work.	0%
	<hr/> 100%





If, however, you felt all four possible causes made an equal contribution to the accident, mark 25% next to each cause:

- |   |     |
|---|-----|
| a) the driver is a careless person                    | 25% |
| b) the other car was at fault                         | 25% |
| c) the driving conditions were bad                    | 25% |
| d) the driver was upset because of a bad day at work. | 25% |

---

100%

Suppose instead that you thought that 75% of the responsibility belonged to the other driver, and 25% to the driving conditions. You would then mark your questionnaire accordingly:

- |   |     |
|---|-----|
| a) the driver is a careless person                    | 0%  |
| b) the other car was at fault                         | 75% |
| c) the driving conditions were bad                    | 25% |
| d) the driver was upset because of a bad day at work. | 0%  |

---

100%

For any of the questions, you will be asked, you may divide up the responsibility in any way you see fit. But all of the numbers you choose for a specific case, or story, including those alternative causes you add, should add up to 100%.



## Situation 1: Benefiting Others

Try to think of your extended family (i.e., your parents, grand parents, siblings, their spouses, and their children, uncles and aunts and their children). Now remember a situation in which one of those members has performed a behavior which in some way benefitted or pleased one or more individuals.

In the space provided below, please describe briefly that behavior, indicate when it occurred, and what the person's relation is to you:

---



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Indicate what percentage of the total responsibility you would give to each possible cause of the following reasons for this behavior:

- 1- He or she was influenced by the good attributes of other person(s). \_\_\_\_\_%
- 2- He or she was in a good mood when asked for help. \_\_\_\_\_%

- 3- Unusual circumstances played a major role in his/her doing such commendable behavior (briefly explain)

- 
- 4- He or she behaved this way because he or she is the following kind of person: \_\_\_\_\_%

- 5- Other reasons(s), please specify:

a- \_\_\_\_\_%

b- \_\_\_\_\_%

c- \_\_\_\_\_%

---

100%



## Situation 2: Displeasing Others

Try to think of your extended family (i.e., your parents, grand parents, siblings, their spouses, and their children, uncles and aunts and their children). Now remember a situation in which one of those members has performed a behavior which in some way harmed or bothered one or more individuals.

In the space provided below, please describe briefly that behavior, indicate when it occurred, and what the person's relation is to you:

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Indicate what percentage of the total responsibility you would give to each possible cause of the following reasons for this behavior:

- 1- He or she was provoked by the other person(s). \_\_\_\_%
- 2- He or she was in a bad mood at the time. \_\_\_\_%
- 3- Unusual circumstances played a major role in his/her doing such undesirable behavior (briefly explain):

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---

- 4- He or she behaved this way because he or she is the following kind of person:

---



---

- 5- Other reasons(s), please specify:

a-	_____.	____%
b-	_____.	____%
c-	_____.	____%
		<hr/> 100%



### Situation 3: Recognition For A family Member

Try to remember a situation in which one member of your extended family (i.e., your parents, grand parents, siblings, their spouses, and their children, uncles and aunts and their children) was nominated for an award, or was otherwise recognized, for performance in some achievement-related task.

In the space provided below, please describe briefly his or her achievement, when it happened, and what the person's relation is to you:

---



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Indicate what percentage of the total responsibility you would give to each possible cause of the following reasons for your relative successful performance:

- |   |            |
|---|------------|
| 1- My relative had exceptional ability to succeed.  | _____ %    |
| 2- My relative tried harder than others to succeed. | _____ %    |
| 3- My relative was lucky to gain such recognition.  | _____ %    |
| 4- My relative had very little competition.         | _____ %    |
| 5- Other reason(s), please specify:                 |            |
| a- _____.   | _____ %    |
| b- _____.   | _____ %    |
| c- _____.   | _____ %    |
|   | <hr/> 100% |





#### Situation 4: Disappointing Outcome

Try to remember a situation in which one member of your extended family (i.e., your parents, grand parents, siblings, their spouses, and their children, uncles and aunts and their children) failed to achieve his or her goal in some task.

In the space provided below, please describe briefly his or her failure and when did it happen:

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Indicate what percentage of the total responsibility you would give to each possible cause of the following reasons for your relative unsuccessful performance:

- 1- My relative did not have enough ability to succeed. \_\_\_\_%
- 2- My relative did not try harder enough to succeed. \_\_\_\_%
- 3- My relative was not lucky to achieve such a goal. \_\_\_\_%
- 4- My relative may had a difficult task. \_\_\_\_%
- 5- Other reason(s), please specify: \_\_\_\_\_

a- \_\_\_\_\_ . \_\_\_\_%

b- \_\_\_\_\_ . \_\_\_\_%

c- \_\_\_\_\_ . \_\_\_\_%

100%



### Situation 5: An Award For Brain Surgeon

In its annual conference, the International Association of Brain Surgeons gave the highest award this year to the 35-year old neuro-brain surgeon A. A. Alfarsi, from Saudi Arabia. His research was chosen over 59 other submitted studies.

Please, indicate what percentage of the total responsibility you would give to each possible cause of the following reasons for explaining Dr. Alfarsi's award:

- 1- He must have unusual intelligence and ability. \_\_\_\_\_ %
  - 2- He may have made an extraordinary effort to succeed in his research. \_\_\_\_\_ %
  - 3- He must be lucky to get important research results. \_\_\_\_\_ %
  - 4- His research was probably chosen because of the lack of other outstanding studies this year. \_\_\_\_\_ %
  - 5- The committee was under political pressure from some Arab countries to award an Arab doctor. \_\_\_\_\_ %
  - 6- Other reason(s), please specify: \_\_\_\_\_ %
- 
- a- \_\_\_\_\_ . \_\_\_\_\_ %
  - b- \_\_\_\_\_ . \_\_\_\_\_ %
  - c- \_\_\_\_\_ . \_\_\_\_\_ %
- 100%



## Situation 6: High School Competition

In a recent international high school competition held in France, the Saudi Arabian high school students scored very low on several subjects (including math, science, history, and geography) compared to other students from other nations of the world, who also took equivalent tests.

Please, indicate what percentage of the total responsibility you would give to each possible cause of the following reasons for explaining low achievement on those tests by the Saudi Arabian students:

- 1- They must be less smarter and have less skills than other students. \_\_\_\_\_ %
- 2- The test emphasizes those areas in which the Saudi students lack any special knowledge or skill. \_\_\_\_\_ %
- 3- The Saudi students made less effort than others. \_\_\_\_\_ %
- 4- The Saudi students had some bad luck this time. \_\_\_\_\_ %
- 5- The Saudi students have worse schools and teachers than other countries. \_\_\_\_\_ %
- 6- Other reason(s), please specify: \_\_\_\_\_ %
- a- \_\_\_\_\_ %
- b- \_\_\_\_\_ %
- c- \_\_\_\_\_ %

---

 100%



## Situation 7: Famine Relief Team

In one of the December issues of the French Weekly, it was reported that a team of five Saudi Arabian citizens recently arrived in Africa as a part of a famine relief project.

Please, indicate what percentage of the total responsibility you would give to each cause of the following possible reasons for explaining their presence in Africa:

- |  |            |
|--|------------|
| 1- They have been sent by their government, which wants to achieve some political benefit from their work. | _____ %    |
| 2- They care deeply about human suffering.   | _____ %    |
| 3- They are rich enough to be able to afford to leave their ordinary jobs to do this.                      | _____ %    |
| 4- They hope to win personal glory from their work.  | _____ %    |
| 5- Other reason(s), please specify:  |            |
| a- _____.  | _____ %    |
| b- _____.  | _____ %    |
| c- _____.  | _____ %    |
|  | <hr/> 100% |





### Situation 8: Not Stopping For Help

It happened some months ago in one of the main streets in the capital city of the Philippine, Manila. A Saudi Arabian citizen passed by an accident victim who cried for help but the man did not stop to help him. When the police arrived, the victim reported to them that the Saudi man had not stopped to help him.

Please, indicate what percentage of the total responsibility you would give to each cause of the following possible reasons for explaining the behavior of the man who did not stop:

- 1- He probably knew the police were coming and preferred to let them save the victim. \_\_\_\_\_ %
- 2- He was probably afraid from being physically hurt. \_\_\_\_\_ %
- 3- He was too concerned about his own affairs to help another human being, especially not one of his own countrymen. \_\_\_\_\_ %
- 4- He might have had no ability to help the victim. \_\_\_\_\_ %
- 5- Other reason(s), please specify:
  - a- \_\_\_\_\_ . \_\_\_\_\_ %
  - b- \_\_\_\_\_ . \_\_\_\_\_ %
  - c- \_\_\_\_\_ . \_\_\_\_\_ %

100%

## Instructions

Dear respondent:

In this section, you will read statement about different aspects of daily life and social relationships. Read each statement carefully and next to it indicate on a scale of 100 how much you agree with that statement.

Strongly disagree 0 \_\_\_\_\_. 100 Strongly agree  
Example:

If the statement reads: The weather is much nicer in the spring. If the rating you give the statement is a score of 50 points, then this means that you neither agree nor disagree with this statement. If you give a score of 100 points, then this will mean that you totally agree with the statement. But if you give a score of zero, then it will mean that you totally disagree with the statement.

Remember, the highest rating is a 100 and the lowest is 0.

1. If the group is slowing me down, it is better  
to leave it and work alone. \_\_\_\_\_ Points
2. To be superior a man must stand alone. \_\_\_\_\_ Points
3. Winning is everything. \_\_\_\_\_ Points
4. Only those who depend on themselves get  
ahead in life. \_\_\_\_\_ Points
5. If you want something done right, you've got  
to do it yourself. \_\_\_\_\_ Points
6. What happens to me is my own doing. \_\_\_\_\_ Points
7. I feel winning is important in both work  
and games. \_\_\_\_\_ Points
8. Success is the most important thing in life. \_\_\_\_\_ Points
9. It annoys me when other people perform  
better than I do. \_\_\_\_\_ Points
10. Doing your best isn't enough; it is important  
to win. \_\_\_\_\_ Points
11. In most cases, to cooperate with someone whose  
ability is lower than oneself is not as desirable  
as doing the thing on one's own. \_\_\_\_\_ Points
12. In the long run the only person you can count  
on is yourself. \_\_\_\_\_ Points
13. It is foolish to try to preserve resources for  
future generations.\* \_\_\_\_\_ Points

14. People should be expected to do anything for the community unless they are paid for it.\* \_\_\_\_\_ Points
15. Even if a child won the Nobel Prize the parents should not feel honored in any way.\* \_\_\_\_\_ Points
16. I would not let my parents use my car, if I had one, no matter whether they are good drivers or not.\* \_\_\_\_\_ Points
17. I would help within my means if a relative told me that he/she is in financial difficulty. \_\_\_\_\_ Points
18. I like to live close to my friends. \_\_\_\_\_ Points
19. The motto "sharing is both blessing and calamity" is still applicable even if one's friend is clumsy, dumb, and causing a lot of trouble. \_\_\_\_\_ Points
20. When my colleagues tell me personal things about themselves, we are drawn together. \_\_\_\_\_ Points
21. I would not share my ideas and newly acquired knowledge with my parents.\* \_\_\_\_\_ Points
22. Children should not feel honored even if the father were highly praised and given an award by a government official for his contributions and service to the community.\* \_\_\_\_\_ Points
23. I am not to blame if one of my family members fails. \_\_\_\_\_ Points
24. My happiness is unrelated to the well-being of my coworkers. \_\_\_\_\_ Points
25. My parents' opinions are not important in my choice of a spouse. \_\_\_\_\_ Points
26. I am not to blame when one of my close friends fails. \_\_\_\_\_ Points
27. My coworkers' opinions are not important in my choice of a spouse. \_\_\_\_\_ Points
28. When a close friend of mine is successful, it does not really make me look better. \_\_\_\_\_ Points
29. One need not worry about what the neighbors say about whom one should marry. \_\_\_\_\_ Points
- \*. Items which are reversed.

## Instructions

Dear Respondent:

In this section, please show your opinion by indicating which of the following common descriptions apply to the people of Saudi Arabia as best as you can. Your opinion may be based on personal knowledge, media coverage, reading, or any other sources. There is no correct answer, so try to choose what you think is the most expressive statement of your opinion. The following choices are possible to choose from:

- 1- Strongly Agree (SA)
- 2- Moderately Agree (MA)
- 3- Do not know (DK)
- 4- Moderately Disagree (MD)
- 5- Strongly Disagree (SD)

## Circle Only One

- |     |   |    |    |    |    |    |
|-----|---|----|----|----|----|----|
| 1-  | I think that most Saudis are kind             | SA | MA | DK | MD | SD |
| 2-  | I think that most Saudis are intellectual     | SA | MA | DK | MD | SD |
| 3-  | I think that most Saudis are open-minded      | SA | MA | DK | MD | SD |
| 4-  | I think that most Saudis are hard-working     | SA | MA | DK | MD | SD |
| 5-  | I think that most Saudis are sociable         | SA | MA | DK | MD | SD |
| 6-  | I think that most Saudis are trustful         | SA | MA | DK | MD | SD |
| 7-  | I think that most Saudis are generous         | SA | MA | DK | MD | SD |
| 8-  | I think that most Saudis are selfish          | SA | MA | DK | MD | SD |
| 9-  | I think that most Saudis are cheaters         | SA | MA | DK | MD | SD |
| 10- | I think that most Saudis are self-disciplined | SA | MA | DK | MD | SD |
| 11- | I think that most Saudis are family-oriented  | SA | MA | DK | MD | SD |
| 12- | I think that most Saudis are aggressive       | SA | MA | DK | MD | SD |
| 13- | I think that most Saudis are individualistic  | SA | MA | DK | MD | SD |
| 14- | I think that most Saudis are self-reliant     | SA | MA | DK | MD | SD |
| 15- | I think that most Saudis are religious        | SA | MA | DK | MD | SD |
| 16- | I think that most Saudis are decent           | SA | MA | DK | MD | SD |
| 17- | I think that most Saudis are creative         | SA | MA | DK | MD | SD |
| 18- | I think that most Saudis are lazy             | SA | MA | DK | MD | SD |
| 19- | I think that most Saudis are irresponsible    | SA | MA | DK | MD | SD |
| 20- | I think that most Saudis are prejudiced       | SA | MA | DK | MD | SD |

## FORM B

## Instructions

## Dear Respondent:

You are going to be asked about some common situations to explain why certain things happened or why certain people behaved in a certain way. In this study, we want to know how you explain what various people have done and what has happened to them.

Since we have more situations than we could ask of one person, we had to have more than one form and the forms have somewhat different questions. Please look only at your own form.

Some of the thing you are asked to explain may be things involving you or other people you know. At other times, you may be asked to explain the behavior of people you have never met. At times, you may feel that you do not have enough information to make a definite judgment. However, often people in real life feel they have to make judgments about things about which they have little or no information. But even if you can not be certain, you may still have an opinion or a hunch. Please put this down even if you are not sure it is correct.

You may feel that there is only one cause of the outcome, or you may feel that an outcome has more than one cause. To allow for this possibility, we will allow you to indicate what percentage of the total responsibility you would give to each possible cause, including the alternative causes which you give, either instead of or in addition to the reasons being offered to you after each situation.

For example, suppose you are told that a driver has had an auto accident and you are asked to consider the following explanation:

- a) the driver is a careless person
- b) the other car was at fault
- c) the driving conditions were bad
- d) the driver was upset because of a bad day at work.

If you felt that the cause was entirely that the driver was careless, then you would mark 100% next to that choice, and 0% next to all others, so your answer looks as follows:

a) the driver is a careless person	100%
b) the other car was at fault	0%
c) the driving conditions were bad	0%
d) the driver was upset because of a bad day at work.	0%
	<hr/> 100%



If, however, you felt all four possible causes made an equal contribution to the accident, mark 25% next to each cause:

- |   |     |
|---|-----|
| a) the driver is a careless person                    | 25% |
| b) the other car was at fault                         | 25% |
| c) the driving conditions were bad                    | 25% |
| d) the driver was upset because of a bad day at work. | 25% |

100%

Suppose instead that you thought that 75% of the responsibility belonged to the other driver, and 25% to the driving conditions. You would then mark your questionnaire accordingly:

- |   |     |
|---|-----|
| a) the driver is a careless person                    | 0%  |
| b) the other car was at fault                         | 75% |
| c) the driving conditions were bad                    | 25% |
| d) the driver was upset because of a bad day at work. | 0%  |

100%

For any of the questions, you will be asked, you may divide up the responsibility in any way you see fit. But all of the numbers you choose for a specific case, or story, including those alternative causes you add, should add up to 100%.





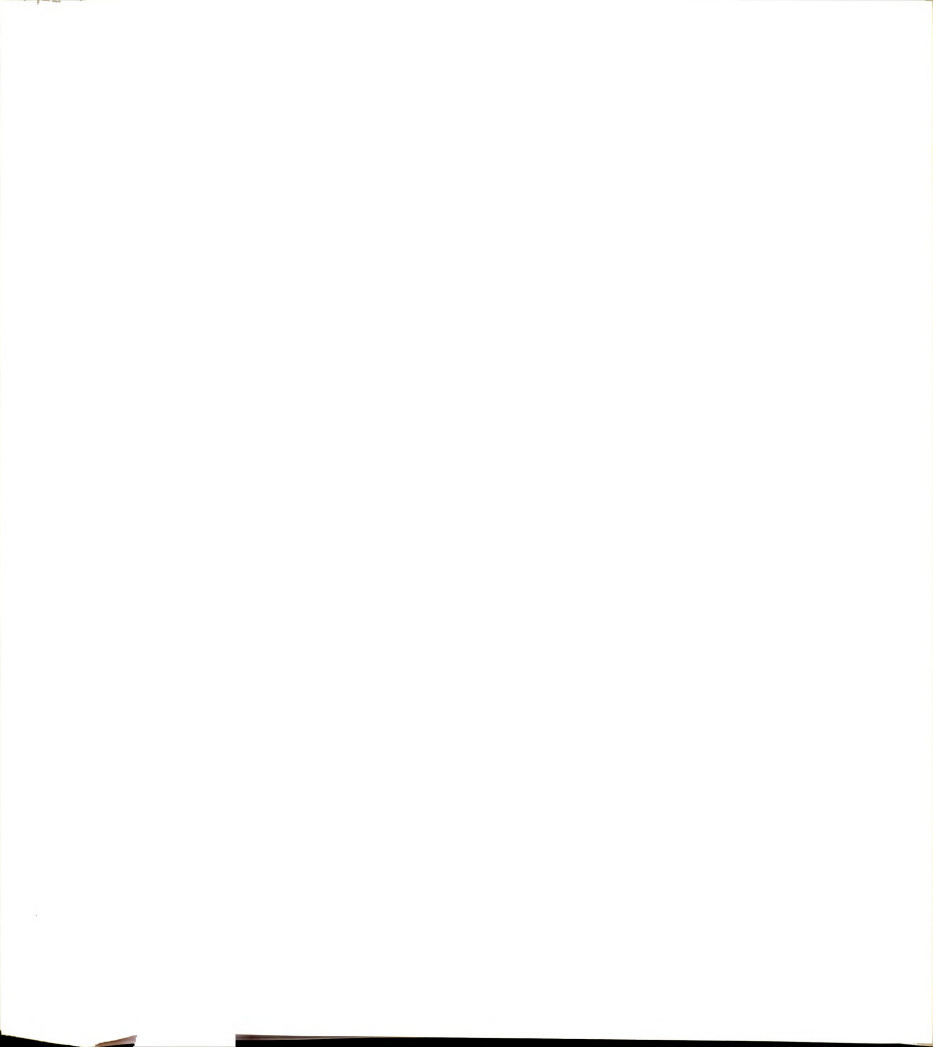
## Situation 1: You succeed at exams

Pause a moment and remember three exams in which you have succeeded at achieving the grades you wanted. In the space provided below, please indicate what are the courses and in what year of school were you (e.g., 1st grade, 7th grade, 1st year in college...etc.). when you took those exams?

The first exam was in \_\_\_\_\_ course and I was in the \_\_\_\_\_ grade/year in school/college.

Please, indicate what percentage of the total responsibility you would give to each possible cause of the following reasons for your successful performance:

- |    |  |             |
|----|--|-------------|
| 1- | I think I had good luck.                                 | _____ %     |
| 2- | The questions were easy.                                 | _____ %     |
| 3- | I put a great deal of effort into preparing for the exam | _____ %     |
| 4- | I had high ability in that particular subject.           | _____ %     |
| 5- | Other reason(s), please specify:                         |             |
| a- | _____.   | _____ %     |
| b- | _____.   | _____ %     |
| c- | _____.   | _____ %     |
|    |  | <u>100%</u> |



The second exam was in \_\_\_\_\_ course and I was in the \_\_\_\_\_ grade/year in school/college.

Indicate what percentage of the total responsibility you would give to each possible cause of the following reasons for your successful performance:

- 1- I think I had good luck. \_\_\_\_\_ %
  - 2- The questions were easy. \_\_\_\_\_ %
  - 3- I put a great deal of effort into preparing for the exam \_\_\_\_\_ %
  - 4- I had high ability in that particular subject. \_\_\_\_\_ %
  - 5- Other reason(s), please specify: \_\_\_\_\_ %
  - a- \_\_\_\_\_ %
  - b- \_\_\_\_\_ %
  - c- \_\_\_\_\_ %
- 100%

The third exam was in \_\_\_\_\_ course and I was in the \_\_\_\_\_ grade/year in school/college.

Please, indicate what percentage of the total responsibility you would give to each possible cause of the following reasons for your successful performance:

- 1- I think I had good luck. \_\_\_\_\_ %
  - 2- The questions were easy. \_\_\_\_\_ %
  - 3- I put a great deal of effort into preparing for the exam \_\_\_\_\_ %
  - 4- I had high ability in that particular subject. \_\_\_\_\_ %
  - 5- Other reason(s), please specify: \_\_\_\_\_ %
  - a- \_\_\_\_\_ %
  - b- \_\_\_\_\_ %
  - c- \_\_\_\_\_ %
- 100%



# Situation 2: Disappointing results at exams

Pause a moment and remember three exams in which you have failed to achieve the grades you wanted. In the space provided below, please indicate what are the courses and in what year of school were you (e.g., 1st grade, 7th grade, 1st year in college...etc.). when you took those exams?

The first exam was in \_\_\_\_\_ course and I was in the \_\_\_\_\_ grade/year in school/college.

Please, indicate what percentage of the total responsibility you would give to each possible cause of the following reasons for your disappointing performance:

- 1- I think I had bad luck. \_\_\_\_\_ %
- 2- The questions were too difficult. \_\_\_\_\_ %
- 3- I did not study hard enough for the exam. \_\_\_\_\_ %
- 4- I had less ability in the subject than I thought. \_\_\_\_\_ %
- 5- Other reason(s), please specify: \_\_\_\_\_ %

a- \_\_\_\_\_ . \_\_\_\_\_ %

b- \_\_\_\_\_ . \_\_\_\_\_ %

c- \_\_\_\_\_ . \_\_\_\_\_ %

\_\_\_\_\_ 100%

The second exam was in \_\_\_\_\_ course and I was in the \_\_\_\_\_ grade/year in school/college.

Please, indicate what percentage of the total responsibility you would give to each possible cause of the following reasons for your disappointing performance:

- 1- I think I had bad luck. \_\_\_\_\_ %
  - 2- The questions were too difficult. \_\_\_\_\_ %
  - 3- I did not study hard enough for the exam. \_\_\_\_\_ %
  - 4- I had less ability in the subject than I thought. \_\_\_\_\_ %
  - 5- Other reason(s), please specify: \_\_\_\_\_ %
  - a- \_\_\_\_\_ . \_\_\_\_\_ %
  - b- \_\_\_\_\_ . \_\_\_\_\_ %
  - c- \_\_\_\_\_ . \_\_\_\_\_ %
- 100%

The third exam was in \_\_\_\_\_ course and I was in the \_\_\_\_\_ grade/year in school/college.

Please, indicate what percentage of the total responsibility you would give to each possible cause of the following reasons for your disappointing performance:

- 1- I think I had bad luck. \_\_\_\_\_ %
  - 2- The questions were too difficult. \_\_\_\_\_ %
  - 3- I did not study hard enough for the exam. \_\_\_\_\_ %
  - 4- I had less ability in the subject than I thought. \_\_\_\_\_ %
  - 5- Other reason(s), please specify: \_\_\_\_\_ %
  - a- \_\_\_\_\_ . \_\_\_\_\_ %
  - b- \_\_\_\_\_ . \_\_\_\_\_ %
  - c- \_\_\_\_\_ . \_\_\_\_\_ %
- 100%



### Situation 3: Benefiting others

Now try to remember a situation in which you have performed a behavior which in some way benefitted or pleased one or more individuals. This behavior does not have to be heroic. In the space provided below, please describe briefly what you did:

---



---



---



---

Indicate what percentage of the total responsibility you would give to each possible cause of the following reasons for this behavior:

- |   |         |
|---|---------|
| 1- What I did was something almost anyone would do in such a circumstance.  | _____ % |
| 2- The likable personal characteristics of the other person(s) played a major role in my decision to do what I did. | _____ % |
| 3- I was in a good mood at the time and felt like doing such a good behavior.                                       | _____ % |
| 4- I behaved in this way because I am the following kind of person: _____.  | _____ % |
| 5- Other reason(s), please specify:   |         |
| a- _____.   | _____ % |
| b- _____.   | _____ % |
| c- _____.   | _____ % |
|   | 100%    |



## Situation 4: Displeasing others

Now try to remember an incident in which you have performed some action which in some way harmed or bothered one or more persons (whether physically or emotionally). This behavior does not have to be illegal. In the space provided below, please describe this behavior:

indicate what percentage of the total responsibility you would give to each possible cause of the following reasons for this behavior:

- 1- I was provoked by the other person(s). \_\_\_\_\_ %
  - 2- I was in a bad mood because other things bothered me. \_\_\_\_\_ %
  - 3- Unusual circumstances played a major role in my committing this bad behavior (briefly describe): \_\_\_\_\_ . \_\_\_\_\_ %  
\_\_\_\_\_ . \_\_\_\_\_ %
  - 4- I behaved this way because I am the following kind of person: \_\_\_\_\_ . \_\_\_\_\_ %
  - 5- Other reasons(s), please specify:
    - a- \_\_\_\_\_ . \_\_\_\_\_ %
    - b- \_\_\_\_\_ . \_\_\_\_\_ %
    - c- \_\_\_\_\_ . \_\_\_\_\_ %
- 100%

### Situation 5: An Award For A Brain Surgeon

In its annual conference, the International Association of Brain Surgeons gave the highest award this year to the 35-year old neuro-brain surgeon T. G. Jones, from the United States. His research was chosen over 59 other submitted studies.

Indicate what percentage of the total responsibility you would give to each possible cause of the following reasons for explaining Dr. Kidd's award:

- |   |         |
|---|---------|
| 1- He must have unusual intelligence and ability.   | _____ % |
| 2- He must have made an extraordinary effort to succeed in his research.  | _____ % |
| 3- He must be lucky to get important research results.  | _____ % |
| 4- His research was probably chosen because of the lack of other outstanding studied this year.                       | _____ % |
| 5- The committee was under political pressure from some United State government agencies to award an American doctor. | _____ % |
| 6- Other reason(s), please specify:   |         |
| a- _____.   | _____ % |
| b- _____.   | _____ % |
| c- _____.   | _____ % |
|   | 100%    |



### Situation 6: High School Competition

In a recent international high school competition held in France, the American high school students scored very low on several subjects (including math, science, history, and geography) compared to other students from other nations of the world, who also took equivalent tests.

Please, indicate what percentage of the total responsibility you would give to each possible cause of the following reasons for explaining low achievement on those tests by the American students:

- 1- They must be less smarter and have less skills than other students. \_\_\_\_\_ %
  - 2- The test emphasizes those areas in which the American students specially lack knowledge or skill. \_\_\_\_\_ %
  - 3- The American students made less effort than all others. \_\_\_\_\_ %
  - 4- The American students had some bad luck this time. \_\_\_\_\_ %
  - 5- The American students have worse schools and teachers than other countries. \_\_\_\_\_ %
  - 6- Other reason(s), please specify:
    - a- \_\_\_\_\_ . \_\_\_\_\_ %
    - b- \_\_\_\_\_ . \_\_\_\_\_ %
    - c- \_\_\_\_\_ . \_\_\_\_\_ %
- \_\_\_\_\_ 100%



## Situation 7: Famine Relief Team

In one of the December issues of the French Weekly, it was reported that a team of five Americans recently arrived in Africa as a part of a famine relief project.

Please, indicate what percentage of the total responsibility you would give to each cause of the following possible reasons for explaining their presence in Africa:

- 1- They have been sent by their government, which wants to achieve some political benefit from their work. \_\_\_\_%
- 2- They care deeply about human suffering. \_\_\_\_%
- 3- They are rich enough to be able to afford to leave their ordinary jobs to do this. \_\_\_\_%
- 4- They hope to win personal glory from their work. \_\_\_\_%
- 5- Other reason(s), please specify:
  - a- \_\_\_\_.
  - b- \_\_\_\_.
  - c- \_\_\_\_.

---

100%



### Situation 8: Not Stopping For Help

It happened some months ago in one of the main streets in the capital city of the Philippine, Manila. An American citizen passed by an accident victim who cried for help but the man did not stop to help him. When the police arrived, the victim reported to them that the American man had not stopped to help him.

Please, indicate what percentage of the total responsibility you would give to each possible cause of the following reasons for explaining the behavior of the man who did not stop:

- 1- He probably knew the police were coming and preferred to let them save the victim. \_\_\_\_\_%
  - 2- He was probably afraid of being physically hurt. \_\_\_\_\_%
  - 3- He was too concerned about his own affairs to help another human being, especially not one of his own countrymen. \_\_\_\_\_%
  - 4- He might have had no ability to help the victim. \_\_\_\_\_%
  - 5- Other reason(s), please specify:
    - a- \_\_\_\_\_%
    - b- \_\_\_\_\_%
    - c- \_\_\_\_\_%
- 100%



## Instructions

Dear respondent:

In this section, you will read statement about different aspects of daily life and social relationships. Read each statement carefully and next to it indicate on a scale of 100 how much you agree with that statement.

Strongly disagree 0 \_\_\_\_\_. 100 Strongly agree  
Example:

If the statement reads: The weather is much nicer in the spring. If the rating you give the statement is a score of 50 points, then this means that you neither agree nor disagree with this statement. If you give a score of 100 points, then this will mean that you totally agree with the statement. But if you give a score of zero, then it will mean that you totally disagree with the statement.

Remember, the highest rating is a 100 and the lowest is 0.

1. If the group is slowing me down, it is better  
to leave it and work alone. \_\_\_\_\_ Points
2. To be superior a man must stand alone. \_\_\_\_\_ Points
3. Winning is everything. \_\_\_\_\_ Points
4. Only those who depend on themselves get  
ahead in life. \_\_\_\_\_ Points
5. If you want something done right, you've got  
to do it yourself. \_\_\_\_\_ Points
6. What happens to me is my own doing. \_\_\_\_\_ Points
7. I feel winning is important in both work  
and games. \_\_\_\_\_ Points
8. Success is the most important thing in life. \_\_\_\_\_ Points
9. It annoys me when other people perform  
better than I do. \_\_\_\_\_ Points
10. Doing your best isn't enough; it is important  
to win. \_\_\_\_\_ Points
11. In most cases, to cooperate with someone whose  
ability is lower than oneself is not as desirable  
as doing the thing on one's own. \_\_\_\_\_ Points
12. In the long run the only person you can count  
on is yourself. \_\_\_\_\_ Points
13. It is foolish to try to preserve resources for  
future generations.\* \_\_\_\_\_ Points

14. People should be expected to do anything for the community unless they are paid for it.\* \_\_\_\_\_ Points
15. Even if a child won the Nobel Prize the parents should not feel honored in any way.\* \_\_\_\_\_ Points
16. I would not let my parents use my car, if I had one, no matter whether they are good drivers or not.\* \_\_\_\_\_ Points
17. I would help within my means if a relative told me that he/she is in financial difficulty. \_\_\_\_\_ Points
18. I like to live close to my friends. \_\_\_\_\_ Points
19. The motto "sharing is both blessing and calamity" is still applicable even if one's friend is clumsy, dumb, and causing a lot of trouble. \_\_\_\_\_ Points
20. When my colleagues tell me personal things about themselves, we are drawn together. \_\_\_\_\_ Points
21. I would not share my ideas and newly acquired knowledge with my parents.\* \_\_\_\_\_ Points
22. Children should not feel honored even if the father were highly praised and given an award by a government official for his contributions and service to the community.\* \_\_\_\_\_ Points
23. I am not to blame if one of my family members fails. \_\_\_\_\_ Points
24. My happiness is unrelated to the well-being of my coworkers. \_\_\_\_\_ Points
25. My parents' opinions are not important in my choice of a spouse. \_\_\_\_\_ Points
26. I am not to blame when one of my close friends fails. \_\_\_\_\_ Points
27. My coworkers' opinions are not important in my choice of a spouse. \_\_\_\_\_ Points
28. When a close friend of mine is successful, it does not really make me look better. \_\_\_\_\_ Points
29. One need not worry about what the neighbors say about whom one should marry. \_\_\_\_\_ Points
- \*. Items which are reversed.



## Instructions

Dear Respondent:

In this section, please show your opinion by indicating which of the following common descriptions apply to the people of the United States of America as best as you can. Your opinion may be based on personal knowledge, media coverage, reading, or any other sources. There is no correct answer, so try to choose what you think is the most expressive statement of your opinion. The following choices are possible to choose from:

- |                        |      |
|------------------------|------|
| 1- Strongly Agree      | (SA) |
| 2- Moderately Agree    | (MA) |
| 3- Do not know         | (DK) |
| 4- Moderately Disagree | (MD) |
| 5- Strongly Disagree   | (SD) |

## Circle Only One

- |  |                |
|--|----------------|
| 1- I think that most Americans are kind              | SA MA DK MD SD |
| 2- I think that most Americans are intellectual      | SA MA DK MD SD |
| 3- I think that most Americans are open-minded       | SA MA DK MD SD |
| 4- I think that most Americans are hard-working      | SA MA DK MD SD |
| 5- I think that most Americans are sociable          | SA MA DK MD SD |
| 6- I think that most Americans are trustful          | SA MA DK MD SD |
| 7- I think that most Americans are generous          | SA MA DK MD SD |
| 8- I think that most Americans are selfish           | SA MA DK MD SD |
| 9- I think that most Americans are cheaters          | SA MA DK MD SD |
| 10- I think that most Americans are self-disciplined | SA MA DK MD SD |
| 11- I think that most Americans are family-oriented  | SA MA DK MD SD |
| 12- I think that most Americans are aggressive       | SA MA DK MD SD |
| 13- I think that most Americans are individualistic  | SA MA DK MD SD |
| 14- I think that most Americans are self-reliant     | SA MA DK MD SD |
| 15- I think that most Americans are religious        | SA MA DK MD SD |
| 16- I think that most Americans are decent           | SA MA DK MD SD |
| 17- I think that most Americans are creative         | SA MA DK MD SD |
| 18- I think that most Americans are lazy             | SA MA DK MD SD |
| 19- I think that most Americans are irresponsible    | SA MA DK MD SD |
| 20- I think that most Americans are prejudiced       | SA MA DK MD SD |



## Appendix B: STEREOTYPE MEASURE

In order to see if people are likely to use shared stereotypes in their attributions about behavioral outcomes of the outgroup, the following simple questionnaire is designed to measure this tendency. Both the Saudi and the American students were asked to fill this questionnaire after doing the scenarios. Half of each of the two culture rated themselves and the other half rated the other group. The questions were the same and the only change was the nationality of the target group (i.e., Saudis or Americans).

The following questions were asked:



## FORM A

## Instructions

Dear Respondent:

In this section, please show your opinion by indicating which of the following common descriptions apply to the people of the United States of America as best as you can. Your opinion may be based on personal knowledge, media coverage, reading, or any other sources. There is no correct answer, so try to choose what you think is the most expressive statement of your opinion. The following choices are possible to choose from:

- |                        |      |
|------------------------|------|
| 1- Strongly Agree      | (SA) |
| 2- Moderately Agree    | (MA) |
| 3- Do not know         | (DK) |
| 4- Moderately Disagree | (MD) |
| 5- Strongly Disagree   | (SD) |

## Circle Only One

- |  |                |
|--|----------------|
| 1- I think that most Americans are kind              | SA MA DK MD SD |
| 2- I think that most Americans are intellectual      | SA MA DK MD SD |
| 3- I think that most Americans are open-minded       | SA MA DK MD SD |
| 4- I think that most Americans are hard-working      | SA MA DK MD SD |
| 5- I think that most Americans are sociable          | SA MA DK MD SD |
| 6- I think that most Americans are trustful          | SA MA DK MD SD |
| 7- I think that most Americans are generous          | SA MA DK MD SD |
| 8- I think that most Americans are selfish           | SA MA DK MD SD |
| 9- I think that most Americans are cheaters          | SA MA DK MD SD |
| 10- I think that most Americans are self-disciplined | SA MA DK MD SD |
| 11- I think that most Americans are family-oriented  | SA MA DK MD SD |
| 12- I think that most Americans are aggressive       | SA MA DK MD SD |
| 13- I think that most Americans are individualistic  | SA MA DK MD SD |
| 14- I think that most Americans are self-reliant     | SA MA DK MD SD |
| 15- I think that most Americans are religious        | SA MA DK MD SD |
| 16- I think that most Americans are decent           | SA MA DK MD SD |
| 17- I think that most Americans are creative         | SA MA DK MD SD |
| 18- I think that most Americans are lazy             | SA MA DK MD SD |
| 19- I think that most Americans are irresponsible    | SA MA DK MD SD |
| 20- I think that most Americans are prejudiced       | SA MA DK MD SD |





## FORM B

## Instructions

Dear Respondent:

In this section, please show your opinion by indicating which of the following common descriptions apply to the people of Saudi Arabia as best as you can. Your opinion may be based on personal knowledge, media coverage, reading, or any other sources. There is no correct answer, so try to choose what you think is the most expressive statement of your opinion. The following choices are possible to choose from:

- 1- Strongly Agree (SA)
- 2- Moderately Agree (MA)
- 3- Do not know (DK)
- 4- Moderately Disagree (MD)
- 5- Strongly Disagree (SD)

## Circle Only One

- 1- I think that most Saudis are kind SA MA DK MD SD
- 2- I think that most Saudis are intellectual SA MA DK MD SD
- 3- I think that most Saudis are open-minded SA MA DK MD SD
- 4- I think that most Saudis are hard-working SA MA DK MD SD
- 5- I think that most Saudis are sociable SA MA DK MD SD
- 6- I think that most Saudis are trustful SA MA DK MD SD
- 7- I think that most Saudis are generous SA MA DK MD SD
- 8- I think that most Saudis are selfish SA MA DK MD SD
- 9- I think that most Saudis are cheaters SA MA DK MD SD
- 10- I think that most Saudis are self-disciplined SA MA DK MD SD
- 11- I think that most Saudis are family-oriented SA MA DK MD SD
- 12- I think that most Saudis are aggressive SA MA DK MD SD
- 13- I think that most Saudis are individualistic SA MA DK MD SD
- 14- I think that most Saudis are self-reliant SA MA DK MD SD
- 15- I think that most Saudis are religious SA MA DK MD SD
- 16- I think that most Saudis are decent SA MA DK MD SD
- 17- I think that most Saudis are creative SA MA DK MD SD
- 18- I think that most Saudis are lazy SA MA DK MD SD
- 19- I think that most Saudis are irresponsible SA MA DK MD SD
- 20- I think that most Saudis are prejudiced SA MA DK MD SD



## APPENDIX C: INDIVIDUALISM-COLLECTIVISM INDEX:

This is a measure used by Triandis, et. al. (1988) to measure the idocentrism-allocentrism tendency among individuals from both collectivistic and individualistic cultures. It contains items from Hui's (1984) Individualism-Collectivism Index and some other items. There are three main factors which these items are intended to measure. These factors include: Self-Reliance With Competition (questions 1-12), Concern For The Ingroup (questions 13-22), and Distance From Ingroup (questions 23-29).

Each of the participants in this experiment will be given this index after the scenarios and the rating scale.



## Instructions

Dear respondent:

In this section, you will read statement about different aspects of daily life and social relationships. Read each statement carefully and next to it indicate on a scale of 100 how much you agree with that statement.

Strongly disagree 0 \_\_\_\_\_ .100 Strongly agree  
Example:

If the statement reads: The weather is much nicer in the spring. If the rating you give the statement is a score of 50 points, then this means that you neither agree nor disagree with this statement. If you give a score of 100 points, then this will mean that you totally agree with the statement. But if you give a score of zero, then it will mean that you totally disagree with the statement.

Remember, the highest rating is a 100 and the lowest is 0.

1. If the group is slowing me down, it is better to leave it and work alone. \_\_\_\_\_ Points
2. To be superior a man must stand alone. \_\_\_\_\_ Points
3. Winning is everything. \_\_\_\_\_ Points
4. Only those who depend on themselves get ahead in life. \_\_\_\_\_ Points
5. If you want something done right, you've got to do it yourself. \_\_\_\_\_ Points
6. What happens to me is my own doing. \_\_\_\_\_ Points
7. I feel winning is important in both work and games. \_\_\_\_\_ Points
8. Success is the most important thing in life. \_\_\_\_\_ Points
9. It annoys me when other people perform better than I do. \_\_\_\_\_ Points
10. Doing your best isn't enough; it is important to win. \_\_\_\_\_ Points
11. In most cases, to cooperate with someone whose ability is lower than oneself is not as desirable as doing the thing on one's own. \_\_\_\_\_ Points
12. In the long run the only person you can count on is yourself. \_\_\_\_\_ Points
13. It is foolish to try to preserve resources for future generations.\* \_\_\_\_\_ Points

14. People should be expected to do anything for the community unless they are paid for it.\* \_\_\_\_\_ Points
15. Even if a child won the Nobel Prize the parents should not feel honored in any way.\* \_\_\_\_\_ Points
16. I would not let my parents use my car, if I had one, no matter whether they are good drivers or not.\* \_\_\_\_\_ Points
17. I would help within my means if a relative told me that he/she is in financial difficulty. \_\_\_\_\_ Points
18. I like to live close to my friends. \_\_\_\_\_ Points
19. The motto "sharing is both blessing and calamity" is still applicable even if one's friend is clumsy, dumb, and causing a lot of trouble. \_\_\_\_\_ Points
20. When my colleagues tell me personal things about themselves, we are drawn together. \_\_\_\_\_ Points
21. I would not share my ideas and newly acquired knowledge with my parents.\* \_\_\_\_\_ Points
22. Children should not feel honored even if the father were highly praised and given an award by a government official for his contributions and service to the community.\* \_\_\_\_\_ Points
23. I am not to blame if one of my family members fails. \_\_\_\_\_ Points
24. My happiness is unrelated to the well-being of my coworkers. \_\_\_\_\_ Points
25. My parents' opinions are not important in my choice of a spouse. \_\_\_\_\_ Points
26. I am not to blame when one of my close friends fails. \_\_\_\_\_ Points
27. My coworkers' opinions are not important in my choice of a spouse. \_\_\_\_\_ Points
28. When a close friend of mine is successful, it does not really make me look better. \_\_\_\_\_ Points
29. One need not worry about what the neighbors say about whom one should marry. \_\_\_\_\_ Points
- \*. Items which are reversed.

#### **APPENDIX D: Additional analyses with gender being added to the independent variables.**

Although it was not hypothesized, the effect of Sex on attribution biases was of great concern for us because the majority of our American sample were females (110 females and 53 males) and the majority of our Saudi sample were males (122 males and 39 females). Previous research (see: Deaux, 1976 for more details) showed that while males attribute their success to ability (internal and stable) and their failure to bad luck (external and unstable), females attribute their success luck and their failure to lack of ability.

The two sexes seem to have opposite patterns of attribution with regard to success and failure. The explanation being offered by Deaux (1976) is that low expectations are held about women's ability by both sexes. Therefore, external attributions are made of women's success when the outcome is not consistent with the held expectations which are not high and are usually based on negative stereotypes of women.

However, to test for the possibility that the effect of culture in the present study was spurious, I performed MANOVAs on the same dependent variables, adding Sex to our previous list of independent variables. Generally, I found that any significant main or interaction effects involving Culture remained significant in the new MANOVAs adding Sex. In



addition, in most of these MANOVAs, I found no significant main or interaction effects involving Sex.

I will now review the significant findings involving culture after adding sex. For the first hypothesis, which claimed that Americans would show greater internality than the Saudis in general, the new MANOVAs indicated that while the effect of Culture was significant,  $F(8,245)=11.04$ ,  $P<.001$ , the effect of sex alone did not reach the .05 level of significance,  $F(8,245)=1.56$ ,  $P=.14$ .

Hypothesis 2 claimed that the Americans would show greater leniency bias toward one's self on social desirability outcomes than the Saudis. The previous effect of culture by outcome had  $F(1,148)=3.75$ ,  $P=.055$ . A new MANOVA showed that the interaction effect of culture by outcome with sex was almost identical,  $F(1,146)=3.85$ ,  $P=.052$ .

In hypothesis 4, which claimed that the difference between Americans and Saudis on leniency bias would be greater on personal achievement than on personal social desirability outcomes. Original F for culture by DESACH (i.e., desirability vs. achievement outcomes) by outcome had  $F(1,138)=4.48$ ,  $P=.04$ . New effect has  $F(1,136)=9.04$ ,  $P=.003$ .

There were no significant effects for sex in both hypothesis 5 and 6 which dealt with showing leniency bias toward one's family members. In hypothesis 5 (i.e., achievement outcomes), the original F for culture by outcome had  $F(1,143)=2.30$ , and  $P=.13$ . New effect of culture by outcome

with sex has  $F(1,141)=1.89$ , and  $P=.17$ . Similarly, the original  $F$  for culture by outcome in hypothesis 6 (i.e., social desirability outcomes) had  $F(1,132)=3.91$ ,  $P=.05$ . However, new effect of culture by outcome with sex has  $F(1,130)=1.59$ ,  $P=.209$ .

In hypothesis 7, which dealt with the tendency for both groups' attributions (for self or for those whom they care about) to be influenced by favorableness of the outcome, the original  $F$  culture by outcome interaction had  $F(1,262)=9.52$ ,  $P=.002$ . The new effect of culture by outcome with sex has  $F(1,258)=5.04$ ,  $P=.026$ .

Hypothesis 8 dealt with ethnocentric bias for achievement outcomes. It predicted that the Saudis would make greater ethnocentric than the Americans. Original  $F$  for culture by treatment by outcome had  $F(1,310)=26.01$ ,  $P<.001$ . The new effect of culture by treatment by outcome, with sex controlled for, has  $F(1,305)=24.80$ ,  $P<.001$ . No major shift or changes in the original results.

Hypothesis 9 claimed that for social desirability outcomes, the Saudis will show more ethnocentric bias than the Americans. The original  $F$  of culture by treatment by outcome had  $F(1,312)=16.01$ ,  $P<.001$ . The new effect of culture by treatment by outcome with sex controlled for has  $F(1,307)=-12.94$ ,  $P<.001$ . As in the previous hypothesis, no major change in our result with sex being included as an independent variable here.

Finally, hypothesis 10 claimed that taking both achievement and social desirability outcomes into account, both American and Saudi students will show ethnocentric bias. The effect of sex here did not change our result in a significant way. Here, the original F of culture by treatment by outcome had  $F(1,305)=39.54$ ,  $P<.001$ . The new effect of culture by treatment by outcome with sex included has  $F(1,305)=35.09$ ,  $P<.001$ .

Moreover, analyzing all of these results indicates that if sex were to replace culture in various effects, these effects would generally not be significant. Only in hypothesis 4 does sex have a significant effect replacing culture but the effect of culture is more significant.

Therefore, it is clear that our concern that the findings reported in our study may have been spurious effects of sex rather than of culture should no longer be a concern, and that culture rather than gender was responsible for the differences on attribution of responsibility reported between American and Saudis respondents here.

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