# The Ranking Of Terminal And Instrumental Values By Working Professionals In Thailand, Singapore And The United States: What Is Important And How Do They Impact Decision-Making?

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#### **ABSTRACT**

The purpose of this study is to explore gender and cross-cultural gender differences with respect to individual values. This study will fill a gap in the research literature as few studies have explored male and female value differences in Thailand and few have explored sex differences between eastern values as compared to western values in the United States and another eastern nation, Singapore. An understanding of the attitudes, cultures and values in other countries becomes particularly significant given current globalization trends. Furthermore, researchers also need to understand different demographics to better anticipate the impact of sociodemographic variation in cross-cultural investigations.

## WHAT ARE TERMINAL AND INSTRUMENTAL VALUES?

ccording to Rokeach, a value "is an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence" (1973, p.5). A value is an enduring belief upon which a person acts by preference and values make up an individual's value system or an "organization of beliefs concerning preferable modes of conduct or end states of existence along a continuum of importance" (Brown, 1976, p. 16). Values have a cognitive component in that an individual recognizes a correct way to behave, an emotional component in that an individual feels either positively or negatively towards a particular action and a behavioral component in that an individual will act in a certain fashion as a result of the way he or she feels. Brown (1976) summarizes common motivational drivers and distinguishes values from other antecedents of motivation such as attitudes and beliefs, particularly noting that values differ from attitudes with respect to their enduring nature. Whereas values are relatively stable and transcendental, both attitudes and beliefs are more malleable and beliefs tend to be activity and institution specific (Hayden, 1988). Attitudes represent several beliefs focused on a specific object or situation (Hayden, 1988). Thus, while human values have been defined as desirable goals and guiding principles in life (Rokeach, 1973; Schwartz and Sagiv, 1995), it is believed a person's values will powerfully influence his/her everyday attitudes and behavioral practices.

Rokeach (1973) distinguished between two sets of values, terminal and instrumental value. A belief concerning a desirable mode of conduct is an instrumental value and a belief concerning a desirable end-state of existence is a terminal value. For example, the belief that being honest is desirable over being dishonest is an instrumental value, and the belief that freedom is more favorable than slavery is a terminal value. Values are heavily intertwined and examining person's values separately or overemphasizing values independently of each other does

not meaningfully explain attitudes and behaviors. Only the rank ordering of values or the value system can help to characterize an individual (Rokeach and Ball-Rokeach, 1989). Although somewhat durable, studies have demonstrated that the relative importance of different values to a person can be changed (Rokeach, 1973; Schwartz and Inbar-Saban, 1988).

Researchers have explored the relationships between values and the quality of life in Western society across gender, race, wealth, education, religious beliefs, political differences, behavior changes and other social situations (Rokeach, 1973).

Some value congruence between genders has been identified in the United States. With respect to terminal values, both genders identified world at peace, family security, and freedom as important values. The least important values for both genders in the U.S. were exciting life, pleasure, social recognition, and a world of beauty, respectively. With respect to instrumental values, the most significant values for both men and women in the U.S. reflected honesty, ambition, and responsibility, while the least significant values included concepts of imagination, obedience, intellectuality, and logic (Rokeach, 1973).

Value differences between men and women in the U.S. have also been uncovered (Rokeach, 1973). Men attached more importance to values that reflect a sense of accomplishment, freedom, pleasure, social recognition, ambitious, capability, imagination, and logic. Women, conversely, placed a high emphasis on values of a world of peace, happiness, inner harmony, salvation, self-respect, wisdom, cheerfulness, cleanliness, forgiveness, and love.

Individual wealth and educational level has also been linked to differences in value (Rokeach, 1973). Those with higher incomes were less concerned with cleanliness ranking it seventeenth, while the poor ranked it second. On the other hand, those with lower incomes ranked comfortable life higher than those who had a higher income. Similarly with respect to education, those with more education also less highly ranked the importance of the cleanliness and comfortable life values, while those with less education placed a greater emphasis on it. However, more highly educated people tended to attach greater importance to values of accomplishment and logic than those with less education.

Researchers have examined the influence of values on contemporary business outcomes. For example, Connor and Beker (2003) examined the effect of personal values on the decision-making styles of public managers. Twelve of fourteen Rokeach values were significantly related to the decision-making. Additionally, significant research has also investigated the relationship between values and leadership. Value congruence between leader and follower could be defined as the extent of agreement between the leader's value system and the follower's value system (Kishnan, 2005). Value congruence between employees and their supervisors has been found to be significantly related to employee satisfaction, commitment and work attitudes (Meglino et al., 1989; Posner, 1992). Leaders have an important role to play in transmitting values to followers (Kouzes and Posner, 2002) and in particular transformational leadership involves eliminating the contradictions between a leaders values as well as any incongruence between values and practice (Burns, 1978). However, subordinates will align their values with the values of their leader if they perceive their leader to be competent and successful (Weiss, 1978).

# WHAT IS CULTURE?

Culture consists of a patterned way of thinking, feeling and reacting, acquired and transmitted mainly by symbols with the essential core of culture consisting of traditional ideas and their attached values (Kluckhohn, 1951). Inkeles and Levinsen (1969) suggested that national character refers to relatively enduring personality characteristics and patterns that are modal among adult members of the society. Advancing the accomplishments of Kluckhohn (1951) as well as Inkeles and Levinsen (1969), Hofstede (1980) argues that culture is the collective programming of the mind which distinguishes the members of one human group from another (p. 24). Hofstede (1980) suggests that conceptualizing culture in this sense includes systems of values, with values being among the building blocks of culture. National culture may be examined along four value dimensions: (1) power distance, (2) uncertainty avoidance (3) individualism versus collectivism and (4) masculinity versus femininity (Hofstede, 1980). Power distance is derived from authority and represents the degree to which members of a society accept an unequal

distribution of power. Uncertainty avoidance is the extent to which members of a culture feel threatened by uncertain or unknown situations (Hofstede, 1991). Countries with a culture of strong uncertainty avoidance may seek to minimize risk by adopting more extensive systems of rules and procedures. Hoftede (1980) defines the individualism-collectivism dimension as the degree to which each individual in society is expected to look after himself and his or her immediate family versus the extent to which a culture promotes integrated group relationships. The masculinity index depicts the degree to which a culture clearly defines a separate, distinct gender role. In a masculine society men and women would be expected to be assertive and focused on material success, while women would take roles that emphasize tenderness, modesty and concern for life.

#### VALUE VARIATION BETWEEN CULTURES

Instrumental and terminal values have been examined cross-culturally in studies that include Australia, Canada, Israel and Korea with some striking differences. For example, in Israel significance is attached to the values of a world at peace and national security with participants ranking these values as the most important, while others ranked them much less so (Kilby, 1993). However, hypothesizing about the relationships between individual values across national boundaries is tenuous. Given the existence of gender differences in values in the U.S. (Rokeach 1973), we might expect to find similar variation in value importance between genders in other cultures as well. Yet, with the blurring and overlapping of gender roles expected in those societies oriented toward the low end of the masculinity index, we might find less variation in the importance of individual values between genders. Hofstede (1976) observes that in more feminine societies, the dominant values for both men and women are those more traditionally associated with the feminine roles such as putting relationships with people before money. Both the U.S and Thailand are oriented about the middle of the masculinity index, with the U.S. having a slightly more masculine orientation than Thailand, suggesting that we might find differences in value importance between genders in Thailand. Accordingly, the research focus for this study continues as follows:

- $\mathbf{H_1}$ : There are sex (male/female) differences in the terminal values of Thai managers and employees.
- **H<sub>2</sub>:** There are sex (male/female) differences in the instrumental values of Thai managers and employees.

With respect to the masculinity index, Singapore is also oriented about the middle of the scale (Hofestede, 1976), suggesting that there may be variation in the importance of unique values between genders. However, while Singapore is characterized by an unusually low degree of uncertainty avoidance, Thailand is marked by a slightly high degree of uncertainty avoidance, with U.S. being somewhat in between the two countries (Hofestede, 1976). In Singapore, there is also a fairly strong acceptance of a large power differential between members of society, a characteristic not found so strongly in Thailand and even less so in the U.S. Taken as a whole, we would expect these cultural differences to lead to some variation in the importance of individual values both between genders in each country and also between countries as well. Accordingly, the research focus for this study continues as follows:

- **H<sub>3</sub>:** There are cross-cultural sex differences in the terminal values of the U.S., Thai and Singapore respondents.
- **H<sub>4</sub>:** There are cross-cultural sex differences in the instrumental values of the U.S., Thai and Singapore respondents.

# RESEARCH STUDY DESIGN

This study used random sampling to determine if sex (male/female) differences existed in the RVS values of managers and employees in Thailand and compare those values to managers and employees in Singapore and in the U.S. The demographic and value instruments were distributed to managers in the selected companies in the U.S., Singapore and Thailand. In total, the distribution included 100 managers and employees in Thailand, 400 in Singapore, and to 400 in Northern California. The surveys were returned by mail in order to remain anonymity.

The Thai respondents consisted of 23 males and 21 females. For age, 16 were 18 to 25 years old, 17 were 26 to 30 years old, 8 were 31 o 39 years old, 2 were 40 to 45 years old and 1 was 40 to 45 years of age. The Singaporean respondents were 100 males and 100 females. For age, 100 were 18 to 25 years of age and 100 were 26 to 39 years of age. The U.S. respondents consisted of 100 males and 100 females. For age, 40 were 18 to 25 years of

age, 52 were 26 to 30 years of age, 50 were 31 to 39 years of age, 40 were 40 to 49 years of age, 14 were 50 to 55 years of age, and 4 were 56+ years of age.

Values were examined using the Rokeach Value Survey, and several other instruments which were not part of this project. Rokeach developed the foundation for his value theory from Kluckhohn (1951, 1962) and designed the instrument to measure each person's individual values. Murphy (1994d) told us that in Kluckhohn and Rokeach's views, people possessed values because values were part of their minds or cognitive structures, and guided social, political, and cognitive structures, and guided social, political, and religious behaviors.

The surveys were translated from English to Thai by one native speaker and back translated to English from Thai by another native speaker. A conference among the native speakers clarified any disagreements. The instrument in English was left side-by-side with the Thai version as English is taught in Thailand during primary and secondary grades. The same procedures were used in Singapore.

In order to ensure reliability, instructions to those taking the survey are standard, asking each individual to order the values "in order of importance to you, as guiding principles in your life" (Obot, 1988, p. 367). Rokeach (1973, 1979), Feather (1975, 1984), Murphy (1994d), Murphy et al., (1997), Murphy and Anderson (2003), Murphy, Gordon and Anderson (2004), and Murphy, Gordon and Mullen (2004) explained that the validity of the Rokeach Value Survey (RVS) has been tested in hundreds of studies world-wide since the 1960's. Therefore, its validity is well established.

#### **Treatment Of Data And Procedures**

Hypotheses were tested with the Chi-Square Median Test followed by a t-test between males and females and a Kruskal-Wallis Analysis of Variance (ANOVA) for statistically significant differences between the cultures. These techniques were used by Murphy, Rokeach and Feather. The results were analyzed for statistical differences with p<.05 set as the level of significance for hypothesis testing, which is the standard level for hypothesis significance in the social sciences literature (Murphy, Gordon and Anderson, 2004).

Medians were found using a Chi-Square median test. This provided us with the statistically significant differences. Next, ANOVA was used to develop the means for each sex and culture. Means were computed for each value and placed in a Table. Next, the means were used to rank order the values from one (most important) to eighteen (least important). This allowed the researchers to not only compare the means, but to also compare the rankings for each group. Rokeach (1979) explained that this allows researchers to not only explore statistically significant value differences, but to also explore their meaning further. The rankings allowed the researchers to find the top five (ranks one through five) and bottom ranks (fourteen to eighteen) for the research population. The researcher analyzed the hypotheses with the Chi-Square Median Test followed by the t-test for independent male/female samples and Kruskal-Wallis Analysis of Variance (ANOVA) for statistically significant sex differences between the cultures (Murphy, Gordon and Anderson, 2004).

## **Research Results**

There are sex (male/female) differences in the terminal values of respondents from Thailand. The Chi-Square median test indicated statistically significant sex differences between male and female Thai respondents for 14 of 18 terminal values allowing the researchers to accept hypothesis one and reject null hypothesis one. There were sex (male/female) differences in the terminal values of respondents from Thailand for a comfortable life (p < .02); an exciting life (p < .018); a sense of accomplishment (p < .031); a world at peace (p < .011); a world of beauty (p < .012); equality (p < .013); family security (p < .001); freedom (p < .022); health (p < .024); inner harmony (p , .002); mature love (p < .016); national security (p < .004); salvation (p < .003), and self-respect (p < .026).

There are sex (male/female) differences in the instrumental values of respondents from Thailand. The Chi-Square median test indicated statistically significant sex differences between male and female Thai respondents for 9 of 18 instrumental values allowing the researcher to accept hypothesis two and reject null hypothesis two. There

were sex (male/female) differences in the instrumental values of respondents from Thailand for *ambition* (p < .018); broadminded (p < .002); capable (p < .016); clean (p < .003); intellectual (p < .016); logical (p < .015); loving (p < .004); loyal (p < .0001), and polite (p < .0001).

In order to explore sex differences in terminal and instrumental values across the cultures, the researcher conducted a t-test for independent samples. The research results indicated 29 of 36 terminal and instrumental values were statistically significant for sex differences regardless of culture (see Table 1). Next, a Kruskal-Wallis ANOVA explored the data for cross-cultural differences finding 36 of 36 values were different across the cultures (see Table 2). What did the results show for cross cultural sex differences between each culture?

There are sex cross-cultural differences in the terminal values of U.S.A, Thai and Singapore respondents. Separate t-tests were conducted within each culture to explore whether sex differences existed within each culture (Table 3). For Singapore, a total of five terminal values were statistically significant for sex differences (family security; freedom, mature love, national security, and wisdom). For the U.S., a total of 11 terminal values were statistically significant for sex differences (an exciting life, a sense of accomplishment, a world at peace, a world of beauty, equality, family security, freedom, mature love, national security, social recognition, and health). There were 14 terminal value differences for Thai respondents (see hypothesis one). As a result, the researcher was able to accept the hypothesis and reject the null.

There are sex cross-cultural differences in the instrumental values of U.S.A, Thai and Singapore respondents. Separate t-tests were conducted within each culture to explore whether sex differences existed within each culture (see Table 4). For Singapore, a total of six instrumental values were statistically significant for sex differences (courage, forgiving, imaginative, independent, logical, and loving). For the U.S., a total of 11 instrumental values were statistically significant for sex differences (clean, courage, helpful, honest, imaginative, independent, logical, loving, loyal, obedient, and self-controlled). There were 9 instrumental value differences for Thai respondents (see hypothesis two). As a result, the researchers were able to accept the hypothesis and reject the null.

#### DISCUSSION OF RESULTS

This study explored and found sex (male/female) and cross cultural sex differences in Rokeach Value Survey (RVS) terminal and instrumental values between respondents from Thailand, Singapore and the United States. How do we explore the meaning of values? First, Rokeach (1979) as well as Murphy, Gordon and Mullen (2004) explained that the values ranked from one through five are the most important for each respondent and or demographic variable, like sex differences. In other words, the terminal or instrumental values ranked one through five for females or for males are their most important and are called their top five values of importance. The terminal or instrumental values they rank from six to thirteen are simply considered important. Finally, the terminal or instrumental values females rank from fourteen to eighteen are considered their bottom five values of importance, what are called unimportant. We are able to make comparisons within demographic populations in a nation and across cultures based on these rankings.

### **Sex Differences In Thai Terminal Values**

Terminal values are the most important goals respondents seek in their lives. There were sex (male/female) differences for 14 of 18 terminal values of respondents from Thailand. Females more highly valued a comfortable life with a ranking of seven compared to the male ranking of twelve; a sense of accomplishment with a ranking of nine compared to the male ranking of thirteen; a world at peace with a ranking of eleven compared to the male unimportant ranking of sixteen; health with a ranking of two compared to the male ranking of three, and self-respect with a ranking of four compared to the male ranking of six. This implies that females would pursue their more important goals in life of being prosperous, making a lasting contribution at work, peace in the world, and the world being free from conflict and war, being free from sickness, and having self-esteem.

Males more highly valued *equality* with a ranking of ten compared to the female ranking of thirteen; *inner harmony* which males ranked as seven compared to the female ranking of eight; *mature love* which males ranked as nine compared to the female ranking of twelve; *pleasure* which was ranked eight by males and ten by females; *salvation* which males ranked as eleven compared to the female unimportance ranking of fifteen; *true friendship* which was ranked a most important two for males compared to a most important three by females, and *wisdom* which was ranked a most important four by males and lesser important six by females. This implies that males would pursue their more important goals in life of being treated equally, having inner peace, sexual and spiritual intimacy, having an enjoyable life, having close companionship, and having a mature understanding of life.

Instrumental values are the behavioral techniques respondents might use to obtain their terminal value goals. The Chi-Square median test indicated statistically significant sex differences between male and female Thai respondents for 9 of 18 instrumental values (Table 4) allowing the researchers to accept hypothesis two and reject null hypothesis two.

The instrumental values more important for females were *ambition* which females ranked as six in importance compared to the male ranking of nine; *capable* which females ranked a most important five compared to the thirteen in importance ranking for males; *courage*, which females ranked as an important nine and males ranked an unimportant fifteen; *forgiving* was ranked a more important seven by females and a lesser important ten by males; *intellectual* was ranked a more important eight by females and a lesser important twelve by males; *logical* was ranked an important twelve by females and an unimportant seventeen by males, and females ranked *self-controlled* a most important four by females and a lesser important six by males. This indicates that females more important behavioral techniques were being hard working and aspiring, competent and effective, being willing to stand up for their beliefs, being willing to pardon others, being intelligent and reflective, being affectionate and tender, and being restrained and self-disciplined.

## **Sex Differences In Thai Terminal Values**

The instrumental values more important for males were *helpful*, which males ranked as eight and females ranked as ten; *loving* which was ranked a more important seven by males and an unimportant fifteen by females; *loyal*, which males ranked as a most important four and females ranked as an unimportant sixteen and *polite*, which was ranked a most important five by males and a slightly important thirteen by females. This indicates that Thai males would pursue their more important behavioral techniques of working for the welfare of others, being affectionate and tender, dedicated to their families, co-workers and organizations, and by being courteous and well-mannered.

#### **Cross Cultural Sex Differences**

In order to explore sex differences in terminal and instrumental values across the cultures, the researcher conducted a t-test for independent samples. The research results indicated 29 of 36 terminal and instrumental values were statistically significant for sex differences regardless of culture (Table 1). Next, a Kruskal-Wallis ANOVA explored the data for cross-cultural differences finding 36 of 36 values were different across the cultures (Table 2). The researcher next included the means and rankings in Tables 3 and 4 to allow comparisons for sex differences within each culture and across the cultures (Singapore versus U.S. versus Thailand). What did the results show for cross cultural sex differences between each culture?

Singapore. For Singapore, a total of five terminal values were statistically significant for sex differences (family security; freedom, mature love, national security and wisdom). Females ranked family security as a most important one compared to the male ranking of two; females ranked freedom a more important eight compared to the male ranking of twelve, and females ranked wisdom as a most important five compared to the male ranking of eight. Males ranked mature love as a more important seven compared to the female ranking of eleven. For the final value, national security, females ranked it an unimportant fifteen compared to the unimportant seven for males.

For instrumental values, a total of six Singaporean instrumental values were statistically significant for sex differences (courage, forgiving, imaginative, independent, logical, and loving). For females, forgiving was ranked an important eight compared to the unimportant fourteen for males; independent was ranked a most important four for females compared to the male unimportant ranking of six, and loving was ranked an important six compared to the important seven for males. Males ranked courage a more important eight compared to the female ranking of twelve; males ranked imaginative an unimportant fifteen compared to the unimportant sixteen for females, and males ranked logical an important twelve compared to the unimportant fourteen for females.

United States. For the U.S., a total of 11 terminal values were statistically significant for sex differences (an exciting life, a sense of accomplishment, a world at peace, a world of beauty, equality, family security, freedom, mature love, national security, social recognition, and health). Females ranked a world at peace an important ten compared to the unimportant sixteen for males; females ranked a world of beauty an unimportant seventeen compared to the unimportant eighteen for males, and females ranked equality an important thirteen compared to the male unimportant ranking of fifteen. Males ranked an exciting life as a more important eleven compared to the female unimportance ranking of fourteen; males ranked a sense of accomplishment a more important six compared to the female ranking of eight; males ranked family security a most important one compared to the most important two for females; males ranked mature love a slightly more important nine compared to the female ranking of eleven; males ranked national security as a slightly important thirteen compared to the unimportant fourteen for females, and females ranked wisdom as a most important four compared to the important seven for females.

For the U.S., a total of 11 instrumental values were statistically significant for sex differences (clean, courage, helpful, honest, imaginative, independent, logical, loving, loyal, obedient, and self-controlled). Females ranked clean an unimportant fifteen compared to the male unimportant ranking of eighteen; females ranking helpful a more important nine compared to the male unimportance ranking of fifteen; females ranked independent a most important three compared to the male ranking of six, and females ranked loving a most important four compared to the male ranking of seven. Males ranked courage an important eight compared to the female ranking of ten; males ranked imaginative an unimportant sixteen compared to the unimportant seventeen for females; males ranked logical a more important nine compared to the unimportant fourteen for females; males ranked loyal a most important three compared to the important seventeen compared to the unimportant eighteen for females, and males ranked self-controlled an important ten compared to the important twelve for females.

Thailand. There were 14 terminal value sex differences for Thai respondents. Females more highly valued the terminal values a comfortable life with a ranking of seven compared to the male ranking of twelve; a sense of accomplishment with a ranking of nine compared to the male ranking of thirteen; a world at peace with a ranking of eleven compared to the male unimportant ranking of sixteen; health with a ranking of two compared to the male ranking of three, and self-respect with a ranking of four compared to the male ranking of six.

Males more highly valued *equality* with a ranking of ten compared to the female ranking of thirteen; *inner harmony* which males ranked as seven compared to the female ranking of eight; *mature love* which males ranked as nine compared to the female ranking of twelve; *pleasure* which was ranked eight by males and ten by females; *salvation* which males ranked as eleven compared to the female unimportance ranking of fifteen; *true friendship* which was ranked a most important two for males compared to a most important three by females, and *wisdom* which was ranked a most important four by males and lesser important six by females.

There were 9 instrumental value differences for Thai respondents (see hypothesis two) that were previously discussed. The instrumental values more important for females were *ambition* which females ranked as six in importance compared to the male ranking of nine; *capable* which females ranked a most important five compared to the thirteen in importance ranking for males; *courage*, which females ranked as an important nine and males ranked an unimportant fifteen; *forgiving* was ranked a more important seven by females and a lesser important ten by males; *intellectual* was ranked a more important eight by females and a lesser important twelve by males; *logical* was ranked an important twelve by females and an unimportant seventeen by males, and females ranked *self-controlled* a most important four by females and a lesser important six by males.

The instrumental values more important for males were *helpful*, which males ranked as eight and females ranked as ten; *loving* which was ranked a more important seven by males and an unimportant fifteen by females; *loyal*, which males ranked as a most important four and females ranked as an unimportant sixteen and *polite*, which was ranked a most important five by males and a slightly important thirteen by females.

#### CONCLUSIONS

In Thailand, females more highly valued the terminal value goals of a *comfortable life*, a sense of accomplishment, health, and self-respect. Females more highly valued the instrumental values ambition, capable, courage, forgiving, intellectual, logical, and self-controlled. This indicates that Thai females would pursue their more important goals in life of having a prosperous life, making an lasting contribution in life, being free from sickness and health and having self-esteem, and they would pursue these goals by being hard-working and aspiring, competent and effective, standing up for their beliefs, by being intelligent and reflective, consistent and rational, and by being restrained and self-disciplined.

Thai males more highly valued the terminal value goals of *equality*, *inner harmony*, *mature love*, *pleasure*, *salvation*, *true friendship*, and *wisdom* and instrumental value behavioral techniques of *helpful*, *loving*, *loyal*, and *polite*. This indicates males would pursue their more important goals in life of being treated equally on the job, having inner peace, aiming for sexual and spiritual intimacy, having an enjoyable life, being saved and having eternal life, having close companionship, and having a mature understanding of life. They would pursue these more important goals through the behavioral techniques of working for the welfare of others, being affectionate and tender, being dedicated to the families, co-workers and organizations, and by being courteous and well-mannered.

While these sex differences did exist, there were many similarities in the top five and bottom five values of importance. Both males and females ranked in their top five of importance the terminal values *family security*, *freedom*, *health*, and *true friendship* and instrumental values *broadminded* and *responsible*. For unimportant terminal values both males and females ranked in their bottom values of importance *an exciting life*, *a world of beauty*, *national security*, and *social recognition*, and for unimportant instrumental values *clean*, *imaginative* and *obedient*. What did the results indicate for cross cultural sex differences?

With respect to cross-cultural sex differences, there were many similarities across the cultures. The researchers explored which values were ranked most important and/or important (ranked one through thirteen) and unimportant (ranked fourteen to eighteen) by each sex across each culture. For terminal value goals, males and females in each culture ranked a comfortable life, a sense of accomplishment, family security, freedom, health, inner harmony, mature love, self-respect, true friendship, and wisdom as important goals and a world of beauty as unimportant. This is ten important goals and one unimportant goal in the lives of all sexes across all cultures.

The instrumental values *ambition, broadminded, capable, honest, independent intellectual, responsible,* and *self-controlled* were ranked as most important or important (ranked one through thirteen) and/or unimportant (ranked fourteen to eighteen) by each sex across each culture, and *clean, imaginative* and *obedient* were ranked unimportant for each sex and across each culture. This is eight important behavioral techniques and three unimportant behavioral techniques that were similar for all sexes across each culture.

The researcher excluded these values in the next analysis in order to explore which values were different between the sexes and cultures. For terminal values males from the U.S. and Singapore were more alike than Thai males, while for instrumental values Thai and Singapore males were more alike than U.S. males. For terminal values, males from the U.S. and Singapore ranked *courage*, *logical*, *loving*, *loyal*, and *polite* as important or unimportant, while Thai males only had three remaining values equally important or unimportant with the other two nations. Thai males equally valued *helpful*, *loving* and *loyal* with the Singaporean males and *forgiving*, *loving* and *loyal* with U.S. males. For instrumental values Thai and Singaporean males ranked as important or unimportant a world at peace, national security, and pleasure; Thai males and U.S. males shared a world at peace and social recognition as important or unimportant, and Singaporean males and U.S. males shared an exciting life, a world at peace, and equality as important or unimportant.

For terminal values, Thai females were more like U.S. females with whom they shared five terminal values an exciting life, a world at peace, equality, national security, and social recognition with the U.S., while they shared four with Singaporean females a world at peace, equality, national security, and social recognition. For instrumental values Thai females only shared forgiving, courage and helpful with the U.S. and Singapore, while U.S. and Singapore shared courage, forgiving, helpful, logical, loving, loyal, and polite.

These results seem to indicate that the sexes and cultures are becoming more similar as increased trade and contacts are made between males and females from nations around the world.

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# **APPENDICES**

Table 1
T-test for sex differences regardless of cross culture

-	Male Mean G_1:1 (223)	Female Mean G_2:2 (221)	t-value	р	Std.Dev. G_1:1	Std.Dev. G_2:2	F-ratio variance	p variance
COMFORT	7.882 (4)	6.792 (2)	7.6761	.000000	4.913086	5.274357	1.152472	.000329
EXCITING	9.720 (11)	10.172 (12)	-3.1152	.001848	5.181680	5.140454	1.016104	.690523
ACCOMPL	8.904 (9)	9.664 (10)	-6.0674	.000000	4.495895	4.390371	1.048648	.234546
WP	11.072 (13)	9.019 (8)	14.2923	0.000000	5.129352	5.077885	1.020374	.614670
WB	13.405 (18)	12.316 (17)	9.0509	.000000	4.234420	4.353023	1.056803	.162834
<b>EQUALITY</b>	11.877 (14)	12.031 (16)	-1.2164	.223870	4.441551	4.584139	1.065237	.110395
FAMSEC	5.161 (2)	7.093 (4)	-14.5890	0.000000	4.243181	5.401007	1.620191	0.000000
FREEDOM	7.174 (3)	7.069 (3)	.8079	.419194	4.634961	4.669974	1.015165	.702470
HEALTH	4.888 (1)	5.302(1)	-3.6134	.000305	3.992314	4.217320	1.115896	.005562
INHARM	8.747 (7)	7.575 (5)	8.7100	.000000	4.851001	4.674980	1.076721	.064381
MATLOVE	9.147 (10)	9.707 (11)	-4.3612	.000013	4.385885	4.844753	1.220193	.000000
NATNSEC	11.980 (15)	10.994 (14)	7.2668	.000000	4.784409	4.895650	1.047042	.245510
PLEASURE	9.902 (12)	10.396 (13)	-3.7518	.000177	4.629496	4.773606	1.063226	.121504
SALVAT	12.566 (17)	12.654 (18)	5411	.588458	5.885132	5.434070	1.172903	.000070
SELFRESP	8.390 (6)	8.620 (6)	-1.7201	.085474	4.493516	5.156844	1.317029	.000000
SOCREC	12.011 (16)	11.222 (15)	6.2784	.000000	4.361472	4.643415	1.133467	.001530
TFRIEND	8.849 (8)	9.529 (9)	-5.3104	.000000	4.396856	4.813037	1.198268	.000005
WISDOM	8.339 (5)	8.703 (7)	-2.9470	.003222	4.332613	4.478269	1.068367	.094806
AMBITION	9.735 (10)	9.568 (10)	1.0963	.272975	5.582226	5.165441	1.167885	.000108
BMIND	8.412 (4)	8.424 (4)	0858	.931591	4.789346	4.851961	1.026318	.511079
CAPABLE	8.641 (5)	9.181 (7)	-4.1425	.000035	4.657095	4.587235	1.030690	.449772
CLEAN	12.069 (17)	10.774 (16)	9.4605	.000000	4.738539	5.079551	1.149110	.000437
COURAGE	9.209 (7)	10.142 (14)	-7.0759	.000000	4.545315	4.917172	1.170315	.000069
FORGIVE	10.438 (15)	9.697 (12)	5.3198	.000000	5.036705	4.807736	1.097518	.019967
HELPFUL	10.127 (13)	9.403 (9)	5.4136	.000000	4.748569	4.782521	1.014351	.717523
HONEST	5.513(1)	6.654(1)	-8.5665	.000000	4.558058	5.016192	1.211124	.000001
<b>IMAGINAT</b>	10.583 (16)	9.631 (11)	6.3944	.000000	5.005577	5.739553	1.314764	.000000
INDEPEND	9.511 (9)	9.949 (13)	-3.0977	.001960	4.945499	5.168096	1.092046	.026082
INTELLEC	9.402 (8)	9.112 (6)	2.1198	.034068	4.843388	4.906548	1.026251	.512144
LOGICAL	9.807 (11)	10.987 (17)	-8.6962	.000000	4.828773	4.827564	1.000501	.992583
LOVING	8.212 (3)	7.777 (2)	2.9926	.002779	5.225470	5.090359	1.053790	.189820
LOYAL	10.020 (12)	9.344 (8)	4.6158	.000004	5.183427	5.250674	1.026115	.514296
OBEDIENT	13.718 (18)	11.976 (18)	12.8549	0.000000	4.574903	5.200611	1.292245	.000000
POLITE	10.269 (14)	10.625 (15)	-2.5537	.010686	4.810544	5.198375	1.167741	.000087
RESP	6.396 (2)	7.859 (3)	-11.4753	.000000	4.457884	4.655397	1.090576	.028460
SELCONTR	8.699 (6)	8.990 (5)	-2.0186	.043577	5.137099	5.091066	1.018166	.653441

Table 2 Kruskal-Wallis ANOVA for Cross-cultural differences

Nationality DF = $(3, 441)$				
•	H	p-level	Chi-Square	p-level
NATNL & COMFOR	556.48	.0001	516.64	.0001
NATNL & EXCITLIF	246.17	.0001	138.09	.0001
NATNL & ACCOMP	122.50	.0001	103.91	.0001
NATNL & WORLDPEA	249.59	.0001	82.16	.0001
NATNL & WORLDBEA	379.32	.0001	335.39	.0001
NATNL & EQUALITY	371.72	.0001	348.80	.0001
NATNL & FAMSEC	677.55	.0001	552.99	.0001
NATNL & FREEDOM	412.89	.0001	306.64	.0001
NATNL & HEALTH	602.98	.0001	444.29	.0001
NATNL & INHARM	255.26	.0001	233.86	.0001
NATNL & MALOVE	168.07	.0001	153.57	.0001
NATNL & NASEC	688.13	.0001	528.96	.0001
NATNL & PLEAS	488.47	.0001	290.47	.0001
NATNL & SALV	1043.51	.0001	793.93	.0001
NATNL & SERESP	243.50	.0001	319.35	.0001
NATNL & SORECOG	285.54	.0001	174.15	.0001
NATNL & TRUFRIE	744.38	.0001	586.22	.0001
NATNL & WISD	228.29	.0001	127.57	.0001
NATNL & AMBITIOU	411.35	.0001	263.41	.0001
NATNL & BMINDED	133.91	.0001	116.15	.0001
NATNL & CAPABLE	255.46	.0001	193.91	.0001
NATNL & CLEAN	360.67	.0001	236.81	.0001
NATNL & COURGEN	167.06	.0001	118.95	.0001
NATNL & FORGIVE	32.76	.001	81.83	.001
NATNL & HELPFUL	281.48	.0001	156.47	.0001
NATNL & HONEST	551.99	.0001	507.20	.0001
NATNL & IMAGINAT	384.85	.0001	269.45	.0001
NATNL & INDEPEN	160.46	.0001	159.59	.0001
NATNL & INTELLEC	276.74	.0001	266.78	.0001
NATNL & LOGICAL	429.96	.0001	352.70	.0001
NATNL & LOYL	803.20	.0001	692.34	.0001
NATNL & OBEDIENT	841.50	.0001	636.35	.0001
NATNL & POLITE	645.79	.0001	468.08	.0001
NATNL & RESPONS	387.99	.0001	238.68	.0001
NATNL & SELFCONT	608.62	.0001	315.14	.0001

Table 3
Comparison of Male and Female Mean Rankings for Terminal Values

		Sing	gapore			US		US			Thailand					
	Male		Female			Male		Female			Mal	le	Female			
	(N=1)	100)	(N=1)	100)		(N=100)		(N=100)			(N=23)		(N=21)			
	Mean	Rank	Mean	Rank	Sign.	Mean	Rank	Mean	Rank	Sign.	Mean	Rank	Mean	Rank	Sign	
A comfortable life	7.445	(4)	8.106	(6)		8.247	(7)	8.252	(5)		10.521	(12)	8.666	(7)	*	
An exciting life	9.589	(9)	10.355	(13)		9.877	(11)	10.759	(14)	**	11.217	(15)	13.047	(16)	*	
A sense of accomplishment	8.493	(6)	8.597	(7)		8.132	(6)	9.510	(8)	***	10.739	(13)	9.190	(9)	*	
A world at peace	10.676	(14)	9.958	(10)		12.634	(16)	9.891	(10)	***	11.304	(16)	9.476	(11)	*	
A world of beauty	14.344	(18)	13.982	(18)		14.654	(18)	12.807	(17)	***	13.347	(18)	15.047	(18)	*	
Equality	12.296	(16)	12.218	(16)		12.480	(15)	10.576	(13)	***	9.869	(10)	11.523	(13)	*	
Family security	6.240	(2)	4.816	(1)	***	4.322	(1)	5.621	(2)	***	5.739	(1)	3.047	(1)	**	
Freedom	9.947	(12)	9.011	(8)	*	6.512	(3)	7.393	(3)	**	8.217	(5)	7.047	(5)	*	
Health	5.851	(1)	5.414	(2)		5.348	(2)	4.924	(1)		6.217	(3)	5.190	(2)	*	
Inner harmony	9.598	(10)	9.443	(9)		9.705	(10)	9.861	(9)		9.130	(7)	8.809	(8)	**	
Mature love	8.724	(7)	10.183	(11)	**	8.811	(9)	10.219	(11)	***	9.652	(9)	11.476	(12)	*	
National security	12.838	(17)	11.905	(15)	*	10.528	(13)	12.036	(16)	***	10.869	(14)	12.333	(14)	**	
Pleasure	9.698	(11)	10.289	(12)		10.993	(14)	11.051	(15)		9.434	(8)	9.380	(10)		
Salvation	12.148	(15)	12.763	(17)		10.371	(12)	10.327	(12)		10.304	(11)	12.714	(15)	**	
Self-respect	7.951	(5)	7.402	(4)		7.807	(5)	7.585	(4)		9.086	(6)	6.809	(4)	*	
Social recognition	10.541	(13)	11.147	(14)		13.516	(17)	12.939	(18)	*	12.608	(17)	12.380	(17)		
True friendship	6.458	(3)	6.698	(3)		8.614	(8)	8.675	(6)		6.130	(2)	6.714	(3)		
Wisdom	8.803	(8)	7.834	(5)	*	6.692	(4)	8.684	(7)	**	6.608	(4)	7.142	(6)		

<sup>\* =</sup> p < .05 \*\* = p < .001 \*\*\* p < .0001 Blank = Not Significant

Table 4
Comparison of Male and Female Mean Rankings for Instrumental Values

		Singa	apore			U	S	US			Thailand				
	Male		Female			Male		Female			Male		Female		
	(N=1)	100)	(N=100)			(N=100)		(N=100)			(N=23)		(N=21)		
	Mean	Rank	Mean	Rank	Sign.	Mean	Rank	Mean	Rank	Sign.	Mean	Rank	Mean	Rank	Sign
Ambition	9.177	(10)	9.136	(9)		8.473	(5)	7.987	(5)		9.565	(9)	8.476	(6)	
Broadminded	8.488	(5)	9.278	(10)		9.893	(12)	9.306	(8)		6.956	(3)	7.333	(3)	*
Capable	7.466	(2)	7.130	(2)		8.290	(4)	8.294	(6)		11.000	(13)	8.285	(5)	**
Clean	13.533	(18)	13.579	(18)		13.480	(18)	10.727	(15)	***	11.521	(16)	13.476	(18)	*
Courage	8.764	(8)	9.936	(12)	**	8.734	(8)	9.807	(10)	***	11.273	(15)	8.809	(9)	**
Forgiveness	10.302	(14)	8.923	(8)	***	10.413	(13)	10.159	(11)		9.608	(10)	8.523	(7)	
Helpful	9.875	(11)	9.437	(11)		10.803	(15)	9.531	(9)	***	9.521	(8)	9.916	(10)	
Honest	7.648	(3)	7.733	(5)		4.626	(1)	5.132	(1)	*	6.043	(1)	5.428	(1)	
Imaginative	11.142	(15)	12.147	(16)	*	12.586	(16)	12.030	(17)	**	11.173	(14)	11.190	(14)	
Independent	8.648	(6)	7.649	(4)	*	8.578	6)	7.843	(3)	**	10.086	(11)	10.190	(11)	
Intellectual	8.048	(4)	7.449	(3)		9.786	(11)	10.213	(12)		10.130	(12)	8.623	(8)	*
Logical	9.893	(12)	11.118	(14)	**	9.240	(9)	10.570	(14)	***	12.000	(17)	10.380	(12)	*
Loving	8.702	(7)	7.751	(6)	**	8.715	(7)	7.789	(4)	**	8.882	(7)	11.428	(15)	**
Loyal	10.262	(13)	10.467	(13)		8.096	(3)	9.120	(7)	***	7.695	(4)	11.952	(16)	***
Obedient	12.808	(17)	12.863	(17)		13.085	(17)	14.102	(18)	***	12.521	(18)	12.714	(17)	
Polite	11.271	(16)	11.426	(15)		10.513	(14)	10.780	(16)		8.304	(5)	11.142	(13)	***
Responsible	5.991	(1)	5.911	(2)		6.072	(2)	6.510	(2)		6.130	(2)	5.476	(2)	
Self-controlled	9.022	(9)	8.526	(7)		9.33	(10)	10.312	(13)	**	8.782	(6)	8.047	(4)	

<sup>\* =</sup> p < .05 \*\* = p < .001 \*\*\* p < .0001 Blank = Not Significant

# **NOTES**