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Women's education: a cross cultural comparison of American and Iranian attitudes

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WOMEN'S EDUCATION: A CROSS CULTURAL COMPARISON OF
AMERICAN AND IRANIAN ATTITUDES

Iowa State University

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Women's education: A cross cultural comparison of
American and Iranian attitudes

by

S. Marzie Astani

A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of the
Requirements for the Degree of
DOCTOR OF PHILOSOPHY

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Table of Contents

	Page
Introduction	1
Chapter I. Background on Women's Status in Iran and America	4
Ancient Iran	4
Arab Domination	7
The Recent Past	9
Attitudes Toward Women in Contemporary Iran	11
Women in Iranian Language and Literature	15
Women's Status and Education in Contemporary Iran	15
Women in American History	19
Chapter II. Review of Related Literature	26
Attitudes Toward Women's Roles and Education	26
Early Socialization and the Educational System	34
Changing Women's Roles	41
Chapter III. Methods and Procedures	46
Semantic Differential Technique	46
Construction of a Semantic Differential Instrument	47
Subjects	50
Limitations of Study	52
Data Analysis	53
Factor analysis	53
Multivariate analysis	55
Chapter IV. Results and Discussion	63
Factor One	63
The intellectual equality mode	69
Education vs wife/mother mode	72
Coeducation mode	74
Factor Two	75
Conclusion	79
References	81
Acknowledgements	87
Appendix A	88
Appendix B	106

Introduction

Throughout most of the human experience, whether women were regarded as individuals or not has not been of much concern. Although their work was needed, women were not credited with being part of society's productive force. Probably this was because most of women's work was home centered. With the increasing industrialization of most societies, females were needed to work outside as well as inside the home. Women's contributions to the world of production began to appear more significant as the number of women entering the labor force increased steadily. Yet, women were still not usually regarded as full human beings capable of making decisions.

In the past two decades, through the work of intellectual women in many countries, numerous women's issues have been brought to the world's attention. The inferior status of women has been underscored by reports showing that fewer able and potentially competent women than men enter higher education and by research claiming that: (1) females are less creative than are males; (2) women lack academic motivation; and (3) females are more emotional and dependent than are males. Discrimination against women in every aspect of their lives has been adequately demonstrated in a number of studies and through the efforts of people in the feminist movement.

For a variety of reasons, third world societies have begun to notice women's issues only very recently. Now a number of these countries are beginning the process of considering the problems which are raised by women's unequal treatment. A common theme seems to be emerging within the international community in all societies now considering women's

issues. It is that women's "inferiority" is a product of man made laws, educational systems, and economic institutions. These have shaped the minds and beliefs of people in all societies. The values and attitudes which underlie the inferior status of women have been accepted and integrated by men and women.

People are certainly the products of their own cultures and reflect the attitudes and values that are unique in their inherited traditions. Indeed, cultural differences are considered by some people to be basic sources of differentiation for individual personality and attitudes. For this reason any issue, including those of particular relevance to women, ought to be considered within the context of each particular society. There can be little doubt, however, about the necessity of communication between the people of all nations, and the research reported herein assumes that increasing the knowledge about different cultures can ultimately help improve communication across nationality and cultural lines.

Based on the points discussed above, it seemed worthwhile to investigate attitudinal similarities and differences about some women's educational issues between Iranians and Americans of similar social class and educational backgrounds. The study which follows represents a beginning exploration in this area. It is organized as follows: Chapter I deals with some background about women in Iranian and American societies and with how women's roles and education have been traditionally viewed in these countries. Chapter II presents a review of the related literature. Chapter III contains a description of the methods and pro-

cedures employed. The final Chapter (IV) contains a summary of the results and a discussion.

Chapter I. Background on Women's Status in Iran and America

Ancient Iran

People interested in women's status in ancient Iran (559 B.C. - A.D. 642), can find hardly any information about women and their socio-economic activities. This fact indicates that society in ancient Iran was absolutely male dominated. It is obvious, however, that women's status in Iran was similar to their status in other clan, slavery, and feudal systems of the world. Women in Iran suffered from the same social and economic exploitation as did women in other parts of the world. During all of the ancient history of Iran, there is no indication what women trained for jobs or received any kind of formal education. One can assume that the only female training which took place in this period was the teaching of domestic activities. Mothers presumably taught such activities to their daughters, since domestic work would be the major occupation in the homes of their future husbands.

In the lower social classes, women had to work with men in order to provide life's essentials. In the higher social classes, they were used as sexual objects for men's desires and for entertainment purposes. A feudal system gradually developed during the Achaemenid Empire (550-330 B.C.) in Iran, but still the society was based on slavery. In this period, women in the ruling class had to cover their bodies. This was not true of lower class women, mainly because they had to work for a living. For instance, the work condition of the maid servants did not allow them to cover themselves (Afsharnia, 1978). The existing system in ancient Iran required ruling class women to stay home and manage the household and its staff.

These women were not allowed even to go out alone. According to Zoroastrian religion (Iranian ancient religion), women had the same kind of value as home furniture, food, and horses. (The king, of course, had his harem and the number of women in the harem corresponded to the number of days in a year.)

Having male babies was of particular interest to Achaemenian rulers because the boys were in their father's service and later were used as soldiers in the wars. Poor families' daughters were used as slaves and sometimes they were given to the local government as tax payments by their families (Niazmand, 1941). Marriage among immediate family members (brothers and sisters) existed especially in the ruling class. (This was also true for other ancient eastern countries like Egypt.) The reasons behind this practice were mainly economic and political (Ravandi 1966). However, marriage within the immediate family was not so popular among lower classes, chiefly because families had no big wealth and power to maintain.

During the Parthian period (171 B.C. - 224 A.D.) of Iranian history, feudal and slavery systems were in effect. Polygamy became widespread during this time. Its effect was to exploit women by placing them in the service of the rulers and aristocratic men. Among his several wives a husband had one main wife (official wife) and several fellow-wives (unofficial). The main wife had very limited rights against the husband, but the others were virtually deprived of any rights at all (Afsharnia, 1978). Marriage among the immediate family of ruling members was in peak popularity at this time. In the homes and places of the wealthy and ruling classes, there were special rooms and quarters for women (Naghavi,

1971). This probably indicates that women were isolated within their own high social class. Unfortunately, there is very little information about the social and economic condition of the masses. Most information is about "royal" and other high social class families. However, there is agreement among historians that polygamy was not exercised among low class families, because the man in this class could hardly afford even one wife. As a whole, one can conclude that class exploitation of women by men was a common occurrence in every social class. Undeniably, women had very little role in social and economic activities of this patriarchal society.

In the next period of Iranian history, Sassanian Empire (A.D. 226 - 641), a feudal aristocracy continued. Selling slaves was still popular but the slaves were no longer the main productive force. According to the author Bartolome (1924), women were still deprived of any legal rights. Polygamy remained common, and each man could have as many wives as he could afford. While ruling class men had many wives in their harems, most of the low social class men still could not afford even one wife. Bartolome (1924) also pointed out that in the Sassanid era the husband could give or loan his wives to any other man. This was done in exactly the same way that he might lend some of his other belongings to somebody else. If the woman became pregnant from the temporary husband, the baby belonged to the permanent husband. The temporary husband was responsible only for the woman's daily expenses. This kind of marriage was popular among the second social class of this era -- the merchants. Marriage within the immediate family continued to be popular among the high class.

One of the most significant events in Iranian history was Mazdak's

uprising (A.D. 624). This revolt occurred when the injustice and exploitation of the masses by the Sassanid kings were greater than ever before. Mazdak and his followers were against feudalism or any class exploitation. They advocated freedom for women and opposed polygamy. Their motto was brotherhood and equality for everyone, including women (Navabakhsh, 1978). One of Mazdak's intentions was to free the king's harem and let the women lead natural lives equal to the men in society. Surprisingly, after "Anowshiravan the Just" bloodily suppressed Mazdak and his followers in battles which claimed one hundred thousand lives, Mazdak's wife, Khurramak, was able to escape and continue her husband's movement.

Arab Domination

During the end of the sixth century, Islam started to develop in the Arab world. The Iranian extension of Islam occurred about A.D. 642, and after this Arabic domination one can find even less about women than before. This very fact is an indication of women's inferiority and their passive roles in the Iranian Moslim society. In this feudal society the kings (who were exempt from any meaningful activity, thinking, and responsibility) didn't do anything except keep themselves busy in their harem. The veil, which was originally prevalent among ruling class women, gradually became popular among the ordinary people as well.

With time, the social condition of women worsened, primarily because Islam itself was an outgrowth of a male dominated social structure. In this system, the harshness of life left no chance for women to compete with men. Prejudice toward women became so serious that in war time men preferred to kill their wives and daughters to prevent them from becoming the enemies' captives. According to Afsharnia (1978), in the era after

Arab domination, even poor women were removed from productive life. Only in northern Iran, where water was plentiful and society had to use all its human power to produce agricultural products, were women still active on working farms. Also, during this period, isolation of the affluent city women became so extreme that they could not go out to the public baths or participate in religious ceremonies without being covered. Often the covering was so thorough that they could hardly see where they were going. Usually these women stayed at home and learned to entertain themselves. One such entertainment included parties in which they spent their time in gossip or in superstitious activities or watching the wealthy women show off their jewelry (Parsa et al., 1967). However, it should be pointed out that there was a gap between city women who were from high and middle classes, and village women who were mostly from low class families. In villages women were not completely isolated from the society. Most of them had to cooperate with their husbands to provide essentials.

Clearly, the condition of women worsened during the period of Arab domination, which lasted about two hundred years through different Iranian dynasties. The values and rules of Islam remained in Iranian society until the twentieth century (Falsafi, 1968). Devaluing women as a productive part of the society strengthened as the centuries wore on. Obviously, reflection of this condition can be found in the books left from these centuries, where almost no indication of women's conditions are given. Like before, kings enjoyed their lives with beautiful girls who were sent from the rulers of different provinces. Prejudice toward women was so severe that most parents urged their daughters to marry when they were still children because they were afraid that kings would take their

daughters into the dreaded harem.

The Recent Past

The same situation continued in all of the nineteenth century and early twentieth century, which was the period of Qajar dynasty. However, a very significant event happened -- a "constitutional revolution" which shook the roots of the Qajar's regime. With the rise of this constitutional revolution (1905-1911), large numbers of women were drawn into the movement. Even though women were customarily excluded from actual combat, they participated in the revolution by carrying the news in crucial situations and sometimes in the battlefields. After the revolution, women realized what crucial roles they could play if they broke the restrictions surrounding them, and led more active roles. For example, they helped to establish the National Bank, which prevented the government from borrowing money from foreign countries (Afsharnia, 1978).

Another result of this increasing awareness, was the first women's Iranian newspaper which began publication in 1909 with the name of Danesh, or knowledge (Royanian, 1979). In 1911, for the first time in Iranian women's history, a meeting was held in Tehran to discuss women's issues, including education (Rice, 1923). According to Elwell-Sutton (1941), in 1911 there were 76 elementary schools for boys with 8,344 pupils and 47 girls' elementary schools with 2,187 students. In addition, there were two secondary schools for boys with 154 pupils, but none for girls. Although some religious people opposed education for women, the number of women's schools increased. As a whole the status of women in Iranian society was improving, but still women lacked some very basic rights.

Between 1906 and 1926, ten women's organizations (and publications) began in several major cities around the country. These organizations advocated the extension of democratic rights to Iranian women. They were also instrumental in the establishment of primary schools, high schools, and adult-education classes for women (Royanian, 1979).

A meeting of the Oriental Feminine Congress held in Tehran in 1932 called for the right of women to vote. It also insisted upon compulsory education for boys and girls, equal salaries for men and women, and an end to polygamy (Smith et al., 1971). The women's movement was growing in momentum. From the inception of Tehran University (1935), women were admitted. Another victory occurred in 1936 when a law was passed strictly forbidding wearing the veil. (Of course, this law did not last very long and this situation was changed because government power switched from one person to another and the country was not effectively controlled as before. But from 1941 to 1953, Iranian women flourished.) One of the outstanding women of this period was Fatemeh Sayyah (1902-1948). A writer and journalist, she was the first Iranian woman to become a professor at Tehran University and was also the first woman to represent Iran in the United Nations. The women's group with the largest membership was the women's organization of the Tudeh Party. This organization was established in 1944 and its organ was a monthly journal called Bidariye Ma (Our Awareness) first published in July 1944. This and other organizations and journals played an important role in raising the consciousness of Iranian women.

Attitudes Toward Women in Contemporary Iran

Despite twentieth century changes in women's status, the Iranian female is still suffering from a lack of social and economic rights. The inferior status of the girl starts from her birthday and is carried out through all her life. This has a great effect in shaping women's personality characteristics. Even today the birth of a girl in many families is regarded as "bad luck." In more educated families, relatives try to hide their embarrassment and show some sympathy toward the mother as if a "disaster" has happened. In traditional families "the problem" becomes more serious. In some cases a husband has been known to divorce his wife just because she has had a baby girl.

In many parts of Iran, parents do not consider a daughter as an "individual." For instance, the 1966 national census noted that many families in villages did not report their girls, as if they were not human beings (Arzeshyabie tozie jamiat, 1971). In the same census, the number of the boys reported was much higher than the number of the girls. A more recent census (1976) indicated that 51.4% of the population was male (Nyrop, 1978). Whether these census results come from failure to report some girls is not clear. Since male infants receive a more adequate diet and better care from parents, their chances of survival are better. As children, girls usually stay at home with their mothers while boys play outside. Especially in villages, girls grow up under the tight control of their mothers, while boys go out with their fathers and learn agricultural and other activities. Parents teach the "proper" games to their girls and boys. Nategh (1968) explains the effectiveness of games in boys' and girls' lives:

The constructive games of the boys will stimulate their curiosity and help them to be more creative. Having more freedom, playing in the streets will familiarize the boys with good and bad aspects of the society. When boys start to pay attention to books and poems, the parents have their daughters play with a "dead doll" at home. (p. 16)

In Iranian families, girls are always taught to listen to what their fathers and brothers say. The idea and the reality of submission takes shape in Iranian women's minds from the beginning of their lives in their parents' homes. A boy can go anywhere and do anything he wishes; girls should seek permission from their fathers. Later, when they marry, women will expect the same authority from their husbands.

Girls grow up with the idea that their ultimate aim in life is to get married and have children. Since a girl has been taught that her main job is catching a desirable husband, she spends most of her time making herself "beautiful." Ideally, she is to become just like a colorful doll. In addition to "beauty" there is another factor which is very important and that is virginity. She should remain "untouched" before marriage, and the laws even protect the man in this respect. If the bride turns out not to be a virgin on the wedding night, the husband can "return" her to the father (i.e., refund her) unless he has known about the "problem" in advance. In some cases, especially in small cities and villages, "the sin" is so great and unforgivable that the father or brother of the girl kills the "sinful" woman to wash the disgrace from the family's reputation. In many places it is a custom that the groom's mother should see the naked body of the girl before the wedding in a public bath to ensure that the "goods" are in sound and perfect condition.

Sexual behavior itself in Iranian society is an interesting and com -

plicated subject for study. It is very common for men to have premarital sexual contacts. A young man usually wants to be "friends" with as many women as possible; yet, when he gets married he will look for an "untouched" young woman who has never had a boy friend. This is even true for educated and "intellectual" men in the society. Typically, young men talk proudly about their pre-marriage affairs and openly about tricking girls into intimacy. The social value of a woman in this society continues to be in her husband's position and in the children she produces. A woman who remains unmarried is considered a "miserable creature"; the social pressure on a woman to marry and have babies is so great that not being married or not having children is one of the major nightmares a woman has throughout her life. If a married woman doesn't have any babies, in many cases the husband will divorce her. Most Iranian females are being raised with the idea that they must live with any misfortune or misery that they might encounter in their husband's home. An Iranian woman knows from her childhood that she should listen to her father and brothers and later to her husband, and she should never complain. There is a proverb in Farsi that says, "a girl should go to her husband's home with the white wedding dress and come out in a coffin in which her body is wrapped in white clothes."

Apparently, the law is based on male domination in every aspect of women's lives. The Civil Code authorizes a husband to divorce his wife anytime he desires. Another article specifies that only the husband is the head of the family. Article 117 states that no wife may hold a job or have a vocation without her husband's permission. According to article 1169, in case of separation, the mother can keep a son until the age of two and a daughter until seven, after which the children are to be given

to the care of their father ("Women," 1971). It was in the late 1960s that the exercise of polygamy became difficult because of a new law for "protection" of the family. The permission of the first wife became necessary for the husband to marry another woman. However, the Islamic Republic of Iran cancelled this law in the new Constitution of 1979. Polygamy can again be done with no problem at all.

Most of the discussion to this point has been about the attitudes of people toward women in urban areas. Living conditions of women in rural areas have some differences from those of city women. Village people are more strict about women than city people. Behrangi (1969), a writer and a noted teacher in several northern Iranian villages, describes male/female relations as follows:

Villagers are very prejudiced toward women, because male/female relations are very restricted. In school if a teacher asks a boy's mother's or sister's name his face will turn red. He has learned from his father and other villagers that he should never say his mother's or sister's name to strangers.

The groom will see his bride for the first time on their wedding night. Many times even a small glance at someone's wife or daughter by a stranger would cause a big fight. However, the village women are the hardest working people. They work in the fields and homes. The relationship between men and women in villages is based upon the assumption of a disloyalty, her dullness and mental disability. Village women should not be seen in public (other than work places). She should be scared of her husband and should always be submissive to him. The man has the right to hit her and throw her out of the house, but she doesn't have any right to complain about it to her family. She should suffer all these injustices in order to prove that she is a "good" wife and is loyal to her husband.

A girl as early as two years old has to wear a veil and avoid strangers. She should learn not to talk too much in the presence of her father or brothers and also eat less in front of them. When there are some guests at home she

should not talk at all and should stay out of sight as much as possible. She should stand up when her father or brothers come in and wait for their permission to sit down. She shouldn't start eating before they do. In short, she should copy her mother in every aspect. These are the villager's "polite" social habits. They cannot be easily reversed just by talking and giving some wise advice. (pp. 95-96)

Women in Iranian Language and Literature

The language and literature of a nation is a good reflection of its social norms and traditions. Idioms and proverbs in Farsi, which are rooted in the nation's traditions throughout the centuries, are good indicators of how women are perceived by the nation. In many families, calling the wife's name in front of strangers is considered to be inappropriate. Many men call their wives "home" or "children's mother" or simply name her with their oldest son's name like "Ali's mother." A woman is not supposed to call her husband by his first name.

Idioms like, "if you are a man ...," "promise like a man ...," and many other referant male idioms are very commonly used by people. Iranian literature, both old and contemporary, is filled with such "male dominant" phrases and proverbs. The people use them very extensively and they are part of their beliefs.

Women's Status and Education in Contemporary Iran

Girls and boys, depending on their socio-economic class, differ in the education they receive. The acute shortage of educational facilities, in combination with a belief that boys should be educated first, effectively excludes many girls. Girls' education is discouraged, especially by lower class people. They believe that it is appropriate for girls to be responsible for the care of younger children, for housework and in some regions

for farm work and weaving carpets. A daughter in school may be a double loss for lower class people. Not only is her education costly, her work contribution to the family is also lost. As a result, girls are less likely to enter school in the first place and more likely to drop out because of social and economic pressures. As recently as 1977, only 37 percent of the adult population was literate, and illiteracy was extremely high among the older rural people and highest of all among older rural women (Nyrop, 1978).

In villages women usually work with men. Especially in northern Iran where water is abundant, women work on tea, tobacco, and rice farms. Most of these women work for their husbands, fathers, and brothers and do not get paid. Working on farms is one of the women's family duties. Those who work for somebody else (other than their own families) make very small amounts of money for working 10-14 hours/day. In rural families a woman doesn't possess any land, cattle or sheep. In addition to working on farms, the women are responsible for taking the agricultural products to nearby villages and towns for sale or trade. Housework such as cooking, washing and taking care of babies is also a part of a woman's job. There is almost no education for girls in villages. According to Nyrop (1978), in 1972, girls made up only a small minority in rural school enrollments and this was in more advanced villages; however, illiteracy among village women was almost total.

In the cities around the country, most of the girls and boys in poor families are deprived of education. Even those boys who go to school have to drop out in the third or fourth grade to work and provide some additional income for the family. Since girls will not be financially

responsible for families, the parents in this social class won't pay any attention to their daughters' education. Most of these families come from villages to the cities to find jobs. Women in this social class leave their children with their older children and work for very low salaries in the factories or as housemaids. Overall, statistics shows that in 1972 only 62 percent of the primary school-age population was actually in primary schools, and most of these were in urban areas.

In middle class families the economic pressure is not very bad. The high premium placed on a female's virginity encourages early marriage and is an effective factor in reducing women's education. Because the girls must overcome additional social and cultural obstacles without family encouragement, few girls continue their education beyond elementary school. Those who do attend secondary school tend to drop out sooner than male counterparts. Statistics available revealed that in 1966 females made up only 34 percent of the enrollment in primary schools, 30 percent of the enrollment in secondary schools and 24 percent in institutions of high education (Smith et al., 1971). It should be mentioned that about 75 percent live in rural areas where illiteracy, especially among women, is extremely high (Rad and Asi, 1972).

In higher class Iranian society, girls usually finish high school unless there is a good opportunity for them to get married, and there usually is such a chance. This social class does not encourage girls to continue their education beyond secondary level education, but there are some highly motivated girls who go to the universities. Generally, the female population in school beyond elementary level majors in domestic studies. Boys are given greater access to technical and scientific

training, while girls are restricted largely to these domestic courses. Female enrollments in schools of all kinds edged upward during the early 1970s, and by 1976 some 42,789 women were enrolled in institutions of higher education, constituting more than 28 percent of the student body (Nyrop, 1978).

The number of working women in Iranian society is not so impressive. According to the national census of 1966, 13.3 percent of all employed persons in Iran were women. The census indicated that 125 women out of every 1000 women worked. In agriculture 11.4 percent of the labor force were women. Knitting industries contain 72 percent women. Of course, rug industries were categorized in this section, and most women workers were involved in the rug industry. In the same census women composed 27.2 percent of the social services, 22.2 percent of the wood and cotton industries, 18.3 percent of the sewing and shoe making industries, and 12.3 percent of the food industries. Generally, 66.2 percent of the employed women in rural areas were involved in agricultural activities and rug industries; only 4.7 percent were involved in educational services; and 1.4 percent were in medical. From the population of unemployed women 73.2 percent were housewives, 7.6 percent students, and the rest were either retired or disabled (Rad and Asi, 1972).

In 1970, the Ministry of Education employed nearly 40,000 women as schoolteachers and administrators, mostly at the primary and secondary levels (Smith et al., 1971). According to Nyrop (1978), by 1972 some 47 percent of those in the public general secondary schools were women. The numbers of professional women by occupation were: 86,399 civil service workers; 248 dentists; 316 lawyers; 350 engineers; 20,101 nurses and mid-

wives; and 793 physicians (of a total of about 10,000). These statistics show that more women are participating in the labor force than ever before in Iranian society's history. However, the education of women needs to be emphasized, further and there also needs to be a movement toward the liberation of Iranian women.

Women in American History

The contributions of women in American history have been neglected until recently, when there has been greater interest in women's issues. American history begins from the time of European settlement in this part of the world. These people tried to establish a stable society based upon the English model. Clearly, in each new settlement the ideals and values of the society were of English civilization. In the colonial period there was a marked shortage of women. This sex ratio enhanced the colonial woman's status and position as compared to their European sisters. Women had an active part in founding the colonies. Work for women, married or single, was regarded as a civic duty. But married women did not work as much as single women because they were expected to help their husbands in their trade. The entire colonial production of clothing and partially that of shoes was done by women. In addition to these domestic occupations, women were found in many different kinds of employment.

Colonial society as a whole was hierarchial, and rank and standing depended on the position of the man. Women did not play a determining role in the ranking pattern; they took their position in society through the men of their own family or the men they married. In other words, they participated in the social structure only as daughters and wives, not as

individuals (Lerner, 1976). The women's occupations were designed to contribute to family income, enhance their husbands' business, or continue such businesses in case of widowhood. Women's inferior and subordinate positions were reflected in the society's willingness to exclude them from political life and educational practices. These European biases had been brought by settlers, so attitudes toward women during this period remained traditional and differed little from those of contemporary Europeans (Spruill, 1938).

Later in the colonial period, the status of women in the society grew worse. Married women in particular suffered under numerous legal and social restrictions. Then access to professions was closed. Illiteracy was very high, and according to Friedman and Shade (1976), as many as two-thirds of the women in sixteenth century New England were unable to write their names. In the seventeenth century, women's literacy improved, but even at the end of the colonial period female illiteracy was quite common.

During the Revolution, American women played a great helping role. Yet the revolt brought little change in women's status or in men's attitudes toward women. In late eighteenth century most women journalists were writing articles about the role of woman in society and the sort of education that young girls should obtain. These women thought that the proper female education was the one avenue to independence. They were also critical of those parents who pushed their daughters toward early marriage and dependency. Obviously, these women were under attack by many other journalists who were insisting that intellectual accomplishment was inappropriate in a woman and that the intellectual woman was not

only invading the male province, but must herself somehow be masculine. There was a dominant belief in the early Republic that women belonged in the home. At the end of the eighteenth century when coeducation became more popular, women's education was perceived as a means to raise children, not to draw the intellectual contributions of women. Rush was one of the educators supporting this idea.

During the eighteenth century, many young women attended dame schools, particularly in New England. These schools were private establishments run by women (Derryck, 1979). However, female attendance in schools varied from one region to another. In the south, upper class girls were usually educated by private tutors. Southern girls mostly were expected to be proficient at needlepoint, embroidery and French.

In the period before the Civil War, the states were concerned with establishing publicly supported elementary schools. Therefore, the educational opportunities for girls were gradually expanded; more private schools were started in the states and some attempts were made to educate those who couldn't afford tuition to these schools. For instance, Emma Willard, who trained teachers, made grants in the form of loans, which were repaid by her pupils after they found teaching posts. But this was not the real solution to the problem. Although teaching was the first profession open to women, they had little training and their prestige was low. Thus, they could not demand salaries like those of men who were often college or university graduates. The Willard Association for the Mutual Improvement of Female Teachers, founded by Mrs. Williard in 1837, was the first organization to bring this matter to public attention (Flexner, 1977). The curriculum offered in this institution was not entirely com-

parable with what was offered to young men at Harvard and other colleges. The first institution which offered women a curriculum comparable to that available to men on the college level was Oberlin, which was founded in 1833 in the state of Ohio.

The attitude toward women's education was that it should not go as far as men's education. Instead, it should provide mother care for future generations. If women became lawyers, ministers, or politicians, the home would be neglected. So the Oberlin education was for the purpose of providing intelligent motherhood and proper wifedom. This attitude toward women's education was widespread during this period. The only institution which did not make such claims at that time was Mount Holyoke, founded in 1837. It is now generally regarded as the oldest women's college in the United States. Mary Lyon, founder of this school, established certain fundamental principles such as: an adequate financial endowment; availability of education to girls from all economic groups; preparation of students for more than homemaking or teaching (Flexner, 1977).

As was mentioned before, women's occupations were very restricted. The only fields in which professionalization did not result in elimination of women from the upgraded profession were nursing and teaching. Both were characterized by a severe shortage of labor. These were considered as low skill, low status, and low pay jobs. Generally, nursing was regarded as simply an extension of the unpaid services performed by the housewife. Professionalization of teaching occurred between 1820-1860, a period marked by a sharp increase in the number of women teachers. The

spread of female seminaries, academies, and normal schools provided new opportunities for the training and employment of female teachers. There were some other reasons for increasing the number of women teachers too. One was the fact that they did not demand the salaries of male teachers in either the public or private sector. Another was the belief, popularized by Henry Barnard and Horace Mann, that women were "naturally" better teachers of young children than men (Derryck, 1979). The wage differential between male and female teachers was 30-50 percent. However, in 1888, 63 percent of all teachers in the country were women, while the figure for the cities only was 90.04 percent (Marr, 1959). There was one other field in which women's labor was appreciated and that was industry. American industrialization, which occurred in an underdeveloped economy with a shortage of labor, depended on the labor of women and children. Men occupied agricultural work and were not available for working in the factories.

The nineteenth century was the era of significant improvement in female education. Two major factors were probably responsible for this progress. One factor was a compulsory education law. In 1852, Massachusetts instituted coed compulsory education for children between eight and fourteen years of age. The youth had to attend school at least six consecutive weeks and a minimum of 12 weeks in a year. The second factor was sex integration. The schools were sex segregated before according to European tradition. For the first time, nineteenth century women were allowed to study in the universities beside men. Iowa in 1858 was the first state university to accept women.

These opportunities were just for White women. Most Blacks had

difficulty in getting any education. In some southern states, it was illegal to teach a slave or a free Black person how to read. According to Flexner (1977), Negroes were taxed in Ohio in the 1840s to support "public schools," but their children could not enter them.

The nineteenth century was also a turning point in the woman movement. It was during the abolition movement that women first learned to organize, to hold public meetings, and to conduct petition campaigns. As abolitionists women first won the right to speak in public, and they began to evolve a philosophy of their place and basic rights in society. The two movements -- to free the slave and liberate the woman -- nourished and strengthened one another. American feminism in the 1830s and 1840s was a small organization compared to the later movement. The first organizational result of the woman movement occurred when a woman's rights convention was called in Seneca Falls, New York, in 1848 (O'Neill, 1976).

On the suffrage issue in 1870s and 1880s, the women's movement showed considerable vitality. Women's organizations as before helped the freed Negroes who faced tremendous difficulties in a predominantly White society. Negroes were illiterate and unskilled. But there was rapid progress in educating Blacks. Secondary and college educations as well as elementary schooling were provided for Blacks. Also in the late nineteenth century, the number of women working in jobs other than housework increased rapidly and steadily. College and professional women also increased in numbers. In 1889-90, a little more than 2,500 women had taken a bachelor of arts degree. The number of teachers of all kinds had risen from 90,000 in 1870 to 250,000 in 1890 (U.S. Dept. of Labor, 1947).

Early twentieth century American women were living under different circumstances compared to their nineteenth century counterparts. This country was headed toward industrialization and urbanization, through these changes the position of women altered more drastically than that of men. There were many women workers in industries and teaching occupations. Another growing field for women was office work. Expanding corporate business required more than the old-fashioned bookkeepers. Women college graduates were few in number compared to women workers, but they were growing. According to the U.S. Office of Education, a total of 5,237 women graduated from higher education institutions (as compared to 22,173 men) in 1900 and in 1910 the number rose to 8,437 (as compared to 28,762 men). The number of women students improved throughout the twentieth century, despite discrimination in educational opportunities.

Women workers were growing in numbers too. In 1970, there were thirty-five million women in the U.S. labor force. In 1972, median weekly earnings for men at all age groups and of all races were \$168, compared to \$106 for women (U.S. Census, 1973). The women's movement has made more progress in the twentieth century than earlier, but it still has a long way to go before liberation is achieved. Educated women are the most responsible group in leading this movement, and it is also true that this group is the most frustrated, because they still suffer from existing sex inequalities in the society.

Chapter II. Review of Related Literature

Women's roles were focused upon where data was available. For this purpose, related literature was reviewed concerning research which has been done in women's education and attitudes toward women's roles. To present this part, first, the attitudes of both sexes toward women, their roles, education, and consequently their occupations will be reviewed. Second, the roles of early socialization and education system in shaping these attitudes will be demonstrated. Third, the efforts which have been made in changing the sex-role attitudes and understanding women's new roles as individuals and their effects will be discussed.

Attitudes Toward Women's Roles and Education

Every society has a set of ideas about what people are supposed to believe and how they should act. Each person in a particular society regarding her/his sex knows how she/he should behave. These learned behaviors and attitudes develop in relationship with other people. Many sociologists have pointed out that there are no real differences between the sexes; apparent differences are the result of the individual's interaction with the social environment (Foxley, 1979). There are highly significant differences in socialization of boys and girls according to the children's gender. Early socialization takes place in the home in relationship with parents, and the socializing agents in the home play a great role in shaping the sex-role attitudes in children's minds. These are going to be discussed later in this paper.

Investigation into modifying sex-role standards and attitudes toward women became important among researchers because of the critical impact

that these attitudes have upon women's socialization and development. The sex-role stereotypic characteristics for girls, which are taught through socialization channels, are dependency, submissiveness, passivity, responsiveness to the others needs, and emotionality. In contrast, boys are considered to be dominant, aggressive, creative, unresponsive, and less emotional (Foxley, 1979; Freeman, 1978; Broverman et al., 1970; Frazier and Sadker, 1973; Weinreich, 1978; Lobban, 1978).

A stereotypical message is constantly available to the children and parents from different sources, including fiction and media. The message is very clear. Women are housebound, preoccupied with domestic materialism and personal adornment (Weinreich, 1978). In many studies it has been shown that any media, especially visual media, enhance the stereotype sex-role characteristics of women. Women are presented as primarily decorative and dependent on males.

It has been demonstrated by many researchers that feminine characteristics are viewed negatively by both sexes and masculine characteristics are considered "desirable" in adults. Broverman et al. (1970) studied forty-six men and thirty-six women. A set of 122 bipolar adjectives was used for describing behavior traits or characteristics such as, "very aggressive ... not at all aggressive." The respondents were divided into three groups. One group had to choose the adjectives associated with "mature, normal, healthy adult man." The second group was asked to do the same for a "mature, healthy adult woman," and the third group was asked to do the same for a "healthy, mature adult person," sex unspecified. The result indicated that men and women did not differ from each other in their descriptions of men, women, and adults, sex unspecified. The

concepts for a healthy man matched the conceptions of a healthy adult. But they were significantly less likely to consider the healthy women as having the characteristics of healthy adults. Respondents viewed healthy women differently from healthy men, specifically as being submissive, more emotional, subjective, passive, easily hurt, dependent, home oriented, tactful, more excitable in minor crisis, and more easily influenced. Broverman in his conclusion describes the difficult position of women:

Acceptance of an adjustment notion of health, then, places women in the conflictual position of having to decide whether to exhibit those positive characteristics considered desirable for men and adults, and thus have their "femininity" questioned, that is, be deviant in terms of being a woman; or to behave in the prescribed feminine manner, accept secondclass adult status, and possibly live a lie to boot." (1970, p.6)

There is a conflict between achievement motivation and feminine stereotype for females. If a girl chooses to be independent and assertive, she is rejecting the appropriate behavior for her sex. Horner (1969) explains this conflictful position about the college woman. She says that the college woman is worrying about both success and failure. Her success means that she has rejected the social expectations concerning the female role, and if she fails, she has not lived up to her own standards of performance.

A good deal of research indicates that women have greater need for social approval than do men. It has been found that decline in career commitment in high school girls is strongly related to the girls' feelings that their male classmates do not approve of the girls who use their intelligence (Bentzen, 1966).

Attitudes regarding appropriate role behavior are responsible for the choices of educational and occupational goals women make. Women's choices are influenced by social considerations (Foxley, 1979). Psathes (1968) attempted to determine the factors influencing women's choices of education and consequently career. He identified a strong relationship between sex-role and occupational role. Also, he found that marriage and husbands' attitudes influenced women's choices. Indeed, marriage and childbearing have traditionally been considered sufficient reasons for women to terminate their schooling, though the parallel roles for men (husband and father) did not, in general, preclude a man from continuing to be a student as well (Van Dusen & Sheldon, 1976). A national survey (Campbell, Converse, and Rodgers, 1975), has shown that the proportion of unmarried women who report attending school (61%) was twice as high as that of married women attending school (29%). But the proportion of unmarried men in school (47%) was virtually identical to the proportion of the married men in school (48%). In answer to the question of why they had terminated their formal education when they had, almost half of the women referred to their marriage. This response was far less common among married men.

In another study, Kirklin and Cosby (1974) investigated the degree of the relationship between adolescents' marital plans and educational expectations. The data were obtained from a three wave, six year panel of nonmetropolitan Southern male and female youth. This study includes comparable data from the states of Texas, Louisiana, Mississippi, Georgia, Alabama and South Carolina. Wave I data were originally collected in 1966-1967 when the subjects were high school sophomores. Wave II data

were collected two years later when the majority of the youth in the panel were in their senior year in high school. Additional information was collected (Wave III) in the Summer and Fall of 1972, when most of the subjects were four years beyond their expected date of high school graduation. The resulting panel consisted of a total of 1,228 respondents. The method of data collection was interview. A common set of questions was utilized in the various interviews at each of the waves and across the states. This repeated measurement of variables focused on the youths' orientations toward such critical life areas as occupational plans, educational plans, and marital plans. The results indicated a priority of marital plans over educational expectations in females. Women in the study chose marriage and possibly motherhood as their major goal. Men tended not to think they needed to sacrifice one area for the other. Thus Kirklin explains, "When these two divergent patterns are taken together, the most apparent, parsimonious explanation would be that of differential socialization by sex and the learning of traditional sex-roles that stress marriage and motherhood at the expense of educational and occupational attainment for females " (Kirklin and Cosby 1974, p. 11).

Another influential factor that should be under consideration is women's perceptions of men's attitude toward their roles, education, and careers. In an attempt to estimate college women's perceptions of men's attitudes, Bem and Bem (1970) found that college women believe that men desire passive women who place wifely and familial duties ahead of their goals and consider their personal and professional development as unimportant. Now the question which arises here is whether women's perceptions of men's attitudes are accurate. While one may not have any doubt

that women learn their expected sex-role during the socialization process very well -- and a lot of research supports this -- Kaplan and Goldman (1973) have tried to determine the accuracy of these perceptions. Their results showed that females' beliefs about the attitudes of the average man toward the role of women are far more stereotypes than men's attitudes are in fact. Therefore, they concluded that if women are choosing their occupations on the basis of what they believe men think, then they need more accurate information about men's attitudes.

There are, however, signs of changing attitudes in both sexes toward women's roles. Society is now in a transition period, where women are attempting to strike a balance between their own roles and men's roles. Mason, Czajka, & Arber (1976) used five sample surveys to analyze changes in women's sex-role attitudes during ten years (1964-1974). These researchers noted considerable change in women's sex-role attitudes since the mid-1960s. There was sharp decline across this decade in the proportion of women believing that maternal employment is harmful to children's well-being. The structural attitude presented by educational attainment and employment experience was strongly related to women's sex-role attitudes; in other words, higher education and more employment experience were associated with less traditional outlooks.

A national survey in 1975 (International Women's Year) assessed American women's attitudes toward women's roles as individuals, their education and occupations. This survey consisting of 288 questions, revealed that women's opinions vary greatly about their roles, whether their lives should be focused in the home or expanded to include activities outside the home (Bryant, 1977). One-third of the women (32%) believed

that women's roles should remain traditional and home centered. They felt that women may hold jobs outside the home but their jobs are secondary to those of their husbands. For them, the achievements of husbands are more important than the achievements of wives, and raising children is the most important job of women. In contrast, thirty percent of the women thought that every possible attempt should be made to improve women's status. These women wanted to combine homemaking with employment. They believe marriage is a relationship in which responsibilities are shared in financial as well as child and home care matters. The largest group (38%) of women felt that women's roles should change, but they were not confident as to just what changes are necessary. As expected, this survey showed that younger women to be most in favor of changing women's status and gaining equality. Sixty-six percent of women under 25 favored present efforts for change.

In a recently reported ten-year study, Astin (1978) surveyed 198,641 college students in 366 institutions across the country. He indicated that 35.5% of men and 19.8% of women at all higher education institutions think that women's activities should be confined to the home. He also reported that 88.2% of men and 96.4% of the women at these institutions believe that women should have job equality.

Cultural factors frequently are responsible for the way people think and feel. People usually operate in prescribed social roles (Newson et al., 1978). Thus, change in attitudes does not happen overnight because sex-appropriate behavior is still enforced both directly and indirectly. However, changes in women's actions and expectations tend to show

up first and most markedly among the college-educated. The most sorely conscious of the disadvantages of their sex are the highly-trained women in the areas traditionally monopolized by men. There is some evidence that mothers with college degrees tend to raise daughters with a less traditional view of female role than do their non collegiate counterparts (Zuckerman, 1977). Bowen (1978) explains that traditional sex-roles are affected by college education. He reports a correlation between college and university education and a greater performance for role-sharing in marriages. Males who pursue higher education are more likely to take a more active role in house work and child care than men who do not. Bowen also reports narrowing of traditional differences between men and women. Behavioral and attitudinal patterns of women and men are getting closer to each other.

With changing attitudes, women began to recognize and analyze their problems, and question the roles that have been traditionally expected of them. In this process, some of the hidden issues like sexual harrassment are revealed. Several surveys show the widespread nature of this issues. The "Sexual harrassment: a hidden issue" (1978) reported that 88% of the respondents said they had experienced sexual harrassment on the job. Thirty-three percent of those reporting sexual harrassment tried to ignore the unwanted attentions. In 75% of these cases, the harrassment had continued or become worse. One quarter of the women who ignored the sexual propositions received unwarranted reprimands from their bosses or had their workloads increased.

Early Socialization and the Educational System

Studies show that most of the problems that women are dealing with (like role concept, self-esteem, dependency on males for identity, and fear of the consequences of success and achievement) stem from early socialization (Khosh, 1977). Children in the stage of early socialization learn a set of ideas that exist within society. Parents verbally and consciously teach their children how they should act and what is "normal" in beliefs and behaviors. The child internalizes society's standards and believes that certain types of behaviors are natural and correct. The shaping of the child's mind and attitudes occurs in this process.

Freeman (1978) describes the importance of parents roles:

Most parents have encouraged their children to adopt the "normal" behavior appropriate for how boys and girls should behave. Even those who claim equal treatment of their children communicate sex-appropriate expectations in ways they may not realize -- e.g., nonverbal behaviors. Children observe the different behaviors and roles (based on sex) of the parents (mother v. father). The sexual division of labor in the family promotes the separation between work that men do and get paid for and household labor that women perform and are not paid for. Such sex typing in the family tends to encourage the submission of the next generation of women to their inferior status, either in a role at the bottom of the wage-labor system and/or in the unpaid role of mother, wife, and domestic worker -- an option frequently perceived not only as inevitable but attractive as well. (p. 212)

There are several other investigations showing that children learn their expected sex-roles at very early ages. Flerx, Fidler, and Rogers (1976) found a wide range of sex-role stereotypes in 76, 3, 4, and 5 year old white middle class males and females children. They were divided into two groups. Both groups were read stories and shown numerous pictures illustrated in the books. The first group (experimental group) were read stories where both females and males were depicted as pursuing careers

and sharing household duties. The second group (control group) were read stories which showed females and males in traditional patterns. Pre-tests and post-tests were administered. Results indicated that 3-year olds were less traditional than either of the two older groups who did not differ from each other. Males expressed stronger sex-role stereotypes than did females. The children who were exposed to the first type of stories showed fewer sex-role stereotypes than the children who were read traditional stories. The results indicated that the treatment was successful in reducing sex-role stereotyping. Flerx, Fidler and Rogers concluded that the development of beliefs about sex-appropriate standards occurs between the third and fourth years of age.

Other studies reveal that preschool and kindergarten children express very stereotyped career choices. In most of the studies when children are asked about their future occupations, girls make limited choices, such as nurse or teacher, while boys choose traditional male occupations (doctor, lawyer, engineer). In a study done by Beuf (1973), the children were asked to choose occupations for the opposite sex. When the girls were asked what occupation they would choose if they were boys, it was found that the girls cited traditional male occupations. In contrast, the boys were very reluctant to even imagine what they would choose if they were girls. It was also obvious that the girls knew exactly what they were expected to choose: their choices were limited to the traditional female occupations.

The educational system is the next stage in children's social life which plays a major role in influencing goals and expectations; it also is a major source of the contacts and training that will enable them

to pursue their goals. Thus the educational system plays both a formal and an informal role in channeling individuals into certain lifework and life-styles (Van Dusen and Sheldon, 1976). In one study by Lyles (1966), it was shown that intellectually, girls start off ahead of boys. They begin speaking, reading, and counting sooner than boys; in the early grades they are even better in math. But, during high school different patterns emerge. Girls' performance on ability tests begins to decline. Indeed, male students show more I.Q. gains from adolescence to adulthood than do their female counterparts. Another study in 1975 released by National Assessment of Educational Progress showed that from ages 9 to 17, girls' academic achievement declined slowly but steadily. The data indicated that as the years in school increased, so did the distance between male and female achievement in traditionally male subjects like math and science (McGrath, 1976).

Traditionally, occupation and employment have been central factors in the male stereotype but of secondary importance in the female stereotype. For the latter marriage and bearing children have been of prime importance. In an investigation of high school students by Newson et al. (1978), sixteen-year old children were interviewed. It appeared that this basic difference (sex-role occupation) was still very much in evidence, except for a few middle-class girls with professional aspirations. Even in such cases girls were often thinking in terms of a career like teaching which would complement their role as a mother. Those girls who did not have professional aspirations hoped for jobs like secretarial or clerical posts, shop assistant positions, and hairdressing work.

These facts are indications that some schools are still reinforcing

traditional sex-roles thus these schools which should be encouraging the children to devalue traditional attitudes, are instead, reinforcing them.

Lobban (1978) argues:

The education system at present is not encouraging individuals to develop their unique potentials, it is fitting individuals to restrictive stereotypes and thereby causing damage, particularly to girls. It is time that educationalists became aware that conscious and unconscious stereotyping and discrimination occurs in the school in relation to sex-roles, and made some attempt to change these practices. (p. 61)

Transmitting the prevailing culture and its values is perpetuated by schools both consciously and unconsciously (Freeman, 1978; Gun, 1975).

The textbooks which are used in schools are one of the factors transmitting sex-roles. The messages about what is "correct" behavior for the sexes are communicated through the content. They present a picture of a world in which males are more prestigious and active than females (Lobban, 1978). In one study of American school texts ("Girls lag on tests," 1975), it was found that 69 percent of the people illustrated in these books were males and 75 percent of the stories were about boys.

Several studies showed that teachers' reactions to the students was another factor carrying in sex-roles stereotyping. Lobban (1978) concluded that the pupils' sex seemed to be an important variable in determining teachers' behaviors. American teachers not only treated the sexes differently, but also treated males more favorably. The researchers concluded that removal of sexist attitudes in teachers should be a prior goal in teacher preparation. Howe (1973) believes:

Of all the means for implementing change, I would place priority on the education of teachers, both female and male. Women teachers who begin to understand their own lives in the context of sex-role stereotyping and sex bias

are especially likely to be the most crucial agents for change. They are, indeed, closer to the ground than others in the system. Most important, the teacher is the single most powerful influence on children's school lives--more important, I believe, than textbooks or other curricular materials. (p.14)

Teachers were not the only people reinforcing stereotypical attitudes. It has been observed that counselors approached the different sexes differently too. In a research project done by Werner (1979), a sample of 300 counselor education students from 19 colleges and universities was chosen. This sample consisted of counselor education students who enrolled in schools during the Spring and Summer semesters of 1978 in 17 states throughout the country. A sex-role questionnaire was used to estimate the students' attitudes toward women's roles. The results showed that female counselors had more liberal attitudes toward the rights and roles of women in society than male counselor students.

The existence of stereotypical attitudes was clearly demonstrated in statistics released from different sources regarding the field of study that women chose in colleges and universities (and consequently their future occupations). Despite the increase in undergraduate female enrollment from 3 million in 1970 to 4.4 million in 1975 (compared to the increase for men from 4.4 million to slightly over 5.3 million), there were fewer women than men attending college in 1975. Those women attending colleges and universities continued to major in traditional women's fields. In 1975-1976, they made up 72.6% of the education majors; 64.2% of the health professions majors; 59.1% of the English or journalism majors; 48% of the humanities majors; and 44.4% of the social science majors. But more women were being attracted to the traditionally male

fields. The American Council on Education reported that 17% of women college freshman intended to become business executives, doctors, lawyers or engineers, as opposed to only 6% a decade ago. The enrollment in graduate and professional schools among women rose about 75% from 1970 to 1975, compared to the increase of 23% among men. But still women represented a relatively small percentage of graduate students in 1975: 23.4% in law, 20.4% in veterinary medicine, 7% in dentistry ("Facts about women," 1977).

Not only are women clustered in traditionally female jobs, but they also are in the bottom positions of these jobs. In 1975, H.E.W. officials reported that women comprised two-thirds of U.S. elementary and secondary school teachers but less than a seventh of administrators. In another report by H.E.W. in 1974, three percent of junior high school principals, one percent of senior high school principals, and .1 percent of local school superintendents were women (Spivak, 1975). A more recent survey based on data from 1977 showed that of the key administrative positions at all institutions surveyed on the higher education level, 79% were held by white men and 14% by white women (U.S. Dept. of Commerce, 1976).

Discrimination against women exists in other top positions too. Well motivated and well qualified women do not have equal access to the available jobs. They are more likely than their male counterparts to be unemployed or underpaid. In 1976 the National Research Council reported that there were 52.3% women with doctorate degrees employed compared to 56.1% men with doctorates, and 26.5% women doctorates were seeking employment compared to 19.7% of the men doctorates ("Facts about women," 1977).

Another more recent report by the National Research Council revealed

that women with science and engineering Ph.D.s, employed full-time, earned an average salary of \$20,000 in 1977 while their male counterparts earned \$26,000. The pattern for women and men with Ph.D.s in humanities was similar: women earned \$18,300, while men earned \$22,100 (Equal pay, 1978).

Realization of the fact that only women can change these conditions will help them to be united against these discriminatory practices. Unfortunately, the values and attitudes underlying the discrimination against women have been accepted and integrated into most women's self-concepts and consequent behaviors. Their own negative attitudes regarding their appropriate roles and behavior in society have helped to deter even the most able, intelligent, and potentially creative women (Clare, 1975). But it has been demonstrated that women's involvement in careers depends upon their education. The more education a woman gains, the more chances of her involvement in a career. The chances are two out of five that a married woman (who is living with her husband) with one to three years of college education will be in the labor force. Those chances are better than one in two if she has had four or more years of college education. If she has a doctorate or comparable degree, the chances are better than eight in ten (U.S. Department of Labor, Women's Bureau, 1973). There is no need to mention the importance of education more than has been demonstrated so far throughout this research. In addition to those materials that help women to develop an awareness and acceptance of their changing roles, education should include materials that will help them gain a better understanding of themselves as individuals, rather than as an extension of their husbands and children (Khosh, 1977).

Changing Women's Roles

Changing women's roles in society has brought tremendous efforts to press for re-examination and re-evaluation of the socialization process. Many women's groups have been organized to bring such an awareness to women. Women's groups have grown quickly across the country. These groups have struggled for women as human beings. Frazier and Sadker (1973) describe the necessity of this movement:

We understand liberation as a prerequisite for the exercise of specific freedoms. We believe it is an ongoing, continuous process that resides in a state of becoming aware of the limitations placed upon your rights and freedoms by others and then being able to reject these limitations. As a heightened consciousness, liberation allows an individual to consider herself (or himself) in relation to dynamic and changing circumstances, both real and theoretical. (p. 10)

The expansion of women's education has been the major goal of the feminist movement through either formal education systems or non-formal education programs. Women's studies have been established to provide a structure for analysis of the socialization process, and to provide a vehicle for attitudinal and behavioral change (Wheeler, 1972). In these courses which are offered in the universities, the students are exposed to the historical, cultural, and factual dimensions of sex-role stereotypes. The first program in women's studies in the U.S. was instituted at San Diego College in the Spring of 1970 (Bravy and Sedlacek, 1976). Since then the number of women's studies programs has increased rapidly. In November, 1970, there were 100 women's courses being taught nationally; in 1971 there were 600. By December, 1972, there were about 750 courses being offered on 500 campuses, and by June of the same year this number went up to 860 (Miller, 1972). Doherty (1974) feels that women's courses

which are growing in higher education are necessary for raising consciousness:

It is vitally important that programs in higher education have built into them a component that deals with the feminist movement. Working to raise the consciousness of all engaged in education concerning their values and feelings toward the feminist movement would have two large benefits. On one hand, college educators would get specific help in clarifying their own values and secondly, they would learn some strategies for helping their college students clarify their values and become better informed on the feminist movement. (p. 3)

With the offering of women's studies courses on most of the campuses, researchers began to evaluate their effectiveness in altering students' attitudes. Using seventy-seven undergraduate students (with two experimental groups and one control group) Canty (1977) conducted research to evaluate the effect of women's studies courses. Experimental groups were composed of students taking "Adolescent Psychology" and "Psychology of Women" -- two women's studies courses within the psychology department. The control group consisted of students in the "Psychological Statistics" class. The pre-test/post-test technique revealed that by the end of women studies courses, students in the experimental groups had more liberal attitudes about women's career plans and educational roles than the members of the control group. Similarly, Gun (1975) did a study to present the effects of a three session, six-hour, sex-role stereotypy workshop on the sex-role stereotypical attitudes of the participants in the workshop. There were 104 students in a teacher education institution who volunteered to participate in this workshop. In his research, Gun compared these participants (experimental group) to a control group. Students who participated in the workshop had a highly significant change in their attitudes towards women while the students in the control group

were found to have no significant change in these attitudes over the same period of time. Thus, Gun concluded that as the result of participation in the sex-role stereotypy workshop, the students became significantly more liberal in their attitudes toward women's roles and rights in contemporary society.

Although the women's studies programs have been successful in changing attitudes in most of the universities, there are some studies showing no success on some campuses. In a telephone survey of a random sample of University of Maryland students, (conducted by Herman and Sedlacek 1973), 86% of the students surveyed felt that there was a need for women's studies courses, while 57% reported that they would take such a course when it was offered. Thus, Herman and Sedlacek suggested that a women's studies curriculum should be implemented. In the spring of the next year (1974), an informal program in women's studies was established at the University of Maryland, College Park. Following this a random sample of freshman at the University of Maryland (310 females and 283 males) was chosen by Bravy and Sedlacek (1976), to demonstrate the students' attitudes toward this program. The research showed that 37% of the women, but only 5% of the men, planned to take a women's studies course at this university, while 2% of the women and none of the men in the study would major in women's studies. These results contradict the results of Herman and Sedlacek (1976). Speizer (1975), also in his research, tried to evaluate the affects of women's studies programs on the self-concept of women. The results reported in his study indicated no significant increase in positive self-concepts of women participants.

These disappointing results might be due to the structure of instruc-

tion or the reaction of the students to the teacher or some other reasons rather than to the women's studies program itself. Also, it has been demonstrated in some studies that marital status affects the results of women's studies programs. Divorced/separated women have more favorable attitudes toward these courses than married women (Wheeler, 1972). Although women's studies programs have been successful in most of the universities, Clare (1975) suggests:

In fact, I believe special programs such as women's studies or black studies are devisive. Rather than perpetuating the schisms between people, we might better incorporate the study of women into the relevant classes. Instead of a history of women course, women should be included in their rightful place in a general history course; instead of a psychology of women course, the psyches of women should be studied within the context of a general psychology course. It is a sad commentary that they were ever left out. (p. 24)

One of the programs for women which was developed in the United States after a re-evaluation of women's education was continuing education. Since many young women interrupt their education for marriage and family responsibilities (Waters, 1974), such programs were seen as useful. Most of these women return to school in their middle ages when their youngest children are in school. Consequently, continuing education programs were established in response to the needs and interests of the women returning to school. These programs helped to expand women's status in society and gave them some skills which were needed for technical jobs (Khosh, 1977). Beginning in 1960, some colleges and universities made a few efforts to encourage adult women to seek further education. In September 1960, the University of Minnesota became the first university to formally initiate a continuing education program for women. By 1968, the number of continuing education programs and services for women had

increased to more than 250, and a national organization had been founded, the Continuing Education of Women (Vetter, 1973). During the 1970s, "The International Women's Decade," continuing education has been recognized by women's organizations all over the world as a means by which women can enhance personal development and improve economic efficiency. Leppaluoto (1972) thinks these features are necessary for any continuing education program: enrollment on a part-time basis; short-term courses; flexible course hours; financial aid for part-time study; counseling services for adult women; removal of age restrictions; curriculum geared to adult experience; liberal transfer of course credits; credit by examination; child care facilities; information services; and job placement assistance. These continuing education programs can help the women to develop their potentials and personal characteristics. More attention should be paid to expansion and improvement in this area.

Chapter III. Methods and Procedures

The semantic differential technique was chosen to ascertain the attitudes of Iranians and Americans in this study because this technique permits finer differentiation than the other attitude measuring methods. Also, this approach has been used to study various groups in different cultures to determine whether meanings of concepts were culture-bound or whether the meanings were somewhat universal. To make the reader familiar with the procedure used in this study, a short description of the semantic differential technique will be presented.

Semantic Differential Technique

Semantic differential is a way of measuring "meaning variables" in human behavior. Osgood and others (1957) describe it this way:

We begin by postulating a semantic space, a region of some unknown dimensionality and Euclidian in character. Each semantic scale, defined by a pair of polar (opposite-in-meaning) adjectives, is assumed to represent a straight line function that passes through the region of this space, and a sample of such scales then represents a multi-dimensional space. The larger or more representative the sample, the better defined is the space as a whole. (p. 25)

Factor analysis has been considered as a logical tool to uncover these dimensions. When a subject judges a concept against a series of scales (or "qualifiers," to use Osgood's term), actually she/he differentiates the meaning of a concept. For example:

Concept (Family)

good -----:-----:---^x---:-----:-----:-----:----- bad

happy -----:---^x---:-----:-----:-----:-----:----- sad

fair -----:-----:-----:-----:---^x---:-----:----- unfair

each judgment localizes the concept as a point in semantic space. Osgood et al. (1957) define this differentiation:

By semantic differentiation, then we mean the successive allocation of a concept to a point in the multidimensional semantic space by selection from along a set of given scaled semantic alternatives. Difference in the meaning between two concepts is then merely a function of the differences in their respective allocations within the same space, i.e., it is a function of the multidimensional distance between the two points. (p. 26)

There are two essential properties to these points in the semantic space -- direction from the origin (quality), and distance from the origin (intensity).

Construction of a Semantic Differential Instrument

An instrument consists of concepts which are considered relevant and representative to the research study. Osgood et al. (1975) refers to the concept as the "stimulus" which causes the subject's verbal reaction (response). The nature of the problem determines the class and form of the concepts to be selected. Usually, the investigator cannot cover all the relevant concepts in a given area because of time and subject limitations, so she/he must sample. Here like elsewhere the objects of judgment should, ideally, be both relevant to and representative of the area of research interest. Empirically, the investigator simply uses "good judgment" with respect to her/his problem. On the topic of "good judgment," Osgood et al. (1957) comment:

...the investigator will usually (a) try to select a concept for the meanings of which he can expect considerable individual differences, since this is likely to augment the amount of information gained from a limited number of concepts; (b) try to select concepts having a single, unitary meaning for the individual (e.g., MY IDEAL SELF, but not CASE or BUTTERFLIES AND MOTHS), since otherwise

the subject may vacillate in what is being judged; and (c) try to select concepts which can be expected to be familiar to all of his subjects, since unfamiliar concepts for some subjects will produce a "spurious" regression toward the middle of the scales. (p. 77)

To increase the sensitivity of the instrument, a scale has been inserted between each pair of terms, so that the subject can indicate both the direction and the intensity of each judgment. For the selection of scales, there are some criteria that should be taken under consideration. The first criterion is the factorial composition of the scales. A small sample of closely related scales (qualifiers) represents each factor or dimension of the semantic space. Usually, at least three scales are selected to represent each factor, these scales being maximally loaded on one particular factor and minimally loaded on others. The second criterion in scale selection is that qualifiers should be relevant to the concepts being judged. For example, in judging painting, one "evaluative" scale like beautiful - ugly is relevant while another like fair - unfair may be comparatively irrelevant. Another criterion with regard to scale selection is their semantic stability for the concepts and subjects in a particular study. For example, high - low can be expected to be stable across a set of sonar signals but not across a set of social concepts. The last criterion is that the scales should be linear between polar opposites and pass through the origin. For instance, rugged - delicate is not linear with respect to evaluation -- both terms tend to be favorable in meaning when used separately, thus this scale cannot both pass through the origin and be linear.

To prevent the formation of "position preferences," the scales representing the same factor are varied in order and polarity direction.

The first step in the development of the semantic differential instrument for this study was determining the concepts to be included. This selection was based on a review of current literature dealing with women's issues and some numbers of questionnaires involving these issues. Of course, this was done with regard to the values and setting of Iranian and American cultures.

Women's education, which is the main concept of this study, is tied with the overall social settings of women's lives. Consequently, this concept is considered in relation with the other women's issues like career, sex discrimination, etc. The items (situations) were written in English and then translated into Farsi. Originally there were 20 situations and eight qualifiers.

Initial testing of the proposed instrument was conducted for clarity of directions, concept definitions, relevancy of certain scales, and time limitations. The 20 situations of the instrument and the eight qualifiers relevant to the concepts were reduced to 16 and 7 respectively. Also, some minor revisions were made in the concept translations. Two of the qualifiers were from Osgood et al. (1975) cross cultural study: good-bad, harmless-harmful; however, these were the only two "evaluative" concepts common both to Farsi and American English. The other qualifiers were selected on a common sense basis (and with an eye to translatability). The qualifiers were randomized on each concept in regard to both vertical placement and polarity in order to counteract any response set due to position. The revised instrument submitted to American and Iranian students is presented in Appendix A. Test-retest reliability was conducted on the subjects over a ten-week period. Pearson Product-moment

Correlation Coefficients for the sample yielded relatively stable results (Table 1). The reliabilities calculated for each of the 16 situations separately ranged from (.76-.93). The average stability across 16 situations was $r = .86$.

Subjects

For the present study, samples were needed from two different cultures, Iranian and American. For the Iranian sample, since there was no practical access to Iranian students living in Iran, it was decided to employ Iranian students attending United States universities. Most of the American Ss and the Iranian Ss were students at the same institution, a midwestern land grant university with high academic admissions standards. Both domestic and foreign students in this study tended to be from middle class backgrounds.

Females and males were included in both samples. It was found that the most accessible group of Iranian subjects was single men; the least accessible Iranian group was single women, but a modest sized group was available for this category. One of the interests of this study was to find out whether there were differences in attitudes toward women between married and unmarried students. Thus, single and married of both sexes were sampled for the two groups. The distribution of the subjects is shown in Table 2. Graduate students were included as well as undergraduates. The range of education of any type beyond secondary level was from freshmen (or something equal to that) to candidates for doctoral degrees. Ss ages ranged from 17 to 59. Table 3 shows the mean age for each category in the study.

Table 1

Reliability of the 16 Situations

<u>Situations</u>	<u>Test-Retest Reliability</u>
1	.93
2	.91
3	.76
4	.92
5	.93
6	.84
7	.77
8	.91
9	.80
10	.91
11	.84
12	.82
13	.88
14	.80
15	.89
16	.84

Table 2

Distribution of the Subjects

	<u>Iranian</u>		<u>American</u>	
	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>
Single	39	10	14	44
Married	15	16	11	14
Total	54	26	25	58

Table 3

Mean Age of American and Iranian Subjects in Eight Groups

Nationality	Marital Status	Women	Men
Iranian	Single	23.30	21.82
	Married	26.19	27.60
American	Single	20.23	20.14
	Married	32.86	27.27

Most Ss required 15-20 minutes to evaluate all the situations. One hundred Farsi translated questionnaires were submitted to Iranians and 90 English questionnaires were distributed to Americans. Participation in the study was voluntary. Eighty Iranians and eighty-three Americans completed the questionnaires.

Limitations of Study

Beliefs about the nature and proper sphere of women -- including women's education -- cover a very wide range in both the United States and Iran. To draw a truly representative sample of the many demographically possible subgroups (social, political, religious, age, educational, occupational, and regional) in both countries would be a massive undertaking -- and one beyond the scope of the present investigation. Underrepresented in this study are religious fundamentalists, political conservatives, and both lower and upper class people. Those with little formal education, and those under 17 and over 59 are not included in this sample. In other words, this sample almost certainly underestimates potential real differences in attitudes both between and within the two cultures. Despite this limitation, it seemed worthwhile to pursue the

investigation, partly to explore the feasibility of using this kind of instrument and partly because promising differences were still potentially discoverable even within this limited sample.

Data Analysis

Factor analysis. The first logical step in most semantic differential instrument development is usually factor analysis of the qualifiers to determine how many factors are present and which scales load best on each one. As mentioned earlier, there were seven qualifiers, for each situation. All seven were selected initially because they seemed likely to load on the evaluative dimension. Empirically, factor analysis made it possible to find out how related the chosen qualifiers were to the concepts and the extent to which their factor loadings were similar in the two samples (Iranian and American). A factor analysis with iterated principal axis factoring method (Mulaik, 1972) was utilized. The results across the 16 situations with the highest, lowest, and average factor loadings are demonstrated in Table 4. As the table shows, in both samples the factor loadings of the qualifiers are comparatively high across all situations except for harmless - harmful. Since this scale has a low factor loading for both American as well as Iranian subjects, it was eliminated from the analysis. The high factor loadings of the remaining six qualifiers, and the relatively small variation in loadings from one anecdotal situation to another, indicate a stable and valid instrument.

After selecting the six evaluative qualifiers, the sixteen concepts (situations) were factor analyzed. As mentioned before, in developing

Table 4

Factor Loadings for Qualifiers Across 16 Concepts by National Group

Qualifiers	American			Iranian		
	Lowest	Highest	Mean	Lowest	Highest	Mean
Reasonable - unreasonable	53	93	82	75	94	85
Good - bad	52	95	81	75	90	84
Acceptable - unacceptable	22	93	78	54	93	80
Appropriate - inappropriate	51	91	77	51	93	80
Fair - unfair	43	93	77	45	93	79
Right - wrong	45	47	80	63	95	85
Harmless - harmful	28	80	50	52	85	69

the situations the main interest was in attitudes toward women's education. But because in actuality a woman's education is not separate from other issues in her life, the situations in the instrument were a mixture of women's education in relation with other women's problems in social life. The results of this iterated principal axis factor analysis shows that this complicated concept was handled well. Factor loadings for all 16 situations is shown in Table 5. It is clear that most situations load well on the first factor. Because all fourteen of the factor 1 anecdotes involve schooling situations, this factor was named "women's education." The remaining two anecdotes both involve "career." Therefore, this factor was labeled "women's career." The common themes in both factors can be seen by looking at the situations included in the instrument (Appendix A).

Table 5

Factor Loading Across 16 Situations

Situations	Factor 1	Situations	Factor 2
S ₁	-28	S ₆	+41
S ₂	+51	S ₁₁	-23
S ₃	+29		
S ₄	-45		
S ₅	-28		
S ₇	-49		
S ₈	+72		
S ₉	+47		
S ₁₀	-30		
S ₁₂	-80		
S ₁₃	-56		
S ₁₄	-27		
S ₁₅	-70		
S ₁₆	+50		

Multivariate analysis. Individual differences have often been troublesome for researchers in the social sciences. Once an investigator has set up an experimental situation and divided her/his subjects into different treatments, she/he is faced with the important question of whether the differences between groups are really due to the treatments' effects or is it the individual variations which account for the different results. In theory random

selection of subjects from a very large population and random assignment of such subjects into the different treatments is the best way of minimizing the individual difference effect, thus allowing a more precise discussion of the "treatment effect." But in practice researchers often cannot randomly select the subjects for the study from a large population, and they have to work with the restricted number of subjects available to them. Where random assignment of Ss into treatments is not feasible, making blocks of homogenous subjects is another way to minimize this nuisance variable. As Kirk (1968, p. 131) has said: "Homogeneity within blocks may be achieved by (1) the use of litter mates or identical twins, (2) the use of tests to match subjects on relevant variables and (3) the use of a subject as his own control The last named alternative is appropriate if it can be assumed that a subject is the same when each treatment level is presented as he was at previous administrations of the treatment."

Having each subject serve as her/him own control and having her/him to see all the treatment levels is the design which was used for analyzing the data in this exploratory research study. Winer (1971) refers to this design as a multiple factor design with repeated measures. In this study, there are two classificatory factors and one factor with repeated measures. Nationality (A) is the first independent classificatory variable with two levels, namely, American and Iranian (a_1 , a_2). Gender/marital status (B) is the second independent classificatory variable with four levels: male/single (b_1), male/married (b_2), female/single (b_3), and female/married (b_4) are respectively the four levels of this independent variable. Factor B is nested in factor A. The third

variable is the different anecdotal situations (s) presented to the subjects. All situations except 6 and 11 were included in the first analysis. Questions 6 and 11 formed the basis for a separate analysis. Thus, in the first case, there is a design with two independent classificatory variables having two and four levels respectively, and one dependent variable with 14 levels (situations). In the second analysis, the same independent variables are involved, but the dependent variable, instead of having 14 levels, has only two (situations 6, 11).

Both Winer (1971) and Kirk (1968) state that one of the primary assumptions of this design is that it assumes that a subject remains the same as she/he receives the different levels of "treatment." The other requirement of the design is that a subject's responses to one treatment level (situation) should be positively correlated with her/his responses on other treatment levels (situations). A matrix of the intercorrelations between the different situations revealed that these are positively correlated.

The layout of the design for factor one (Women's Education) and factor two (Women's Career) is demonstrated in Tables 6 and 7. Tables 6 and 7 are self explanatory. All of the situations in the two factors were presented to each of the eight groups: American/male/single, American/male/married, American/female/single, American/female/married, Iranian/male/single, Iranian/male/married, Iranian/female/single, Iranian/female/married. The notation G_{ij} denotes a group which was in the i -th level of classificatory variable nationality and j -th level of the classificatory variable gender/marital status.

The theoretical model on which the data analysis of this study is

Table 6

The Layout of Factor One (Women's Education)

Dependent (repeated measures)		S ₁	S ₂	S ₃	S ₄	S ₅	S ₇	S ₈	S ₉	S ₁₀	S ₁₂	S ₁₃	S ₁₄	S ₁₅	S ₁₆	Total
C L A S S I F I C A T O R Y	MEN SIN (b ₁)	G ₁₁	G ₁₁	G ₁₁	...	...	...	...	...	...	...	...	...	...	G ₁₁	
	MEN MAR (b ₂)	G ₁₂	G ₁₂	G ₁₂	...	...	...	...	...	...	...	...	...	...	G ₁₂	
	A(a ₁) WMN SIN (b ₃)	G ₁₃	G ₁₃	G ₁₃	...	...	...	...	...	...	...	...	...	...	G ₁₃	
	WMN MAR (b ₄)	G ₁₄	G ₁₄	G ₁₄	...	...	...	...	...	...	...	...	...	...	G ₁₄	
V A R I A B L E S	MEN SIN (b ₁)	G ₂₁	G ₂₁	G ₂₁	...	...	...	...	...	...	...	...	...	...	G ₂₁	
	I(a ₂) MEN MAR (b ₂)	G ₂₂	G ₂₂	G ₂₂	...	...	...	...	...	...	...	...	...	...	G ₂₂	
	WMN SIN (b ₃)	G ₂₃	G ₂₃	G ₂₃	...	...	...	...	...	...	...	...	...	...	G ₂₃	
	WMN MAR (b ₄)	G ₂₄	G ₂₄	G ₂₄	...	...	...	...	...	...	...	...	...	...	G ₂₄	

NOTE. Factor A consists of A=American; I=Iranian; Factor B is comprised by MEN SIN = men/single (b₁); MEN MAR = men/married (b₂); WMN SIN = women/single (b₃); WMN MAR = women/married (b₄); Factor S is made up of S₁-S₁₆ = the different situations which were presented to each group; G₁₁ = the group which were categorized in the first level of variable nationality (American) and the first level of the second variable (gender/marital status). In the analysis of variance, S₁ - S₁₆ were listed from left to right in descending order of their factor loadings.

Table 7

The Layout of Factor Two (Women's Career)

		Dependent (repeated measures)	S ₆	S ₁₁	Total
C L A S S I F I C A T O R Y	A(a ₁)	MEN SIN (b ₁)	G ₁₁	G ₁₁	
		MEN MAR (b ₂)	G ₁₂	G ₁₂	
		WMN SIN (b ₃)	G ₁₃	G ₁₃	
		WMN MAR (b ₄)	G ₁₄	G ₁₄	
V A R I A B L E S	I(a ₂)	MEN SIN (b ₁)	G ₂₁	G ₂₁	
		MEN MAR (b ₂)	G ₂₂	G ₂₂	
		WMN SIN (b ₃)	G ₂₃	G ₂₃	
		WMN MAR (b ₄)	G ₂₄	G ₂₄	

NOTE. Factor A consists of A=American; I=Iranian; Factor B is comprised by MEN SIN = men/single (b₁); MEN MAR = men/married (b₂); WMN SIN = women/single (b₃); WMN MAR = women/married (b₄); Factor S is made up of S₆-S₁₁ = the different situations which were presented to each group; G₁₁-G₁₄ = the group which were categorized in the first level of variable nationality (American) and the first level of the second variable (gender/marital status). In the analysis of variance, S₆ - S₁₁ were listed from left to right in descending order of their factor loadings.

based has the form:

$$X_{ijklm} = \mu + \alpha_i + \beta_j + \alpha\beta_{ij} + \pi_{m(ij)} + \gamma_k + \alpha\gamma_{ik} + \beta\gamma_{jk} + \alpha\beta\gamma_{ijk} \\ + \gamma\pi_{km(ij)} + E_{o(ijklm)} .$$

where, X_{ijklm} = the score of person m in i -th level of variable nationality, j -th level of variable gender/marital status, and k -th level of repeated (measure) variable situations.

μ = grand mean.

α_i = the effect of variable nationality.

β_j = the effect of variable gender/marital status.

$\alpha\beta_{ij}$ = the interaction of the two classificatory variables.

γ_k = the effect of the repeated measure variable.

$\alpha\gamma_{ik}$ = the interaction of the variable nationality with repeated measure variable.

$\beta\gamma_{jk}$ = the interaction of the variable gender/marital status with repeated measure variable.

$\alpha\beta\gamma_{ijk}$ = the interaction of the two classificatory variables with repeated measure variable.

$E_{o(ijklm)}$ = the error term of the model.

$\pi_{m(ij)}$ denotes that the subjects are nested with the two classificatory variables.

$\gamma\pi_{km(ij)}$ denotes that the subjects are nested with the two classificatory factors but crossed with repeated measure variable.

(Winer, 1971)

Note that the model shows no carry over effect which is one of the major assumptions of the design. Also this model has implicit in it homogeneity of the variance-covariance matrices of the repeated measures.

The general format of the analysis of variance for the present study -- demonstrated in Table 8 -- is adopted from Winer (1971: pp. 561-600).

Table 8

Summary of Analysis of Variance

Source of Variation	Degrees of Freedom
<u>Between subjects</u>	$Nq-1$
NAT	$p-1$
GEN/MAR	$q-1$
NAT*GEN/MAR	$(p-1)(q-1)$
subjects within groups [error between]	$Nq-1-(p-1)-(q-1)$ $-(p-1)(q-1)$
<u>Within subjects</u>	$Nq(r-1)$
S	$r-1$
NAT*S	$(p-1)(r-1)$
GEN/MAR*S	$(p-1)(r-1)$
NAT*GEN/MAR*S	$(p-1)(q-1)(r-1)$
S*subjects within groups [error (within)]	$Nq(r-1)-(r-1)-(p-1)(r-1)$ $-(q-1)(r-1)-(p-1)(q-1)(r-1)$

NOTE. NAT = Nationality; GEN/MAR=Gender/Marital Status; NAT*GEN/MAR=interaction of the two variables; S=repeated measures (situations); NAT*S =interaction of the two variables; NAT*GEN/MAR*S=interaction of the three variables.

$P=2$ (the number of levels of variable nationality); $q=4$ (the number of levels of variable gender/marital status); $r=14$ and 2 respectively (the number of levels of situations)

Note that here the research is involved with a multiple variable repeated measure with unequal cell frequencies. This called for an unweighted means solution and the utilization of a harmonic mean. For more detail on the features and computational formulas the reader is referred to

Winer (1971, pp. 514-603) and Kirk (1968, pp. 131-150). It should be added that the appropriate tests of simple main effects for the significant interactions in both analysis of variance were made and the proper error term for each of these tests was derived as suggested by Winer (1971, pp. 565-568). Also the multiple comparison procedures of Tukey's Honestly Significant Differences (HSD) was used to determine where significant differences lay. The results of the analysis of variance, simple main effects and multiple comparisons of the means are shown and discussed in the next chapter.

Chapter IV. Results and Discussion

As mentioned in the methodology section, the 16 situations were grouped into two main factors for this study. Factor one involved all except situations 6 and 11; factor two dealt with situations 6 and 11. These groupings resulted from a factor analysis showing that the above mentioned situations had relatively high factor loadings for their respective factors. The first factor was labelled "women's education" and the second one "women's career."

Factor One

Table 9 demonstrates the analysis of variance for factor one. It is clear from the first part of this table (between subjects) that the main effects for the two classificatory variables, i.e., A for nationality and B for gender/marital status, are not significant (when considered without factor S -- the repeated measure or "situations" variable [$F < 1$]). Also, under the same condition, there is no significant interaction between these two variables (AB) [$F < 1$]. The second part of the table (within subjects) shows a different fact about the pattern of subjects' responses to the situations. The main effect of the repeated measures variables is highly significant ($\alpha = .01$), showing that without regard to the nationality and gender/marital status variables the subjects differ significantly in their responses to the situations. The interaction of the nationality and situations variables (AS) is also highly significant [$F = 24.72, \alpha = .01$], indicating that the two national groups responded differently to the situations. The same pattern is presented for the interaction of the repeated measures and gender/marital status variables [$F = 3.65, \alpha = .01$]

Table 9
Summary of Analysis of Variance for Factor One

SOURCES OF VARIATION	SS	df	MS	F
<u>Between Subjects</u>				
	<u>1,356,964.25</u>	<u>651</u>		
A (NAT)	37.10	1	37.10	< 1
B (GEN/MAR)	456.95	3	152.32	< 1
AB (NAT*GEN/MAR)	485.00	3	161.67	< 1
Subjects within groups [error (between)]	1,355,985.20	644	2105.57	
<u>Within Subjects</u>				
	<u>75,377.94</u>	<u>8476</u>		
S	13,238.50	13	1018.35	146.86 ^{**}
AS (NAT*S)	2,228.28	13	171.41	24.72 ^{**}
BS (NAT*GEN/MAR*S)	985.57	39	25.27	3.65 ^{**}
ABS (NAT*GEN/MAR*S)	874.95	39	22.44	3.24 ^{**}
S x subjects within groups [error (within)]	58,050.64	8372	6.93	

NOTE. NAT = nationality; GEN/MAR = gender/marital status; NAT*GEN/MAR = interaction of the two variables; S = repeated measures (situations); NAT*S = interaction of the two variables; NAT*GEN/MAR*S = interaction of the three variables.

^{**}Significant at $\alpha = .01$.

and a three-way interaction (ABS) involving all factors [$F = 3.24, \alpha = .01$].

A better understanding of the response patterns of the subjects in different groups may be gained by looking at the ordered contrasts of means of each group responding to the different situations. Tables 1 through 8 in Appendix B reveal the results of these comparisons. The multiple comparisons were made using Tukey's "Honestly Significant Differences" (HSD) test to determine where significance lay. (Table 10 shows these in a simplified format.)

The following discussion deals with some of the conclusions resulting from the significant mean differences within each group. Note that direct comparison of groups is misleading in this model because of bias introduced by a confounding in the first error terms (Winer, 1972, p. 515). Therefore, indirect comparisons based upon the "within" contrasts were analyzed because they tend to be more sensitive. The 16 situations are described in Tables 11-13. The 14 items comprising factor one are further grouped into the following categories: (1) those situations dealing with intellectual equality for women -- numbers 3, 7, 8, 12, 13, 15, and 16; (2) those where female intellectual pursuits interfere with the traditional roles of wife and mother -- numbers 1, 2, 4, 9, 10, and 14; and (3) one treating the issue of coeducation -- number 5. Factor two is composed of situations 6 and 11 and is not subdivided. The following analysis and discussion of the results will utilize the above three subdivisions or modes for factor one. Figure 1 may help the reader to visualize the response pattern of the eight groups in 14 situations of factor one.

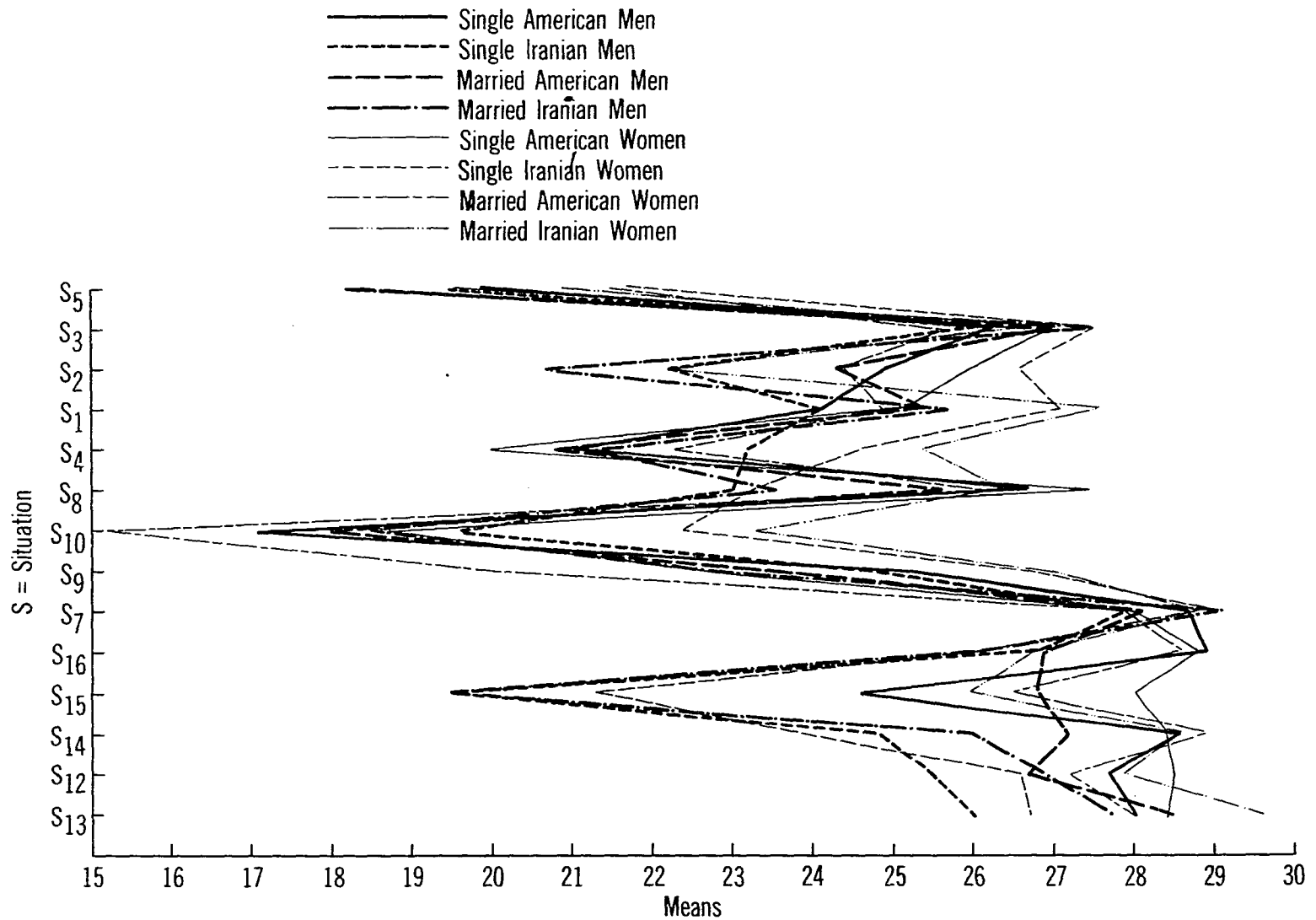


Figure 1. Mean scores of eight groups in 14 situations of factor one (women's education).

Table 10

Significant Tukey (a) Contrasts for Eight Groups in Factor One (Women's Education)

American Single Males													Iranian Single Males														
10	5	4	1	15	2	9	3	8	12	13	14	7	16	5	15	10	2	8	4	1	9	14	12	3	13	16	7
10		*	*	*	*	*	*	*	*	*	*	*	*	5			*	*	*	*	*	*	*	*	*	*	*
5			*	*	*	*	*	*	*	*	*	*	*	15			*	*	*	*	*	*	*	*	*	*	*
4					*	*	*	*	*	*	*	*	*	10				*	*	*	*	*	*	*	*	*	*
1										*	*	*	*	2						*	*	*	*	*	*	*	*
15											*	*	*	8								*	*	*	*	*	*
2												*	*	4									*	*	*	*	*
	<u>N</u> = 14													1												*	*
														9													*
														14	<u>N</u> = 39												*

American Married Males													Iranian Married Males														
10	5	4	9	2	1	8	12	15	16	3	14	7	13	5	10	15	2	4	9	8	1	14	16	12	3	13	7
10			*	*	*	*	*	*	*	*	*	*	*	5					*	*	*	*	*	*	*	*	*
5			*	*	*	*	*	*	*	*	*	*	*	10					*	*	*	*	*	*	*	*	*
4					*	*	*	*	*	*	*	*	*	15						*	*	*	*	*	*	*	*
9												*	*	2							*	*	*	*	*	*	*
	<u>N</u> = 11													4							*	*	*	*	*	*	*
														9								*	*	*	*	*	*
														8	<u>N</u> = 15								*	*	*	*	

The intellectual equality mode. Results of the Tukey contrasts (Table 10)¹ revealed that all of the American and Iranian subgroups were significantly more positive about most of the items in the intellectual equality mode than they were about those situations in the other two modes (Tukey tables are detailed in Appendix B). Particularly situations, 3, 7, 12, 13, and 16 were ranked the highest by all groups.² All five situations present viewpoints dealing with whether or not women should be treated academically and educationally equal to men. None of the situations required the subjects to simultaneously consider the "wife/mother" or "male breadwinner" stereotypes. It appears that Iranian and American married/single men and women all positively value the ideas: that women should be treated as the intellectual and educational peers of men; and that they should be able to compete favorably with men in the academic market place.

When such equality attitudes were confounded with the "male as breadwinner" role -- as in items 8 and 15 -- the eight groups did not present as clear a picture of agreement. Item 8 was ranked as significantly positively as 3, 7, 12, 13, and 16 by all four American groups, but not by the four Iranian groups. Among the latter, Iranian single females

¹The higher the mean score, the more positive a group's attitudes toward women's education. There were four cases (2, 3, 9, and 16) in which the polarity was reversed so that a high score would still indicate a positive response about women's education.

²Situation 3 presented a slight exception in that one group, single Iranian women, just missed having this item included in their top cluster. Had the N been larger, thus resulting in a smaller critical Tukey value, situation 3 would very likely have been in the significantly high cluster for this group. Therefore, it was included in the "no differences" discussion.

Table 11
(Description of the Seven Situations of Factor One (Women's Education)
in Intellectual Equality Mode

Situation Ss were asked to:

3. Respond to the Counselors' viewpoint: A university admissions office wants to restrict enrollments by sex for certain male dominated fields like engineering. The counselors argue that the community can't afford to lose half of its potential talent by not allowing girls to compete with boys in these areas.
7. Respond to Dave's opinion: Mary is tired of women's mini-maxi fashion changes, cosmetic commercials and the general way people treat women as dolls and not intelligent human beings. Dave says using her brain is not so important for a girl as attracting and pleasing her man so she can look nice.
8. Evaluate John's comment: In a psychology course Rosy and John both got 79s on their finals. However, Rosy got a B in the course and John a C. John claims that Rosy got a B because teachers grade girls easier since they are less capable. Rosy disagrees saying that she was more active in class discussions than he was.
12. Evaluate George's answer: Deb says she would like to be President if she were a boy and asks George what he would like to be if he were a girl? George says he can't think of anything since women are not smart and emotionally balanced enough to make large decisions and hold important jobs.
13. How would you respond to this statement debated in an educational issues seminar: The topic was "Should Women Stay at Home"? and the debate opened with a quote from a college newspaper to the effect that women need what will make them queens of the household and society and she cannot afford to risk her health pursuing the scientific, mathematical, and philosophical areas since she will have no use for them. Men, however, need what will fit them for harder more stern duties in life.

Table 11 continued

-
15. Evaluate the father's decision: Connie and Cary -- 18 year old twins -- have both been admitted to a university, but their father cannot afford to send them both and has decided to help Cary even though Connie is the higher achiever and better student. His reasoning is that Connie is pretty and can get married while Cary must have a profession to make a living. Connie is told to find a job until she gets married.
16. React to Connie's solution: Connie objects to her father's decision and feels that the only fair solution is for both of them to use whatever money there is while working and trying for scholarships.
-

rated this situation along with six others as significantly less positive than the other nine. Although the other three Iranian groups were more positive than were single women, this item, nevertheless, held a low to low middle ranking. Similarly, item 15 was ranked significantly more positively than others by all American groups, with the exception of single men who rated it somewhat less positively. Three of the Iranian groups (single men and women and married men) ranked this situation significantly lower than most others. In fact, they rated nothing significantly lower than item 15. However, the married females rated it significantly more positively than several other items, thus falling into a middle low ranking position with them.

It would appear from the ratings on 8 and 15 that Americans are somewhat readier than Iranians to see women receive equal opportunities to compete with men, even when it means that some men may be replaced by women in certain traditional male-dominated academic fields such as engineering.

Education vs wife/mother mode. Item 10, concerning whether or not childcare is the female's responsibility, was ranked as low as any of the other 14 items by all 8 groups. The range of the means, however, was wide, with American married females ranking it the lowest (15.20). The other groups rated it more neutrally, except for Iranian married and single women who were on the positive side (means 22.40 and 23.25 respectively) in their ranking (refer to Appendix B). This evaluation is a little hard to understand. The low rankings would certainly fit the traditional stereotype of the

Table 12
Description of the Six Situations of Factor One (Women's Education)
in Education vs Wife/mother Mode

Situation	The Ss were asked to:
1.	Respond to Bill's reaction: Mary and Jimmy are pinned. Bill's reaction is that Mary finally caught Jimmy since that is all girls come to college for anyway.
2.	Respond to Sharon's reply to Bill: Sharon says most women want good skills for an emotionally and financially independent career more than marriage.
4.	Evaluate this point of view: Joyce is trying to convince another woman that a doctor's career is inappropriate for future wives and mothers because it is too time consuming both in its preparation and practice.
9.	React to Rosie's suggestion: Bill and Rosie are married and graduate students who have just become parents despite their decision not to have children while in school. They both have about 6 months left to complete their Ph.D. programs. Rosy suggests that they both reduce their academic loads in order to share parental responsibilities, thus postponing graduation by several months.

Table 12 continued

-
10. Evaluate Bill's response to Rosie: Bill argues that infant care is a woman's job more than a man's and that the sooner he graduates, the quicker he can get a good-paying job. They can then hire a baby sitter so that Rosie can finish her degree.
14. React to Jim's attitude: Carol and Jim are both civil engineering students, married for 2 years. Carol thinks the housework should be shared. Jim says that "It is the duty of the wife to do all of the housework."
-

women's role. It would appear that both culture groups support such a stereotype. Why American married women were more negative while Iranian married women were more positive is puzzling. Several of the married American women Ss were returning to college to earn teaching credentials. Perhaps they were merely reflecting the fact that they had already put their mother roles first.

Most of the eight groups also ranked item 4 in a significantly low position. The only exception was Iranian single men. They ranked this as significantly more positive than three other items. However, it was still in a mid to mid low position as compared to their ratings of other situations.

By far the highest rankings for all groups in this mode were shown for situations 14, 9, and 1. In the case of item 14, six of the groups rated nothing significantly more positively. However, Iranian single women rated this as one of their lowest, i.e., nothing was significantly lower than this. Yet, the actual mean value was quite similar to the single and married Iranian men. In other words, these women are positive about item 14 but it is one of their lowest positive ratings. (Iranian

women tended to rate most of the situations more positively than did any of the American group.) Items 1 and 9 were also valued significantly more positively than several other situations by most groups. The exception to this was American married women who ranked 9 only more favorably than item 10 -- their most negative ranking.

Finally, for situation 2, six of the groups were significantly positive in their rankings, but the item tended to fall in the middle range of their rankings. The two exceptions were married Iranian men and women who ranked this as low as they ranked items 5 and 10.

Generally speaking, the Education vs Wife/Mother mode tended to produce a wider range of response ratings than did the Intellectual Equality Mode. None of the groups showed any hesitation in agreeing that men and women are intellectually equal, but challenging gender stereotyped roles produced less agreement. This did not represent a simple "women against men" dichotomy.

Table 13
Description of One Situation of Factor 1 (Women's Education)
in Coeducation Mode

Situation Ss were asked to:

5. Respond to the students' argument: an instructor divided his students equally by sex into groups for project work. A student objects to this because he says that boys feel more comfortable working with boys and girls with girls.
-

Coeducation mode. Item 5 comprised the only item dealing with this content. Seven of the groups ranked this situation significantly lower

than other items, with no situation being lower. The only group to rate it significantly more highly than one other situation (10) was the American married women. The mean values were neutral to positive for all groups. Apparently people did not feel very strongly about socializing in the classroom.

Factor Two

Table 14 shows the analysis of variance for factor two which was composed of items 6 and 11. The main and interaction effects for variables A (nationality) and B (gender/marital status) are not significant. However, the main effect for S (the repeated measures variable) is significant [$F = 7.37, \alpha = .01$]. Similarly, the AS (nationality x situation) and BS (gender/marital status x situation) interaction terms are also significant [F for AS = 18.60; $\alpha = .01$ and F for BS = 6.44; $\alpha = .01$]. The significant AS interaction reveals a different pattern of responses for the 2 nationality groups without regard to B. The significant BS term shows a pattern difference in the way the eight gender/marital status groups responded to S without regard to A. Finally, while the ABS interaction term is significant [$F = 7.17, \alpha = .01$], t tests on individual ABS cell means reveals a somewhat neutral response pattern for this factor. Figure 2 will help the reader to visualize the responses of these eight groups to situations 6 and 11. Generally speaking there are two exceptions to this neutral response pattern. These two exceptions are discussed below and probably account for most of the ABS interaction significance.

Items 6 and 11 are described in Table 15. In regard to item 6,

Table 14
Summary of Analysis of Variance for Factor Two

SOURCES OF VARIATION	SS	df	MS	F
<u>Among Subjects</u>	<u>132,981.74</u>	<u>651</u>		
A (NAT)	1.97	1	1.97	
B (GEN/MAR)	60.91	3	20.30	
AB (NAT*GEN/MAR)	170.70	3	56.90	
Subjects within groups [error (between)]	132,748.46	644	206.13	
<u>Within Subjects</u>	<u>5,967.79</u>	<u>652</u>		
S	57.35	1	57.35	7.37**
AS (NAT*S)	144.78	1	144.78	18.60**
BS (GEN/MAR*S)	150.43	3	50.14	6.44**
ABS (NAT*GEN/MAR*S)	167.47	3	55.82	7.17**
S x subjects within groups [error (within)]	5,447.76	644	8.46	

NOTE. NAT = nationality; GEN/MAR = gender/marital status; NAT*GEN/MAR = interaction of the two variables; S = repeated measures (situations); MAR*S = interaction of the two variables; NAT*GEN/MAR*S = interaction of the three variables.

** Significant at $\alpha = .01$.

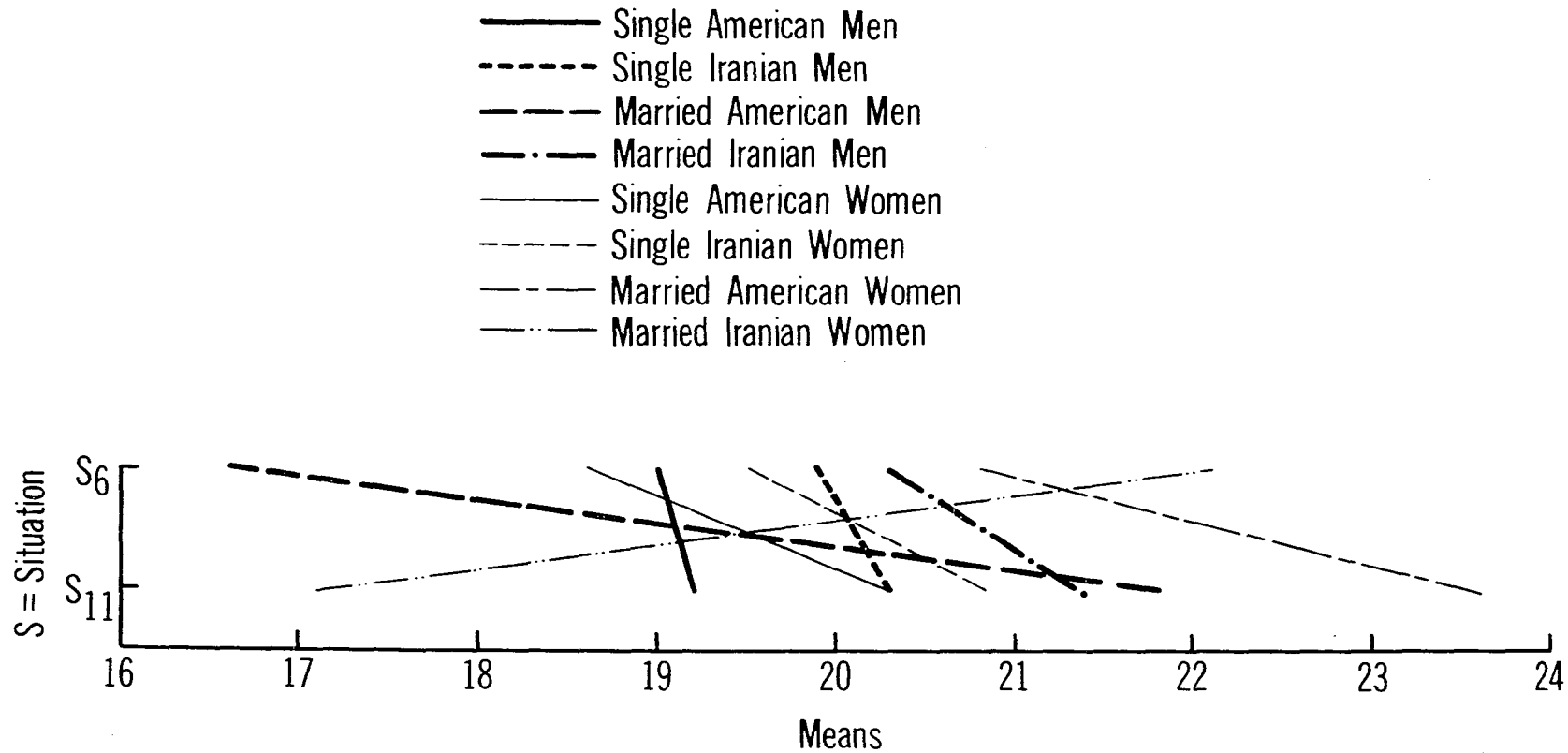


Figure 2. Mean scores of eight groups in two situations of factor two (women's career)

American married men were significantly more positive than they were on situation 11. Married American women were more positive on 6 than 11, but the t value was not quite significant at $\alpha = .05$. The second exception occurs with Iranian married women who regard situation 11 as significantly more positive than 6. This seems to indicate that married American men do not think women are "taught by society to want the less important jobs"; while married Iranian women do think so; and that the other groups are neutral to mildly positive about the concept.

Table 15

Description of the Two Situations of Factor Two (Women's Career)

Situation	Ss were asked to:
6.	Respond to the counselor's comment: a high school counselor encourages young girls to choose technical and traditionally male-dominated occupations according to their abilities but she feels that girls have learned from society that to catch a husband they should not compete with men in school.
11.	Respond to this statement: "In general women in our society have not been as successful as men...in business politics, or leadership positions because our schools teach women to want the less important jobs."

Conclusion

The results of the present study were encouraging. Considering the historical background of Iranian society and the general attitudes in this country toward women, one would expect that Iranian subjects, especially male subjects, would have a generally negative attitude

toward women's educational and career issues. Fortunately, that was not the case for the results of this investigation. Overall the Iranian subjects showed a positive attitude toward understanding women's roles.

The nonsignificant main effect of gender/marital status in both factors is another encouraging result of this study. This also shows that there were no significant national differences between men and women, married and single, in their responses to the situations. Since the interaction of gender/marital status and repeated measures was significant in both factors, again the mean scores of each situation in different groups were compared. Another interesting but puzzling discovery was found: both married and single men were more consistently sensitive to women's issues than were some of the female groups.

Despite the overall encouraging results of this exploratory investigation, there were some cases in which Iranian subjects demonstrated some negative attitudes toward women's issues.

The final note is that in generalizing the results of the present study one should be cautious. Most of the Iranian subjects in this study are from middle socio-economic class of the Iranian society and have been exposed to American culture for some time. Also, there is the possibility that subjects tended to respond in a socially desirable manner rather than in a manner which reflects subjects' own attitudes.

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Appendix A

On the following pages, a number of situations are described. We would like your assessment of these on the scales provided. There are no right or wrong answers. Please respond by circling a number on each scale. If you think a particular scale does not apply, simply circle a neutral "3". Do not omit any scales. Completing the entire instrument will require only a little of your time.

EXAMPLE: React to the following statement:

BOYS ARE MORE ACTIVE THAN GIRLS

Good 1 2 3 4 5 Bad

If you think the statement is neither bad nor good, you would circle a "3"; if you think it is somewhat more bad than good, you would circle a "4"; if you think it much more bad than good, you would circle a "5"; if you think it is somewhat more good than bad, you would circle a "2"; and if you think the statement is much more good than bad, you would circle a "1".

We do not want your name or any identifying information, but we do need your answers to the following background questions. This will assist in the final data analysis.

AGE _____ SEX _____ MARITAL STATUS _____

IF MARRIED, HOW LONG? _____ NUMBER OF YEARS OF SCHOOL

COMPLETED BEYOND SECONDARY SCHOOL _____

Thank you for your help!

Bill and Joy are chatting in the student union when Sharon walks up to announce: "Did you hear? Mary and Jimmy are pinned. They're getting married this summer."

"So, she finally caught him," replied Bill.

"What do you mean 'caught him'? asked Joy. "I hear he's been trying to convince her to marry him for months."

"Oh, come on," Bill rejoined. "We all know that most girls come to college to catch a husband. They take mickey mouse courses, spend all their time on clothes and parties until they get a man who'll earn them a good living."

"Baloney!" was Sharon's response. "Most women I know are not all that eager to get married, but they do want to get the skills needed for a good career so they can be emotionally and financially independent."

WHAT DO YOU THINK OF BILL'S ASSESSMENT?

Reasonable	1	2	3	4	5	Unreasonable
Good	1	2	3	4	5	Bad
Acceptable	1	2	3	4	5	Unacceptable
Inappropriate	1	2	3	4	5	Appropriate
Harmful	1	2	3	4	5	Harmless
Fair	1	2	3	4	5	Unfair
Wrong	1	2	3	4	5	Right

WHAT DO YOU THINK OF SHARON'S REPLY?

Fair	1	2	3	4	5	Unfair
Acceptable	1	2	3	4	5	Unacceptable
Harmful	1	2	3	4	5	Harmless
Wrong	1	2	3	4	5	Right
Reasonable	1	2	3	4	5	Unreasonable
Bad	1	2	3	4	5	Good
Appropriate	1	2	3	4	5	Inappropriate

There is a disagreement between the college counselors and admissions office of a university. The admissions office head wants to restrict the number of enrollments in some of the departments for girls, reasoning that for certain fields the community needs men in the jobs because of some physical and natural characteristics of males. One such college is the college of engineering. But the college

counselors argue that the only criterion for selection should be the student's academic ability rather than his or her sex. Their reason is that the community cannot afford to lose half of its potential talents by not giving an equal chance to the girls to compete with boys.

WHAT IS YOUR OPINION OF THE COUNSELORS' POINT OF VIEW?

Acceptable	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Unacceptable
Wrong	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Right
Unfair	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Fair
Harmless	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Harmful
Unreasonable	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Reasonable
Bad	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Good
Appropriate	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Inappropriate

In a woman to woman talk, Joyce is trying to prove her way of thinking.

Joyce: "Let's be realistic. Becoming a doctor requires many years of study and constant up-dating. That is why it is an inappropriate career for a future wife and mother."

WHAT DO YOU THINK ABOUT THIS?

Reasonable	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Unreasonable
Right	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Wrong
Bad	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Good
Unfair	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Fair
Harmful	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Harmless
Appropriate	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Inappropriate
Acceptable	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Unacceptable

The instructor assigned the students of a class to different groups for different projects. Intentionally, he tried to distribute the girls of the class evenly among the groups. He said to the students that he did so because he thinks that the existence of different sexes in groups would motivate the students to work harder and get better results. One of the students argued that this was not a wise decision. He said that usually boys feel more comfortable working with boys and girls feel the same way about working

with other girls.

WHAT DO YOU FEEL ABOUT THE STUDENT'S ARGUMENT?						
Fair	1	2	3	4	5	Unfair
Harmful	1	2	3	4	5	Harmless
Bad	1	2	3	4	5	Good
Inappropriate	1	2	3	4	5	Appropriate
Unacceptable	1	2	3	4	5	Acceptable
Right	1	2	3	4	5	Wrong
Reasonable	1	2	3	4	5	Unreasonable

A counselor in high school says, "I feel that I ought to encourage young girls to choose technical and other traditionally male occupations according to their abilities, but they have learned in society that in order to catch a husband, women should not compete with men in school."

WHAT DO YOU FEEL ABOUT THE COUNSELOR'S COMMENT?						
Fair	1	2	3	4	5	Unfair
Acceptable	1	2	3	4	5	Unacceptable
Unreasonable	1	2	3	4	5	Reasonable
Harmful	1	2	3	4	5	Harmless
Right	1	2	3	4	5	Wrong
Inappropriate	1	2	3	4	5	Appropriate
Bad	1	2	3	4	5	Good

Mary: "I'm tired of these women's fashions which go up and down. Yesterday, skirts were mini; today they are maxi. Also, it is amazing how much money is spent for cosmetic commercials. Why are some people making a doll out of a woman and encouraging her not to use her brain?"

Dave: "The major role for a woman is to attract and please her man, so she has to look nice. Using her brain isn't so important for a girl."

WHAT DO YOU THINK ABOUT DAVE'S STATEMENT?						
Reasonable	1	2	3	4	5	Unreasonable
Acceptable	1	2	3	4	5	Unacceptable
Inappropriate	1	2	3	4	5	Appropriate
Unfair	1	2	3	4	5	Fair
Wrong	1	2	3	4	5	Right
Good	1	2	3	4	5	Bad
Harmful	1	2	3	4	5	Harmless

It is a week after a psychology final exam and two students who got the same scores (79) on the exam are discussing the results. One got a "B" and the other a "C" for the course.

John: "The only reason that the instructor gave you a "B" is that you are a girl and the teachers think that girls are less capable academically, so they try to be easier with them."

Rosy: "You are completely wrong. The only reason was that I participated in many class discussions and you didn't."

WHAT DO YOU THINK ABOUT JOHN'S COMMENT?

Right	1	2	3	4	5	Wrong
Inappropriate	1	2	3	4	5	Appropriate
Acceptable	1	2	3	4	5	Unacceptable
Fair	1	2	3	4	5	Unfair
Reasonable	1	2	3	4	5	Unreasonable
Bad	1	2	3	4	5	Good
Harmless	1	2	3	4	5	Harmful

Bill and Rosie are graduate students who have been married for only a short time. Despite thier decision not to have children, Rosie gets pregnant about 15 months before she and Bill are scheduled to complete their Ph.D. programs. After the child is born, it becomes evident that both of them cannot be full time students and still take care of the baby. Rosie wants them both to cut back and share the responsibility. That means being parttime students and graduating several months later than they had planned.

HOW DO YOU FEEL ABOUT ROSIE'S SUGGESTION?

Wrong	1	2	3	4	5	Right
Good	1	2	3	4	5	Bad
Appropriate	1	2	3	4	5	Inappropriate
Harmful	1	2	3	4	5	Harmless
Unfair	1	2	3	4	5	Fair
Acceptable	1	2	3	4	5	Unacceptable
Unreasonable	1	2	3	4	5	Reasonable

Bill argues that taking care of the infant is more a woman's job than a man's. Then he points out: "The sooner I graduate, the quicker I can get a job with good pay. Then we will have more money.

We can hire a babysitter and you can work on your degree."

HOW DO YOU FEEL ABOUT BILL'S ARGUMENT?						
Appropriate	1	2	3	4	5	Inappropriate
Fair	1	2	3	4	5	Unfair
Harmful	1	2	3	4	5	Harmless
Good	1	2	3	4	5	Bad
Unacceptable	1	2	3	4	5	Acceptable
Right	1	2	3	4	5	Wrong
Unreasonable	1	2	3	4	5	Reasonable

What do you think about this statement: "In general, women in our society have not been as successful as men. . . in business, politics, or leadership positions because our schools teach women to want the less important jobs"?

Acceptable	1	2	3	4	5	Unacceptable
Reasonable	1	2	3	4	5	Unreasonable
Inappropriate	1	2	3	4	5	Appropriate
Bad	1	2	3	4	5	Good
Harmless	1	2	3	4	5	Harmful
Right	1	2	3	4	5	Wrong
Unfair	1	2	3	4	5	Fair

Deb: "If I was a boy, I would like to be a president. It is exiting to be in control of a country, to deal with issues, and to decide how they should be handled. Of course it is difficult but also interesting. George, tell me, what would you want to be if you were a girl?"

George: "I can't think of anything. Women cannot occupy really important jobs because they are not smart and emotionally balanced enough to make large decisions."

WHAT DO YOU THINK ABOUT GEORGE'S ANSWER?						
Fair	1	2	3	4	5	Unfair
Acceptable	1	2	3	4	5	Unacceptable
Wrong	1	2	3	4	5	Right
Reasonable	1	2	3	4	5	Unreasonable
Inappropriate	1	2	3	4	5	Appropriate
Harmless	1	2	3	4	5	Harmful
Good	1	2	3	4	5	Bad

There is a debate between two groups of students in a seminar on educational issues. The topic is "Should Women Stay at Home?" One of the members of the group opens the debate by quoting from a college newspaper:

A woman needs what will make her a queen of the household and of society, while a man needs what will fit him for the harder, stern duties of life to which ladies should never be driven except in cases of emergency. She cannot afford to risk her health in acquiring a knowledge of the advanced sciences, mathematics, or philosophy for which she usually has no use.

IF YOU WERE IN THAT SEMINAR, WHAT WOULD YOU THINK ABOUT THIS STATEMENT?

Right	1	2	3	4	5	Wrong
Fair	1	2	3	4	5	Unfair
Unacceptable	1	2	3	4	5	Acceptable
Appropriate	1	2	3	4	5	Inappropriate
Unreasonable	1	2	3	4	5	Reasonable
Good	1	2	3	4	5	Bad
Harmless	1	2	3	4	5	Harmful

Carol and Jim are having another argument about who is supposed to do the housework. They have been married two years. Both are civil engineering students. Carol is trying to prove that since they both have the same situation and have to study hard, housework should be shared. But Jim says, "It is the duty of the wife to do all of the housework."

HOW DO YOU FEEL ABOUT THIS ATTITUDE?

Harmless	1	2	3	4	5	Harmful
Wrong	1	2	3	4	5	Right
Bad	1	2	3	4	5	Good
Reasonable	1	2	3	4	5	Unreasonable
Acceptable	1	2	3	4	5	Unacceptable
Fair	1	2	3	4	5	Unfair
Inappropriate	1	2	3	4	5	Appropriate

Conney and Carry are 18 year old twins. They have just graduated from high school. Their father, a teacher, has not been able to save much money. Both Conney and Carry have been admitted to university,

but Conney has much higher scores and is the better student. The father tells them that he can hardly afford to send even one of them to a university. He has decided to help Carry go to college. He explains: "Conney is pretty and will have no trouble getting married. Carry must have a profession to make a living." Therefore, he tells Conney that she must find a job until she gets married. Carry will enter the university when the next term begins.

WHAT DO YOU THINK OF THE FATHER'S DECISION?

Fair	1	2	3	4	5	Unfair
Right	1	2	3	4	5	Wrong
Good	1	2	3	4	5	Bad
Harmful	1	2	3	4	5	Harmless
Reasonable	1	2	3	4	5	Unreasonable
Appropriate	1	2	3	4	5	Inappropriate
Acceptable	1	2	3	4	5	Unacceptable

Conney objects to her father's decision. She feels that her father should make equally available whatever money he can spare. "Carry and I can work and try for scholarships to pay the remaining costs. This is only fair," she declares.

HOW DO YOU FEEL ABOUT CONNEY'S STATEMENT?

Fair	1	2	3	4	5	Unfair
Good	1	2	3	4	5	Bad
Harmful	1	2	3	4	5	Harmless
Appropriate	1	2	3	4	5	Inappropriate
Right	1	2	3	4	5	Wrong
Reasonable	1	2	3	4	5	Unreasonable
Acceptable	1	2	3	4	5	Unacceptable

THANKS AGAIN FOR YOUR HELP!

در چند صفحه بعدی چندین مرتبه شرح داده شده است. از شما خواهیم پرسید نظر خود را بکشیدن دایره بدور یکی از درجاتی که برای هر سوال بین صفتیهای ذکر شده جای شده است ارائه دهید. لطفاً توجه داشته باشید که جواب درست یا غلطی برای سوالات وجود ندارد و مقصود فقط داشتن نظر شخصی شماست. برای نمونه به سوال زیر توجه کنید.
سوال: در مورد این جمله چه فکر میکنید، معمولاً پسران از دختران فعال ترند؟

بد ۵ ۴ ۳ ۲ ۱ خوب

اگر فکر میکنید که این تفرقه خوب است نه بد، بیاریت کنید در این مورد با نظریه بد دور شماره ۳ دایره بکشید. اگر احساس میکنید که این جمله بهتر بد است تا خوب شماره ۴ را انتخاب کنید و اگر نظر شما اینست که این جمله واقعاً بد است شماره ۵ را دایره بکشید. به همین ترتیب در مورد غلبه مخالف عمل نمایید. اگر فکر میکنید که این نظر بهتر خوب است تا بد به دور شماره ۲ و اگر واقعاً بیطرفان این جمله خوب است دور ۱ دایره بکشید.
برای انجام این تحقیق به نام شما احتیاج نداریم ولی برای گروه بندی جوابکم از شما خواهش میکنیم که این اطلاعات را در اختیار ما بگذارید.
از همکاری و صرف وقت شما صمیمانه متشکریم.

- سن _____ جنس _____ مجرد یا متأهل _____ اگر متأهل هستید چه مدت؟ _____
- سال یا سالهای اقامت در این کشور (ایرانی) _____
- چند سال است که دانشجو هستید (در ایران) _____
- چند سال بعد از دیپلم متوسطه تحصیل کرده اید _____

پرویز در باره مغول صحبت در کافه تریای دانشکده پستان هستند. نیلوفر از راه میرسد و میگوید: «راستی شنیده‌اید که زهره و حسین می‌خواهند تا پستان ازدواج کنند؟» پرویز میگوید: «پس بالاخره زهره تر است حسین را بگیرد یا نه؟» نیلوفر میگوید: «نظر است چیست؟ من شنیده بودم که حسین در آنجا بود مگر کسی دانست زهره را راضی باززدواج کند.»

پرویز جواب می‌دهد: «خواستگی است، ما هم میدانیم که دختران می‌آیند دانشگاه مگر هر یک را گفته‌اند. آنها واحدی ساده می‌کنند و تمام وقتشان را برای پستان و پاریزی رفتن صرف می‌کنند. نیلوفر با عصیانیت می‌گوید: «سوزده است. بهتر دختران را که من می‌شناسم همین‌جا و ازدواج کردن بی‌سند، اگر می‌خواهند درس بخوانند تا بتوانند کار خوبی پیدا کنند و از نظر احساسی و مالی مستقل باشند. عقیده‌ام در مورد حرف پرویز چیست؟»

غیر منطقی	۱	۲	۳	۴	۵
بد	۱	۲	۳	۴	۵
قابل قبول	۱	۲	۳	۴	۵
نامناسب	۱	۲	۳	۴	۵
بضرر	۱	۲	۳	۴	۵
عادلانه	۱	۲	۳	۴	۵
غلط	۱	۲	۳	۴	۵

در مورد حرف نیلوفر چه فکر می‌کنید؟

غیر عادلانه	۱	۲	۳	۴	۵
قابل قبول	۱	۲	۳	۴	۵
بضرر	۱	۲	۳	۴	۵
غلط	۱	۲	۳	۴	۵
غیر منطقی	۱	۲	۳	۴	۵
بد	۱	۲	۳	۴	۵
غیر مناسب	۱	۲	۳	۴	۵

بین مسأله‌های دانشگاه و مقامات اداره پذیرش دانشگاه اختلاف نظر وجود دارد. مقامات اداره پذیرش نمی‌خواهند، دختران را در طلب رشته‌های فنی که پذیرش به‌خوبی و دلچسبی است، برای بعضی از رشته‌ها بفرستند. رشته‌های فنی که اجتماع ما به مردان خاطر قدیر است به‌بیشتر بشیر احتیاج دارد. اما مسأله‌های دانشگاه معتقدند که هر رشته معیار انتخاب دانشجو باید توانایی تحصیل باشد. جنسیت، خاطر همین منظور اجتماع نمی‌تواند و نباید مانع دادن فرصت مساوی به دختران از نصف نیروی انسانی و استعداد ادراکی نرفته‌اش صرف نظر کند.
 آیا در مورد نظر مسأله‌های دانشگاه چه نظر می‌کنید؟

غیر قابل قبول	۵	۴	۳	۲	۱	قابل قبول
درست	۵	۴	۳	۲	۱	غلط
عادلانه	۵	۴	۳	۲	۱	غیر عادلانه
مهر	۵	۴	۳	۲	۱	بی‌مهر
منطقی	۵	۴	۳	۲	۱	غیر منطقی
پس	۵	۴	۳	۲	۱	نوس
ناسب	۵	۴	۳	۲	۱	غیر مناسب

صحیح است خیره خودمانی بین دو دختر. قبول سعی می‌کنند هر نظر خود را به دو سمتش بفرستند. بنظر من: بگذار واقع فکر کنیم، اگر یک زن خواهد پرسید باید مرتباً درس بخواند و در آن در جریان کوشش رویه ادراکی علمی قرار بگیرد. بنظر من پرسش کردن برای زن سفلی خیره نامناسب است، زنی که خواهد در آینده ازدواج کند و مادر شود.
 آیا در مورد صحبت بنظر من چه نظر دارید؟

غیر منطقی	۵	۴	۳	۲	۱	منطقی
غلط	۵	۴	۳	۲	۱	درست
خوب	۵	۴	۳	۲	۱	پس
عادلانه	۵	۴	۳	۲	۱	غیر عادلانه
مهر	۵	۴	۳	۲	۱	بی‌مهر
ناسب	۵	۴	۳	۲	۱	غیر مناسب
غیر قابل قبول	۵	۴	۳	۲	۱	قابل قبول

معلمی شاگردان کلاس را به گروه‌ها مختلف برای انجام تک بردار گروهی تفهیم کنید و محقق ساخته می‌کند در حین آن کلاس را بطور مساوی در هر گروه با سیرج قرار دهد. در این کار این کار را در اینست که وقتی سیرج و دختر با هم در تک گروه باشند انگیزه رقابت در کارها برانگیخته شود و سعی می‌کند بهتر کار کند.
یکی از شاگردان با این نظر مخالف است و اینطور استدلال می‌کند: سیرج اگر با هم در تک گروه باشند احساس راحتی بیشتری می‌کنند تا هم کار کنند و همینطور دختر را راحت‌تر می‌یاد دختر کار کند تا با سیرج. عقیده شما در مورد استدلال این دانشجو چیست؟

غیر عادلانه	۵	۴	۳	۲	۱	عادلانه
بعضی	۵	۴	۳	۲	۱	بعضی
خوب	۵	۴	۳	۲	۱	بد
مناسب	۵	۴	۳	۲	۱	نامناسب
غیر قابل قبول	۵	۴	۳	۲	۱	قابل قبول
غلط	۵	۴	۳	۲	۱	درست
غیر منطقی	۵	۴	۳	۲	۱	منطقی

مشاور یک دبیرستان می‌گوید: «من احساس می‌کنم که باید دختر را تشویق کنم هر دو دسته‌ای تکلیفی در رشته‌ای که معمولاً سیرج اشتغال مکرر می‌شوند، البته سایر استعداد و توانایی‌ها را، ولی اجتناب به کار زیاد داده است هرگز نخواهد شد اگر سیرج با سیرج رقابت کند»
نظر شما در مورد نظر مشاور چیست؟

غیر عادلانه	۵	۴	۳	۲	۱	عادلانه
غیر قابل قبول	۵	۴	۳	۲	۱	قابل قبول
بعضی	۵	۴	۳	۲	۱	بعضی
غلط	۵	۴	۳	۲	۱	درست
مناسب	۵	۴	۳	۲	۱	نامناسب
خوب	۵	۴	۳	۲	۱	بد
غیر منطقی	۵	۴	۳	۲	۱	منطقی

مریم: من واقعاً از این مدعی زنانه هر روز عوش میخورم شده ام. بپرز دامن من بود امروزانگی.
 چرا بعضی نمیخواهند از یک زن مردک بسازند و او را بشوند میکنند اصلاً از عوش استفاده نکنند؟
 مرتضی: کار اصلی زن اینست که توجه مردی را جلب کند و بلاخره ازدواج کند و او را راضی نگه دارد. بنا بر این
 زن باید همیشه زیبا و مرتب باشد. برای یک دختر استفاده از عوش در واقع نباید چندان اهمیت داشته باشد.
 در مورد عقیده مرتضی چه فکر میکنید؟

غیر منطقی	۵	۴	۳	۲	۱
غیر قابل قبول	۵	۴	۳	۲	۱
مناسب	۵	۴	۳	۲	۱
عادلانه	۵	۴	۳	۲	۱
درست	۵	۴	۳	۲	۱
بد	۵	۴	۳	۲	۱
بضرر	۵	۴	۳	۲	۱

یک هفته از احتیاطات زنانه گذشته است و شاگردان برای دیدن نزد ایشان آمده اند. دو نفر از شاگردان
 هر دو نمره ۷۹ در نسیب گرفته اند و هر کلمه معنی به آن داده هیچ وقت و شب بیاید قبول صحبت هستند.
 پیمان: آه، آه، علت اینکه معنی نسیب داده است اینست که تو دختر کا و معنی معمولاً برای دختر نسیب
 میزند. چون فکر میکنند که پیمان مثل پسران قادر به درس خواندن هستند.
 کاراده: تو کاملاً اشتباه میکنی، آه، علت اینکه نسیب، گریه و زاری، این بود که در بحث کلاک شرکت کرده بودم
 و تو شرکت نکرده بودی.
 در باره حرف پیمان چه عقیده ای دارید؟

غلط	۵	۴	۳	۲	۱
مناسب	۵	۴	۳	۲	۱
غیر قابل قبول	۵	۴	۳	۲	۱
عادلانه	۵	۴	۳	۲	۱
منطقی	۵	۴	۳	۲	۱
خراب	۵	۴	۳	۲	۱
بضرر	۵	۴	۳	۲	۱

سهراب در دوره هر دو دانشمندی در نظر گرفته و درست گوییم با تمام عقایدشان فاش شده اند. ظریفم آید.
 تقسیم به بیچ دار شدن نداشتند، حدود در هفتم است هر دو از آن بد دنیا آمده است. شماره عقیده
 دارد هر چند است گفته از بیچ باید عقیده هر دو باشد هر چند در حدت محققان طولانی نبود.
 عقیده که در مورد نظر شماره چیست؟

غلط	۱	۲	۳	۴	۵	در حدت
خوب	۱	۲	۳	۴	۵	بد
مناسب	۱	۲	۳	۴	۵	نامناسب
معتدل	۱	۲	۳	۴	۵	بسیار
غیر عادلانه	۱	۲	۳	۴	۵	عادلانه
غیر قابل قبول	۱	۲	۳	۴	۵	قابل قبول
غیر منطقی	۱	۲	۳	۴	۵	منطقی

سهراب گفته بود: «عقیده از بیچ باید اجود رنگ باشد» هر دو با بر این در میان مان دار
 بیچ گفته از بی گفت و من سخن منم بود در چشم را تمام کنم و کار خودی همه استم و اگر وقت ما قادر نخواهیم بود
 کسی را استم ام کنیم تا از بیچ مواظبت کرد و در دست را تمام کنیم.
 در مورد نظر سهراب چه نظر میکنید؟

مناسب	۱	۲	۳	۴	۵	نامناسب
عادلانه	۱	۲	۳	۴	۵	غیر عادلانه
معتدل	۱	۲	۳	۴	۵	بسیار
خوب	۱	۲	۳	۴	۵	بد
غیر قابل قبول	۱	۲	۳	۴	۵	قابل قبول
در حدت	۱	۲	۳	۴	۵	غلط
غیر منطقی	۱	۲	۳	۴	۵	منطقی

در مورد این نظریه چه فکر میکنید؟ از نظر کل زبان در اینجا ج ما مثل مردان موفق بوده اند من در هر دو
 ماه در سیاست و نه در تخریب است باعث آید مدارس ما به زبان می آموزند هر کجا این سخن را است را اشغال کند به

غیر قابل قبول	۵	۴	۳	۲	۱	قابل قبول
غیر منطقی	۵	۴	۳	۲	۱	منطقی
مناسب	۵	۴	۳	۲	۱	نامناسب
خوب	۵	۴	۳	۲	۱	بد
مفاد	۵	۴	۳	۲	۱	تضرر
غلط	۵	۴	۳	۲	۱	درست
عادلان	۵	۴	۳	۲	۱	غیر عادلانه

فروخته: اگر من بر بودم درست دانستم رئیس جمهور شدم. نمیکنم کنترل کردن یک کشور و جل و فصل
 مسائل یک کشور خفیه ناید همچنان انگیز باشد. البته میدانم هر خفیه شکل است ولی با این بی ل خفیه هم جانب
 هوشنگ اگر تو دفتر بودی چرا ره می خواستی بنویسی؟
 هوشنگ: من اصلاً نمی دانم نظرت را بگویم. بنظر من زنی نمی تواند هیچ شغل مهمی را اشغال کند چون
 باندازه کافی باهوش نیست و از نظر احساسی تعادل کافی ندارند. تقصیرات مهم بگیرند.
 عقیده من در مورد نظر هوشنگ چیست؟

غیر عادلانه	۵	۴	۳	۲	۱	عادلانه
غیر قابل قبول	۵	۴	۳	۲	۱	قابل قبول
درست	۵	۴	۳	۲	۱	غلط
غیر منطقی	۵	۴	۳	۲	۱	منطقی
مناسب	۵	۴	۳	۲	۱	نامناسب
مفاد	۵	۴	۳	۲	۱	تضرر
بد	۵	۴	۳	۲	۱	خوب

نخستین دایره‌های درج شده بسیار برای بررسی موضوع در دسترس است. "آیا می‌تواند درجه‌ها را بگذرد؟"
 یکی از دانشمندان بیان کرده که اگر از دور مانده می‌آورد:
 "یک روز محتاج یادگیری مطالبی است که او را برای خانه می‌برد. آماده سازد و به اصطلاح تمام خانه را آماده کند.
 در حالیکه تک مرد باید برای زندگی صفت بگیرد که به به و بریا شود. هرگز برای زمانه بر در برآورد استثنائی
 ضروری نیست. یک زن نباید سلامت در دسترس در اندام یادگیری مطالب بیشتر نمی‌تواند علمی، ریاضی و فلسفی
 بگذرد. معمولاً بسیاری از آنها ندارند."
 در مورد این که چه نظر میکنید؟

درست	۱	۲	۳	۴	۵	غلط
غیر عادلانه	۱	۲	۳	۴	۵	غیر عادلانه
غیر قابل قبول	۱	۲	۳	۴	۵	قابل قبول
مناسب	۱	۲	۳	۴	۵	نامناسب
غیر منطقی	۱	۲	۳	۴	۵	منطقی
جواب	۱	۲	۳	۴	۵	بد
معتبر	۱	۲	۳	۴	۵	معتبر

مهری و احمد با هم بر سر کارخانه عثمانی شده‌اند. اگر چه اصل است اما از آن جدا شده و هر دو
 دانشمندان عالی‌رتبه هستند. هر دو نفر است که هر دو دانشمندان هستند و با هم صحبت در این
 مجامع کارخانه باید تقسیم شود ولی احمد می‌گوید که کارخانه از وظایف زن جدا است.
 شما در مورد عقیده احمد چه نظری دارید؟

معتبر	۱	۲	۳	۴	۵	معتبر
بد	۱	۲	۳	۴	۵	بد
منطقی	۱	۲	۳	۴	۵	غیر منطقی
قابل قبول	۱	۲	۳	۴	۵	غیر قابل قبول
غیر عادلانه	۱	۲	۳	۴	۵	غیر عادلانه
نامناسب	۱	۲	۳	۴	۵	نامناسب

پری و جواد دو نذاری ۱۸ ساله تازه از دبیرستان تابع التحصیل شده اند. هر دو در کنگر دانشگاه با نردیمی خوب قبول شده اند ولی پری نمره درش بهتر از جواد است. پدر آنها هر دو معلم ساده ای است خرج تحصیل دانشگاهی هر دو کن را نمی تواند تأمین کند. او میگوید: "پری زیباست و میتواند کندهی ازدواج کند ولی جواد باید در کنگر ۵ کپی خوانده را تأمین کند. بنابراین بهتر است جواد با به دانشگاه بفرستیم و پری سعی نماید کاری پیدا کند تا وقتی که ازدواج نماید." در مورد تقسیم این پدر چه فکر میکنید؟

غیر عادلانه	۵	۴	۳	۲	۱	عادلانه
غلط	۵	۴	۳	۲	۱	درست
خوب	۵	۴	۳	۲	۱	بد
غیر قابل قبول	۵	۴	۳	۲	۱	قابل قبول
نا مناسب	۵	۴	۳	۲	۱	مناسب
بی ضرر	۵	۴	۳	۲	۱	مضر
منطقی	۵	۴	۳	۲	۱	غیر منطقی

پری با تقسیم پدرش مخالف است او فکر میکند هر پدرش هر چه پول دارد باید برای هر دو بطور مساوی خرج کند و هر دو کن را به دانشگاه بفرستد. آنها سعی میکنند هر دو کن بخوانند و هم کار کنند و کندهی خرج تحصیلشان را جبران نمایند. در مورد عقیده دیگری چه فکر میکنید؟

عادلانه	۵	۴	۳	۲	۱	غیر عادلانه
بد	۵	۴	۳	۲	۱	خوب
بی ضرر	۵	۴	۳	۲	۱	مضر
نا مناسب	۵	۴	۳	۲	۱	مناسب
غلط	۵	۴	۳	۲	۱	درست
منطقی	۵	۴	۳	۲	۱	غیر منطقی
قابل قبول	۵	۴	۳	۲	۱	غیر قابل قبول

Appendix B

Table A

Tukey(a) Contrasts of American Single Males (a_1b_1) in Factor One

Situation	S ₁₀	S ₅	S ₄	S ₁	S ₁₅	S ₂	S ₉	S ₃	S ₈	S ₁₂	S ₁₃	S ₁₄	S ₇	S ₁₆
/mean	17.07	19.93	21.14	24.14	24.64	24.86	25.21	26.21	26.78	27.71	28.00	28.57	28.71	28.93
S ₁₀	---	2.86	4.07*	7.07*	7.57*	7.79*	8.14*	9.14*	9.64*	10.64*	10.93*	11.50*	11.64*	11.86*
S ₅		---	1.21	4.21*	4.71*	4.93*	5.29*	6.29*	6.76*	7.79*	8.07*	8.64*	8.79*	9.00*
S ₄			---	3.00	3.50	3.71	4.07*	5.07*	5.57*	6.57*	6.86*	7.43*	7.57*	7.79*
S ₁				---	.50	.71	1.07	2.07	2.57	3.57	3.86*	4.43*	4.57*	4.79*
S ₁₅					---	.21	.57	1.57	2.07	3.07	3.36	3.93*	4.07*	4.29*
S ₂						---	.35	1.36	1.86	2.86	3.14	3.71	3.86*	4.07*
S ₉							---	1.00	1.50	2.50	2.79	3.35	3.50	3.72
S ₃								---	.50	1.50	1.79	2.36	2.50	2.72
S ₈									---	1.00	1.29	1.86	2.00	2.22
S ₁₂										---	.29	.86	1.00	1.22
S ₁₃											---	.57	.71	.93
S ₁₄												---	.14	.35
S ₇													---	.22
S ₁₆														---

*NOTE. 3.80 (Tukey's critical value, $\alpha = .01$)
N = 14

Table B
 Tukey (a) Contrasts of American Married Males ($a_1 b_2$) in Factor One

Situ- ation	S ₁₀	S ₅	S ₄	S ₉	S ₂	S ₁	S ₈	S ₁₂	S ₁₅	S ₁₆	S ₃	S ₁₄	S ₇	S ₁₃
/mean	18.00	18.27	20.82	23.46	24.27	25.36	25.64	26.73	26.82	26.91	27.09	27.18	28.09	28.46
S ₁₀	---	.27	2.82	5.46*	6.27*	7.36*	7.64*	8.73*	8.82*	8.91*	9.09*	9.18*	10.09*	10.46*
S ₅		---	2.55	5.18*	6.00*	7.09*	7.36*	8.45*	8.55*	8.67*	8.82*	8.91*	9.82*	10.18*
S ₄			---	2.64	3.46	4.55*	4.82*	5.91*	6.00*	6.09*	6.27*	6.36*	7.27*	7.64*
S ₉				---	.82	1.91	2.18	3.27	3.36	3.45	3.64	3.73	4.64*	5.00*
S ₂					---	1.09	1.36	2.45	2.55	2.64	2.82	2.91	3.82	4.18
S ₁						---	.27	1.36	1.45	1.55	1.73	1.82	2.73	3.09
S ₈							---	1.09	1.18	1.27	1.46	1.55	2.46	2.82
S ₁₂								---	.09	.18	.36	.46	1.36	1.73
S ₁₅									---	.09	.27	.36	1.27	1.64
S ₁₆										---	.18	.27	1.18	1.55
S ₃											---	.09	1.00	1.36
S ₁₄												---	.91	1.27
S ₇													---	.36
S ₁₃														---

*NOTE. 4.29 (Tukey's critical value, $\alpha = .01$)
 $\underline{N} = 11$

Table C
 Tukey(a) Contrasts of American Single Females ($a_1 b_3$) in Factor One

Situation	S ₁₀	S ₅	S ₄	S ₉	S ₁	S ₂	S ₃	S ₈	S ₁₅	S ₇	S ₁₃	S ₁₄	S ₁₂	S ₁₆
/mean	18.68	19.52	20.52	22.66	25.18	26.02	26.98	27.52	27.96	28.02	28.29	28.41	28.52	28.75
S ₁₀	---	.84	1.84	3.98*	6.50*	7.34*	8.30*	8.84*	9.27*	9.34*	9.70*	9.73*	9.84*	10.07*
S ₅		---	1.00	3.14*	5.66*	6.50*	7.45*	8.00*	8.43*	8.50*	8.86*	8.89*	9.00*	9.23*
S ₄			---	2.14	4.66*	5.50*	6.45*	7.00*	7.43*	7.50*	7.86*	7.89*	8.00*	8.23*
S ₉				---	2.52*	3.36*	4.32*	4.86*	5.30*	5.36*	5.73*	5.75*	5.86*	6.09*
S ₁					---	.84	1.80	2.34*	2.77*	2.84*	3.20*	3.23*	3.34*	3.57*
S ₂						---	.95	1.50	1.93	2.00	2.36*	2.39*	2.50*	2.73*
S ₃							---	.54	.98	1.05	1.41	1.43	1.55	1.77
S ₈								---	.43	.50	.86	.89	1.00	1.23
S ₁₅									---	.07	.43	.45	.57	.80
S ₇										---	.36	.39	.50	.73
S ₁₃											---	.02	.13	.36
S ₁₄												---	.11	.34
S ₁₂													---	.23
S ₁₆														---

*NOTE. 2.14 (Tukey's critical value, $\alpha = .01$)
 $\underline{N} = 44$

Table D

Tukey (a) Contrasts of American Married Females ($a_1 b_4$) in Factor One

Situ- ation	S ₁₀	S ₉	S ₅	S ₄	S ₂	S ₁	S ₃	S ₈	S ₁₅	S ₁₂	S ₇	S ₁₃	S ₁₆	S ₁₄
/mean	15.21	20.07	21.50	22.27	24.36	24.86	25.71	26.07	26.50	27.21	27.86	28.00	28.64	28.93
S ₁₀	---	4.86*	6.29*	7.07*	9.14*	9.64*	10.50*	10.86*	11.29*	12.00*	12.64*	12.79*	13.43*	13.76*
S ₉		---	1.43	2.22	4.29*	4.79*	5.64*	6.00*	6.43*	7.14*	7.79	7.93*	8.57*	8.86*
S ₅			---	.79	2.86	3.36	4.21*	4.57*	5.00*	5.71*	6.36*	6.50*	7.14*	7.43*
S ₄				---	2.07	2.57	3.43	3.79*	4.21*	4.93*	5.57*	5.71*	6.36*	6.64*
S ₂					---	.50	1.36	1.71	2.14	2.86	3.50	3.64*	4.29*	4.57*
S ₁						---	.86	1.21	1.64	2.36	3.00	3.14	3.79*	4.07*
S ₃							---	.36	.79	1.50	2.14	2.29	2.93	3.22
S ₈								---	.43	1.14	1.79	1.93	2.57	2.86
S ₁₅									---	.71	1.36	1.50	2.14	2.43
S ₁₂										---	.64	.79	1.43	1.72
S ₇											---	.14	.79	1.07
S ₁₃												---	.64	.93
S ₁₆													---	.29
S ₁₄														---

*NOTE. 3.55 (Tukey's critical value $\alpha = .01$)
N = 14

Table E
 Tukey(a) Contrasts of Iranian Single Males ($a_2 b_1$) in Factor One

Situ- ation	S ₅	S ₁₅	S ₁₀	S ₂	S ₈	S ₄	S ₁	S ₉	S ₁₄	S ₁₂	S ₃	S ₁₃	S ₁₆	S ₇
/mean	19.54	19.60	20.08	22.18	22.97	23.23	24.08	24.74	24.85	25.46	26.00	26.03	26.82	27.92
S ₅	---	.05	.54	2.64*	3.44*	3.69*	4.54*	5.21*	5.31*	5.92*	6.46*	6.49*	7.28*	8.38*
S ₁₅		---	.49	2.59*	3.38*	3.64*	5.15*	5.15*	5.26*	5.87*	6.41*	6.44*	7.23*	8.33*
S ₁₀			---	2.10	2.90*	3.15*	4.00*	4.67*	4.77*	5.39*	5.92*	5.95*	6.74*	7.85*
S ₂				---	.79	1.05	1.90	2.56*	2.67*	3.28*	3.82*	3.85*	4.64*	5.74*
S ₈					---	.26	1.10	1.77	1.88	2.49*	3.03*	3.05*	3.85*	4.95*
S ₄						---	.85	1.51	1.62	2.23	2.77*	2.80*	3.59*	4.69*
S ₁							---	.67	.77	1.39	1.92	1.95	2.74*	3.85*
S ₉								---	.10	.72	1.26	1.28	2.08	3.18*
S ₁₄									---	.62	1.15	1.18	1.98	3.08*
S ₁₂										---	.54	.56	1.36	2.46*
S ₃											---	.03	.82	1.92
S ₁₃												---	.80	1.90
S ₁₆													---	1.10
S ₇														---

*NOTE. 2.28 (Tukey's critical value $\alpha = .01$)
 N = 39

Table F
 Tukey(a) Contrasts of Iranian Married Males (a_2b_2) in Factor One

Situation	S ₅	S ₁₀	S ₁₅	S ₂	S ₄	S ₉	S ₈	S ₁	S ₁₄	S ₁₆	S ₁₂	S ₃	S ₁₃	S ₇
/mean	18.20	18.47	19.47	20.67	21.33	22.87	23.60	25.67	26.00	26.13	26.87	27.53	27.67	29.07
S ₅	---	.27	1.27	2.47	3.13	4.67*	5.40*	7.47*	7.80*	7.93*	8.67*	9.33*	9.47*	10.87*
S ₁₀		---	1.00	2.20	2.87	4.40*	5.13*	7.20*	7.53*	7.67*	8.40*	9.07*	9.20*	10.60*
S ₁₅			---	1.20	1.87	3.40	4.13*	6.20*	6.53*	6.67*	7.40*	8.07*	8.20*	9.60*
S ₂				---	.67	2.20	2.93	5.00*	5.33*	5.47*	6.20*	6.87*	7.00*	8.40*
S ₄					---	1.53	2.27	4.33*	4.67*	4.80*	5.53*	6.20*	6.33*	7.73*
S ₉						---	.73	2.80	3.13	3.27	4.0*	4.67*	4.80*	6.20*
S ₈							---	2.07	2.40	2.53	3.27	3.93*	4.07*	5.47*
S ₁								---	.33	.47	1.20	1.87	2.00	3.40
S ₁₄									---	.13	.87	1.53	1.67	3.07
S ₁₆										---	.73	1.40	1.53	2.93
S ₁₂											---	.67	.80	2.20
S ₃												---	.13	1.53
S ₁₃													---	1.40
S ₇														---

*NOTE. 3.67 (Tukey's critical value $\alpha = .01$)
 N = 15

Table G

Tukey (a) Contrasts of Iranian Single Females ($a_2 b_3$) in Factor One

Situation	S ₁₅	S ₅	S ₁₀	S ₈	S ₁₄	S ₄	S ₃	S ₁₆	S ₁₂	S ₂	S ₁₃	S ₉	S ₁	S ₇
/mean	21.30	21.70	22.40	23.30	23.80	24.60	24.80	26.10	26.60	26.60	26.70	26.70	27.10	29.00
S ₁₅	---	.40	1.10	2.00	2.50	3.30	3.50	4.80*	5.30*	5.30*	5.40*	5.40*	5.80*	7.70*
S ₅		---	.70	1.60	2.10	2.90	3.10	4.40*	4.90*	4.90*	5.00*	5.00*	5.40*	7.30*
S ₁₀			---	.90	1.40	2.20	2.40	3.70	4.20*	4.20*	4.30*	4.30*	4.70*	6.60*
S ₈				---	.50	1.30	1.50	2.80	3.30	3.30	3.40	3.40	3.80*	5.70*
S ₁₄					---	.80	1.00	2.30	2.80	2.80	2.90	2.90	3.30	5.20*
S ₄						---	.20	1.50	2.0	2.0	2.10	2.10	2.50	4.40*
S ₃							---	1.30	1.80	1.80	1.90	1.90	2.30	4.20*
S ₁₆								---	.50	.50	.60	.60	1.00	2.90
S ₁₂									---	0.00	.10	.10	.50	2.40
S ₂										---	.10	.10	.50	2.40
S ₁₃											---	0.00	.40	2.30
S ₉												---	.40	2.30
S ₁													---	1.90
S ₇														---

*NOTE. 3.74 (Tukey's critical value $\alpha = .01$)
 $\underline{N} = 10$

Table H

Tukey(a) Contrasts of Iranian Married Females ($a_2 b_4$) in Factor One

Situation	S ₅	S ₂	S ₁₀	S ₄	S ₁₅	S ₈	S ₃	S ₁₆	S ₉	S ₁	S ₁₂	S ₁₄	S ₇	S ₁₃
/mean	20.94	22.19	23.25	25.44	26.00	26.44	26.56	26.81	26.94	27.56	27.88	28.63	28.81	29.56
S ₅	---	1.25	2.31	4.50*	5.06*	5.50*	5.63*	5.88*	6.00*	6.60*	6.93*	7.69*	7.88*	8.63*
S ₂		---	1.06	3.25	3.81*	4.25*	4.38*	4.63*	4.75*	5.38*	5.69*	6.44*	6.63*	7.38*
S ₁₀			---	2.19	2.75	3.19	3.31	3.56	3.69*	4.31*	4.63*	5.38*	5.56*	6.31*
S ₄				---	.56	1.00	1.13	1.38	1.50	2.13	2.44	3.19	3.38	4.13*
S ₁₅					---	.44	.56	.81	.94	1.56	1.88	2.64	2.81	3.56
S ₈						---	.13	.38	.50	1.13	1.44	2.19	2.38	3.13
S ₃							---	.25	.38	1.00	1.31	2.06	2.25	3.00
S ₁₆								---	.13	.75	1.06	1.81	2.00	2.75
S ₉									---	.63	.94	1.69	1.88	2.63
S ₁										---	.31	1.06	1.25	2.00
S ₁₂											---	.75	.94	1.69
S ₁₄												---	.19	.99
S ₇													---	.75
S ₁₃														---

*NOTE. 3.64 (Tukey's critical value $\alpha = .01$)
 $\underline{N} = 16$