A Comparative Study of the Effects of Personal Value Structures on Decision Making Between Egyptian and American Graduate Students.

Hamed Ahmad r Badr

Louisiana State University and Agricultural & Mechanical College

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THE LOUISIANA STATE UNIVERSITY AND AGRICULTURAL AND MECHANICAL COLLEGE, PH.D., 1970

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A COMPARATIVE STUDY OF THE EFFECTS OF
PERSONAL VALUE STRUCTURES ON DECISION MAKING
BETWEEN EGYPTIAN AND AMERICAN GRADUATE STUDENTS

A Dissertation
Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in
The Department of Management

by
Hamed Ahmad R. Badr
B.S., Cairo University, 1966
M.B.A., Cairo University, 1971
August 1979
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ABSTRACT

The three primary purposes of this study are: to examine the effect of the personal value structures of American and Egyptian graduate students on their decision-making process; to determine the impact of different kinds of experience and/or education on the personal value structures of the two Egyptian student groups (business and science students); and to study the impact of different cultures (American and Egyptian) on the personal value structures and choice of action structures of American and Egyptian graduate business students. The data were obtained from a sample of 60 American graduate business students, 46 Egyptian graduate business students, and 47 Egyptian graduate science students.

For the American business student group, it was found that there were significant positive correlations between their scores of theoretical, economic, political, and religious personal values and their scores of theoretical, economic, political, and religious choices of action, respectively. There were no significant positive correlations between their scores of social and aesthetic personal values and their scores of social and aesthetic choices of action.

For the Egyptian graduate business students, significant positive correlations were found between their scores of theoretical, social, political, and religious personal values and their scores of theoretical, social, political, and religious choices of action.
respectively. No significant positive correlation coefficients were found between their scores of economic and aesthetic personal values and their scores of economic and aesthetic choices of action.

For the Egyptian graduate science students, significant positive correlations were found between their scores of political and religious personal values and their scores of political and religious choices of action, respectively. No significant positive correlations were found between their scores of theoretical, economic, aesthetic, and social personal values and their scores of theoretical, economic, aesthetic, and social choices of action.

It was found that the theoretically-oriented education of the Egyptian science students influenced their personal value structure, in that theoretical values occupied the first rank in their personal value structure. The economically-oriented education and/or experience of the Egyptian business students influenced their personal value structure. It was found that there were no significant differences between the scores of the three highest ranking values in their value structure (i.e., economic, theoretical, and religious values).

The statistical analysis of the impact of culture on the personal value structures and choice of action structures of Egyptian and American graduate business students showed the following results:

The personal value structure of the Egyptian graduate business students differs from that of the American graduate business students. The ranking for the Egyptian business student group was: theoretical values, first; religious values, second; economic values, third; social values, fourth; political values, fifth; and aesthetic values,
sixth. The structure for the American business student group was: economic values, first; political values, second; theoretical values, third; religious values, fourth; aesthetic values, fifth; and social values, sixth. It was found that the American business students' value structure in this study does not significantly differ from the structure of the American graduate business students in Pezeshkpur's 1975 study. It was also found that the personal value structure of the Egyptian students has remained stable for a period of four years.

It was found that the Egyptian business students differed in their choices of action from the American business students in this study and in Pezeshkpur's study.

Finally, no significant differences were found in the intensity of the correlations between personal values and choices of action for the Egyptian and the American graduate business student groups in this study.
CHAPTER I

INTRODUCTION

There is considerable evidence that personal values have a significant impact on behavior and decision making. England's theoretical model concerning the relationship of values to behavior shows that personal values are an important factor in shaping an individual's behavior.\(^1\) After case studies in business organizations, Shirley concluded that the personal values of chief executives influence their decisions. He stated:

Consciously or unconsciously our personal values may serve as criteria for choice among competing strategic alternatives . . . , assuming, of course, that all the alternatives satisfy minimum economic criteria for the perpetuation of the firm.\(^2\)

The role of personal values is perhaps most significant in situations where information is incomplete. Typically, these situations involve the most important decisions, strategic decisions being a conspicuous example.\(^3\) Therefore, the importance of understanding the


\(^2\)Robert C. Shirley, "The Influence of Personal Values on Corporate Strategy," in Current Concepts in Management, ed. by O. Jeff Harris (Baton Rouge: Division of Research, College of Business Administration, Louisiana State University, 1972), pp. 7-14.

impact of personal values on decision making is clear. Senger stresses the importance of personal values in any comprehensive decision-making theory. He stated:

The results of my study offer some evidence to support the suspicion that a decision theory which does not take into account the personal values of the decision-maker may result in models which lack predictive power. 4

In spite of the obvious importance of studying personal values and their impact on decision-making theory, there has been little research in these areas. Conner and Becker noted this phenomenon and stated:

... with only a few exceptions, however, investigators have not concerned themselves with values and the organization. Specifically, little attention has been paid to the interaction between the properties of the organizational setting and values of actors therein. ... Employee and managerial values, however, particularly as they relate to organizational performance, have received only scant treatment.5

The present study was undertaken in an effort to add to the meager empirical evidence available concerning the relationship between organizational decision making and personal values. Pezeshkpur made an empirical study regarding the relationship between personal values and decision making on a group of 120 American business students.6 This


study replicates Pezeshkpur's research, extends it to a different culture (i.e., the Egyptian culture), and adds additional variables.

Statement of the Problem

This study investigates the relationship between the personal value structures of Egyptian and American graduate students and their decision making, i.e., how the selection of one alternative out of a group of different alternatives is influenced by an individual's values. The study hypothesizes that Egyptian students majoring in different fields of study have different value structures. Thus, it is expected that the dominant personal values of Egyptian business students are economic values, while the dominant values of Egyptian science students are theoretical values. This study also includes a comparative analysis of the results obtained in this research with those obtained in Pezeshkpur's study on a group of American business students.

Purpose of the Study

The main purposes of this study are to examine the relationship between the personal value structures of individuals and their decision making in specific situations and, if there is a relationship, to determine how it varies in two different cultures and according to the kind of education or experience an individual possesses.

Specifically, this study will examine the relationship between the personal value structures of three groups of graduate students and their choices of action concerning different alternatives suggested to solve various hypothetical problem situations. These three student groups are Egyptian graduate business students, Egyptian graduate science students, and American graduate business students. The results
of this study concerning the two business groups are compared with the results of Pezeshkpur's study on another group of American graduate business students.

In order to examine the impact which the kind of education and position has on personal value structures, the study also tests the assumption that the dominant value of Egyptian science students is theoretical, while the dominant value of the business students is economical. This assumption is based on the belief that the kind of background and education an individual possesses influences his personal value structure. Guth and Tagiuri found that the dominant values of high-level United States executives was economic. Shirley speculated that the value structures of the functional managers are influenced by the nature of their functional jobs. For example, personnel managers were dominated by social values and research and development managers were dominated by theoretical values.

**Hypotheses**

In an effort to fulfill the previous mentioned purposes of this study, the following hypotheses are submitted:

$H_1$: For Egyptian graduate business students, Egyptian graduate science students, and American graduate business students, there is a

---


8 Shirley, "Values in Decision Making," *op. cit.*, pp. 1-5.

9 Hypotheses 1 through 6 are similar, to some extent, to the same hypotheses presented in Pezeshkpur's study (1-7).
positive correlation between the relative position of the individuals' theoretical values (in relation to their other values) and their relative preference of theoretical choices of action in relation to other choices of action (those choices of action which are predominantly economic, political, social, aesthetic, and religious).

$H_2$: For Egyptian graduate business students, Egyptian graduate science students, and American graduate business students, there is a positive correlation between the relative position of the individuals' economic values (in relation to their other values) and their relative preference of economic choices of action in relation to other choices of action (those choices of action which are predominantly theoretical, political, social, aesthetic, and religious).

$H_3$: For Egyptian graduate business students, Egyptian graduate science students, and American graduate business students, there is a positive correlation between the relative position of the individuals' political values (in relation to their other values) and their relative preference of political choices of action in relation to other choices of action (those choices of action which are predominantly economic, theoretical, social, aesthetic, and religious).

$H_4$: For Egyptian graduate business students, Egyptian graduate science students, and American graduate business students, there is a positive correlation between the relative position of the individuals' social values (in relation to their other values) and their relative preference of social choices of action in relation to other choices of action (those choices of action which are predominantly theoretical, economic, political, aesthetic, and religious).
\textbf{H}_5: For Egyptian graduate business students, Egyptian graduate science students, and American graduate business students, there is a positive correlation between the relative position of the individuals' aesthetic values (in relation to their other values) and their relative preference of aesthetic choices of action in relation to other choices of action (those choices of action which are predominantly theoretical, economic, political, social, and religious).

\textbf{H}_6: For Egyptian graduate business students, Egyptian graduate science students, and American graduate business students, there is a positive correlation between the relative position of the individuals' religious values (in relation to their other values) and their relative preference of religious choices of action in relation to other choices of action (those choices of action which are predominantly theoretical, economic, political, social, and aesthetic).

\textbf{H}_7: To test the effect of education on the value structure of Egyptian students, it is hypothesized that the value structure of Egyptian business students will differ from the value structure of Egyptian science students. The dominant value of Egyptian business students is expected to be the economic value (dominant over the other values which are theoretical, social, aesthetic, political, and religious). The dominant value of Egyptian science students is expected to be the theoretical value (dominant over the other values which are social, economic, political, aesthetic, and religious).

To test the effect of culture on personal values and the decision-making process, the following hypotheses are suggested using three groups of graduate students (i.e., the Egyptian and American
graduate business student groups in this study and the American graduate business student group in Pezeshkpur's study).

$H_8$: The expected personal value structure of Egyptian graduate business students differs from the personal value structure of American graduate business students (the American students of this and of Pezeshkpur's studies). The order of the personal values of American business students is expected to be economic, political, theoretical, aesthetic, social, and religious (the structure obtained from Pezeshkpur's study). It is expected that economic values will be first in the value structure of Egyptian graduate business students, with the order of the other values (political, theoretical, aesthetic, social, and religious) differing from that of the American business students.

$H_9$: Since it is assumed that Egyptian and American graduate business students have different value structures, it is hypothesized that they will indicate different hierarchies of choice of action preferences.

$H_{10}$: With reference to the positive correlations mentioned in Hypotheses 1 through 6, there is no significant difference in these correlations between Egyptian and American graduate business students.

Scope of the Study

This study includes three graduate student populations. The first population is comprised of Egyptian graduate business students studying in the United States. This group totals 69 students. The second population contains a total of 88 Egyptian graduate science students studying in the United States. Graduate engineering and agricultural students are included in this group. The last population
consists of American graduate business students studying at Louisiana State University in the Fall of 1978. This group includes a total of 171 students. The students in all three populations are male. Females were excluded from the study so that a rational comparison could be made between this study and the study by Pezeshkpur which utilized only American male business students.

The sample size of this study is 180 students: 60 Egyptian graduate business students, 60 Egyptian graduate science students, and 60 American graduate business students. The study includes a new American graduate business student sample (other than the one investigated by Pezeshkpur) in order to verify Pezeshkpur's results and to make a comparative analysis more effective.

A comparison is made between the results of this study on Egyptian and American graduate business students (60 Egyptian students and 60 American students) and the results obtained from Pezeshkpur's study on another group of 60 American graduate business students.

**Justification**

The subject of researching the effects of personal values on decision making is significant. Understanding the personal value structures of the executives of any organization may help in predicting which policies or strategies an organization will adopt. Several studies have concluded that personal values influence an executive's selection of certain alternatives from groups of different alternatives related to specific situations.\(^{10}\)

\(^{10}\)See *Review of Literature*, pp. 20-28.
Understanding the personal value structures of executives may also aid a chief executive in solving basic differences between his executives concerning the choice of organization strategies.\(^{11}\) A solution to the conflict might develop through understanding the personal value structures of the executives and formulating a strategy which would be acceptable to all. Shirley has suggested that sometimes the chief executive may be able to engineer an agreement by activating or satisfying the second dominant values of some of his subordinates.\(^{12}\)

It has been suggested that one reason for conflict in organizations is the difference in the value structures of the individuals it employs. Sikula, in his study of 200 students, found that the dissimilarities in the personal value structures of two groups of students was a major cause of the conflict between these two groups.\(^{13}\) Therefore, one way in which to reduce conflict in organizations would be to employ managers who do not have severe differences in their value structures.

Trying to match the results of strategic decisions with the managers' value structures and trying to employ managers who have minimum differences in their value structures will make these managers

\(^{11}\) Shirley, "The Influence of Personal Values," \textit{op. cit.}, pp. 7-14.

\(^{12}\) \textit{Ibid.}

more motivated and committed to achieve the strategies of their organizations.\textsuperscript{14}

In his study, Jacox concluded that if the value structures of the managers coincide or match the goals of the organization, it will lead to a more effective organization as this situation leads to a commitment by the managers to achieve the organization's goals and they will be motivated to strive for what they desire.\textsuperscript{15}

Personal values also have a role in improving communication. Conflicting values in the organization may create a breakdown in communication. In his research, McMurry found that some of the problems of or the breakdown in communication between management and workers were a result of conflicting values between these two groups.\textsuperscript{16} This does not mean that it is necessary to strive toward having complete homogeneous values in the organization, but it does mean that the managers of organizations should, at least, have some understanding of the personal values of the organization's members and how these values influence communication and decision making.

It has also been found in some organizations that having specific values makes them more effective. In a study of 94 managers and supervisors in seven large hotels, Shaner found that the personal values of "honesty" and "responsibility" were more evident in the more

\textsuperscript{14}Shirley, "The Influence of Personal Values," \textit{op. cit.}, pp. 7-14.


effective units.\textsuperscript{17} In the study mentioned earlier, Jacox found that effective organizations usually employ individuals whose personal values include a sense of accomplishment, social recognition, ambition, and broadmindedness, as well as individuals who are responsible, independent, imaginative, intelligent, logical, and courageous. These values differed from those which existed in the ineffective organizations and individuals he studied.\textsuperscript{18} Therefore, studying and understanding the personal values of an organization's members may help in explaining organizational effectiveness.

McMurry concluded in his study that some of the problems related to morale, performance standards, workers' strikes, and the problems of relationship with society are caused by the different values held by the organization's members.\textsuperscript{19} Therefore, to assist in solving these problems, management needs to understand its own values and the values of the members of the organization.

The previously mentioned benefits which result from understanding personal values and their effects on decision making may be achieved either in American or Egyptian organizations. Although there are some existing descriptive, sociological studies regarding Egyptian values, no empirical studies have been done on Egyptian values and their impact on decision making. This research is the first empirical study of the personal value structure of Egyptian students and the impact of their

\textsuperscript{17} Michael C. Shaner, "The Relationship Between Personal Values, Organizational Effectiveness: A Study of the Hospitality Industry" (unpublished Ph.D. dissertation, University of South Carolina, 1974).

\textsuperscript{18} Jacox, \textit{op. cit.}

\textsuperscript{19} McMurry, \textit{op. cit.}, pp. 130-35.
values on decision making. It is also the first comparative study between Egyptian and American personal value structures.

In summary, there is reason to believe that an understanding of the effects of personal values on decision making may be helpful in solving conflicts within an organization, increasing employee commitment to the organization's strategies, improving organizational communication, solving some of the problems of the organization, and improving the effectiveness of the organization.

Limitations

This study assumes that the personal value structures of the Egyptian graduate students in this research have not been influenced or drastically changed by the American environment during their educational period in the United States. This assumption is based on studies which suggest that personal value structures are stable and do not drastically change as a result of moving from one society to another. Therefore, it appears reasonable to assume that the value structures of the Egyptian graduate students studying in the United States are representative values of such students in Egypt. Nevertheless, this assumption is considered to be a limitation of this research, since there is at least some possibility that the personal values of the Egyptian graduate students of this study have been influenced by the American environment. The Egyptian students in this research project have been in the United States for a period of from one to four years.

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20 See Lisk and Oliver in Review of Literature, pp. 30-31.

21 See Pizam and Reichel in Review of Literature, p. 33.
To estimate the significance of this limitation, this study will compare the value structures of Egyptian students who have been in the United States for periods of one, two, three, and four or more years. This will help to determine the impact of the American environment on the personal value structure of Egyptian students.

Another limitation of this study is that the sample included only American graduate business students at Louisiana State University. However, this sample was used in order to make an objective comparison between the results of this study and the results of Pezeshkpur's study which also was comprised of American graduate business students at Louisiana State University.

Preview

Chapter II covers the literature related to the subjects of this research. It examines the literature concerning the relationship between personal value structures and decision making. It also deals with the factors which shape personal value structures.

Chapter III is devoted to depicting Egyptian values and the factors which shape these values. It explains the environment of Egyptian graduate schools.

Chapter IV focuses on the methodology of the research. It deals with how the research sample was designed, how data were collected, and which statistical techniques were used.

Chapter V explains the results and interpretations of the study results. It analyzes the data related to Hypotheses 1 through 10.

Chapter VI contains the summary, conclusions, and implications of this study, as well as recommended suggestions for further research.
CHAPTER II

REVIEW OF LITERATURE

This chapter includes definitions of concepts which are important to this study, e.g., personal values, personal value structure, and classification of personal values. It includes a review of the literature concerning the relationship between personal values and decision making, studies made on personal value structures and their characteristics, and the factors which influence personal value structures. The chapter also examines the literature regarding the impact of the cultural setting and its influence in shaping the personal value structure. This background information is important since the study involves a comparison of two different cultures, i.e., Egyptian and American. Finally, it should be noted that the review contained herein stresses empirical rather than theoretical literature.

Definitions of Important Concepts

The concepts defined include personal values, personal value structure, and classification of personal values.
Personal Values

According to Athos and Coffey, values are "ideas about what is desirable."\(^1\) Guth and Tagiuri view a value as "a conception, explicit or implicit, of what an individual or a group regards as desirable, and in terms of which he or they select from among alternative modes the means and the ends of actions."\(^2\) Kluckholn et al. stressed the same meaning when they said that a value is "a conception, explicit or implicit. . . of the desirable which influences the selection from available modes, means and ends of action."\(^3\) Providing the same meaning but stressing the global or generality of the values toward different situations, Rokeach defined values as "abstract ideas, positive or negative, not tied to any specific object or situation, representing a person's beliefs about modes of conduct and ideal terminal modes."\(^4\) Moreover, stressing again the global characteristics of values and distinguishing values from attitudes, Conner and Becker stated that "values may be thought of as global beliefs about a desirable end-state underlying attitudinal and behavioral process. Attitudes are seen to constitute cognitive and effective orientations toward specific objects


or situations. Behavior generally is viewed as a manifestation of values and attitudes."\(^5\)

From the previous definitions of personal values, it can be noted that (1) values influence the end state of different desirable alternatives; (2) they are transcendental from one situation to another and have almost the same state to any situation; and (3) behavior is usually manifested by the personal values.

**Personal Value Structure**

England's definition of the personal value system or structure is that "the personal value system is viewed as a relatively permanent perceptual framework which shapes and influences the general nature of an individual's behavior. Values are similar to attitudes but are more ingrained, permanent, and stable in nature."\(^6\) Sikula added a similar definition to the personal value system when he defined value systems as "a set of individual values that exist in a scale or hierarchy that reveals their degree of relative importance. Individuals may all possess the same values but attach different priorities or degrees of importance to them."\(^7\) Senger stressed the same meaning when he stated

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that a personal value structure is "a hierarchy of competing, fundamental life directions which act as criteria for psychological behavior."\footnote{John Senger, "Managers' Perceptions of Subordinates' Competence as a Function of Personnel Value Orientations, Academy of Management Journal, 14 (December 1971), p. 416.}

The previous definitions indicate that various values exist with each individual, although in different priorities, and this structure of values is usually permanent and stable in nature.

**Classification of Personal Values**

There are different classifications of the personal value structure. Scott offers a scale of personal values which includes values of intellectualism, social skills, loyalty, kindness, academic, physical development, status, honesty, religious, self-control, creativity, and independence.\footnote{William A. Scott, Values and Organizations: A Study of Fraternities and Sororities (Chicago: Rand McNally Co., 1965), pp. 24-25.} England, Agarwal, and Trerise offer another classification of personal values. From their viewpoint, the classes are: (1) nonrelevant values, or those which have little or no impact on behavior; and (2) conceived values, or those which influence behavior. Conceived values are made up of (a) operative values, or those which have a very high probability of being translated from the intentional state into actual behavior; (b) adapted values, or those which are less a part of the personality structures of an individual but may affect behavior because of situational factors; and (c) intended values, or those which have a relatively low probability of being
translated from an intentional state into a behavioral one. Rokeach offered another classification of the personal values. He classified the values into two sets. The first set is the terminal values which are comprised of the following: the values of comfortable life, equality, an exciting life, family security, freedom, happiness, inner harmony, mature love, national security, pleasure, salvation, self-respect, a sense of accomplishment, social recognition, true friendship, wisdom, a world of beauty, and a world at peace. The second set of values is the instrumental values which are comprised of the following: broadmindedness, capability, cheerfulness, cleanliness, courageousness, forgiveness, helpfulness, honesty, imagination, logic, love, obedience, politeness, responsibility, and self-control.

In dealing with the classification of values in business organizations, Shirley classified personal values into organizationally and culturally derived values. In the first group, he included production values, research and development values, marketing values, financial values, and personnel values. In the second group, he included Spranger's classifications, which are theoretical, economic, aesthetic, social, political, and religious values. Spranger offered his classification for the purpose of distinguishing among types of


He classified men according to their dominant values into six types of value orientations:

(1) The *theoretical* man is primarily interested in the discovery of truth and in the systematic ordering of his knowledge. He is usually rational in his scientific thinking and tries to base his conclusions on the scientific methodology of research.

(2) The *economic* man is usually interested in the practical affairs of the business world. His decisions are generally dominated by the expected economical and practical results.

(3) The *aesthetic* man is usually interested in the artistic aspects of life. He prefers decisions which bring grace, beauty, and harmony into a situation.

(4) The *social* man is usually more interested in the love of people and in having a good social relationship with them.

(5) The *political* man is characteristically oriented toward power in whatever area in which he functions. He seeks to control or lead other people.

(6) The *religious* man is usually dominated by religious principles and the orders of God. He feels that happiness comes through fulfilling God's commandments.

Spranger's classification of values (theoretical, economic, aesthetic, social, religious, and political) has been used by many scholars who have studied personal values in business settings. For example, Guth, Tigiuri, and Pezeshkpur used it in their empirical

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studies. The present study uses Spranger's classification in studying the personal values of Egyptian graduate students and American graduate business students because it facilitates a comparison of the results of this study with those of Pezeshkpur's study.

A Review of the Literature Concerning the Relationship Between Personal Values and Decision Making

As previously mentioned, the review of the literature is oriented more toward empirical rather than theoretical studies which have been done on the relationship between personal values and decision making.

It is believed that personal values influence the order of suggested alternatives for solving problems in a specific situation. This influence may be indirect or direct. Values may influence an individual's perception and this perception, in turn, influences decision making. This is known as an indirect influence. The personal value structure may directly influence decision making. This is known as a direct influence.15

Influence on Behavior and Individual Perception

In a study done by Ruh, White, and Wood on a sample of 19 industrial plants, it was found that the personal values of the


15 Pezeshkpur, ibid., pp. 23-32.
employees were one of the factors which influenced their behavior in their work involvement.\textsuperscript{16} Rae, in his study of political policy formulation, found that personal values influenced expressions of belief.\textsuperscript{17} Sikula, in his research to find an explanation for the behavior of individuals in an organization, concluded that personal values, not motivations, offered a good explanation for individual behavior. He considered value systems as the determining factor of the behavior of individuals. He suggested using values instead of motives to explain individuals' behavior because values may be more easily measured. He also mentioned that an individual's values determined his view of the world and directed his perception and behavior by causing him to notice certain characteristics of an object and to react to the object on the basis of these characteristics. Values are a ready-made format for future thinking and behavioral responses.\textsuperscript{18}

In an effort to provide a complete picture of how values influence behavior, perception, and decision making, England offered his theoretical model of the relationship of values to behavior (Figure 1).\textsuperscript{19}

\begin{itemize}
  \item \textsuperscript{17} Douglas W. Rae, "Decision-Rules and Individual Values in Constitutional Choice," \textit{American Political Science Review}, 63:7 (March 1969), pp. 40-56.
  \item \textsuperscript{18} Andrew F. Sikula, "Values and Value Systems: Importance and Relationship to Managerial and Organizational Behavior," \textit{Journal of Psychology}, 78 (July 1971), pp. 277-86.
\end{itemize}
FIGURE 1
THEORETICAL MODEL OF THE RELATIONSHIP OF VALUES TO BEHAVIOR

Potential Values

<table>
<thead>
<tr>
<th>Nonrelevant values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conceived values</td>
</tr>
<tr>
<td>Adopted values</td>
</tr>
<tr>
<td>Operative values</td>
</tr>
<tr>
<td>Intended values</td>
</tr>
</tbody>
</table>

Behavior Channeling

- Alternative Generation
- Alternative Testing
- Decision Making
- Problem Solving

Environment Influences and Constraints

- Limited
- Specific
- Range of Time
- Space Behavior
- Behavior

Selecting, Filtering, and Interpreting Incoming Sensory Data

From the previous studies, it may be noted that the influence of personal values on decision making, perception, and individual behavior is significant.

Influence on Decision Making

In reviewing research done on job enlargement, Hulin and Blood concluded that the employee who has middle-class values usually prefers the enlarged jobs. Senger found in a study of 244 managers that managers who have strong religious values are more socially- and humanistically-oriented and relatively disinterested in personal earnings and company profits. Senger stated:

One might expect that in his pursuit of socially oriented goals for a company, the religious manager would probably tend to pursue these social goals along traditional paths, such as, providing more employment, contributing time and money to charities, and improving working conditions.

In another study of 1,072 American managers, England found that managers' personal values influence their behavior and their selections among alternatives in the decision-making process. Moreover, he found that personal values operate on the level of corporate strategy and goals, as well as on the level of day-to-day decisions.

Farris studied the impact of the personal values of 226 purchasing managers on their behavior and decision making. Some of


the conclusions he reached are: 

(1) values influence a purchasing manager's perception of reality and problems he faces, and (2) values influence his decisions and solutions to problems. 23

Guth and Tagiuri described many situations in American organizations where the dominating personal values of an executive play a very important role in setting the corporation's policies. They concluded that the values which are most important to an executive have a profound influence on his strategic decisions. 24

In an experimental study, Dolores found that the experimental group of 25 students (who were trained to clarify their own values) made decisions which were mostly consistent with their values. They were able to solve the conflict between some selected decisions and their personal values. The control group of 25 students, on the other hand, were less able to make decisions consistent with their values than the experimental group. 25

In a study which attempted to explain the relationship between values and behavior of managers in Australia and India, Lee found that the relationship between values and decision making was inclusive. Values influence decision making somehow; but other factors, such as situation conditions, available means, and abilities, etc., can cause or influence managers to behave inconsistently with their values.


Moreover, Lee found that the different types of managers (Australian and Indian) vary significantly in their personal value structures.  

Dale examined the influence of educators' personal values on curriculum-related decision making. She selected a sample of 1,500 educators and found significant correlations between the educators who had theoretical, economic, aesthetic, and social values and their decision-making structures. No significant correlations were obtained for the educators who had politically- or religiously-dominated values and their decision-making structures, however.  

Postman, Bruner, and McGinnes performed an experimental study on 25 students. The students were shown 36 words; each group of six words was related to one value of Spranger's six values (theoretical, economic, social, political, aesthetic, and religious). The value profile of the students was measured by using Allport's personal value measure. It was found that the words relating to the higher values of a student were seen in a shorter time than the words relating to lower values. Therefore, Postman et al. hypothesized that "personal values are demonstrable determinants of what an individual selects perceptually from his environment." This is logical since the individual wants to have consonance with his values and selection; therefore, his  

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perceptual defense does not let him select alternatives which are not consistent with his values. 28

In another experimental study on 60 graduate students at Cornell University, it was found that the students' values determined the priorities of achieving different goals, and determining the priorities influenced the decision-making process. Therefore, the personal values indirectly influenced the decision-making process. 29

In a study of 28 managers and their 151 subordinates, Senger found that the majority of the managers rated the subordinates with values similar to their own higher than the subordinates with dissimilar values. This pattern was particularly marked in situations in which the manager had general management responsibility. 30 In another study, Sikula concluded that the personal goals determined behavior and are a function of personal value systems. He stated:

In summary, personal goals direct and determine individual behavior. They, in turn, are determined by and sometimes even considered to be synonymous with individual values and value systems. . . . A growing body of recent research knowledge is accumulating which indicates the importance of values and value systems in explaining and determining not only individual, but also group and organizational behavior. 31


Shirley offered cases in business organizations which showed that values influence the setting of strategies for these organizations. He stressed the idea that this influence must not go beyond having minimum economic criteria for the perpetuation of the firm.32

In a study of 140 American managers, Jacox found that the goals of organizations were significantly related to the personal values of the managers, but weak in predicting these values.33 Similarly, in a study of the impact of personal values of New York Telephone Company managers, Manley found that, in general, the goals of the business were strongly affected by the personal values of its managers. For example, the organization's goals were formally set as quality of service, first, and rate of interest, second. The managers, however, operationally ordered the goals according to their values, i.e., quality of service, first, and employee welfare, second.34

In another study of 244 managers, Senger found a relationship between an executive's personal value structure and the organizational decisions made by that executive. This value-decision relationship

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appeared to be even closer for higher ranking executives and for general managers than it was for executives as a whole.  

Pezeshkpur, in his study of 120 business students (60 undergraduate and 60 graduate students), discovered that the personal value structures of these students significantly affected their decision-making processes. He also found the personal value structures of the undergraduate students to be different from those of the graduate students. These differences were due to the age and the length of education in the two groups. The existing dissimilar value structures of the two groups led them to react differently to the same situations.

All of the empirical studies discussed in this section indicate that personal value structures affect the process of decision making, either indirectly by influencing the individual's perception which, in turn, influences his decision making, or by directly influencing the decision-making process.

**Personal Value Structures**

Personal value structures represent the ordering of individual personal values. Every individual has the same values, although they may occur in different orders and different relative importance may be attached to the values. Not only individuals have personal value structures; society, in general, has specific value structures as well. A society, during its history or historical periods, is usually

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36 Pezeshkpur, op. cit., pp. 1-150.
dominated by one of the values (love, hate, time, life, togetherness, or creative thinking).³⁷

There are several studies which have focused on personal value structures. Sikula studied the personal value structures of a sample of American industrial personnel managers. He concluded that these managers have dominant initiative and competence values.³⁸ In another study of employees in the Federal Department of Health, Education, and Welfare, Sikula found that they were strongly oriented toward aesthetic and social values.³⁹ Kahn and Vana concluded from their empirical study that purchasing managers have dominant security values.⁴⁰

It has been shown that medical students have high theoretical values, but low religious values; the opposite is true for theology students.⁴¹ In a study by Simonds, it was found that the value structure of managers of 45 chambers of commerce in the United States was different from that of the general population. Their higher values

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³⁷Alfred P. Bernhart, Vitality, Community, Creativity: Dimensions of Figure Values (Toronto, Canada: University of Toronto Press, 1975).


were in the following areas: wisdom, self-respect, an exciting life, responsibility, and capability.  

Characteristics of

Personal Value Structure

As mentioned previously, the personal value structure is relatively stable. In a study which supports this idea, Lusk and Oliver examined the change in personal values of 1,072 managers between the period 1966 and 1972. They found that personal values remained relatively stable; changes were minor. Another study supports the idea of value stability and the idea that although our beliefs may sometimes change, our values remain stable or do not change quickly. In a study entitled "Raising Children in a Changing Society," it was found that in spite of the fact that some parents believed in families being less oriented toward children, they treated their own children according to traditional or conservative values. It was also stated:

... 43% of the parents participating in the study do not consider marriage, religion, saving money, patriotism, and success to be important values for themselves. But like more conservative counterparts, they teach their children to believe that duty comes before pleasure, hard work pays off, people in authority know best, and sex is wrong without marriage.

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In the same study, it was found that the majority of American families, in general, still value the conventional role of the mother as being responsible for shopping, meal preparation, housecleaning, and all general child care.\(^4^5\)

In still another empirical study, Slaughter found that the personal value systems of managers under 30 years of age were not significantly different from those of older managers.\(^4^6\) This indicates that for two generations of managers, values remained relatively stable and unchanged.

The previous studies provide some evidence that personal value structures are stable and are not significantly changeable. This does not mean that they are static, but rather that they do not change quickly or drastically in a short period of time. Perhaps the reason for this stability is that personal values are usually culturally-based.\(^4^7\) Jacobson, in his empirical research, found that senior level students of today appear to be fairly traditional in their order of ranking the top three values—economic, political, and theoretical. Although social values were significantly higher than for a comparable sample of a decade ago, authoritarianism and religious values were substantially lower than those of the older business sample.\(^4^8\)

\(^{4^5}\) Ibid.


\(^{4^7}\) Hollander, op. cit., p. 140.

\(^{4^8}\) George Henry Jacobson, "An Examination of Possible Changes in Authoritarianism, Values, and Cognitive Complexity, With Their Implication for Business" (unpublished D.B.A dissertation, University of Southern California, 1974).
Besides being stable, personal value structures are frequently misperceived. Thus, certain values of some people may be exaggerated or lowered by other groups of people. Guth and Tagiuri found that the values of scientists, research managers, and executives were misjudged by each group as opposed to the other. For example, the economic values of the executives were given higher scores by the scientists and research managers than the executives themselves viewed their own economic values.\(^49\) It even appears that long and high level working relationships do not significantly reduce this misjudgment. In a study of 204 managers, Powell found that the longevity of the subordinate in working with his superior and the managerial level in which both the manager and his subordinate worked did not increase the ability of the subordinate to accurately gauge his superior's values.\(^50\)

**Factors Which Influence Personal Value Structures**

There are many variables which influence personal value structures. These variables are influentially interrelated, although some may be more influential than others. They can be classified into two groups--cultural variables and other variables. The first set of variables explains differences in the value structures on the basis of existing different cultural settings; the second explains differences


in terms of other factors such as age, sex, race, political conviction, position, education, and income.

**Cultural Factors.** Individuals living in different cultures usually have different value structures, since most of them have different histories, languages, religions, freedoms, needs, and industrial development. Studies have been made regarding the impact of having different cultural value systems. Fred Luthans suggests that personal values are a product of the individual culture.\(^{51}\) From an empirical study of 92 managers who immigrated from different cultures to Israel, Pizam and Reichel concluded that managers from traditional societies have different values and attitudes from those of modern western societies. These differences have an impact on the managers' behavior in their organizations.\(^{52}\) Also, it has been found that if two countries are in different stages of industrial development, their people will have different value structures because the industrial environment plays a significant role in shaping the value structures of the individuals.\(^{53}\)

Another study examined the roles of culture and industrialization as factors explaining similarities in the value systems of managers in five countries (Japan, United States, Korea, India, and

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Australia). It was concluded that both these factors play an important role in influencing the similarities and the differences found in the value systems. In a similar study, Ronen and Kraut clustered 15 countries according to the similarities in their employees' work values and attitudes. They found that both language and culture play an important role in the divergence or convergence of the value structures of the employee in the different countries.

In a study of the value structures of college students in the United States, India, Norway, China, and Japan (for a value structure of five values), it was found that the values had different orders and different degrees of importance in each country. Also, in England's study, the value systems of managers in the United States, Japan, and Korea differed for each country.

The empirical studies cited above suggest that personal value systems tend to differ from one culture to another; therefore, the reactions of managers from different cultures to the same situation will be different.

Other Factors. As previously mentioned, other factors include race, position, religion, education, income, age, and sex. There are

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56 Hollander, op. cit., pp. 143-47.

some studies which suggest that different value structures are a result of these other factors.

Watson and Barons, in their research concerning the differences of 66 black and white managers, found that the value structure of the white managers differed from that of the black managers. They found that the black managers placed greater emphasis on organizational growth than did their white counterparts. Moreover, the black managers placed greater operative importance on influence, prestige, and security than did their white counterparts. Change, riots, and nationality, however, are more operative for the white managers than for the black managerial group. Also, while ideas associated with people were a more operative value for the white managers, trust was a more operative value for the black managers.58

Position also appears to have an impact on personal value structures. In a study of 225 students and 1,072 managers, it was found that the students and the managers had some different values. Power, achievement, influence, and individuality, as well as money, dignity, security, and success were more operative for the students than for the managers. Organizational goals and profit maximization were more operative for the managers than for the students. Also, organization stability, i.e., social welfare, was more operative for the students.59 England et al. found that the personal value


structures of American managers are, in general, different from those of union leaders.\(^{60}\) In another study, Bremer discovered that position played a more significant role than did family, church, or school in shaping the personal value structures of businessmen in the American society.\(^{61}\)

Religion also plays a significant role in influencing personal values. Senger, in his study of 244 managers, found that religious managers have more humanistically-oriented values; they are disinterested in personal earnings and prefer goals which will lead to more employment, improved working conditions, and furthering support for nonprofit organizations.\(^{62}\)

Pezeshkpur found that age and length of education correlated with different personal value structures in his study of 120 graduate and undergraduate business students.\(^{63}\)

In a study of the correlation between low- and high-income people's values and their preferences for two circumstances, it was found that the low-income class (blacks) preferred shifting U.S. monies from military spending to urban aid. This preference was higher than that of the high-income class. In another circumstance (that of giving women equal opportunities in professional and managerial jobs), the high-income group preferred this situation more

\(^{60}\)England et al., "Union Leaders and Managers," \textit{op. cit.}, pp. 211-25.

\(^{61}\)Bremer, \textit{op. cit.}, pp. 121-25.


\(^{63}\)Pezeshkpur, \textit{op. cit.}, pp. 1-150.
than the low-income group. It was concluded that income influences personal values for some people.  

Ondrack, in reviewing empirical studies done on the occupational values of students in different generations, found that the present generation of students placed a stronger emphasis on independence and achievement values than did the previous generation. Cherrington, however, found that younger workers did not value hard work or take pride in craftsmanship as much as older workers did. Social values were more important to them than to the older workers.

Sex also has an important impact on shaping value structures. Cook found that there is a significant difference in the value systems of male and female executives. Manley indicated that female managers appeared to internalize both the values and the goals of organizations more completely than their male counterparts.

Jacox studied the factors which resulted in different value structures of managers in business organizations. He found that age,

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68 Manley, op. cit.
sex, and income played a significant role in shaping different value structures. 69

It may be concluded from the above studies that race, position, religion, education, income, age, and sex all play significant roles in shaping the personal value structures of individuals.

Summary

There is abundant literature defining personal values. Most of these definitions include the following factors: that personal values influence the end state of different desirable alternatives, transcend from one situation to another (with almost the same state for any situation), and usually influence an individual's behavior.

The concept of a personal value structure has been formulated by several different scholars. The majority of these scholars stress the idea that the personal value structure is a set of individual values which exist on a scale or hierarchy that reveals their degrees of relative importance.

There are many different classifications for the personal value structures. This study, following other studies of business organizations, utilizes Edward Spranger's classification of values for grouping personal values. Spranger classified types of men according to their dominant values, i.e., theoretical man, economic man, aesthetic man, political man, social man, and religious man.

After reviewing the literature on the relationship between personal values and decision making, it was found that many empirical studies support the idea that the personal values of individuals

69 Jacox, op. cit., p. 35.
influence their selections from among the available alternatives for problem solving. This influence may either be direct, in which the values directly influence decision making, or indirect, in which the values influence the individual's perception which, in turn, influences decision making.

Personal value structures are usually stable, but also are often misperceived by others. There are many factors which influence personal value structures. These may be classified as cultural factors and as other factors. Cultural factors relate the differences in the personal value structures due to cultural variables such as language, religion, and stage of industrial development. The so-called other factors include race, position, religion, income, education, age, and sex.

The next chapter will describe the foundations of Egyptian values. These foundations will clarify how the Egyptian political, economic, and social systems have shaped the personal values of the Egyptian people.
CHAPTER III

FOUNDATIONS OF EGYPTIAN VALUES

Although individual value structures differ, people living in the same country typically share common values. Such is the case of the Egyptians. Their values are influenced by such factors as their country's political, economic, social, religious, cultural, and educational systems. Descriptive sociological literature is available concerning Egyptian values; however, to the researcher's knowledge, no empirical studies have been performed in an effort to determine how the above mentioned systems have influenced or shaped the value structure of the Egyptian people.

This chapter offers a brief presentation of the foundations of these systems which may be considered as the factors which have shaped Egyptian values. The empirical results of this study concerning the Egyptian students (Chapter V) will be interpreted by referring to the Egyptian value foundations as described in this chapter. These foundations, i.e., the political, economic, religious, cultural, and educational systems, all interact to influence the personal values of the Egyptian people.
The Egyptian Political System

The recorded Egyptian political system dates back to 6000 years B.C. During the Phoroanic period, in which the king (Phoroan) was all-powerful, the political hierarchy was based on vertical authority which flowed from top to bottom. Under this system, the ancient Egyptians built an extremely sophisticated society, especially with regard to engineering, construction, art, religion, and agriculture. Religious beliefs played a major role in influencing decisions during this time. Believing that the soul would return to dwell in their human bodies after they died, the ancient Egyptians build majestic structures such as the pyramids to house their bodies after death. The temples and ancient religious cities in Al-Oxer evidence the influence of religion on the lives of the Egyptians during this period.¹

After the Phoroanic period, Egypt was subjected to invasions from the Roman and Greek Empires. These invasions did not alter Egyptian values or the Egyptian structure to a great degree. On the contrary, Egyptian literature and philosophy played significant roles in advancing the knowledge of the invaders. Historical evidence shows that Greek philosophy was significantly influenced by Phoroanic philosophy, especially in the study of theology. Also, the Greek Empire acquired some of its engineering expertise from the ancient Egyptian civilization.²

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At the beginning of the seventh century, Moslem leaders migrated from the Arab peninsula (now Saudi Arabia) to Egypt. They had been asked by the prophet Mohamed to spread the Islamic religion to people of other nations. They did not come to exploit the Egyptian economy, impose power, expand their empire, or gain strategic benefits by occupying the land. Rather, they came to spread the worship of one God, create justice, eliminate the dictatorship of the Roman rulers, improve human relationships, and raise the dignity and respect of the human being as befits the best creature on earth. For these reasons, the Islamic religion was welcomed by a majority of the Egyptians.

Under the Islamic religion, the Egyptians practiced self-government and the arts of leadership and justice. The characteristics of the Islamic religion have permitted it to influence and shape everything in the society. This religion has played a significant role in forming the social, political, and economic systems as well as every other aspect of the Egyptians' lives.

During the nineteenth century, European invaders, i.e., the English and French, came to Egypt. Their primary purpose was the exploitation of the Egyptian economy. In spite of their occupation of the country for over 50 years, their influence on the values of the Egyptian people as a whole was not significant. Although they may have benefited economically and controlled politically for a period,

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____, Signs in the Road (Cairo: Dar El-Sherouk, 1954).
they were unable to significantly alter the values or the composition of the Egyptian people.\(^5\)

In 1952, the Egyptian revolution began. Its primary purposes were to expel British imperialism, eliminate feudalism in Egypt, eliminate exploitive capitalism, create social justice, and create an actual democracy. The revolutionists took drastic measures to reach their goals, and fought the British using any means available until they were completely driven out in 1954. The revolution leaders enacted the law of agriculture and reclamation by which the feudalistic system was to be abolished; the cooperative ownership agriculture system took its place. Although it may not be exploitive, ownership of agricultural land still exists. (Land ownership would be considered exploitive if there are more than 200 feddans per individual and his immediate family members.) To eliminate exploitive capitalism, decisions were made to nationalize certain industries which represented the core elements of Egyptian industry. A large public sector of commerce and trade was created, and national planning was established. A private commercial and industrial sector also exists and is encouraged as long as it is not exploitive.\(^6\) (During the above mentioned period, ownership in the private sector was considered to be exploitive if estimated net profits were more than 6,000 Egyptian pounds per year.) Concerning Egyptian democracy from 1952 to 1973, theoretically, the revolution leaders claimed that they had created a good democracy.


Actually, power was concentrated in the hands of a few politicians usually associated with the top political leader. It has been said that power was abused. Although this period produced good results for the Egyptians and the Arabic world, it also produced defects and mistakes. There was no actual democracy during this period.7

The period from 1973 to the present may be considered as an extension of the previous period (1952-1972). Egypt's political leaders have attempted to avoid earlier mistakes. They have tried to create a better democracy and to build a more flexible and practical economic system to replace what was primarily a theoretical system of the previous period. Under President Sadat's leadership, an open economic policy has been established, plans have been made for a so-called socialist democratic society, and democracy has been formally practiced to a larger extent. The existence of a party system in the Assembly People of Egypt also bears witness to the attempts being made to further democracy in Egypt. The actual independence of judicial authority, more measures to create independent journalism, and recognition of the freedom of opinion were all major steps toward a better democracy. Although the trend toward a better democracy has been growing, the interrelated systems of Egypt may sometimes prevent the attainment of complete democracy. President Sadat hopes to establish a permanent democratic system to fulfill the sixth goal of the revolution, i.e., to create a sound democratic society.8

7 Democratic Socialism (Cairo: The Suprum Council of the Egyptian Universities, 1977).
8 Ibid.
The Egyptian Economic System

Before 1952, the Egyptian economic system was dominated by capitalistic, free enterprise theory. Agriculture represented the largest sector in the economic structure. The industrial sector was dominated primarily by those businesses related to agriculture, i.e., textile, sugar, and food-processing industries. The banking industry was a combination of foreign and Egyptian banks. Trade was more internal than international, except where agricultural products were concerned.9

During the period from 1952 to 1961, the government nationalized some of the larger industrial, commercial, and financial companies. This was the beginning of the creation of a strong industrial economy. The National Egyptian Plans focused on efforts to shift industry to heavy construction areas such as the steel, transportation, electronic and electrical, petroleum, and ready-foods.10

The period from 1961 to 1972 witnessed a drastic change in the Egyptian economy. In 1961, President Nasser promulgated the "Arabic Socialism Laws." Based on these laws, many industries were nationalized and their ownership shifted to the public sector. The economic system was divided into two sectors. In the public sector, companies belonged to the people or to the state. This sector controlled a major portion of the industrial, trade, and service sectors. Even that part which was managed by the private sector was greatly influenced by the public sector because it controlled the economy to such a large extent.

9 Wilber, op. cit., pp. 283-335.
10 Mohamed R. Mahgoub, Arabic Socialism (Cairo: Dar El-Nahda, 1965).
The private sector of the economy was comprised primarily of the agricultural system and small trade and industrial businesses.\footnote{11}{Ibid.}

After 1972, an open economy policy was implemented. While it did not eliminate the public sector, this policy did create greater flexibility in the limitations of and the areas comprising each sector. Foreign investments were encouraged; these investments would greatly benefit Egypt as it had been having difficulty completely funding its huge projects. The policy also provided more encouragement to the private sector to succeed in those areas in which it had proven itself to be most effective. Greater efforts toward trying to create political stability and a peaceful atmosphere in the Middle East may help this open economy policy to succeed.\footnote{12}{Democratic Socialism, op. cit., pp. 42-43.}

Because of the limited land area which can be cultivated for agriculture in Egypt, the government has encouraged greater industrialization to compensate for this limitation. Table 1 gives an idea of the increase in Egyptian industrialization since 1972.

The Egyptian Social System

The Islamic religion provides the basis for Egypt's entire social system. The Holy Quran and the statements of the prophet Mohamed (peace be upon him) explain or clarify everything concerning Egypt's social system. The Islamic religion explains what the relationship between family members should be, the best method of family interaction, the best guidelines for personal behavior, and how happiness may be achieved.
### Table 1

THE INCREASE OF INDUSTRIAL PRODUCTS  
(Millions of Egyptian Pounds)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum and crude products</td>
<td>34.2</td>
<td>152.2</td>
<td>155.2</td>
<td>178.4</td>
<td>203.9</td>
<td>385.7</td>
<td>574.9</td>
</tr>
<tr>
<td>Mining products</td>
<td>3.6</td>
<td>12.1</td>
<td>11.0</td>
<td>12.6</td>
<td>16.7</td>
<td>18.1</td>
<td>18.6</td>
</tr>
<tr>
<td>Chemical and medical products</td>
<td>20.5</td>
<td>155.9</td>
<td>117.4</td>
<td>116.3</td>
<td>169.4</td>
<td>269.0</td>
<td>277.0</td>
</tr>
<tr>
<td>Food products</td>
<td>122.3</td>
<td>485.6</td>
<td>602.6</td>
<td>562.6</td>
<td>614.8</td>
<td>694.0</td>
<td>773.0</td>
</tr>
<tr>
<td>Electrical and engineering products</td>
<td>30.1</td>
<td>235.6</td>
<td>245.6</td>
<td>245.0</td>
<td>201.0</td>
<td>393.0</td>
<td>445.1</td>
</tr>
<tr>
<td>Construction and building products</td>
<td>8.4</td>
<td>59.7</td>
<td>61.6</td>
<td>75.0</td>
<td>73.0</td>
<td>94.0</td>
<td>76.3</td>
</tr>
<tr>
<td>Textile products</td>
<td>84.6</td>
<td>510.9</td>
<td>512.7</td>
<td>542.4</td>
<td>594.9</td>
<td>689.0</td>
<td>704.2</td>
</tr>
</tbody>
</table>

The Family

Social interaction between family members is deeply entrenched in the Egyptian family. Family members have a great respect for their parents. The older the family member, the more he or she is obeyed and respected. Even after a family member marries, parental influence on the couple's lives still exists. Communication and respect for the parents and other family members are preserved no matter where a family member may be located. Therefore, the family is considered to be a very important release for the psychological blocking or behavior deviation of any member of the society. Although it exists in both, this social solidarity is more significant in the village than in the city.\(^\text{13}\)

Friendship

Friendships may be formed in social organizations, work organizations, educational institutions, or neighborhoods of the same area or village. Segregated friendships exist between adult males and females, except when visiting with their family. According to the Islamic religion, no sexual relationship is accepted, except after marriage. Friendship satisfies many of the social needs of people in the society; and most friendships last for a very long time, even when the persons involved become separated.\(^\text{14}\)

\(^{13}\) Wilber, op. cit., pp. 81-86.

\(^{14}\) Ibid., pp. 88-93.
The Egyptian Religious System

Of the Egyptian population, 90 percent are Moslem and 10 percent are Christians or belong to other faiths. The fundamental belief of the Islamic religion is the oneness of God—there is no God but one. The five basic pillars of Islam are: witnessing that there is no God but one and that Mohamed is his messenger; praying five times a day; fasting one month a year; paying Zakat (money to the poor); and making a pilgrimage to Mecca if the individual is financially able. The most distinguishing characteristic of the Islamic religion is that there is no separation between the state and the religion; the Islamic religion is a whole system which encompasses the economic, social, political, military, and international aspects of the state.  

Since the beginning of the second decade of the 20th Century, there has been a trend toward separation between the Islamic religion and the state in most Islamic countries. This trend is not completely accepted, however. Many religious scholars argue that a separation should not exist between the Islamic religion and the state. These scholars consider the main cause of the Islamic states' problems to be the partial implementation of the whole Islamic religion. Therefore, they have been calling the people and the governments to implement the whole of the Islamic aspects. They consider this return to be a "good way" of regaining progress and solving the problems of society. Some Islamic countries, such as Iran and Pakistan, have already put this understanding of the Islamic religion into practice.


In Egypt, the Islamic religion organizes and shapes the lives of the people. The interjection of economic and political aspects which are contradictory to the Islamic religion has been resisted by most Islamic organizations, as well as by most of the people. While the most influential Islamic organizations are the Ministry of Religious Affairs, Al-Azhar University (a religious institution), and the organization of Ekhwan Moslimin (the Moslem brothers), there are many other ways of serving God--either individually or collectively. The main purpose of these organizations is to bring about the adoption of the whole Islamic system as a way of life and as a way of managing the state.17

Moslem Egyptians, as well as Moslems all over the world, have certain Islamic feasts. There are national celebrations held each year. These feasts and celebrations increase social relationships between the people and create love among them. There are also some marriage and feast customs which are primarily influenced by religious beliefs.18

The Egyptian Educational System

The stages of education in Egypt are similar to those in the United States. The system begins with kindergarten and ends with graduate studies toward Master's and Ph.D. degrees. Enrollments in Egyptian universities and higher educational institutions have been increasing to a large degree. Table 2 shows the increase in the number


18Wilber, op. cit., pp. 87-105.
<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
<th>Male/Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970-71</td>
<td>131,890</td>
<td>46,065</td>
<td>36,414</td>
<td>214,369</td>
</tr>
<tr>
<td>1971-72</td>
<td>146,124</td>
<td>52,950</td>
<td>42,616</td>
<td>241,690</td>
</tr>
<tr>
<td>1972-73</td>
<td>164,620</td>
<td>64,114</td>
<td>48,925</td>
<td>277,659</td>
</tr>
<tr>
<td>1973-74</td>
<td>195,637</td>
<td>80,426</td>
<td>42,926</td>
<td>318,989</td>
</tr>
<tr>
<td>1974-75</td>
<td>244,799</td>
<td>95,301</td>
<td>50,063</td>
<td>370,163</td>
</tr>
<tr>
<td>1975-76</td>
<td>296,910</td>
<td>124,394</td>
<td>51,050</td>
<td>472,354</td>
</tr>
</tbody>
</table>

of students enrolled in Egyptian universities and higher educational institutions.

It can be seen in Table 2 that the proportion of highly educated people enrolled in college studies each year to the population (38 million) is relatively high. The educational system offers courses in every area of learning, including religion.

The Egyptian Cultural System

The spoken and written language of Egypt is Arabic. It is the language of all the Arabic countries and the language of the Holy Quran.\(^\text{19}\)

Egypt has an extremely fine art heritage. Significant art work exists in the ancient Egyptian temples and in the Cairo Museum which provide some idea of the degree to which the ancient Egyptians had developed in the field of the arts.\(^\text{20}\)

Presently, there are many art forms practiced in Egypt, i.e., voice, drawing, sculpture, music, movie-making, etc. There are schools which teach the most advanced instructions for the various art fields. The Ministry of Culture is providing for these various art forms.\(^\text{21}\)

Summary

During the Phoroanic period, the Phoroan was all-powerful, and ancient Egyptians followed his decisions. Following this period, Egypt was subjected to invasions from the Roman and Greek Empires. Next came

\(^{19}\) Wilber, op. cit., pp. 53-61.

\(^{20}\) Ibid.

\(^{21}\) Ibid.
the Islamic leaders who drastically changed the Egyptians' social, political, and economic values. Egypt was next dominated by the occupation of the British, whose primary purpose was to exploit the economy of the country. In 1954, Egypt was liberated from this foreign occupation. During the period from 1952 to 1973, Egyptian democracy was abused by the political leaders. Presently, however, the government of Egypt is trying to establish a better democracy for the people.

Egypt has shifted from an economic system which was centrally directed by the government during the period from 1961 to 1973 to a more open economic policy which has been in effect from 1973 until the present time.

The family unit and the friendships which exist between the people play a significant role in the social system of Egyptian society. Social relationships between the people are strong and last for many years.

The Islamic religion also plays a major role in the lives of the Egyptians. It influences their social, political, and economic systems.

All these systems (political, economic, religious, cultural, and educational) have interacted to formulate the Egyptian personal value system.

Chapter IV will deal with the methodology of research used in this study.
CHAPTER IV

METHODOLOGY OF THE RESEARCH

As indicated in Chapter I, the purposes of this research are to study: (1) the effect of personal values on the decision-making process of three student groups (i.e., Egyptian graduate business students, Egyptian graduate science students, and American graduate business students); (2) the impact which experience or education has on the personal value structure of Egyptian graduate students; and (3) the impact which different cultures (American and Egyptian) have on the personal value structures and decision-making process of American and Egyptian graduate business students.

This chapter explains the scientific methodology of research which was used to satisfy the purposes of this study. The research methodology includes five parts: (1) a description of the populations of the study; (2) the sample design; (3) techniques of data collection; (4) the procedure used in collecting and scoring the data; and (5) techniques of data analysis.

Populations of the Study

Three male populations comprise the scope of this study. They are: Egyptian graduate business students studying in the United States; Egyptian graduate science students studying in the United States; and American graduate business students studying in the United States.
States;¹ and American graduate business students studying at Louisiana State University. It was decided to select these three populations in order to study the effects of personal value structures of Egyptian and American graduate students on their decision making and to determine the impact of their different cultures (Egyptian and American) on their value and choice of action structures. Table 3 shows the total number of students in each category.

TABLE 3
EGYPTIAN AND AMERICAN STUDENTS BY CATEGORY

<table>
<thead>
<tr>
<th>Egyptian Graduate Students</th>
<th>American Graduate Business Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Business</td>
</tr>
<tr>
<td>----------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>69</td>
<td></td>
</tr>
</tbody>
</table>

Since the results of this research project will be compared with those of a previous study performed by Pezeshkpur, female students were excluded from all population groups. Pezeshkpur used only American male graduate students in his study; therefore, the exclusion of females in the present study is necessary in order to make a comparison more acceptable. Since sex was found to be one of the factors influencing personal value structures,² the exclusion of female students is reasonable. Also, since one of the purposes of this study is to make a comparison of the impact of values on decision making in the Egyptian and American cultures only, other international students were excluded from the American population group.

¹ Graduate agriculture and graduate engineering students are included in the Egyptian graduate science group.

² See Chapter II, p. 37.
A list of names and addresses of Egyptian students was obtained from the Egyptian Cultural and Educational Bureau in Washington, D.C. A list of names and addresses of American students was obtained from the Graduate Business Administration Students Office at Louisiana State University. Female students were deleted from the two lists, and international students were deleted from the American list. The figures shown in Table 3 are those obtained after these deletions.

Sample Design

It was determined that a sample size of 60 students per population would be adequate. This size represented a high proportion of the total students in each of the three populations. It was statistically large enough, and it was comparable to the sample size used in Pezeshkpur's study. However, since it was expected that some of the students would not respond for various reasons, the sample size was enlarged to 69 students from the Egyptian business group (the total students of the population); 70, from the Egyptian science group; and 65, from the American business group. Based on these sample sizes, it was expected that the response rate to the questionnaires would be high. The researcher believed that the study subjects would not hesitate to answer and return the questionnaires since they were graduate students and would realize the importance of the questionnaires. The researcher also intended to make a concerted effort to follow up the questionnaires.

The enlarged sample size of the American student group (65 students) was smaller than the enlarged samples of the Egyptian student groups (69 business students and 70 science students) because (1) the
researcher was able personally to distribute and collect the study questionnaires and (2) personal communication with the subjects was possible. Simple random samples of 70 students from the 88 Egyptian science student group and 65 students from the 171 American business student group were drawn using the random numbers tables.

Techniques of Data Collection

To test the hypotheses stated in this research, two questionnaires were used. The first questionnaire, developed by Allport, Vernon, and Lindzey, measured the personal values of the subjects of this study (see Appendix A-1). The second questionnaire, developed by Changiz Pezeshkpur and used in his study on American business students, measured the relative individual preferences for different alternatives by having the students answer questions regarding specific situations (Appendix B-1). The second questionnaire was originally validated by a panel of three Louisiana State University professors--two from the Department of Sociology and one from the Department of Psychology.

By using the first questionnaire, it was possible to obtain scores on the personal values of the graduate students (i.e., theoretical, economic, aesthetic, social, political, and religious). By using the second questionnaire, it was possible to obtain scores on


the order of preference of the six alternatives in each of fourteen decision situations. Each alternative corresponded to a predominant value orientation (i.e., theoretical, economic, aesthetic, social, political, and religious). After obtaining the scores of the two questionnaires, it was possible to determine (1) the effect of personal values on the decision-making process and (2) the impact which the type of education and the culture had on the personal value structure and the decision-making process.

For the American graduate business students, the two questionnaires were used with only one change, the addition of one question asking the student which state he considered himself to be from. The purpose of adding this question was to study the difference in values, if any, between northern and southern students. Appendices A-1 and B-1 show the questionnaires used by this group.

For the Egyptian students, some changes in the two questionnaires were necessary. These alterations did not change the meaning or the purpose of the questions, but simply served to clarify them for the students. In a few instances, a question was modified to give the same content in a different culture. Appendices A-2 and B-2 show the questionnaires used for this group.

A comparison of questionnaire 1 used for the American students and questionnaire 1 used for the Egyptian students shows slight changes in questions 2, 3, 6, 8, 11, 13, 16, 17, 19, 21, and 24 in Part I and in question 13 in Part II. As stated previously, these alterations do not change the meaning or the purpose of the questions, but were made in order to make the questions valid for the Egyptian culture and easier to understand for the Egyptian students.
Changes made in questionnaire 2 were primarily in the biographical questions. Egyptian students were asked different questions in order to aid the testing of the hypotheses concerning the Egyptian culture and the analysis of the study results. The purpose of these questions was to test the impact of education, place of residence, and years spent in the United States on the personal value structure of Egyptian students.

Questionnaire 1 (Appendices A-1 and A-2) includes two parts. Part I is comprised of 30 questions; each question has two alternative answers. Each student was asked to give three points to the alternative he most preferred. If the student had no special preference for either alternative, he was asked to give two points to the alternative he slightly preferred over the other and one point to the remaining alternative.

Part II includes 15 questions and each question has four answers or statements. The student was asked to distribute 10 points among the four statements. To the statement most preferred, he was asked to give four points; to the statement next preferred, he was asked to give three points; and so on until the least preferred statement, which would be given one point.

Questionnaire 2 (Appendices B-1 and B-2) includes biographical questions and 14 questions for which the student was asked to rank six alternatives for each question. The student was asked to order these alternatives according to preference. The most preferred answer would receive a rank of 1; the next preferred answer would receive a rank of 2; and so on until the least preferred answer, which would receive a rank of 6. As mentioned, each of the six answer alternatives
was related to one of the six values (theoretical, economic, aesthetic, social, political, or religious).

Procedure Used in Collecting and Scoring the Data

This section concerns the procedures of data collection and questionnaire scoring.

Three steps were involved in collecting data from the American students. First, the names of the students who had been randomly selected in the simple random sample were identified. Second, these students were distributed into groups with regard to the courses they were taking in the Fall Semester of 1978. This was accomplished with the cooperation of the administrative personnel in the College of Business Administration and by using the university course schedule. Third, with the permission of the instructors, the researcher personally contacted the students in their classes and distributed the questionnaires. This took approximately two weeks. The students were given about two weeks to answer the questionnaires, and it took another three weeks to collect all the completed forms.

Of the 65 questionnaires distributed, 60 were returned. Of the five students who did not complete the forms, two did not care to participate; one was out of town during the collection period; one was busy with his business and did not have the time to complete the form; and one resigned from the university.

The procedure for collecting data from the Egyptian students was somewhat different. After obtaining a list of names and addresses of the graduate business and science students and after designing the
sample, the researcher sent questionnaires to 70 science students and 69 business students. These were sent by first class mail on October 2, 1978. A stamped, self-addressed envelope was enclosed with the questionnaires in order to facilitate a speedy return of the completed forms. Those students who were personally known to the researcher were also contacted by phone to accelerate the completion and return of the questionnaires.

During the follow-up stage, the researcher made three concerted efforts to increase the return of the questionnaires. The first effort entailed sending personal letters to the students who had not answered, urging them to do so. The second and third efforts involved telephoning these students. Although 12 questionnaires were returned incomplete due to incorrect addresses, because the students had returned to their own country, or due to illness of the students, and one questionnaire was not considered usable in the study, 46 graduate business students and 47 graduate science students returned usable questionnaires. Twenty-seven students from both groups did not respond, for a nonresponse ratio of 22.5 percent. This percentage was considered acceptable, and the number of responding students was statistically acceptable.

The score sheet for the value study developed by Allport, Vernon, and Lindzey (Appendices A-1 and A-2) was used in scoring Questionnaire 1. After collecting the forms and editing them, the researcher wrote the key to each question in Questionnaire 2. The key is: T, a theoretical value answer; E, an economic value answer; A, an aesthetic value answer; S, a social value answer; P, a political value
answer; and R, a religious value answer. This key was not written on the distributed questionnaires.

The questionnaires were coded on a computer code sheet, and a program was written to provide the results of this study.

**Technique of Data Analysis**

To measure Hypotheses 1 through 6, the correlation coefficient analysis was employed. This technique measures correlation coefficients between the scores of Egyptian and American students on their personal values and their scores on their ranking of different alternatives which answered questions concerning different situations. This technique shows whether there are significant positive correlations between the students' scores of their personal values and their scores of their choices of actions. These significant positive correlations indicate that the students' personal values influence their decision making. The levels of significance used to consider these positive correlations significant are .01, .05, or .1. The Statistical Analysis System was the computer system used.

To test Hypothesis 7, two statistical techniques were used. The first was the mean scores of personal value structures of both the Egyptian graduate business and science student groups. This technique proved whether the economic values occupied a dominant rank in the personal value structure of Egyptian graduate business students. It also showed whether theoretical values occupied the dominant rank in the personal value structure of the Egyptian graduate science students. The second technique used was Tukey's procedure to test the significance of the differences within the scores of personal values for the
Egyptian science and business students. This technique showed whether the differences between the scores of economic values and the other values was truly significant for the Egyptian business student group. It also showed whether the difference between the scores of the theoretical values and the scores of the other values was actually significant for the Egyptian science student group.

To test Hypotheses 8 and 9, the analysis of variance technique was used. This technique indicated whether the scores of the personal value structure of Egyptian business students and their scores of choices of action differed significantly from the scores of the personal value structure of the American business students and their scores of choices of action.

To test Hypothesis 10, Fisher's procedure was used to test the differences between correlation coefficients for American and Egyptian graduate business students (the correlation between scores of personal values and scores of choices of action).

Summary

This chapter covered the methodology of the research used in this study. The populations of the study are 69 Egyptian graduate business students and 88 Egyptian graduate science students studying at colleges and universities in the United States and 171 American graduate business students studying at Louisiana State University. The data were collected from 60 American students, 47 Egyptian science students, and 46 Egyptian business students.

Two questionnaires were used to collect data from the study subjects, one for measuring personal values and the other for measuring decisions required to answer questions concerning 14 situations. The
data were collected from the Egyptian students by using first class mail and from the American students through direct contact.

The statistical techniques used were correlation coefficients, means, analysis of variance, Tukey's procedure for testing the differences of means within a group, and Fisher's procedure for testing the differences between correlation coefficients of two groups.

The next chapter will cover the study results and their interpretations.
CHAPTER V

RESULTS OF THE STUDY:
ANALYSES AND INTERPRETATIONS

The statistical results of the study are presented in this chapter. These results are analyzed and interpreted in an effort to determine whether they indicate an acceptance or rejection of the study hypotheses being tested.

The first section of this chapter deals with a descriptive presentation of the results of the data from the three student groups studied. These results are useful in analyzing, interpreting, and understanding the statistical results of the testing of the hypotheses of the study.

The second part of the chapter analyzes and interprets the statistical results of the testing of Hypotheses 1 through 6, and shows how personal values affect decision making.

The results of the testing of Hypothesis 7 are presented next. The impact of education and/or experience upon the personal value structures of Egyptian students is analyzed and interpreted.

Finally, the effects which the Egyptian and American cultures have on personal value structures and decision making, from the testing of Hypotheses 8 through 10, are shown.

65
Descriptive Results Concerning Study Subjects

A statistical analysis of the data obtained from the questionnaires of this study (Appendices A-1, B-1, A-2, and B-2) provides extensive descriptive results concerning the three subject groups of this study (i.e., Egyptian graduate business students, Egyptian graduate science students, and American graduate business students). These results should be helpful in interpreting and understanding the statistical results related to the results of the testing of the study hypotheses.

This section begins with the descriptive results of the American student group and is followed by the descriptive results of the two Egyptian student groups—the business and the science students.

American Students

Descriptive results concerning the American graduate business students in this study include demographic information, mean scores of personal value structure, and mean scores of courses of action, as well as personal value and choice of action structures according to geographic origin.

Demographic Information. This information includes the mean age of the American graduate business students, their place of residence, their type of work experience, and their community size.

As shown in Table 4, 60 percent of this study group were aged 21-25 years. The mean age for the group was 25.2 years. Eighty percent indicated that they considered themselves to be from a southern state (Table 5).
TABLE 4

FREQUENCY OF AMERICAN GRADUATE BUSINESS STUDENTS
ACCORDING TO AGE
(n = 60 students)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 years or under</td>
<td>2</td>
<td>3.33</td>
</tr>
<tr>
<td>21 - 25 years</td>
<td>36</td>
<td>60.00</td>
</tr>
<tr>
<td>26 - 30 years</td>
<td>11</td>
<td>18.33</td>
</tr>
<tr>
<td>31 - 35 years</td>
<td>10</td>
<td>16.67</td>
</tr>
<tr>
<td>36 years or over</td>
<td>1</td>
<td>1.67</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

\[ \bar{x} \text{ (mean years of age)} = 25.2 \text{ years}; \ m_d \text{ (median years of age)} = 23.9 \text{ years}. \]

TABLE 5

FREQUENCY OF AMERICAN GRADUATE BUSINESS STUDENTS
ACCORDING TO GEOGRAPHIC ORIGIN
(n = 60 students)

<table>
<thead>
<tr>
<th>Origin</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern states</td>
<td>12</td>
<td>20.00</td>
</tr>
<tr>
<td>Southern states</td>
<td>48</td>
<td>80.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>
Of the American business students, 66.62 percent had some work experience (Table 6); 63.33 percent of those with work experience held full-time jobs (Table 7). As shown in Table 8, the group was fairly evenly distributed according to community size.

**Personal Value Structure.** Table 9 ranks the personal value structure of the American graduate business student group. This ranking is based on the scores of their personal values obtained by using Questionnaire 1 (Appendix A-1). The ranks of their personal value structure are as follows:

1. economic values, with a mean score of 46.62;
2. political values, with a mean score of 43.62;
3. theoretical values, with a mean score of 43.42;
4. religious values, with a mean score of 37.76;
5. aesthetic values, with a mean score of 36.87; and
6. social values, with a mean score of 32.73.

It should be noted that economic, political, and theoretical values also occupied the first three positions in Pezeshkpur's study (see Table 10). Although religious values were ranked higher in the present study than in Pezeshkpur's (with mean scores of 37.76 and 35.27, respectively), aesthetic and social values ranked lower (Tables 9 and 10).

**Courses of Action.** The scores regarding courses of action are the mean ranks of different alternatives which answer questions concerning 14 suggested situations in Questionnaire 2 (Appendix B-1). Table 9 ranks the courses of action for the American graduate business student group as follows:
### TABLE 6
FREQUENCY OF AMERICAN GRADUATE BUSINESS STUDENTS ACCORDING TO WORK EXPERIENCE
(n = 60 students)

<table>
<thead>
<tr>
<th>Experience</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>20</td>
<td>33.33</td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>8</td>
<td>13.33</td>
</tr>
<tr>
<td>1 - 5 years</td>
<td>28</td>
<td>46.67</td>
</tr>
<tr>
<td>Over 5 years</td>
<td>4</td>
<td>6.67</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

### TABLE 7
FREQUENCY OF AMERICAN GRADUATE BUSINESS STUDENTS ACCORDING TO JOB CLASSIFICATION
(n = 60 students)

<table>
<thead>
<tr>
<th>Classification</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part-time</td>
<td>17</td>
<td>28.33</td>
</tr>
<tr>
<td>Full-time</td>
<td>38</td>
<td>63.33</td>
</tr>
<tr>
<td>Not working</td>
<td>5</td>
<td>8.34</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
<td><strong>100.00</strong></td>
</tr>
<tr>
<td>Community Size</td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------</td>
<td>---------</td>
</tr>
<tr>
<td>Below 10,000</td>
<td>14</td>
<td>23.33</td>
</tr>
<tr>
<td>10,000 - 50,000</td>
<td>15</td>
<td>25.00</td>
</tr>
<tr>
<td>50,000 - 200,000</td>
<td>18</td>
<td>30.00</td>
</tr>
<tr>
<td>Over 200,000</td>
<td>13</td>
<td>21.67</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
<td><strong>100.00</strong></td>
</tr>
<tr>
<td>Personal Value</td>
<td>Mean Score</td>
<td>Rank</td>
</tr>
<tr>
<td>---------------</td>
<td>------------</td>
<td>------</td>
</tr>
<tr>
<td>Economic</td>
<td>46.62</td>
<td>1</td>
</tr>
<tr>
<td>Political</td>
<td>43.62</td>
<td>2</td>
</tr>
<tr>
<td>Theoretical</td>
<td>43.42</td>
<td>3</td>
</tr>
<tr>
<td>Religious</td>
<td>37.76</td>
<td>4</td>
</tr>
<tr>
<td>Aesthetic</td>
<td>36.87</td>
<td>5</td>
</tr>
<tr>
<td>Social</td>
<td>32.73</td>
<td>6</td>
</tr>
</tbody>
</table>
TABLE 10

MEAN SCORES OF PERSONAL VALUES AND COURSES OF ACTION,
AMERICAN GRADUATE BUSINESS STUDENTS,
PEZESHKPUR'S STUDY
(n = 60)

<table>
<thead>
<tr>
<th>Personal Value</th>
<th>Mean Score</th>
<th>Course of Action</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic</td>
<td>45.35</td>
<td>Economic</td>
<td>2.32</td>
</tr>
<tr>
<td>Political</td>
<td>42.00</td>
<td>Theoretical</td>
<td>2.72</td>
</tr>
<tr>
<td>Theoretical</td>
<td>40.88</td>
<td>Social</td>
<td>3.30</td>
</tr>
<tr>
<td>Aesthetic</td>
<td>39.37</td>
<td>Political</td>
<td>3.53</td>
</tr>
<tr>
<td>Social</td>
<td>36.50</td>
<td>Religious</td>
<td>4.45</td>
</tr>
<tr>
<td>Religious</td>
<td>35.27</td>
<td>Aesthetic</td>
<td>4.67</td>
</tr>
</tbody>
</table>

1. economic, with a mean score of 2.40;  
2. theoretical, with a mean score of 2.70;  
3. political, with a mean score of 3.41;  
4. social, with a mean score of 3.55;  
5. religious, with a mean score of 4.32; and  
6. aesthetic, with a mean score of 4.62.

This ranking is similar to that in Pezeshkpur's study, with the exceptions of political and social choices of action which were reversed in the studies. The difference in the mean scores of these two choices, however, is negligible.

**Personal Value Structure and Choice of Action Structure for American Student Group According to Geographic Origin.** Table 11 shows the mean scores of personal values and courses of action for the American graduate student group divided by geographic section. Both northern and southern students ranked economic, political, and theoretical values highest (first, second, and third, respectively). Religious and aesthetic values were reversed for the two sections, with religious values ranking fourth in the southern student division and fifth in the northern division. Social values were ranked last for each section. Courses of action for the two student groups were ranked the same.

**Egyptian Students**

Descriptive results concerning the Egyptian graduate students in this study include demographic information, mean scores of personal value structures, and mean scores of courses of action.
### TABLE 11

Mean Scores of Personal Values and Courses of Action for American Graduate Business Students According to Geographic Origin

*(n = 60 students)*

<table>
<thead>
<tr>
<th>Personal Value</th>
<th>Northern States</th>
<th>Southern States</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Score</td>
<td>Course of Action</td>
</tr>
<tr>
<td>Economic</td>
<td>51.2</td>
<td>Economic</td>
</tr>
<tr>
<td>Political</td>
<td>47.2</td>
<td>Theoretical</td>
</tr>
<tr>
<td>Theoretical</td>
<td>46.5</td>
<td>Political</td>
</tr>
<tr>
<td>Aesthetic</td>
<td>36.7</td>
<td>Social</td>
</tr>
<tr>
<td>Religious</td>
<td>30.2</td>
<td>Religious</td>
</tr>
<tr>
<td>Social</td>
<td>28.3</td>
<td>Aesthetic</td>
</tr>
</tbody>
</table>
**Demographic Information.** This section includes information concerning the number of years the Egyptian students have lived in the United States, the number of years they have been involved in their major fields of study, their religion, and their mean age, as well as their place of residence.

**Number of years lived in the United States.** As shown in Table 12, 56.52 percent of the Egyptian graduate business students have been living in the United States for a period of from 2 to 3 years, while 48.94 percent of the Egyptian graduate science students have been living in the United States for a period of 3 to 4 years. The mean years of the business student group and the science student group are 2.85 years and 3.22 years, respectively.

**Number of years in major field.** The majority of the Egyptian students in this study have been involved in their major fields of study for a period of more than ten years (80.44 percent of the business student group and 78.72 percent of the science student group). As shown in Table 13, the mean years of study in their major fields is 11.4 for the business group and 11.3 for the science group.

**Religion.** As shown in Table 14, all of the Egyptian business students are Moslems. Of the Egyptian science students, 91.49 percent are Moslem and 8.51 percent are Christian.

**Age.** The mean age of the business group is 33.7 years; of the science group, 32.4 years (Table 15).
TABLE 12

FREQUENCY OF EGYPTIAN STUDENTS ACCORDING TO YEARS IN THE UNITED STATES
(n = 93 students)

<table>
<thead>
<tr>
<th>Years in the United States</th>
<th>Business Students</th>
<th>Science Students</th>
<th>Percent of All Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
<td>Frequency</td>
</tr>
<tr>
<td>1 - 2 years</td>
<td>3</td>
<td>6.52</td>
<td>1</td>
</tr>
<tr>
<td>2 - 3 years</td>
<td>26</td>
<td>56.52</td>
<td>17</td>
</tr>
<tr>
<td>3 - 4 years</td>
<td>15</td>
<td>32.61</td>
<td>23</td>
</tr>
<tr>
<td>4 years or more</td>
<td>2</td>
<td>4.35</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>100.00</td>
<td>47</td>
</tr>
</tbody>
</table>

\( \bar{x} \) (mean years in U.S. - business students) = 2.85 years; \( m_d \) (median years in U.S. - business students) = 2.8 years.

\( \bar{x} \) (mean years in U.S. - science students) = 3.22 years; \( m_d \) (median years in U.S. - science students) = 3.2 years.
TABLE 13
FREQUENCY OF EGYPTIAN STUDENTS ACCORDING TO YEARS IN THEIR MAJOR FIELDS
(n = 93 students)

<table>
<thead>
<tr>
<th>Years in Major Field</th>
<th>Business Students</th>
<th>Science Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>Less than 5 years</td>
<td>1</td>
<td>2.17</td>
</tr>
<tr>
<td>5 - 10 years</td>
<td>8</td>
<td>17.39</td>
</tr>
<tr>
<td>More than 10 years</td>
<td>37</td>
<td>80.44</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100.00</td>
</tr>
</tbody>
</table>

\[ \bar{x} \text{ (mean years in major field - business students)} = 11.4 \text{ years} ; \ m_a \]

\[ \text{ (median years in major field - business students)} = 11.9 \text{ years} . \]

\[ \bar{x} \text{ (mean years in major field - science students)} = 11.3 \text{ years} ; \ m_a \]

\[ \text{ (median years in major field - science students)} = 11.8 \text{ years} . \]

TABLE 14
FREQUENCY OF EGYPTIAN STUDENTS ACCORDING TO RELIGION
(n = 93 students)

<table>
<thead>
<tr>
<th>Religion</th>
<th>Business Students</th>
<th>Science Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>Moslem</td>
<td>46</td>
<td>100.00</td>
</tr>
<tr>
<td>Christian</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>100.00</td>
</tr>
</tbody>
</table>
TABLE 15
FREQUENCY OF EGYPTIAN STUDENTS
ACCORDING TO AGE
(n = 93 students)

<table>
<thead>
<tr>
<th>Age</th>
<th>Business Students</th>
<th>Science Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>Less than 25</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>25 - 30 years</td>
<td>1</td>
<td>2.17%</td>
</tr>
<tr>
<td>30 - 35 years</td>
<td>33</td>
<td>71.74%</td>
</tr>
<tr>
<td>35 years and over</td>
<td>12</td>
<td>26.09%</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

\( \bar{x} \) (mean age - business students) = 33.7 years; \( m_d \) (median age - business students) = 33.5 years.

\( \bar{x} \) (mean age - science students) = 32.4 years; \( m_d \) (median age - science students) = 32.4 years.
Place of residence. Table 16 shows that a majority of both the business and science students come from a city (78.1 percent and 80.85 percent, respectively).

Personal Value Structures. This section describes the personal value structures of the Egyptian students, and the impact of living in the United States and the place of residence on their personal value structures.

Description of personal value structures. Table 17 ranks the personal value structure of the Egyptian graduate business student group as follows:

1. theoretical, with a mean score of 44.90;
2. religious, with a mean score of 42.39;
3. economic, with a mean score of 41.26;
4. social, with a mean score of 40.27;
5. political, with a mean score of 39.10; and
6. aesthetic, with a mean score of 33.14.

The Egyptian graduate science students ranked personal values essentially the same as did the Egyptian business student group with the exception of economic and religious values. Table 17 ranks the personal value structure of the Egyptian graduate science student group as follows:

1. theoretical, with a mean score of 47.02;
2. economic, with a mean score of 39.99;
3. religious, with a mean score of 39.77;
4. social, with a mean score of 39.40;
TABLE 16

FREQUENCY OF EGYPTIAN STUDENTS ACCORDING TO PLACE OF RESIDENCE
(n = 93 students)

<table>
<thead>
<tr>
<th>Place of Residence</th>
<th>Business Students</th>
<th>Science Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>Village</td>
<td>11</td>
<td>23.91</td>
</tr>
<tr>
<td>City</td>
<td>35</td>
<td>78.09</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>100.00</td>
</tr>
</tbody>
</table>
TABLE 17

MEAN SCORES OF PERSONAL VALUES AND COURSES OF ACTION,
EGYPTIAN GRADUATE BUSINESS AND SCIENCE STUDENTS
(n = 46 business students; n = 47 science students)

<table>
<thead>
<tr>
<th>Personal Value</th>
<th>Egyptian Graduate Business Students</th>
<th>Egyptian Graduate Science Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Score</td>
<td>Course of Action</td>
</tr>
<tr>
<td>Theoretical</td>
<td>44.90</td>
<td>Economic</td>
</tr>
<tr>
<td>Religious</td>
<td>42.39</td>
<td>Theoretical</td>
</tr>
<tr>
<td>Economic</td>
<td>41.26</td>
<td>Social</td>
</tr>
<tr>
<td>Social</td>
<td>40.27</td>
<td>Political</td>
</tr>
<tr>
<td>Political</td>
<td>39.10</td>
<td>Religious</td>
</tr>
<tr>
<td>Aesthetic</td>
<td>33.14</td>
<td>Aesthetic</td>
</tr>
</tbody>
</table>


5. political, with a mean score of 39.14; and
6. aesthetic, with a mean score of 34.68.

Impact of living in the United States on personal value structures. Table 18 indicates that the personal value structures of the Egyptian students have not changed to any great degree during their stay in the United States. As can be seen from the table, their values are not significantly different in the last three categories. For these three periods, the personal values were ranked as follows:

1. theoretical; 4. social;
2. religious; 5. political; and
3. economic; 6. aesthetic.

The students in the last three categories represent 95.7 percent of the total sample (Table 12).

It may be concluded from the above information that the personal value structures of the Egyptian students have remained stable for a period of four years and that the American environment has had no major impact on student values during that time.

Impact of place of residence on personal value structures. As shown in Table 19, Egyptian students living in villages have higher mean scores in religious and social values (42.7 and 40.8, respectively); while those students living in cities have higher scores in economic values (40.8). Therefore, in making decisions dealing with personnel and other organizational policies, it should be realized that those students who have lived in villages most of their lives are
TABLE 18

MEAN SCORES OF PERSONAL VALUES OF EGYPTIAN STUDENTS
ACCORDING TO YEARS IN THE UNITED STATES
(n = 93 students)

<table>
<thead>
<tr>
<th>Personal Value</th>
<th>1 - less than 2 Years</th>
<th>2 - less than 3 Years</th>
<th>3 - less than 4 Years</th>
<th>4 Years and Over</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Score</td>
<td>Mean Score</td>
<td>Mean Score</td>
<td>Mean Score</td>
</tr>
<tr>
<td>Theoretical</td>
<td>49.5</td>
<td>45.2</td>
<td>46.7</td>
<td>44.6</td>
</tr>
<tr>
<td>Economic</td>
<td>43.0</td>
<td>41.2</td>
<td>40.8</td>
<td>41.8</td>
</tr>
<tr>
<td>Social</td>
<td>41.0</td>
<td>41.5</td>
<td>39.7</td>
<td>40.7</td>
</tr>
<tr>
<td>Aesthetic</td>
<td>40.7</td>
<td>39.9</td>
<td>39.7</td>
<td>39.2</td>
</tr>
<tr>
<td>Political</td>
<td>39.8</td>
<td>39.0</td>
<td>39.5</td>
<td>37.2</td>
</tr>
<tr>
<td>Religious</td>
<td>37.2</td>
<td>33.1</td>
<td>33.6</td>
<td>36.6</td>
</tr>
<tr>
<td>Personal Value</td>
<td>Mean Score</td>
<td>Personal Value</td>
<td>Mean Score</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>------------</td>
<td>----------------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>Theoretical</td>
<td>46.5</td>
<td>Theoretical</td>
<td>45.8</td>
<td></td>
</tr>
<tr>
<td>Religious</td>
<td>42.7</td>
<td>Economic</td>
<td>40.8</td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>40.8</td>
<td>Religious</td>
<td>40.6</td>
<td></td>
</tr>
<tr>
<td>Economic</td>
<td>39.9</td>
<td>Social</td>
<td>39.6</td>
<td></td>
</tr>
<tr>
<td>Political</td>
<td>39.5</td>
<td>Political</td>
<td>39.0</td>
<td></td>
</tr>
<tr>
<td>Aesthetic</td>
<td>32.9</td>
<td>Aesthetic</td>
<td>34.2</td>
<td></td>
</tr>
</tbody>
</table>
more religiously- or socially-oriented than their counterparts who have lived in cities most of their lives.

Courses of Action. Table 17 also lists the order in which courses of action of the Egyptian business students were ranked. They are:

1. economic, with a mean score of 2.64;
2. theoretical, with a mean score of 2.70;
3. social, with a mean score of 3.44;
4. political, with a mean score of 3.93;
5. religious, with a mean score of 3.99; and
6. aesthetic, with a mean score of 4.27.

The science student group ranked courses of action differently than did the business student group. Table 17 lists their ranking as follows:

1. theoretical, with a mean score of 2.46;
2. economic, with a mean score of 3.31;
3. social, with a mean score of 3.63;
4. political, with a mean score of 3.81;
5. aesthetic, with a mean score of 3.84; and
6. religious, with a mean score of 3.94.

Effects of Personal Values on the Decision-Making Process

This part of Chapter V examines the relationships between the scores of the personal values (theoretical, economic, aesthetic, social, political, and religious) and the scores of the courses of action (theoretical, economic, aesthetic, social, political, and religious) as reflected in their correlation coefficients. It is assumed that a personal value influences the decision-making process
when there is a positive correlation between the scores of a personal value and a course of action. This influence is demonstrated when an individual selects a course of action that is related to his dominant personal values (provided it is one of the alternative solutions to the problem).

Analysis and Interpretation of Hypotheses 1 Through 6

This section will analyze and interpret the statistical results regarding the effects which personal values have on the decision-making process (Hypotheses 1 through 6).

Hypothesis 1: Effect of Theoretical Personal Values on the Decision-Making Process. Hypothesis 1 states that there is a positive correlation between the relative position of the individuals' theoretical values and their relative preference of theoretical choices of action in relation to other choices.

For the American graduate business students, it was found that there is a significant positive correlation of .36 between their theoretical personal value scores and their theoretical choice of action scores (Table 20). This correlation is at the .01 level of significance. This means that theoretical values positively influence decision making. Therefore, the hypothesis is accepted for the American graduate business student group.

For the Egyptian graduate business students, it was found that there is a significant positive correlation of .31 between their theoretical personal value scores and their theoretical choice of action scores (Table 21). This correlation is at the .05 level of
<table>
<thead>
<tr>
<th>Personal Value</th>
<th>Theoretical</th>
<th>Economic</th>
<th>Aesthetic</th>
<th>Social</th>
<th>Political</th>
<th>Religious</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical</td>
<td>0.36163</td>
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<td>0.11619</td>
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<td>-0.31498</td>
</tr>
<tr>
<td></td>
<td>0.0049***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>S</td>
</tr>
<tr>
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<td>-0.3077</td>
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<td>-0.2249</td>
</tr>
<tr>
<td></td>
<td>0.6699</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NS</td>
<td>S</td>
<td>NS</td>
<td>NS</td>
<td>S</td>
<td>NS</td>
</tr>
<tr>
<td>Aesthetic</td>
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<td>0.20204</td>
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<tr>
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<td>0.1138</td>
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<td>0.1249</td>
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<td>0.3560</td>
<td>0.0429</td>
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<td>NS</td>
<td>NS (App.)</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
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<td>0.27530</td>
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<td>0.4875</td>
<td></td>
<td>0.5648</td>
<td>0.5206</td>
<td>0.3204</td>
<td>0.0348**</td>
</tr>
<tr>
<td></td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>S</td>
</tr>
<tr>
<td>Political</td>
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<td>0.22760</td>
<td>0.0291</td>
<td>-0.05108</td>
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<td>-0.33702</td>
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<td>0.1382</td>
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<td>0.8273</td>
<td>0.7008</td>
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<td>0.0090**</td>
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<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Religious</td>
<td>-0.17901</td>
<td>-0.36202</td>
<td>0.2225</td>
<td>-0.00011</td>
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<td>0.1749</td>
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<td>0.8671</td>
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<td>0.0001***</td>
</tr>
<tr>
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<td>NS</td>
<td>S</td>
<td>S</td>
</tr>
</tbody>
</table>

*Level of significance = .10; **Level of significance = .05; ***Level of significance = .01
+ = Positive correlation; - = Negative correlation
App. = Approaching acceptable level (.10 level of significance)
NS = Not a significant correlation; S = Significant correlation
## TABLE 21
CORRELATION COEFFICIENT ANALYSIS FOR
EGYPTIAN GRADUATE BUSINESS STUDENTS
(n = 46 students)

<table>
<thead>
<tr>
<th>Personal Value</th>
<th>Theoretical</th>
<th>Economic</th>
<th>Aesthetic</th>
<th>Social</th>
<th>Political</th>
<th>Religious</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical</td>
<td>0.30791</td>
<td>0.20159</td>
<td>-0.03410</td>
<td>-0.1712</td>
<td>-0.15763</td>
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</tr>
<tr>
<td></td>
<td>0.0396**</td>
<td>0.1842</td>
<td>0.8240</td>
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<td>0.3011</td>
<td>0.6849</td>
</tr>
<tr>
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<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>Economic</td>
<td>0.26180</td>
<td>0.23207</td>
<td>0.00382</td>
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<td>0.08910</td>
<td>0.14455</td>
</tr>
<tr>
<td></td>
<td>0.0823*</td>
<td>0.1250(App.)</td>
<td>0.9801</td>
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<td>0.5605</td>
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</tr>
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<td>NS</td>
<td>NS</td>
<td>S</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>Aesthetic</td>
<td>-0.02960</td>
<td>-0.15895</td>
<td>0.19307</td>
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<tr>
<td></td>
<td>0.8469</td>
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<td>0.2038</td>
<td>0.3147</td>
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<td>0.1188</td>
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<tr>
<td>Social</td>
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<td>-0.15006</td>
<td>0.06276</td>
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<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>S</td>
<td>S</td>
<td>NS</td>
</tr>
<tr>
<td>Political</td>
<td>-0.13101</td>
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<td>-0.12719</td>
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<td>NS</td>
</tr>
<tr>
<td>Religious</td>
<td>-0.34668</td>
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<td>NS</td>
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<td>NS</td>
<td>S</td>
</tr>
</tbody>
</table>

*Level of significance = .10; **Level of significance = .05; ***Level of significance = .01
+ = Positive correlation; - = Negative correlation
App. = Approaching acceptable level (.10 level of significance)
NS = Not a significant correlation; S = Significant correlation
significance. This conclusion is correct with a 95 percent degree of confidence. Therefore, the hypothesis is accepted for the Egyptian graduate business student group.

For the Egyptian graduate science students, it was found that the correlation between their theoretical personal value scores and theoretical choice of action scores was not statistically significant. This correlation is .12 (Table 22). The significance level of this correlation is .4, but the acceptance level of significance is .1. Therefore, the hypothesis is not acceptable for the Egyptian graduate science student group.

Hypothesis 2: Effect of Economic Personal Values on the Decision-Making Process. Hypothesis 2 states that there is a positive correlation between the relative position of the individuals' economic values and their relative preference of economic choices of action in relation to other choices.

For the American graduate business students, it was found that there is a significant positive correlation of .42 between their economic personal value scores and their economic choice of action scores (Table 20). This degree of correlation is at the .01 level of significance. Therefore, the hypothesis is accepted for the American graduate business student group.

For the Egyptian graduate business students, there is a positive correlation of .23 between their personal economic value scores and their economic choice of action scores (Table 21). This correlation is at the .12 level of significance. Therefore, this hypothesis is not accepted for the Egyptian graduate business students.
### TABLE 22

**CORRELATION COEFFICIENT ANALYSIS FOR EGYPTIAN GRADUATE SCIENCE STUDENTS**  
\((n = 47 \text{ students})\)

<table>
<thead>
<tr>
<th>Personal Value</th>
<th>Theoretical</th>
<th>Economic</th>
<th>Aesthetic</th>
<th>Social</th>
<th>Political</th>
<th>Religious</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical</td>
<td>0.12453</td>
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<td>0.14854</td>
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<td>0.8334</td>
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</tr>
<tr>
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<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>Economic</td>
<td>-0.10494</td>
<td>0.07877</td>
<td>0.31413</td>
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<td>0.4827</td>
<td>0.5987</td>
<td>0.0315**</td>
<td>0.4262</td>
<td>0.8413</td>
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</tr>
<tr>
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<td>S</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>Aesthetic</td>
<td>0.17302</td>
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<td>-0.07145</td>
<td>-0.16941</td>
</tr>
<tr>
<td></td>
<td>0.2448</td>
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</tr>
<tr>
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<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>Social</td>
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</tr>
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</tr>
<tr>
<td>Political</td>
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<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Religious</td>
<td>-0.18309</td>
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<td>0.5684</td>
<td>0.0109***</td>
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<tr>
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<td>NS</td>
<td>NS</td>
<td>S</td>
</tr>
</tbody>
</table>

*Level of significance = .10;  **Level of significance = .05;  ***Level of significance = .01  
+ = Positive correlation;  - = Negative correlation  
App. = Approaching acceptable level (.10 level of significance)  
NS = Not a significant correlation;  S = Significant correlation
Nevertheless, this correlation approaches the acceptance level of significance (.10).

For the Egyptian graduate science students, there was no significant positive correlation between their economic personal value scores and their economic choice of action scores. The correlation was only .07 (Table 22). The hypothesis is not acceptable for the Egyptian graduate science student group.

Hypothesis 3: Effect of Political Personal Values on the Decision-Making Process. Hypothesis 3 states that there is a positive correlation between the relative position of the individuals' political values and their relative preference of political choices of action in relation to other choices.

For the American graduate business students, Table 20 shows that there is a very significant positive correlation between their political personal value scores and their political choice of action scores. The correlation is .54, with a .01 level of significance. Therefore, the hypothesis is accepted for the American graduate business student group.

For the Egyptian graduate business students, there was a significant correlation of .26 between their scores of political personal values and political choices of action (Table 21). This correlation is with a .10 level of significance. The hypothesis is accepted for this group.

For the Egyptian graduate science students, there was a significant positive correlation of .26 between their scores of political personal values and political choices of action. This correlation is
with a .10 level of significance (Table 22). The hypothesis is accepted for the Egyptian graduate science student group.

Hypothesis 4: Effect of Social Personal Values on the Decision-Making Process. Hypothesis 4 states that there is a positive correlation between the relative position of the individuals' social values and their relative preference of social choices of action in relation to other choices.

For the American graduate business students, there was no significant correlation between their social personal value scores and their social choice of action scores. The correlation is .08 (Table 20). Therefore, the hypothesis is not accepted for the American graduate business student group.

For the Egyptian graduate business students, there is a significant positive correlation of .28 between their social personal value scores and their social choice of action scores (Table 21). The significance level of this correlation is .06. Therefore, the hypothesis is accepted for the Egyptian graduate business student group.

For the Egyptian graduate science students, there was no significant correlation between their scores of social personal values and social choices of action. The correlation is .18 (Table 22). Therefore, the hypothesis is not accepted for the Egyptian graduate science student group.

Hypothesis 5: Effect of Aesthetic Personal Values on the Decision-Making Process. Hypothesis 5 states that there is a positive correlation between the relative position of the individuals'
aesthetic values and their relative preference of aesthetic choices of action in relation to other choices.

Tables 20, 21, and 22 show that there was no significant correlation between the aesthetic personal value scores and aesthetic choice of action scores for the three groups of students. The correlation coefficients are .20 (approaching the level of significance, .1) for the American graduate business student group; .19 for the Egyptian graduate business student group; and -.17 for the Egyptian graduate science student group. Therefore, Hypothesis 5 is rejected for all student groups.

Hypothesis 6: Effect of Religious Personal Values on the Decision-Making Process. Hypothesis 6 states that there is a positive correlation between the relative position of the individuals' religious values and their relative preference of religious choices of action in relation to other choices.

There were high positive correlations between the scores of religious values and the scores of religious choices of action for the three student groups. The correlation coefficients are .62 for the American graduate business student group, with a .01 level of significance (Table 20); .36 for the Egyptian graduate business student group, with a .01 level of significance (Table 21); and .37 for the Egyptian graduate science student group, with a .01 level of significance (Table 22). Therefore, Hypothesis 6 is accepted for the three groups of graduate students.
Summary of Results

For the American graduate business students, significant positive correlations were found between their scores of theoretical, economic, political, and religious personal values and their scores of theoretical, economic, political, and religious choices of action, respectively. No significant positive correlations were found between their scores of aesthetic and social personal values and their scores of aesthetic and social choices of action.

For the Egyptian graduate business students, significant positive correlations were found between their scores of theoretical, social, political, and religious personal values and their scores of theoretical, social, political, and religious choices of action, respectively. No significant correlations were found between their scores of economic and aesthetic personal values and their scores of economic and aesthetic choices of action.

For the Egyptian graduate science students, significant positive correlations were found between their scores of political and religious personal values and their scores of political and religious choices of action, respectively. No significant positive correlations were found between their scores of theoretical, economic, aesthetic, and social personal values and their scores of theoretical, economic, aesthetic, and social choices of action.

Interpretation of Results

The statistical analyses of the previous section support the idea that there is a positive relationship between an individual's personal values and his courses of action. It was found that the
theoretical, economic, political, and religious personal values have an effect on the theoretical, economic, political, and religious choices of action in the American graduate business student group. These results validate and support the results of a similar study made four years ago by Pezeshkpur.¹

No significant correlations were found between social and aesthetic values and corresponding choices of action in the American student group. One reason for this finding is that aesthetic and social values occupy the lowest ranks in the personal value structure of this group, i.e., fifth and sixth places, respectively. Since aesthetic and social values are not prevalent values for the American students in this study, they may hesitate to make action choices based on these values. If they were to make decisions which were consistent with these values, the students may feel that they had made decisions which did not conform to those made by the majority of their group. Therefore, the students dominated by social and aesthetic values may make decisions which are contrary to their values in order to conform to the prevalent values of their group.

Other studies using American populations have shown that aesthetic and social values are not prevalent values. For 5,894 male students in 30 colleges in different states in the United States, it was found that social and aesthetic values occupied fifth and sixth

places, respectively. In a study of high-level United States executives attending the Advanced Management Program at Harvard Business School, Guth and Tagiuri found that aesthetic and social values occupied fifth and sixth ranks, respectively. In Pezeshkpur's study, aesthetic and social values ranked fourth and fifth, respectively (Table 10). Therefore, social and aesthetic values are prevalent neither to the American group of this study nor to American groups of other studies. This leads the American business students dominated by these values to make decisions which are inconsistent with their dominant values in order to conform to the other prevailing values of their group or of other groups. This may be the reason for the noncorrelation between these two values and their corresponding choices of action.

Positive correlations between theoretical, social, political, and religious personal values of the Egyptian graduate business student group and their corresponding choices of action were supported by the research. These results not only support Pezeshkpur's study in a different culture (the Egyptian culture), but are also consistent with the body of empirical research discussed in Chapter II which suggests that personal values influence decision making.

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4 Pezeshkpur, op. cit., p. 50.
The highest correlation of the four significant positive correlations for the Egyptian graduate business students is that of religious values with religious choices of action (a correlation of .36, with a .01 level of significance—Table 21). This is also the highest correlation of the positive correlations for the Egyptian science students (.36, with a .01 level of significance—Table 22). The primary reason for these high correlations may be because of the major role the Islamic religion plays in shaping the Egyptians' values. If a Moslem is a firm believer in his religion, theoretically and practically, he must behave according to his religious principles to be consistent with his religious values. His actions become a product of his beliefs. The high correlation between religious values and religious choices of action exists not only for the Egyptian student groups, but also for the American graduate business student group. The correlation for the American graduate business students is .62, with a .01 level of significance. These high correlations show that the devoted religious students usually make decisions which are consistent with their religious values and that the influence of these values on their decisions is highly significant.

The lack of a significant positive correlation between the scores of economic personal values and economic choices of action for the Egyptian business students may be due to Egypt's economic environment of the past 20 years. During the past two decades, Egypt has been investing most of its resources in industrial and agricultural projects. Egypt is not an economically developed country, and its utilized

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5Hassan Elbanna, Call and Caller (Cairo: Islamic Office, 1946).
resources are limited. The political instability of the Middle East, the expansion of the military, and wars have consumed too much of the Egyptian income. Because of this economic environment, individual net per capita income is very low; consequently, the economic needs of most Egyptians are not highly satisfied. It is known that the unsatisfied needs are usually active and motivating needs. Therefore, although economic choices of action were ranked first in the choice of action structure of the Egyptian business student group, economic personal values only ranked third in their personal value structure (Table 17). Their unsatisfied economic needs direct their decisions to satisfy these needs, and this resulted in their not having a significant positive correlation between their economic personal values and their economic choices of action.

As shown in Table 17, the aesthetic personal values of the Egyptian business students occupied the lowest rank in their value structure. Since aesthetic values are not prevalent in this group of students, an individual may be discouraged from making decisions that are consistent with his dominant aesthetic values. In addition, economic problems may cause aesthetic decisions to be less appreciated by society. Therefore, a positive correlation between aesthetic personal values and aesthetic choices of action for the Egyptian business student group was not significant.

No significant positive correlation was found between theoretical, economic, aesthetic, and social personal values and their corresponding choices of action for the Egyptian graduate science group.

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The researcher feels that this may have been because this group was not very careful in answering some of the questions in the second questionnaire. They may have felt that some of the questions were more business-oriented and thus beyond their major fields (engineering and agriculture).

Unintentional Results Concerning the Relationship Between Personal Values and Choices of Action

One of the main purposes of this study is to examine the effects of the theoretical, economic, aesthetic, social, political, and religious personal values of the three student groups on their theoretical, economic, aesthetic, social, political, and religious choices of action. While it was expected that a significant positive correlation would exist between each personal value and its correspondent choice of action only, the results of the statistical analysis in Tables 20, 21, and 22 also showed that there were other significant positive or negative correlations between some of the personal values and noncorrespondent choices of action. This section will present these results.

**American Graduate Business Student Group.** Table 20 showed the following unintended correlations:

1. There is a significant negative correlation of -0.31 between their theoretical personal value scores and their religious choice of action scores. This means that the American students who are dominated by theoretical values not only tend to make more decisions
which are theoretically-oriented, but they also tend to make less
decisions which are religiously-oriented. This may be because these
students prefer to be logical and rational in their thinking and,
therefore, tend not to make decisions based on religious emotions.
It may also be because the more dominant their theoretical values,
the less likely they are to make religiously-oriented decisions.

2. Not only do the American students' economic values
influence their economic choices of action as expected (Table 20),
they also influence their political choices of action as well. A sig-
nificant positive correlation of .33 was found between their economic
personal value scores and their political choice of action scores.
The reason for such significant positive correlations between this
group's economic value scores and their economic and political choice
of action scores may be because the students who have high economic
values tend to make politically-oriented decisions as a way of
increasing their long-run economic benefits. For example, a manager
who is dominated by economic values may try to increase the size of
his organization and the number of his subordinates (politically-
oriented decisions) as a way of increasing the profits of his organiza-
tion over a long period of time. It was found that this student group
ranked their economic and political choices of action approximately
as two consecutive ranks.7

3. An unexpected significant positive correlation between the
social value scores of this student group and their religious choice
of action scores is shown in Table 20. The correlation is .28 at a

7See Table 29, p. 120.
.05 level of significance. The expected correlation between this group's social value scores and their social choice of action scores was not found. This may be because the students who are dominated by social values might feel that some religiously-oriented decisions will satisfy their dominant social values. In other words, most religiously-oriented decisions may have a social side to them and, at times, it is difficult to explicitly distinguish between socially- and religiously-oriented decisions.

4. There was an unexpected significant negative correlation of -0.33 between these students' political value scores and their religious choice of action scores. This may be because the students who ranked their political values high disregard the religiously-oriented decision because they might feel that the religiously-oriented decision will reduce their desire for dominance over other people and their environments (a characteristic of a person who is dominated by political values).

5. It was found that there are significant negative correlations of -0.36 and -0.44 between these students' religious value scores and their economic and political choice of action scores, respectively (Table 20). This may be because the students who are dominated by religious values tend to reduce their economically- or politically-oriented decisions and increase their religiously-oriented ones. Therefore, the more positive the correlation between their religious choices of action, the more negative the correlation between their religious value scores and their economic and political choices of action.
Egyptian Graduate Business Student Group. Table 21 showed the following unintended results:

1. There is a significant positive correlation of .26 between these students' economic value scores and their theoretical choice of action scores. The reason may be because these students have been involved in their fields of study for a period over 10 years (Table 13). Involvement in research for this period of time might lead them to choose theoretically-oriented decisions, besides economically-oriented decisions, even if they were dominated by economic values. It was also found that there is a significant negative correlation of -0.27 between their economic personal values and their social choices of action. This may be because the students who are dominated by economic values tend to reduce their choice of the socially-oriented decisions.

2. There is a significant negative correlation of -0.29 between this group's social value scores and their political choice of action scores. This may be because the students who are dominated by social values tend to reduce their choice of politically-oriented decisions because they might consider politically-oriented decisions to be inconsistent with their dominant social values. Students who are friendly with others might dislike being dominated by politically-oriented decisions.

3. There is a significant positive correlation of .31 between their political value scores and their social choice of action scores. This may be because those students who are dominated by political values might tend to make some socially-oriented decisions, besides politically-oriented ones, as a way of increasing their circle of
friends and acquaintances. This, in turn, will satisfy their dominant political personal values.

4. There is a significant negative correlation of -0.35 between these students' religious value scores and their theoretical choice of action scores. This may be because the students who are dominated by religious values tend to make less theoretically-oriented decisions and more religiously-oriented ones.

**Egyptian Graduate Science Student Group.** Table 22 showed the following unintended results:

1. There is a significant negative correlation of -0.25 between this student group's social value scores and their economic choice of action scores. This may be because the students who are dominated by social values may tend to reduce their economically-oriented decisions. There is a significant positive correlation of .25 between these students' social value scores and their religious choices of action. The same correlation existed with the American student group (Table 20). As with the American group, it may be that the Egyptian science students consider religiously-oriented decisions consistent with their social values because most religiously-oriented decisions have a social side to them.

2. There is a significant positive correlation of .34 between these students' political value scores and their economic choices of action. These students may tend to make economically-oriented decisions, besides their politically-oriented decisions, as another way of satisfying their dominant political personal values. Table 22 showed that there is a significant negative correlation between these
students' political values and their religious choices of action. This may be because students who are dominated by political values might tend to reduce their decisions which are based on religious orientations and to increase their politically-oriented decisions.

Analysis and Interpretation of the Impact of Education and/or Experience on the Personal Value Structure of Egyptian Students

This section includes an analysis of the results of the testing of Hypothesis 7 and the interpretation of these results.

Hypothesis 7: Impact of Education on the Personal Value Structure

Hypothesis 7 states that the personal value structure of Egyptian students will be affected by their kind of education or their experience. It is expected that the economic personal values will be dominant in the business student group and that the theoretical personal values will be dominant in the science student group.

Table 17 indicated that theoretical personal values occupied first place in the value structure of the Egyptian graduate science student group. Their theoretical value score was 47.02, while their economic, religious, social, political, and aesthetic value scores were 39.99, 39.77, 39.40, 39.14, and 34.68, respectively. Using Tukey's procedure to test the significance of the differences within the scores of the personal values of the science student group, it was found that there is a significant difference between the theoretical value score (47.02) and the other five value scores (Table 23). The level of
TABLE 23
TUKEY'S PROCEDURE TO TEST THE DIFFERENCES WITHIN
THE SCORES OF PERSONAL VALUES FOR
EGYPTIAN SCIENCE STUDENTS

<table>
<thead>
<tr>
<th>Personal Values</th>
<th>Theoretical</th>
<th>Economical</th>
<th>Religious</th>
<th>Social</th>
<th>Political</th>
<th>Aesthetic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>47.02</td>
<td>39.99</td>
<td>39.77</td>
<td>39.40</td>
<td>39.14</td>
<td>34.68</td>
</tr>
</tbody>
</table>

\[
q(P,n)^{1}\frac{S^2}{\bar{x}}
\]

\[
4.05
\]

\[
1.16
\]

\[
W=q(P,n)\frac{S^2}{\bar{x}}
\]

\[
4.69
\]

<table>
<thead>
<tr>
<th>Personal Values</th>
<th>Calculations</th>
<th>Significance of Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>T vs. E</td>
<td>$47.02 - 39.99 = 7.03 &gt; 4.69$</td>
<td>S</td>
</tr>
<tr>
<td>T vs. R</td>
<td>$47.02 - 39.77 = 7.25 &gt; 4.69$</td>
<td>S</td>
</tr>
<tr>
<td>T vs. S</td>
<td>$47.02 - 39.40 = 7.62 &gt; 4.69$</td>
<td>S</td>
</tr>
<tr>
<td>T vs. P</td>
<td>$47.02 - 39.14 = 7.88 &gt; 4.69$</td>
<td>S</td>
</tr>
<tr>
<td>T vs. A</td>
<td>$47.02 - 34.68 = 12.34 &gt; 4.69$</td>
<td>S</td>
</tr>
<tr>
<td>E vs. R</td>
<td>$39.99 - 39.77 = .22 &lt; 4.69$</td>
<td>NS</td>
</tr>
<tr>
<td>E vs. A</td>
<td>$39.99 - 34.68 = 5.31 &gt; 4.69$</td>
<td>S</td>
</tr>
<tr>
<td>R vs. S</td>
<td>$39.77 - 39.40 = .37 &lt; 4.69$</td>
<td>NS</td>
</tr>
<tr>
<td>R vs. A</td>
<td>$39.77 - 34.68 = 5.09 &gt; 4.69$</td>
<td>S</td>
</tr>
<tr>
<td>S vs. A</td>
<td>$39.40 - 34.68 = 4.72 &gt; 4.69$</td>
<td>S</td>
</tr>
<tr>
<td>P vs. A</td>
<td>$39.14 - 34.68 = 4.46 &lt; 4.69$</td>
<td>NS</td>
</tr>
</tbody>
</table>


\[S = \text{Significant difference}\]

\[NS = \text{NonSignificant difference}\]
significance used in Tukey's procedure is .05. This gives a clear indication that the personal value structure of the Egyptian science students in this study was significantly dominated by theoretical values. Therefore, Hypothesis 7 is accepted for the Egyptian graduate science student group.

For the Egyptian graduate business students, Table 17 shows that economic values scored 41.26 for this group. Although these values do not numerically occupy first place in the value structure of these students, by using Tukey's procedure (Table 24) it can be seen that there are no significant differences between the scores of theoretical values (44.9), religious values (42.39), and economic values (41.26). Therefore, it may be stated that the economic personal values as well as the theoretical and religious values occupy the same rank (first place) in the personal value structure of the Egyptian graduate business student group; and Hypothesis 7 could also be accepted for this group of students.

Interpretation of Results

The preceding conclusions support the expectation of this study that the kind of education or experience which a person has influences his personal value structure. The majority of the Egyptian graduate science students in this study have been involved in their major fields as graduate assistants while performing theoretical research in their colleges for a period of ten or more years (Table 13). The mean years of involvement in their major field is 11.33 years. Involvement in research and rational thinking for this period
TABLE 24
TUKEY'S PROCEDURE TO TEST THE DIFFERENCES WITHIN
THE SCORES OF PERSONAL VALUES FOR
EGYPTIAN BUSINESS STUDENTS

<table>
<thead>
<tr>
<th>Personal Values</th>
<th>Calculations</th>
<th>Significance of Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religious</td>
<td>44.90</td>
<td></td>
</tr>
<tr>
<td>Economical</td>
<td>42.39</td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>41.26</td>
<td></td>
</tr>
<tr>
<td>Political</td>
<td>40.27</td>
<td></td>
</tr>
<tr>
<td>Aesthetic</td>
<td>39.10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>33.14</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>( q(P, n_2) )</th>
<th>( S_x^{-2} )</th>
<th>( w = q(P, n_2)S_x^{-2} )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.05</td>
<td>1.17</td>
<td>4.74</td>
</tr>
</tbody>
</table>


2. \( S_x^{-2} = \sqrt{\frac{\text{mse}}{n}} = \sqrt{\frac{63.4609}{46}} = 1.17 \)

   \( \text{mse} = \) From Table 32, p. 190.

3. \( S = \) Significant difference
   \( NS = \) Nonsignificant difference
of time is probably the main reason that theoretical values are the dominant values of their value structure.

Theoretical values are also the dominant values (first place) in the value structure of the Egyptian graduate business students. A majority of these students (80.44 percent) have been involved in theoretical studies for a period 10 or more years (Table 13). The mean years of involvement in their major field is 11.4. Economic values were also dominant for this group. This may be because their business education emphasizes the importance of profit making and efficiency.

A possible interpretation of this study's results involves the influence which the kind of education or experience has on the Egyptian students' value structures. These students might have been attracted to a major in the science or business fields because they had high theoretical or economic values, respectively. Their involvement in their fields might only have played a reinforcement role for their existing dominant values.

Concerning the impact of education or experience on the personal value structure of Egyptian students, the results of this study support those of studies by Guth and Tagiuri and Shirley. All concluded that the kind of education or experience a person has influences his value structure. For example, if a person has been involved primarily in business activities, his value structure will be dominated by economic values; if he has been involved primarily in theoretical or social activities, it will be dominated by theoretical or social values.

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8Guth and Tagiuri, op. cit., p. 126; and Robert C. Shirley, "Values and Decision-Making: Their Origin and Effects," Managerial Planning (January-February 1975), pp. 1-5. For a discussion of these studies, please see Chapter I, p. 5.
Impact of American and Egyptian Cultures on
the Personal Value Structure and
the Decision-Making Process

This section examines the effects that the Egyptian and American cultures have on personal value structures, the decision-making process, and the relationship between personal values and the decision-making process. The results of this study regarding American students will be compared with those results obtained in Pezeshkpur's study.

Hypothesis 8: Impact of Culture
on the Personal Value Structure

Hypothesis 8 states that the expected personal value structures of Egyptian graduate business students differ from the personal value structures of American graduate business students (the American students of this study and of Pezeshkpur's study).

The personal value structure of the Egyptian graduate business student group was shown earlier in Table 17. It should be noted that theoretical values were ranked first; religious values, second; economic values, third; social values, fourth; political values, fifth; and aesthetic values, sixth. As shown in Table 24, there are no significant differences between the scores of theoretical, religious, and economic values in the value structure for this student group. Since it was hypothesized that the economic values would be dominant values in the value structure of this group, the hypothesis is accepted.

As shown in Table 25, economic values ranked first in the personal value structure of the American graduate business students
<table>
<thead>
<tr>
<th>Personal Values in This Study</th>
<th>Mean Score</th>
<th>Personal Values in Pezeshkpur's Study</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic</td>
<td>46.62</td>
<td>Economic</td>
<td>45.35</td>
</tr>
<tr>
<td>Political</td>
<td>43.62</td>
<td>Political</td>
<td>42.00</td>
</tr>
<tr>
<td>Theoretical</td>
<td>43.42</td>
<td>Theoretical</td>
<td>40.88</td>
</tr>
<tr>
<td>Religious</td>
<td>37.76</td>
<td>Aesthetic</td>
<td>39.37</td>
</tr>
<tr>
<td>Aesthetic</td>
<td>36.87</td>
<td>Social</td>
<td>36.50</td>
</tr>
<tr>
<td>Social</td>
<td>32.78</td>
<td>Religious</td>
<td>35.27</td>
</tr>
</tbody>
</table>
studied. These values were followed, in order of rank, by political, theoretical, religious, aesthetic, and social values. Table 25 reflects the value scores for this study and that of Pezeshkpur, with economic, political, and theoretical values ranking first, second, and third, respectively, in each study.

Table 26 indicates that there is no significant difference in the scores of religious and aesthetic values for the American business student group. Therefore, it may be stated that the rank of aesthetic values in this study is not significantly different from their rank in Pezeshkpur's study. The same might also apply to social values as ranked in this study and in Pezeshkpur's study. It may also be observed from Table 25 that the difference in the social and religious values is not very significant in Pezeshkpur's study. Therefore, it may be stated that there is no significant difference in the ranks of social values in this study and in Pezeshkpur's study. Religious values are also not very significantly different in either study (Table 25). As religious values could occupy either fourth or fifth rank in this study and as they could occupy either fifth or sixth place in Pezeshkpur's study (Tables 26 and 25, respectively), it may be assumed that these values have similar ranks in both studies.

From the above discussion, it may be concluded that the personal value structures of American business students in this study and in Pezeshkpur's study are not significantly different.

The different cultures of the American and Egyptian students would appear to be the probable cause of the differing value structures
TABLE 26
TUKEY'S PROCEDURE TO TEST THE DIFFERENCES WITHIN
THE SCORES OF PERSONAL VALUES FOR
AMERICAN BUSINESS STUDENTS

<table>
<thead>
<tr>
<th>Personal Values</th>
<th>Economical</th>
<th>Political</th>
<th>Theoretical</th>
<th>Religious</th>
<th>Aesthetic</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>46.62</td>
<td>43.62</td>
<td>43.42</td>
<td>37.76</td>
<td>36.87</td>
<td>32.73</td>
</tr>
<tr>
<td>P</td>
<td>46.62</td>
<td>43.62</td>
<td>43.42</td>
<td>37.76</td>
<td>36.87</td>
<td>32.73</td>
</tr>
<tr>
<td>T</td>
<td>43.62</td>
<td>43.42</td>
<td>43.42</td>
<td>37.76</td>
<td>36.87</td>
<td>32.73</td>
</tr>
<tr>
<td>R</td>
<td>46.62</td>
<td>43.62</td>
<td>43.42</td>
<td>37.76</td>
<td>36.87</td>
<td>32.73</td>
</tr>
<tr>
<td>A</td>
<td>46.62</td>
<td>43.62</td>
<td>43.42</td>
<td>37.76</td>
<td>36.87</td>
<td>32.73</td>
</tr>
<tr>
<td>S</td>
<td>46.62</td>
<td>43.62</td>
<td>43.42</td>
<td>37.76</td>
<td>36.87</td>
<td>32.73</td>
</tr>
</tbody>
</table>

\[
q(P, n_2) = \frac{S_x^2}{\text{mse}}
\]

\[
W = \frac{q(P, n_2)S_x}{X}
\]

<table>
<thead>
<tr>
<th>Personal Values</th>
<th>Calculations</th>
<th>Significance of Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>E vs. P</td>
<td>46.62 - 43.62 = 3.00 &lt; 4.13</td>
<td>NS</td>
</tr>
<tr>
<td>E vs. T</td>
<td>46.62 - 43.42 = 3.20 &lt; 4.13</td>
<td>NS</td>
</tr>
<tr>
<td>E vs. R</td>
<td>46.62 - 37.76 = 8.86 &gt; 4.13</td>
<td>S</td>
</tr>
<tr>
<td>E vs. A</td>
<td>46.62 - 36.87 = 9.75 &gt; 4.13</td>
<td>S</td>
</tr>
<tr>
<td>E vs. S</td>
<td>46.62 - 32.73 = 13.89 &gt; 4.13</td>
<td>S</td>
</tr>
<tr>
<td>P vs. T</td>
<td>43.62 - 43.42 = 0.20 &lt; 4.13</td>
<td>NS</td>
</tr>
<tr>
<td>P vs. R</td>
<td>43.62 - 37.76 = 5.86 &gt; 4.13</td>
<td>S</td>
</tr>
<tr>
<td>P vs. A</td>
<td>43.62 - 36.87 = 6.75 &gt; 4.13</td>
<td>S</td>
</tr>
<tr>
<td>P vs. S</td>
<td>43.62 - 32.73 = 10.69 &gt; 4.13</td>
<td>S</td>
</tr>
<tr>
<td>T vs. R</td>
<td>43.42 - 37.76 = 5.66 &gt; 4.13</td>
<td>S</td>
</tr>
<tr>
<td>T vs. A</td>
<td>43.42 - 36.87 = 6.55 &gt; 4.13</td>
<td>S</td>
</tr>
<tr>
<td>T vs. S</td>
<td>43.42 - 32.73 = 10.69 &gt; 4.13</td>
<td>S</td>
</tr>
<tr>
<td>R vs. A</td>
<td>37.76 - 36.87 = 0.89 &lt; 4.13</td>
<td>NS</td>
</tr>
<tr>
<td>R vs. S</td>
<td>37.76 - 32.73 = 5.03 &gt; 4.13</td>
<td>S</td>
</tr>
<tr>
<td>A vs. S</td>
<td>36.87 - 32.73 = 4.14 &gt; 4.13</td>
<td>S</td>
</tr>
</tbody>
</table>


2 \[S_x = \sqrt{\frac{\text{mse}}{n}} = \sqrt{\frac{63.4609}{60}} = 1.02\]

mse = From Table 32, p. 190.

3 S = Significant difference
NS = Nonsignificant difference
of the two groups. This difference in value structures may be observed by comparing Tables 17 and 25 and Tables 24 and 26.

Table 17 showed that for Egyptian business students theoretical values ranked first; religious values, second; economic values, third; social values, fourth; political values, fifth; and aesthetic values, sixth. There is no significant difference in the scores of the first four values (Table 24).

Table 25 showed that the value structure for the American graduate business student group differed from that of the Egyptian graduate student groups in that economic values ranked first; political values, second; theoretical values, third; religious values, fourth; aesthetic values, fifth; and social values, sixth. The American student group showed dominant values in the economic, political, and theoretical categories (Table 26).

Using the analysis of variance in Table 27, it was shown that the scores of personal values differed between the American and Egyptian student groups at a .01 level of significance. Therefore, Hypothesis 8 is accepted.

Interpretation of Results

As indicated in the previous discussion, there are differences between the value structures of the American business students and the Egyptian business students of this study. Religious and social values of the Egyptian students occupy higher ranks (second and fourth, respectively) than those of the American students (fourth and sixth, respectively). Though these values are dominant values for the Egyptian students (Table 24), they are not dominant values for the
TABLE 27
ANALYSIS OF VARIANCE FOR DIFFERENCES IN
PERSONAL VALUE STRUCTURES BETWEEN
AMERICAN AND EYPTIAN BUSINESS STUDENTS

<table>
<thead>
<tr>
<th>Source</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F. Value</th>
<th>PR&gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>115</td>
<td>12559.6478</td>
<td>109.2143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>520</td>
<td>35980.6713</td>
<td>69.1936</td>
<td>1.58</td>
<td>.0005</td>
</tr>
<tr>
<td>Corrected total</td>
<td>635</td>
<td>48540.3192</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>Degrees of Freedom</th>
<th>Type IV SS</th>
<th>F. Value</th>
<th>PR&gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>1</td>
<td>0.01845775</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>ID (Group)</td>
<td>64</td>
<td>753.80072464</td>
<td>0.10</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>5</td>
<td>7468.27359174</td>
<td>21.59</td>
<td>0.0001***</td>
</tr>
<tr>
<td>Group Type</td>
<td>5</td>
<td>3739.18868608</td>
<td>10.81</td>
<td>0.0001***</td>
</tr>
</tbody>
</table>

***Level of significance = 0.01
American students (Table 26). As discussed in Chapter III, the Egyptian social system plays a significant role in the dominance of the social values of the Egyptian people. The solidarity of the social interaction between Egyptians, in family, work, and friendship groups, is considered an important element in the dominance of the social values. Also discussed in Chapter III was the significant role of the Islamic religion in shaping the religious values of the Egyptians. As indicated earlier, the Islamic religion is understood by the Moslems to be not only a way of purifying their souls and hearts, but also as a way of conducting their lives—socially, politically, economically, and internationally. This may be the reason that the religious values are dominating values for the Egyptian business students.

The political values of the Egyptian business student group ranked fifth in the value structure (Table 17), while the American student group ranked this value second (Table 25). Possibly, this may be explained by Egypt's not having had an actual democratic government for many years. As mentioned in Chapter III, democracy was abused during the period 1952 to 1973. Also, Egypt was the subject of foreign rule for many years and, as a result, its people have not been permitted participation in politics. These political environments may have reduced the experience of Egyptian graduate students in leading and directing other people.

The trend toward nationalization of most private industrial and commercial businesses during the period 1952 to 1973 discouraged the desire of some people to increase their personal property.

The environments which discouraged these students from directing and leading others and from increasing their personal property may be
the reasons that these students have low political values. Spranger mentioned that the man dominated by political values prefers to dominate other people and to increase his property, a source of power.9

While political values are not dominating values for the Egyptian business students, they are dominating values for the American business students (Table 26). The American people have been practicing a better democracy for a long time. They are permitted the freedom of opinion constitutionally and practically. Also, they are very active in trying to increase their personal power, either by increasing their properties or by forming groups to reach their demands to the top political authorities. This may be the reason that political values are dominant values for the American students.

Economic values are also ranked higher for the American student group than for the Egyptian students in this study, whereas social and religious values ranked higher for the Egyptian group. The American students have a greater respect for increasing economic property and individualistic economic concepts. The capitalistic tradition in the United States is a major factor here.

As stated, social values were not dominant values for the American students (Tables 25 and 26). The individuality and independence concepts have been practiced by the American people more than by the Egyptian people. This may be noted in the differences in the social systems of the two countries. In addition, the capitalistic tradition of the United States has produced an independent people who strive for

9Edward Spranger, Types of Men, trans. by P. Pigores (Halle, Germany: Niemeyer, 1928).
improvement. Therefore, these may be the reasons that the social values of the American student group are not as dominant as they are in the value structure of the Egyptian graduate business student group.

Theoretical values were dominant in both value structures for the American and Egyptian business groups (Tables 24 and 26). This may be because all groups are involved in theoretical research in their major fields of study. As shown in the previous section, experience or education of the Egyptian students influences their personal value structures. The value structures of the Egyptian students who have been involved in research for a long period of time were found to be dominated by theoretical values. The dominance of the theoretical values in the value structures of American and Egyptian business students in this study is consistent with the conclusions drawn by Guth and Tagiuri and Shirley in their studies.\footnote{Guth and Tagiuri, \textit{op. cit.}; Shirley, \textit{op. cit.}} They found that experience or education plays a significant role in shaping the personal value structure. All these considerations, together, may be reasons that cause theoretical values to occupy high ranks in the personal value structures of the Egyptian and American business groups.

Aesthetic values were not dominant for either business group, although they did occupy a higher rank for the American students than for the Egyptian students. This may be because, in their field of study, their economic values are promoted at the expense of their aesthetic values. People with high aesthetic values are drawn to other fields where they can express their aesthetic values—art, architecture, music, etc. Conversely, business, where there is little opportunity to
express these values, attracts people with low aesthetic values. As found earlier in the discussion of Hypothesis 7, education or experience influences the personal value structure. Therefore, the above may be reasons that the two business student groups have low rankings for their aesthetic values.

Hypothesis 9: Impact of Culture on the Decision-Making Process

Hypothesis 9 is based primarily on Hypothesis 8. Hypothesis 9 states that since it is assumed that Egyptian and American graduate business students have different value structures, it is hypothesized that they will indicate different hierarchies of preference in their choices of action. Four steps were taken to test this hypothesis.

First, analysis of variance was used to test for significant differences in the scores of courses of action for the American and Egyptian graduate business students in this study (Table 28). The analysis indicated that there are significant differences between the two groups at a .01 degree of significance.

Second, Tukey's procedure was used to test the significance of the differences within the scores of choices of action for the American business students in this study (Table 29). It was found that there are no significant differences between the scores of political choices of action (3.41) and the scores of social choices of action (3.55). Therefore, the choice of action structure of the American business student group of this study (Table 9) does not differ from that of the American business student group of Pezeshkpur's study (Table 10).
### TABLE 28

**ANALYSIS OF VARIANCE FOR DIFFERENCES IN CHOICES OF ACTION BETWEEN AMERICAN AND EGYPTIAN BUSINESS STUDENTS**

<table>
<thead>
<tr>
<th>Source</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F. Value</th>
<th>PR &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>113</td>
<td>331.4709</td>
<td>2.9334</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>510</td>
<td>243.2663</td>
<td>0.4769</td>
<td>6.15</td>
<td>.0001</td>
</tr>
<tr>
<td>Corrected total</td>
<td>623</td>
<td>574.7372</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>Degrees of Freedom</th>
<th>Type IV SS</th>
<th>F. Value</th>
<th>PR &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>1</td>
<td>0.00001072</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>ID (Group)</td>
<td>102</td>
<td>0.00083144</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>5</td>
<td>301.49838422</td>
<td>126.42</td>
<td>0.0001***</td>
</tr>
<tr>
<td>Group</td>
<td>5</td>
<td>14.49554788</td>
<td>6.08</td>
<td>0.0001***</td>
</tr>
</tbody>
</table>

***Level of significance = 0.01***
TABLE 29
TUKEY'S PROCEDURE TO TEST THE DIFFERENCES WITHIN
THE SCORES OF CHOICES OF ACTION FOR
AMERICAN BUSINESS STUDENTS

<table>
<thead>
<tr>
<th>Choices of Action</th>
<th>Calculations</th>
<th>Significance of Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economical</td>
<td>2.40</td>
<td></td>
</tr>
<tr>
<td>Theoretical</td>
<td>2.70</td>
<td></td>
</tr>
<tr>
<td>Political</td>
<td>3.41</td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>3.55</td>
<td></td>
</tr>
<tr>
<td>Religious</td>
<td>4.32</td>
<td></td>
</tr>
<tr>
<td>Aesthetic</td>
<td>4.62</td>
<td></td>
</tr>
<tr>
<td>$q(P,n_2)$</td>
<td>4.05</td>
<td></td>
</tr>
<tr>
<td>$S_x^2$</td>
<td>0.09247</td>
<td></td>
</tr>
<tr>
<td>$W = q(P,n_2)S_x$</td>
<td>0.375</td>
<td></td>
</tr>
</tbody>
</table>


$2S_x = \frac{\text{mse}}{n} = \frac{513079}{60} = 0.09247$

mse = From Table 33, p. 191.

3 $S = \text{Significant difference}$

NS = Nonsignificant difference
Third, since the choice of action structure of the Egyptian business student group is significantly different from that of the American student group in this study, it would also be significantly different from that of the American student group of Pezeshkpur's study. (The choice of action structure of the American business students in this study does not differ from that of the American business students in Pezeshkpur's study; see preceding step.)

Fourth, it may be concluded that the choice of action structure of the Egyptian graduate business students is different from the choice of action structures of the American business students in this study and in Pezeshkpur's study. Therefore, Hypothesis 9 is accepted.

**Hypothesis 10: Impact of Culture on the Relationship Between Personal Values and the Decision-Making Process**

Table 20 illustrates the correlation coefficients between the personal value scores of the American student group and their courses of action. Table 21 illustrates the correlations between the personal value scores of the Egyptian business student group and their courses of action. Hypothesis 10 states that these correlations do not differ significantly between the two business student groups.

Fisher's procedure for comparing correlation coefficients was used to test this hypothesis. The level of significance used in this test is .01, and is statistically powerful enough for the purposes of the study. The results of this procedure (Table 30) show that:

---

TABLE 30

FISHER'S PROCEDURE TO TEST THE DIFFERENCES BETWEEN CORRELATION COEFFICIENTS FOR AMERICAN AND EGYPTIAN BUSINESS STUDENTS

H: There is no difference in correlation coefficients.

<table>
<thead>
<tr>
<th>Kind of Correlation</th>
<th>Group</th>
<th>$n$</th>
<th>$r$</th>
<th>$\frac{1}{n} \cdot z$</th>
<th>$z_1 - z_2$</th>
<th>$z^*$</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical</td>
<td>A</td>
<td>59</td>
<td>.36</td>
<td>.377 .018</td>
<td>.2049 .27</td>
<td>Accept H</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>45</td>
<td>.31</td>
<td>.321 .024</td>
<td>.056 .042</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic</td>
<td>A</td>
<td>59</td>
<td>.42</td>
<td>.448 .018</td>
<td>.2049 1.06</td>
<td>Accept H</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>45</td>
<td>.23</td>
<td>.234 .014</td>
<td>.214 .042</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aesthetic</td>
<td>A</td>
<td>59</td>
<td>.20</td>
<td>.203 .018</td>
<td>.2049 .054</td>
<td>Accept H</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>45</td>
<td>.19</td>
<td>.192 .024</td>
<td>.011 .042</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>A</td>
<td>59</td>
<td>.08</td>
<td>.080 .018</td>
<td>.2049 -1.015</td>
<td>Accept H</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>45</td>
<td>.28</td>
<td>.288 .024</td>
<td>-.208 .042</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political</td>
<td>A</td>
<td>59</td>
<td>.54</td>
<td>.604 .018</td>
<td>.2049 1.64</td>
<td>Accept H</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>45</td>
<td>.26</td>
<td>.266 .024</td>
<td>.338 .042</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religious</td>
<td>A</td>
<td>59</td>
<td>.62</td>
<td>.725 .018</td>
<td>.2049 1.69</td>
<td>Accept H</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>45</td>
<td>.36</td>
<td>.377 .024</td>
<td>.348 .042</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 $A =$ American; $E =$ Egyptian

2 $n =$ number of students

3 $r =$ correlation coefficients between personal values and choices of action (from Tables 20-22).


5 $z_1 - z_2 = \sqrt{\frac{1}{n-1}} \cdot \frac{1}{n} - n-e$

6 $Z^* = \frac{r_1 - r_2}{z_1 - z_2}$

7 If $Z^* > 1.96$ or $Z < -1.96$, then the correlation coefficients are significantly different.
1. The correlation between the scores of theoretical values and theoretical courses of action for the American business student group (.36) does not differ significantly from that of the theoretical values and courses of action for the Egyptian business student group (.31).

2. The correlation between the scores of economic values and economic courses of action for the American group (.42) does not differ significantly from that of the economic values and courses of action for the Egyptian business student group (.23).

3. The correlation between the scores of aesthetic values and aesthetic courses of action for the American group (.20) does not differ significantly from that of the aesthetic values and courses of action for the Egyptian group (.19).

4. The correlation between the scores of social values and social courses of action for the American group (.08) does not differ significantly from that of the social values and courses of action for the Egyptian group (.28).

5. The correlation between the scores of political values and political courses of action for the American group (.54) does not differ significantly from that of the political values and courses of action for the Egyptian group (.26).

6. The correlation between the scores of religious values and religious courses of action for the American group (.62) does not differ significantly from that of the religious values and courses of action for the Egyptian group (.36).
It may be stated, therefore, that the intensity of the relationship between personal values and choices of action is the same for both the American and Egyptian graduate business student groups. Different cultures do not significantly influence this correlation intensity. Therefore, on the basis of the above procedure, Hypothesis 10 is accepted.

**General Conclusion of the Results of the Impact of Culture on Personal Values and the Decision-Making Process**

The analysis of the results of the previous section concluded that two different cultures (American and Egyptian) produced two different personal value structures for Egyptian and American business students. Also, these different cultures produced two different choice of action structures for Egyptian and American business students. The political, economic, and social systems of the Egyptian culture are different from their counterparts in the American culture. In each culture, the differences in the degree of democracy, the needs for power, the degree of industrialization, the economic progress, the religions, and the customs may result in different personal value structures, different choice of action structures, and different correlations between the personal values and their corresponding choices of action for the Egyptian and American business students.

**Summary**

The main objectives of this study were to discover the effects of personal values on the decision-making process in two cultures (American and Egyptian), the impact of education and/or experience on
the personal value structures of Egyptian students, and the impact of
the two cultures on the personal value structures and the decision-
making process. Ten hypotheses were developed to study the objectives
of this research. Table 31 summarizes the conclusions of the study.

The next chapter will present a summary of the study, impli-
cations of the results of the study for management, and suggestions for
further research.
<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₁: For Egyptian graduate business students, Egyptian graduate science students, and American graduate business students, there is a positive correlation between the relative position of the individuals' theoretical values and their relative preference of theoretical choices of action in relation to other choices of action.</td>
<td>This hypothesis was accepted for the American and Egyptian graduate business student groups, but was rejected for the Egyptian graduate science student group.</td>
</tr>
<tr>
<td>H₂: For Egyptian graduate business students, Egyptian graduate science students, and American graduate business students, there is a positive correlation between the relative position of the individuals' economic values and their relative preference of economic choices of action in relation to other choices of action.</td>
<td>This hypothesis was accepted for the American student group. Technically, it was rejected for the Egyptian business students although the F value did approach the established acceptance level. The hypothesis was also rejected for the Egyptian graduate science student group.</td>
</tr>
<tr>
<td>H₃: For Egyptian graduate business students, Egyptian graduate science students, and American graduate business students, there is a positive correlation between the relative position of the individuals' political values and their relative preference of political choices of action in relation to other choices of action.</td>
<td>This hypothesis was accepted for all three student groups studied.</td>
</tr>
<tr>
<td>H₄: For Egyptian graduate business students, Egyptian graduate science students, and American graduate business students, there is a positive correlation between the relative position of the individuals' social values and their relative preference of social choices of action in relation to other choices of action.</td>
<td>This hypothesis was accepted for the Egyptian business student group, but was rejected for the other two groups studied.</td>
</tr>
</tbody>
</table>
### TABLE 31—Continued

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_5$: For Egyptian graduate business students, Egyptian graduate science students, and American graduate business students, there is a positive correlation between the relative position of the individuals' aesthetic values and their relative preference of aesthetic choices of action in relation to other choices of action.</td>
<td>This hypothesis was rejected for all three groups, although the correlation for the American student group approached the acceptance level.</td>
</tr>
<tr>
<td>$H_6$: For Egyptian graduate business students, Egyptian graduate science students, and American graduate business students, there is a positive correlation between the relative position of the individuals' religious values and their relative preference of religious choices of action in relation to other choices of action.</td>
<td>This hypothesis was accepted for all three groups. It was noted that the religious correlation was the highest among the six correlations for each student group.</td>
</tr>
<tr>
<td>$H_7$: To test the effect of education on the value structure of Egyptian students, it is hypothesized that the value structure of Egyptian business students will differ from the value structure of Egyptian science students. The dominant value of Egyptian business students is expected to be the economic value. The dominant value of Egyptian science students is expected to be the theoretical value.</td>
<td>This hypothesis was accepted for both the Egyptian graduate business and science student groups. Theoretical values were found to be significantly higher in the science group's value structure, while the business group ranked religious, social, and theoretical, as well as economic, values dominant. Therefore, this hypothesis was accepted.</td>
</tr>
</tbody>
</table>
H$_8$: The expected personal value structure of Egyptian graduate business students differs from the personal value structure of American graduate business students (the American students of this and of Pezeshkpur's studies). The order of the personal values of American business students is expected to be economic, political, theoretical, aesthetic, social, and religious (the structure obtained from Pezeshkpur's study). It is expected that economic values will be first in the value structure of Egyptian graduate business students, with the order of the other values (political, theoretical, aesthetic, social, and religious) differing from that of the American business students. This hypothesis was accepted. The statistical analysis of the results of this study showed that the value structure of the Egyptian business student group was dominated by economic, theoretical, religious, and social values. The American business student group's value structure, on the other hand, was dominated by economic, political, and theoretical values. The ranking structure for the Egyptian business student group was: theoretical values, first; religious values, second; economic values, third; social values, fourth; political values, fifth; and aesthetic values, sixth. The structure for the American business student group was: economic values, first; political values, second; theoretical values, third; religious values, fourth; aesthetic values, fifth; and social values, sixth. This is similar to the American business student study by Pezeshkpur. It was found that the personal value structures of American business students from northern states did not differ significantly from those of students from southern states, except for religious values which were ranked higher in the southern student group. It was also found that the personal value structure of Egyptian students remained stable during their stay in the United States and that the American culture did not change their value structure to any great degree.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H$_8$:</td>
<td>This hypothesis was accepted. The statistical analysis of the results of this study showed that the value structure of the Egyptian business student group was dominated by economic, theoretical, religious, and social values. The American business student group's value structure, on the other hand, was dominated by economic, political, and theoretical values. The ranking structure for the Egyptian business student group was: theoretical values, first; religious values, second; economic values, third; social values, fourth; political values, fifth; and aesthetic values, sixth. The structure for the American business student group was: economic values, first; political values, second; theoretical values, third; religious values, fourth; aesthetic values, fifth; and social values, sixth. This is similar to the American business student study by Pezeshkpur. It was found that the personal value structures of American business students from northern states did not differ significantly from those of students from southern states, except for religious values which were ranked higher in the southern student group. It was also found that the personal value structure of Egyptian students remained stable during their stay in the United States and that the American culture did not change their value structure to any great degree.</td>
</tr>
</tbody>
</table>
TABLE 31--Continued

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>( H_9' ): Since it is assumed that Egyptian and American graduate business students have different value structures, it is hypothesized that they will indicate different hierarchies of choice of action preferences.</td>
<td>This hypothesis was accepted. It was found that Egyptian business students differed from the American student group in their choices of action.</td>
</tr>
<tr>
<td>( H_{10}' ): With reference to the positive correlations mentioned in Hypotheses 1 through 6, there is no significant difference in the intensity of the correlations between personal values and choices of action for these two student groups.</td>
<td>This hypothesis was accepted. It was found that there is no significant difference in the intensity of the correlations between personal values and choices of action for these two student groups.</td>
</tr>
</tbody>
</table>
Chapter VI

Summary, Conclusions, Implications, and Suggestions for Further Research

This chapter includes a summary of this research, its conclusions, its implications for management thought, and suggestions for further research.

Summary

This study has three primary purposes. The first is to examine the effect of the personal value structures of American and Egyptian graduate students on their decision-making process. The second is to determine the impact of different kinds of education and/or experience on the personal value structures of two groups of students (Egyptian graduate business and science students) within the same culture (the Egyptian culture). The third purpose is to study the impact of different cultures (American and Egyptian cultures) on the personal value structures and choice of action structures of American and Egyptian graduate business students. The study also examines the impact of these two different cultures on the intensity of the relationship between personal values and decision making of the American and Egyptian graduate business students.

In order to achieve the purposes of this study, ten hypotheses were developed and tested. Hypotheses 1 through 6 are directed toward
meeting the first purpose; Hypothesis 7, the second purpose; and Hypotheses 8 through 10, the third purpose. The study is reported in five chapters.

Chapter I is an introduction to the study. This introduction combines a statement of the problem, the purposes of the study, the hypotheses, the scope, the justification, and the limitations of the study. The populations studied are Egyptian graduate business students studying in the United States, Egyptian graduate science students studying in the United States, and American graduate business students studying at Louisiana State University.

The second chapter reviews the literature related to the subject of this study. The material of this chapter indicates that personal values influence the end state of different desirable alternatives, transcend from one situation to another, and usually influence an individual's behavior. The personal value structure is defined as a set of individual values that exist on a scale that reveals their degree of relative importance. The personal values used in this study are theoretical, economic, aesthetic, political, social, and religious values. The literature indicates that values influence the decision-making process. Moreover, this chapter concludes that cultural as well as other factors influence the structure of individuals' personal values.

Chapter III provides a synopsis of what are believed to be the common foundations of Egyptian personal values. It was suggested that there are elements in the political, social, cultural, religious, and economic Egyptian systems which shaped the value structures of Egyptian graduate students.
Chapter IV describes the research methodology. The sample design, techniques of data collection, and the procedure used to collect the data and to obtain the results of this study are discussed. Data were collected from 60 American graduate business students at Louisiana State University, 46 Egyptian graduate business students, and 47 Egyptian graduate science students.

Chapter V presents the empirical results of this study, their statistical analysis, and their interpretations. These results are oriented toward meeting the purposes of this study (mentioned previously in this chapter). The results of the first six hypotheses deal with the first purpose, which is to examine the influence of personal values on decision making.

Hypothesis 1 states that there is a positive correlation between the relative position of the individuals' theoretical values and their relative preference of theoretical choices of action. This hypothesis is accepted for the American and Egyptian business students, but not for the Egyptian science students.

Hypothesis 2 states that there is a positive correlation between the relative position of the individuals' economic values and their relative preference of economic choices of action. This hypothesis is accepted for the American business students, but is rejected for the Egyptian business students (although it approaches the acceptance level) and the Egyptian science students.

Hypothesis 3 states that there is a positive correlation between the relative position of the individuals' political values and their relative preference of political choices of action. This hypothesis is accepted for all three student groups.
Hypothesis 4 states that there is a positive correlation between the relative position of the individuals' social values and their relative preference of social choices of action. This hypothesis is accepted for the Egyptian business students, but rejected for the American business students and Egyptian science students.

Hypothesis 5 states that there is a positive correlation between the relative position of the individuals' aesthetic values and their relative preference of aesthetic choices of action. This hypothesis is rejected for all three student groups.

Hypothesis 6 states that there is a positive correlation between the relative position of the individuals' religious values and their relative preference of religious choices of action. This hypothesis is highly accepted for all three student groups.

In general, the results of the first six hypotheses support the expected relationship between personal values and decision making. It was found in this study that the personal values of the three groups of students generally influence their decision making unless there are elements in the individuals' environments which hinder this influence. It was assumed that the economic environments of the Egyptian business students might hinder their having a significant positive correlation between their economic values and their economic choices of action. Also, the lack of influence of the American business students' social values on their social choices of action was interpreted as a result of the elements in their social system (Chapter V).

Hypothesis 7 was developed to fulfill the second purpose of this study, which is to examine the impact of the kind of education and/or experience on the personal value structures of the Egyptian
graduate business and science student groups. This hypothesis predicted theoretical values to be the dominant values for the Egyptian science student group because their experience is primarily related to performing experiments and rational thinking. Hypothesis 7 also expected the dominant values of the Egyptian business students to be economic values because these students are more involved in economic thinking in their studies. This hypothesis is clearly accepted for the Egyptian science students. It is also accepted for the Egyptian business students. Nevertheless, it was found that the theoretical, religious, and social values also occupy high ranks in the personal value structure of the Egyptian business students. Statistically, there were no significant differences between their scores of theoretical, religious, social, and economic personal values.

To meet the third purpose of this study which deals with the impact of different cultures on personal value structures and choice of action structures of American and Egyptian business students, the results of Hypotheses 8, 9, and 10 were examined.

Hypothesis 8 predicts that the Egyptian and the American students (the American students in this study and in Pezeshkpur's study) will have different value structures. This hypothesis is statistically accepted. It was found that the personal value structure of the Egyptian business student group is theoretical values, first; religious values, second; economic values, third; social values, fourth; political values, fifth; and aesthetic values, sixth. The personal value structure of the American business students of this study is economic values, first; political values, second; theoretical values, third; religious values, fourth; aesthetic values, fifth; and
social values, sixth. Moreover, it was found that the personal value structure of the American business students in this study does not differ significantly from that found in Pezeshkpur's study in 1975.

The statistical analysis showed that theoretical, religious, economic, and social values were highly ranked in the personal value structure of the Egyptian business student group; and economic, political, and theoretical values were highly ranked in the personal value structure of the American business group.

Religious and social values occupy higher ranks (second and fourth, respectively) in the value structure of the Egyptian business students than they do in the American business students' value structures (fourth and sixth, respectively). On the other hand, political values have a higher rank (second) in the personal value structure of the American student group than they do in the Egyptian business students' value structure (fifth). Economic and theoretical values are highly ranked for both the American and Egyptian business student groups, occupying first and third ranks for the American student group and third and first ranks for the Egyptian student group, respectively. Aesthetic values are not highly ranked for either business student group; they occupy the fifth rank for the American group and the sixth rank for the Egyptian student group.

It was found that the value structure of 95.7 percent of the Egyptian graduate students has not greatly changed during the period of one to four years that they have lived in the United States. Their value structure during that time was theoretical values, first; religious values, second; economic values, third; social values, fourth; political values, fifth; and aesthetic values, sixth.
American and Egyptian students not only differ in their personal value structures, but in their choice of action structures as well. Hypothesis 9 predicts these differences in their choice of action structures because the two groups of students have different value structures. This hypothesis is accepted.

With regard to the impact of the different cultures on the differences in the correlation intensities of personal values and choices of action between American and Egyptian business students, Hypothesis 10 predicts that there is no difference in these correlations. This hypothesis is accepted.

Conclusions

The following general conclusions are drawn from this study:

In general, the personal values of American and Egyptian students (theoretical, economic, aesthetic, social, political, and religious values) influence their choices of action (theoretical, economic, aesthetic, social, political, and religious choices of action). Nevertheless, the economic, social, and political environments of a society may sometimes alter this influence. The Egyptian economic environment of the last twenty years may have modified the influence of the economic values of the Egyptian business students on their economic choices of action. Also, the American social environments may have reduced the influence of the social values of the American students on their social choices of action.

The students whose values are dominated by religious values have a higher correlation between their values and choices of action.
than the correlations between the other five values and their choices of action.

Experience and/or education may have a significant influence on the structure of personal values. It has been found that the value structure of students who have been involved in research is dominated by theoretical values, while the value structure of students who have been involved in economic decisions is dominated by economic values.

Different cultures tend to produce different value structures in their people. It was found that the personal value structure of the Egyptian business students differs from the personal value structure of the American business students. The first group is dominated by religious, social, theoretical, and economic values; the second group, by political, economic, and theoretical values.

The personal value structure of American students from southern states does not differ significantly from the value structure of American students from northern states, except for religious values which are ranked higher for the southern state group than for the northern state group.

The personal value structure of the Egyptian students has been stable, i.e., without significant change, for a period of four years in the United States.

Egyptian and American business students have different choice of action structures. The two groups differ in making decisions on the same situation and this appears to be related to their different value structures.

The intensity of correlations between personal values and choices of action does not differ between Egyptian and American
graduate business students. In other words, there are no significant differences in the correlations between the personal values (theoretical, economic, aesthetic, political, social, and religious) and the choices of action (theoretical, economic, aesthetic, political, social, and religious) for the American and Egyptian business students.

Implications

The results of this study support the idea that the personal values of individuals influence their decision making. Therefore, when an organization hires its managers, especially top executives, the organization should employ those managers whose values will assist in having the policies of the organization accepted and implemented. For example, when an organization hires an individual to fill a position that requires the individual to be sociable and friendly with people he is interacting with, the management should hire a person whose values are dominated by social values. This employee will be willing to accept the socially-oriented policies of the organization and will be motivated to have them implemented.

The findings of this study lend additional support to the idea of including the personal values of a decision-maker as an important factor in comprehensive decision-making theory. This idea was also stressed by Senger in his study.¹

This study's results also support the concept that top executives must understand the role of their values and their subordinate managers' values in making strategic decisions for their

organizations. Understanding the importance of this role will encourage the top executives of an organization to explore and understand their own and their subordinates' value structures. This exploration and understanding of their values and their subordinates' values become important especially if it is known that managers sometimes are not aware of the structures of their values and of their subordinates' values and that these value structures are sometimes misperceived by others.²

The findings of this study have significance for international management. Effective American managers working in a foreign country need to understand and appreciate the values of the foreign people with whom they are working and the values of the society in which their organizations are working. Their decisions, for the most part, should be consistent with the values of the foreign country in which they are working. As this study points out, often these values are not similar to their own values and, therefore, decisions which are highly accepted in one country are not necessarily accepted by people of another country.

Managers, by understanding the influence of values on decision making, may be able to reduce interpersonal conflict and improve the interpersonal communication by not making decisions which are highly inconsistent with the values of individuals in the organization.

Moreover, it is generally accepted that if the policies of an organization are consistent with the values of its employees, the

employees will be willingly committed and will be more motivated to implement these policies.

**Suggestions for Further Research**

It is suggested that further research be conducted concerning the relationship between personal values and decision making in business, social, and service organizations. This will provide more validation for the results of this study.

The researcher also believes that comparative research focusing on American and Egyptian top executives is warranted. The present study was performed on Egyptian and American graduate students. Validating the results of this study in another study which includes Egyptian and American business executives will give added importance to the results of this study.

Where a lack of correlations between certain values and corresponding decisions was found, it was interpreted as being the result of environmental factors. Therefore, further research is suggested in order to determine which factors in the environment hinder the influence of values on decision making; and, if there are some factors, how they could be managed.

Moreover, improvements in the decision-making questionnaires (Appendices B-1 and B-2) are required for further research. The questions in these questionnaires assume that each individual has some knowledge regarding some business terminology. This is not valid at any time. It is much better to have questions differ according to the nature of the subjects of the future research.
It is also suggested that future research determine how individuals are motivated if they implement policies which are consistent with their personal values, and how much organizational efficiency increases as a result of this correlation between individuals' values and their decisions.

The results of this study indicated that the personal values structure of the Egyptian students was stable during their four-year study period in the United States. Although these students were subject to the influence of a different culture (the American culture), their value structure remained stable for four years. More research is suggested in order to validate this phenomenon. This suggested research might group its subjects according to those who lived in a different culture for one to four years and those who lived in a different culture for periods of more than four years. It is suggested that the recommended study investigate those factors which cause the value structure to remain stable and those factors which cause it to change.

As mentioned earlier, no empirical studies have been done to determine which factors have shaped the personal value structures of the Egyptian students. Therefore, there is a need for a study in this area.

The results of this study indicated that the highest positive correlation between values and decision making was between religious values and religious choices of action. This was interpreted to mean that the students whose value structure is dominated by religious values usually make decisions which are consistent with their values and religious beliefs. It is suggested that a study be done to
validate this interpretation and to examine the other factors of this high correlation, if there are other factors.

As mentioned in Chapter V, unintentional study results were found concerning the relationship between the three student groups' personal values and choices of action. These results suggest that further research is needed to study the effects of personal values on noncorresponding and corresponding choices of action. In other words, students who are dominated by economic personal values might tend to select economically- and politically-oriented choices of action. Further research is suggested in order to study these kinds of relationships.

The unintentional study results also showed that there were not only significant positive correlations between personal values and choices of action, but there were significant negative correlations as well. Therefore, further research is suggested for studying this kind of relationship and its causes.
BIBLIOGRAPHY

Books


Bernhart, Alfred P. Vitality, Community, Creativity: Dimensions of Figure Values. Toronto, Canada: University of Toronto Press, 1975.


**Periodicals**


**Miscellaneous Publications**


APPENDIX A-1

Questionnaire 1
(Completed by American Graduate Business Students)
Part 1

Directions: A number of controversial statements or questions with two alternative answers are given below. Indicate your personal preferences by writing appropriate figures in the boxes to the right of each question. Some of the alternatives may appear equally attractive or unattractive to you. Nevertheless, please attempt to choose the alternative that is relatively more acceptable to you. For each question you have three points that you may distribute in any of the following combinations.

1. If you agree with alternative (a) and disagree with (b), write 3 in the first box and 0 in the second box, thus:

   ![Box Options](image)

2. If you agree with (b); disagree with (a), write:

   ![Box Options](image)

3. If you have a slight preference for (a) over (b), write:

   ![Box Options](image)

4. If you have a slight preference for (b) over (a), write:

   ![Box Options](image)

Do not write any combination of numbers except one of these four. There is no time limit, but do not linger over any one question or statement, and do not leave out any of the questions unless you find it really impossible to make a decision.
1. The main object of scientific research should be the discovery of truth rather than its practical applications. (a) Yes; (b) No.

2. Taking the Bible as a whole, one should regard it from the point of view of its beautiful mythology and literary style rather than as a spiritual revelation. (a) Yes; (b) No.

3. Which of the following men do you think should be judged as contributing more to the progress of mankind? (a) Aristotle; (b) Abraham Lincoln.

4. Assuming that you have sufficient ability, would you prefer to be: (a) a banker; (b) a politician?

5. Do you think it is justifiable for great artists, such as Beethoven, Wagner and Byron to be selfish and negligent of the feelings of others? (a) Yes; (b) No.

6. Which of the following branches of study do you expect ultimately will prove more important for mankind? (a) mathematics; (b) theology.

7. Which would you consider the more important function of modern leaders? (a) to bring about the accomplishment of practical goals; (b) to encourage followers to take a greater interest in the rights of others.

8. When witnessing a gorgeous ceremony (ecclesiastical or academic, induction into office, etc.), are you more impressed: (a) by the color and pageantry of the occasion itself; (b) by the influence and strength of the group?

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9. Which of these character traits do you consider the more desirable? (a) high ideals and reverence; (b) unselfishness and sympathy.

10. If you were a university professor and had the necessary ability, would you prefer to teach: (a) poetry; (b) chemistry and physics?

11. If you should see the following news items with headlines of equal size in your morning paper, which would you read more attentively? (a) PROTESTANT LEADERS TO CONSULT ON RECONCILIATION; (b) GREAT IMPROVEMENTS IN MARKET CONDITIONS.

12. Under circumstances similar to those of Question 11? (a) SUPREME COURT RENDERS DECISION; (b) NEW SCIENTIFIC THEORY ANNOUNCED.

13. When you visit a cathedral are you more impressed by a pervading sense of reverence and worship than by the architectural features and stained glass? (a) Yes; (b) No.

14. Assuming that you have sufficient leisure time, would you prefer to use it: (a) developing your mastery of a favorite skill; (b) doing volunteer social or public service work?

15. At an exposition, do you chiefly like to go to the buildings where you can see: (a) new manufactured products; (b) scientific (e.g., chemical) apparatus?

16. If you had the opportunity, and if nothing of the kind existed in the community where you live, would you prefer to found: (a) a debating society or forum; (b) a classical orchestra?
17. The aim of the churches at the present time should be: (a) to bring out altruistic and charitable tendencies; (b) to encourage spiritual worship and a sense of communion with the highest.

18. If you had some time to spend in a waiting room and there were only two magazines to choose from, would you prefer: (a) scientific age; (b) arts and decorations?

19. Would you prefer to hear a series of lectures on: (a) the comparative merits of the forms of government in Britain and in the United States; (b) the comparative development of the great religious faiths?

20. Which of the following would you consider the more important function of education? (a) its preparation for practical achievement and financial reward; (b) its preparation for participation in community activities and aiding less fortunate persons.

21. Are you more interested in reading accounts of the lives and works of men such as: (a) Alexander, Julius Caesar, and Charlemagne; (b) Aristotle, Socrates, and Kant?

22. Are our modern industrial and scientific developments signs of a greater degree of civilization than those attained by any previous society, the Greeks, for example? (a) Yes; (b) No.

23. If you were engaged in an industrial organization (and assuming salaries to be equal), would you prefer to work: (a) as a counselor for employees; (b) in an administrative position?
24. Given your choice between two books to read, are you more likely to select: (a) THE STORY OF RELIGION IN AMERICA; (b) THE STORY OF INDUSTRY IN AMERICA?

25. Would modern society benefit more from: (a) more concern for the rights and welfare of citizens; (b) greater knowledge of the fundamental laws of human behavior?

26. Suppose you were in a position to help raise standards of living, or to mould public opinion. Would you prefer to influence: (a) standards of living; (b) public opinion?

27. Would you prefer to hear a series of popular lectures on: (a) the progress of social service work in your part of the country; (b) contemporary painters?

28. All the evidence that has been impartially accumulated goes to show that the universe has evolved to its present state in accordance with natural principles, so that there is no necessity to assume a first cause, cosmic purpose, or God behind it. (a) I agree with this statement; (b) I disagree.

29. In a paper, such as the New York Sunday Times, are you more likely to read: (a) the real estate sections and the account of the stock market; (b) the section on picture galleries and exhibitions?

30. Would you consider it more important for your child to secure training in: (a) religion; (b) athletics?
Part II

Directions: Each of the following situations or questions is followed by four possible attitudes or answers. Arrange these answers in the order of your personal preference by writing, in the appropriate box at the right, a score of 4, 3, 2, or 1. To the statement you prefer most give 4, to the statement that is second most attractive 3, and so on.

Example: If this were a question and the following statements were alternative choices you would place:

4 in the box if this statement appeals to you most.

3 in the box if this statement appeals to you second best.

2 in the box if this statement appeals to you third best.

1 in the box if this statement represents your interest or preference least of all.

You may think of answers which would be preferable from your point of view to any of those listed. It is necessary, however, that you make your selection from the alternatives presented, and arrange all four in order of their desirability, guessing when your preferences are not distinct. If you find it really impossible to state your preference, you may omit the question. Be sure not to assign more than one 4, one 3, etc., for each question.
1. Do you think that a good government should aim chiefly at—(Remember to give your first choice 4, etc.)
   a. more aid for the poor, sick and old
   b. the development of manufacturing and trade
   c. introducing highest ethical principles into its policies and diplomacy
   d. establishing a position of prestige and respect among nations

2. In your opinion, can a man who works in business all the week best spend Sunday in—
   a. trying to educate himself by reading serious books
   b. trying to win at golf or racing
   c. going to an orchestral concert
   d. hearing a really good sermon

3. If you could influence the educational policies of the public schools of some city, would you undertake—
   a. to promote the study and participation in music and fine arts
   b. to stimulate the study of social problems
   c. to provide additional laboratory facilities
   d. to increase the practical value of courses

4. Do you prefer a friend (of your own sex) who—
   a. is efficient, industrious and of a practical turn of mind
   b. is seriously interested in thinking out his attitude toward life as a whole
   c. possesses qualities of leadership and organizing ability
   d. shows artistic and emotional sensitivity

5. If you lived in a small town and had more than enough income for your needs, would you prefer to—
   a. apply it productively to assist commercial and industrial development
   b. help to advance the activities of local religious groups
   c. give it for the development of scientific research in your locality
   d. give it to The Family Welfare Society

6. When you go to the theater, do you, as a rule, enjoy most—
   a. plays that treat the lives of great men
   b. ballet or similar imaginative performances
   c. plays that have a theme of human suffering and love
   d. problem plays that argue consistently for some point of view

Total
7. Assuming that you are a man with the necessary ability, and that the salary for each of the following occupations is the same, would you prefer to be a—
   a. mathematician
   b. sales manager
   c. clergyman
   d. politician

8. If you had sufficient leisure and money, would you prefer to—
   a. make a collection of fine sculptures or paintings
   b. establish a center for the care and training of the feeble-minded
   c. aim at a senatorship, or a seat in the Cabinet
   d. establish a business or financial enterprise of your own

9. At an evening discussion with intimate friends of your own sex, are you more interested when you talk about—
   a. the meaning of life
   b. developments in science
   c. literature
   d. socialism and social amelioration

10. Which of the following would you prefer to do during part of your next summer vacation (if your ability and other conditions would permit)—
    a. write and publish an original biological essay or article
    b. stay in some secluded part of the country where you can appreciate fine scenery
    c. enter a local tennis or other athletic tournament
    d. get experience in some new line of business

11. Do great exploits and adventures of discovery such as Columbus's, Magellan's, Byrd's and Amundsen's seem to you significant because—
    a. they represent conquests by man over the difficult forces of nature
    b. they add to our knowledge of geography, meteorology, oceanography, etc.
    c. they weld human interests and international feelings throughout the world
    d. they contribute each in a small way to an ultimate understanding of the universe

Total
12. Should one guide one's conduct according to, or develop one's chief loyalties toward —
   a. one's religious faith
   b. ideals of beauty
   c. one's occupational organization and associates
   d. ideals of charity

13. To what extent do the following famous persons interest you —
   a. Florence Nightingale
   b. Napoleon
   c. Henry Ford
   d. Galileo

14. In choosing a wife would you prefer a woman who — (Women answer the alternative form below)
   a. can achieve social prestige, commanding admiration from others
   b. likes to help people
   c. is fundamentally spiritual in her attitudes toward life
   d. is gifted along artistic lines

(For women) Would you prefer a husband who —
   a. is successful in his profession, commanding admiration from others
   b. likes to help people
   c. is fundamentally spiritual in his attitudes toward life
   d. is gifted along artistic lines

   a. as expressing the highest spiritual aspirations and emotions
   b. as one of the most priceless and irreplaceable pictures ever painted
   c. in relation to Leonardo's versatility and its place in history
   d. the quintessence of harmony and design

Total

| R | S | T | X | Y | Z |
**SCORE SHEET FOR THE STUDY OF VALUES**

**Directions:**
1. First make sure that every question has been answered.

   *Note: If you have found it impossible to answer all the questions, you may give equal scores to the alternative answers under each question that has been omitted; thus,*

   **Part I.** 1½ for each alternative. The sum of the scores for (a) and (b) must always equal 3.

   **Part II.** 2½ for each alternative. The sum of the scores for the four alternatives under each question must always equal 10.

2. Add the vertical columns of scores on each page and enter the total in the boxes at the bottom of the page.

3. Transcribe the totals from each of the foregoing pages to the columns below. For each page enter the total for each column (R, S, T, etc.) in the space that is labeled with the same letter. *Note that the order in which the letters are inserted in the columns below differs for the various pages.*

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**Correction Figures**

|                  | +2*        | -1        | +4        | -2*       | +2        | -5        |                                                                     |

**Final Total**

4. Add the totals for the six columns. Add or subtract the correction figures as indicated.

5. Check your work by making sure that the total score for all six columns equals 240 (Use the margins for your additions, if you wish.)

6. Plot the scores by marking points on the vertical lines in the graph on the next page. Draw lines to connect these six points.

*In the 1951 Edition these figures were: Theoretical +3, Social -3. These new correction figures have been employed in determining the norms in the 1960 manual.*
PROFILE OF VALUES

INTERPRETATION

The profile can best be interpreted if the scores obtained are compared with the following ranges. (Detailed norms for college students and for certain occupations will be found in the Manual of Directions.)

Men

High and low scores. A score on one of the values may be considered definitely high or low if it falls outside the following limits. Such scores exceed the range of 50% of all male scores on that value.

- Theoretical 39-49 Social 32-42
- Economic 37-48 Political 38-47
- Aesthetic 29-41 Religious 32-41

Outstandingly high and low scores. A score on one of the values may be considered very distinctive if it is higher or lower than the following limits. Such scores fall outside the range of 82% of all male scores for that value.

- Theoretical 34-51 Social 28-47
- Economic 32-53 Political 31-52
- Aesthetic 24-47 Religious 26-51

Women

High and low scores. A score on one of the values may be considered definitely high or low if it falls outside the following limits. Such scores exceed the range of 50% of all female scores on that value.

- Theoretical 31-11 Social 37-47
- Economic 33-13 Political 31-12
- Aesthetic 37-18 Religious 37-50

Outstandingly high and low scores. A score on one of the values may be considered very distinctive if it is higher or lower than the following limits. Such scores fall outside the range of 82% of all female scores for that value.

- Theoretical 26-45 Social 33-51
- Economic 28-48 Political 29-46
- Aesthetic 31-51 Religious 31-56
APPENDIX A-2

Questionnaire 1
(Completed by Egyptian Graduate Students)
Part I

Directions: A number of controversial statements or questions with two alternative answers are given below. Indicate your personal preferences by writing appropriate figures in the boxes to the right of each question. Some of the alternatives may appear equally attractive or unattractive to you. Nevertheless, please attempt to choose the alternative that is relatively more acceptable to you. For each question you have three points that you may distribute in any of the following combinations.

1. If you agree with alternative (a) and disagree with (b), write 3 in the first box and 0 in the second box, thus

2. If you agree with (b); disagree with (a), write

3. If you have a slight preference for (a) over (b), write

4. If you have a slight preference for (b) over (a), write

Do not write any combination of numbers except one of these four. There is no time limit, but do not linger over any one question or statement, and do not leave out any of the questions unless you find it really impossible to make a decision.
1. The main object of scientific research should be the discovery of truth rather than its practical applications. (a) Yes; (b) No.

2. Taking the Holy Quran or the Bible as a whole, one should regard it from the point of view of its beautiful mythology and literary style rather than as a spiritual revelation. (a) Yes; (b) No.

3. Which of the following men do you think should be judged as contributing more to the progress of mankind? (a) a philosopher; (b) a political leader.

4. Assuming that you have sufficient ability, would you prefer to be: (a) a banker; (b) a politician?

5. Do you think it is justifiable for a great artist, such as Beethoven, to be selfish and negligent of the feelings of others? (a) Yes; (b) No.

6. Which of the following branches of study do you expect ultimately will prove more important to mankind? (a) mathematics; (b) theology (the study of religious beliefs).

7. Which would you consider the more important function of modern leaders? (a) to bring about the accomplishment of practical goals; (b) to encourage followers to take a greater interest in the rights of others.

8. When witnessing a magnificent ceremony (religious or academic, induction into office, etc.), are you more impressed: (a) by the color and beautiful showing of the occasion itself; (b) by the influence and strength of the group?
9. Which of these character traits do you consider the more desirable? (a) high ideals and respect; (b) unselfishness and sympathy.

10. If you were a university professor and had the necessary ability, would you prefer to teach: (a) poetry; (b) chemistry and physics?

11. If you should see the following news items with headlines of equal size in your morning paper, which would you read more attentively? (a) RELIGIOUS LEADER TO CONSULT ON RECONCILIATION; (b) GREAT IMPROVEMENTS IN MARKET CONDITIONS.

12. Under circumstances similar to those of question 11? (a) DECISION OF SUPREME COURT; (b) NEW SCIENTIFIC THEORY ANNOUNCED.

13. When you visit a mosque or cathedral, are you more impressed by a pervading sense of respect and worship than by the architectural features and stained glass? (a) Yes; (b) No.

14. Assuming that you have sufficient leisure time, would you prefer to use it: (a) developing your mastery of a favorite skill; (b) doing volunteer social or public service work?

15. At an exposition, do you chiefly like to go to the buildings where you can see: (a) new manufactured products; (b) scientific (e.g., chemical) apparatus?

16. If you had the opportunity, and if nothing of the kind existed in the community where you live, would you prefer to found: (a) a meeting for open discussion; (b) a classical orchestra?
17. The aim of the Mosques or churches at the present time should be: (a) to bring out a person who devotes himself for the welfare of others; (b) to encourage spiritual worship and a sense of communion with the highest.

18. If you had some time to spend in a waiting room and there were only two magazines to choose from, would you prefer: (a) SCIENTIFIC AGES: (b) ARTS AND DECORATIONS?

19. Would you prefer to hear a series of lectures on: (a) the comparative merits of the forms of government in Egypt and in the United States; (b) the comparative development of the great religious faiths?

20. Which of the following would you consider the more important function of education? (a) its preparation for practical achievement and financial reward; (b) its preparation for participation in community activities and aiding less fortunate persons.

21. Are you more interested in reading accounts of the lives and works of men such as: (a) Gamal Abdel-Naser, Saad Zaghloul, and John Kennedy; (b) Abbas El-Akkad, Socrates, and Kant?

22. Are our modern industrial and scientific developments signs of a greater degree of civilization than those attained by any previous society, the Egyptians, for example? (a) Yes; (b) No.

23. If you were engaged in an industrial organization (and assuming salaries to be equal), would you prefer to work: (a) as a counselor for employees, (b) in an administrative position?
24. Given your choice between two books to read, are you more likely to select: (a) THE HISTORY OF THE ISLAMIC OR CREATION RELIGION; (b) THE STORY OF INDUSTRY IN EGYPT?

25. Would modern society benefit more from: (a) more concern for the rights and welfare of citizens; (b) greater knowledge of the fundamental laws of human behavior?

26. Suppose you were in a position to help raise standards of living, or to strongly influence public opinion. Would you prefer to influence: (a) standards of living; (b) public opinion?

27. Would you prefer to hear a series of popular lectures on: (a) the progress of social service work in your part of the country; (b) contemporary painters?

28. All the evidence that has been impartially accumulated goes to show that the universe has evolved to its present state in accordance with natural principles, so that there is no necessity to assume a first cause, cosmic purpose, or God behind it. (a) I agree with this statement; (b) I disagree.

29. In a paper, such as the New York Sunday Times, are you more likely to read: (a) the real estate sections and the account of the stock market; (b) the section on picture galleries and exhibitions?

30. Would you consider it more important for your child to secure training in: (a) religion; (b) athletics?
Part II

**Directions:** Each of the following situations or questions is followed by four possible attitudes or answers. Arrange these answers in the order of your personal preference by writing, in the appropriate box at the right, a score of 4, 3, 2, or 1. To the statement you prefer most give 4, to the statement that is second most attractive 3, and so on.

*Example:* If this were a question and the following statements were alternative choices you would place:

- 4 in the box if this statement appeals to you most.
- 3 in the box if this statement appeals to you second best.
- 2 in the box if this statement appeals to you third best.
- 1 in the box if this statement represents your interest or preference least of all.

You may think of answers which would be preferable from your point of view to any of those listed. It is necessary, however, that you make your selection from the alternatives presented, and arrange all four in order of their desirability, guessing when your preferences are not distinct. If you find it really impossible to state your preference, you may omit the question. Be sure not to assign more than one 4, one 3, etc., for each question.
1. Do you think that a good government should aim chiefly at—(Remember to give your first choice 4, etc.)
   a. more aid for the poor, sick and old
   b. the development of manufacturing and trade
   c. introducing highest ethical principles into its policies and diplomacy
   d. establishing a position of prestige and respect among nations

2. In your opinion, can a man who works in business all the week best spend Sunday in—
   a. trying to educate himself by reading serious books
   b. trying to win at golf, or racing
   c. going to an orchestral concert
   d. hearing a really good sermon

3. If you could influence the educational policies of the public schools of some city, would you undertake—
   a. to promote the study and participation in music and fine arts
   b. to stimulate the study of social problems
   c. to provide additional laboratory facilities
   d. to increase the practical value of courses

4. Do you prefer a friend (of your own sex) who—
   a. is efficient, industrious and of a practical turn of mind
   b. is seriously interested in thinking out his attitude toward life as a whole
   c. possesses qualities of leadership and organizing ability
   d. shows artistic and emotional sensitivity

5. If you lived in a small town and had more than enough income for your needs, would you prefer to—
   a. apply it productively to assist commercial and industrial development
   b. help to advance the activities of local religious groups
   c. give it for the development of scientific research in your locality
   d. give it to The Family Welfare Society

6. When you go to the theater, do you, as a rule, enjoy most—
   a. plays that treat the lives of great men
   b. ballet or similar imaginative performances
   c. plays that have a theme of human suffering and love
   d. problem plays that argue consistently for some point of view

Total

R S T X Y Z
7. Assuming that you are a man with the necessary ability, and that the salary for each of the following occupations is the same, would you prefer to be a—
   a. mathematician
   b. sales manager
   c. clergyman (religious man)
   d. politician

8. If you had sufficient leisure and money, would you prefer to —
   a. make a collection of fine sculptures or paintings
   b. establish a center for the care and training of the feeble-minded
   c. aim at a senatorship, or a seat in the Cabinet
   d. establish a business or financial enterprise of your own

9. At an evening discussion with intimate friends of your own sex, are you more interested when you talk about —
   a. the meaning of life
   b. developments in science
   c. literature
   d. socialism and social amelioration

10. Which of the following would you prefer to do during part of your next summer vacation (if your ability and other conditions would permit) —
    a. write and publish an original biological essay or article
    b. stay in some secluded part of the country where you can appreciate fine scenery
    c. enter a local tennis or other athletic tournament
    d. get experience in some new line of business

11. Do great exploits and adventures of discovery such as Columbus's, Magellan's, Byrd's and Amundsen's seem to you significant because —
    a. they represent conquests by man over the difficult forces of nature
    b. they add to our knowledge of geography, meteorology, oceanography, etc.
    c. they weld human interests and international feelings throughout the world
    d. they contribute each in a small way to an ultimate understanding of the universe

Total
12. Should one guide one's conduct according to, or develop one's chief loyalties toward —
   a. one's religious faith
   b. ideals of beauty
   c. one's occupational organization and associates
   d. ideals of charity

13. To what extent do the following famous persons interest you —
   a. Egin-Khaldoon
   b. Napoleon
   c. Henry Ford
   d. Galileo

14. In choosing a wife would you prefer a woman who — (Women answer the alternative form below)
   a. can achieve social prestige, commanding admiration from others
   b. likes to help people
   c. is fundamentally spiritual in her attitudes toward life
   d. is gifted along artistic lines

(For women) Would you prefer a husband who —
   a. is successful in his profession, commanding admiration from others
   b. likes to help people
   c. is fundamentally spiritual in his attitudes toward life
   d. is gifted along artistic lines

   a. as expressing the highest spiritual aspirations and emotions
   b. as one of the most priceless and irreplaceable pictures ever painted
   c. in relation to Leonardo's versatility and its place in history
   d. the quintessence of harmony and design
SCORE SHEET FOR THE STUDY OF VALUES

DIRECTIONS:
1. First make sure that every question has been answered.

   Note: If you have found it impossible to answer all the questions, you may give equal scores to the alternative answers under each question that has been omitted; thus,

   Part I. 1/2 for each alternative. The sum of the scores for (a) and (b) must always equal 3.

   Part II. 2/3 for each alternative. The sum of the scores for the four alternatives under each question must always equal 10.

2. Add the vertical columns of scores on each page and enter the total in the boxes at the bottom of the page.

3. Transcribe the totals from each of the foregoing pages to the columns below. For each page enter the total for each column (R, S, T, etc.) in the space that is labeled with the same letter. Note that the order in which the letters are inserted in the columns below differs for the various pages.

<table>
<thead>
<tr>
<th>Page Totals</th>
<th>Theoretical</th>
<th>Economic</th>
<th>Aesthetic</th>
<th>Social</th>
<th>Political</th>
<th>Religious</th>
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</thead>
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<td>Part I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Page 3</td>
<td>(R)</td>
<td>(S)</td>
<td>(T)</td>
<td>(X)</td>
<td>(Y)</td>
<td>(Z)</td>
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<td>(Y)</td>
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<td>(T)</td>
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<td>(R)</td>
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<td>(T)</td>
<td>(S)</td>
<td>(Z)</td>
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<td>(Z)</td>
<td>(R)</td>
<td>(Y)</td>
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<td>- 1</td>
<td>+ 4</td>
<td>- 2*</td>
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<td></td>
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</table>

4. Add the totals for the six columns. Add or subtract the correction figures as indicated.

5. Check your work by making sure that the total score for all six columns equals 240 (Use the margins for your additions, if you wish.)

6. Plot the scores by marking points on the vertical lines in the graph on the next page. Draw lines to connect these six points.

*In the 1951 Edition these figures were: Theoretical + 3, Social — 3. These new correction figures have been employed in determining the norms in the 1960 manual.
INTERPRETATION

The profile can be best interpreted if the scores obtained are compared with the following ranges. (Detailed norms for college students and for certain occupations will be found in the Manual of Directions.)

**Men**

High and low scores. A score on one of the values may be considered definitely high or low if it falls outside the following limits. Such scores exceed the range of 50% of all male scores on that value.

- **Theoretical**: 39-49
- **Economic**: 37-48
- **Aesthetic**: 29-41
- **Social**: 37-48
- **Political**: 38-47
- **Religious**: 32-41

Outstandingly high and low scores. A score on one of the values may be considered very distinctive if it is higher or lower than the following limits. Such scores fall outside the range of 82% of all male scores for that value.

- **Theoretical**: 31-54
- **Economic**: 25-53
- **Aesthetic**: 24-47

**Women**

High and low scores. A score on one of the values may be considered definitely high or low if it falls outside the following limits. Such scores exceed the range of 50% of all female scores on that value.

- **Theoretical**: 31-41
- **Economic**: 33-43
- **Aesthetic**: 27-48

Outstandingly high and low scores. A score on one of the values may be considered very distinctive if it is higher or lower than the following limits. Such scores fall outside the range of 82% of all female scores for that value.

- **Theoretical**: 26-45
- **Economic**: 28-48
- **Aesthetic**: 31-54
APPENDIX B-1

Questionnaire 2
(Completed by American Graduate Business Students)
Please give the following information about yourself by checking the appropriate blank for each category of data.

<table>
<thead>
<tr>
<th>College Classification</th>
<th>College Classification</th>
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</thead>
<tbody>
<tr>
<td>_____ Business</td>
<td>_____ Graduate*</td>
</tr>
<tr>
<td>_____ Other</td>
<td>_____ Undergraduate</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Sex</th>
<th>Race</th>
<th>Citizenship</th>
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</thead>
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<tr>
<td>_____ Male</td>
<td>_____ White</td>
<td>_____ U.S.</td>
</tr>
<tr>
<td>_____ Female</td>
<td>_____ Black</td>
<td>_____ Other</td>
</tr>
<tr>
<td></td>
<td>_____ Other</td>
<td></td>
</tr>
</tbody>
</table>

*If Graduate, please check appropriate age category:

<table>
<thead>
<tr>
<th>Age Cluster</th>
<th>Age Cluster</th>
<th>Age Cluster</th>
</tr>
</thead>
<tbody>
<tr>
<td>_____ 20 or less</td>
<td>_____ 31-35</td>
<td>_____ 36 or over</td>
</tr>
<tr>
<td>_____ 21-25</td>
<td>_____ 36 or over</td>
<td></td>
</tr>
<tr>
<td>_____ 26-30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Work Experience (exclude Military Service)

Presently working:

<table>
<thead>
<tr>
<th>Presently working</th>
<th>Presently working</th>
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</thead>
<tbody>
<tr>
<td>_____ Park time</td>
<td>_____ Full time</td>
<td>_____ Not working</td>
</tr>
</tbody>
</table>

Number of years working:

<table>
<thead>
<tr>
<th>Number of years working</th>
<th>Number of years working</th>
<th>Number of years working</th>
</tr>
</thead>
<tbody>
<tr>
<td>_____ Part time</td>
<td>_____ Full time</td>
<td>_____ Not working</td>
</tr>
</tbody>
</table>

Supervisory experience:

<table>
<thead>
<tr>
<th>Supervisory experience</th>
<th>Supervisory experience</th>
<th>Supervisory experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>_____ None</td>
<td>_____ 1-5 years</td>
<td>_____ Over 5 years</td>
</tr>
<tr>
<td>_____ Less than 1 year</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Family Background

Father's occupation

Mother's occupation

Father's educational level

Mother's educational level

Community Size

In which size community did you spend most of the time from birth to 18 years of age?

<table>
<thead>
<tr>
<th>Community Size</th>
<th>Community Size</th>
<th>Community Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>_____ Below 10,000</td>
<td>_____ 50,000-200,000</td>
<td></td>
</tr>
<tr>
<td>_____ 10,000-50,000</td>
<td>_____ Over 200,000</td>
<td></td>
</tr>
</tbody>
</table>

Which state do you consider as your home state?

174
As an executive of the X Corporation, you will be faced with several decision situations. You are asked to rank your order of preference for each of six alternative courses of action in each of the decision situations. Your hierarchy of preference should be expressed in terms of #1 as your most preferred course of action, #2 as the 2nd preferred course of action, #3 as the 3rd preferred course of action, #4 as the 4th preferred course of action, #5 as the 5th preferred course of action, and #6 as the least preferred course of action.

1. As an executive of the X Corporation, you are faced with setting a 10-year general planning policy for your research and development department. Which order of personal preference would you assign to the following courses of action?

   (T) a) 10-year scientific research program for discovering the truth about some hypotheses that may in the distant future increase the profit margin of X Corporation.

   (P) b) 10-year product development program that would assure the economic production of a useful product which would help the profit margin of X Corporation.

   (P) c) 10-year research program that would provide X Corporation with a very effective public relations technology that could influence a substantial percentage of the public to have a strong regard toward the firm.

   (A) d) 10-year research program that would insure a very attractive image for the firm through its stylistic products.

   (R) e) 10-year research program that would result in producing those goods and services which would contribute to the high ideals of mankind.

   (S) f) 10-year research program that would result in improved interaction between the firm and its community.

2. As an executive of the X Corporation, you are asked to recommend one of six of your subordinates to a better position in the firm. How would you rank your personal preference for the following subordinates if all of them have the same level of performance on the job, but their hobbies are:

   (P) a) Executive A belongs to a local political party and does volunteer work for them.

   (E) b) Executive B belongs to a local business club and analyzes the activities of the stock market on a weekly basis.
c) Executive C regularly does research in the community's library to further his knowledge.

d) Executive D sponsors local youth clubs in order to promote better human relations in the community.

e) Executive E belongs to the local church and is an active member of its board.

f) Executive F is a member of an ecology group whose objective is the beautification of the community's parks.

3. On behalf of X Corporation, you have authority to grant a certain sum of money to a segment of your community's environment. Which segment would your rank of personal preference indicate as appropriate for the grant?

a) Give the grant to the local university for research.

b) Give the grant to the local university in return for which the senior business students of the university would consult the smaller businesses of the community at no cost. (The small businesses present no competitive threat to your company.) The grant would cover the expenses of student consultings.

c) Give the grant to the school's political youth groups. (Such as the Young Republicans, Democrats, etc.)

d) Give the grant to the school's union for the purchase of a sound system for the students' listening pleasure.

e) Give the grant to the various campus chapels for the purposes of bringing guest religious personalities on campus to lecture the students.

f) Give the grant to the student body for the purpose of providing a club on campus for informal student gatherings and discussions.

4. In order for the X Corporation in general to be better managed, what type of management team would you recruit?

a) A dominant management team.

b) An efficient management team.

c) An analytic management team.

d) A congenial management team.
e) An ethical management team.

(A) f) A literary management team.

5. In order for the X Corporation to be well-managed, which order of priorities would you assign to the following areas?

(T) a) Concentrate on research.

(E) b) Concentrate on profitability.

(F) c) Concentrate on dominating the competition.

(A) d) Concentrate on product elegance.

(R) e) Concentrate so as to serve its customers, employees, and society in a godly manner.

(S) f) Concentrate on being devoted to the well being of its employees and customers through meeting their various personal needs.

6. You have a choice as to the location of your corporation. Which order of preference would you give to the following?

(F) a) To be located near the state governmental buildings.

(E) b) To be located near the local Chamber of Commerce.

(T) c) To be located near the state's university campus.

(S) d) To be located near the entertainment and social centers of the community.

(R) e) To be located near the several churches of the community.

(A) f) To be located in the most scenic part of the community.

7. You have six products to choose to produce which are assured of the same amount of profit. Which order of preference would you give to producing the following?

(R) a) Religious books.

(S) b) Sports literature for families and groups of friends.

(P) c) Political campaign literature.

(T) d) College textbooks.
8. You are asked by your secretary for your preference for the following journal subscriptions. Which order of preference would you assign to subscriptions to the following?

- (S) c) Psychology Today.
- (T) d) The Scientific American.
- (R) e) A religious magazine.
- (A) f) Art Today.

9. What would be your order of preference with regard to your future with the X Corporation?

- (P) a) To increase your authority and control.
- (E) b) To increase your salary, fringe benefits, and bonuses.
- (S) c) To increase your popularity and esteem with your peers and subordinates.
- (T) d) To increase your level of expertise in your present and future tasks.
- (A) e) To increase your capabilities of producing elegant product designs in your department.
- (R) f) To increase your sense of morality so as to influence the activities of your department in the same manner.

10. Which order of preference would you assign to the following characteristics when you reorganize your organizational chart?

- (T) a) A logical organizational chart.
- (E) b) An efficient organizational chart.
- (A) c) A symmetrical organizational chart.
- (S) d) An organizational chart helpful in developing interpersonal relationships.
11. What would be your order of preference for putting the picture of the following on one line of your products?

(P) e) A clear-cut chain of command organizational chart.
(R) f) A chart that employs ethical standards in organization.

12. What order of preference would you assign to the inputs from the following people in decision making?

(P) a) Lion.
(S) b) Dove.
(T) c) Owl.
(E) d) Fox.
(A) e) Peacock.
(R) f) Fish.

13. As an executive, what order of preference would you assign to the following concepts in departmentation in X Corporation?

(P) a) Division on the basis of corporate authority.
(T) b) Division on the basis of specialized knowledge.
(S) c) Division on the basis of your corporation's personnel needs.
(E) d) Division on the basis of cost and profit centers.
(A) e) Division on the basis of symmetrical considerations.
(R) f) Division on the basis of ethical considerations.
14. All else equal, what order of preference would you assign to the following courses of action?

(P) a) Increase the size of X Corporation.

(E) b) Increase the profitability of X Corporation.

(S) c) Increase the social responsibility of X Corporation.

(T) d) Increase the budget for research and development in X Corporation.

(R) e) Increase the ethical standards of the goals and objectives of X Corporation.

(A) f) Increase the aesthetic quality of the products of X Corporation.
APPENDIX B-2

Questionnaire 2
(Completed by Egyptian Graduate Students)
Please give the following information about yourself by checking the appropriate blank for each category of data.

**Major Field of Study**

- Business Administration (includes Management, Marketing, Finance, Economics, Accounting, and any other fields under Business Administration)
- Science (includes Agriculture, Chemistry, and Engineering)

**Sex**

- Male
- Female

**Religion**

- Moslem
- Christian
- Other

**Age**

- Less than 25
- 25 to less than 30
- 30 to less than 35
- 35 and over

**Number of Years you have been in your major field (include your undergraduate, teaching, and graduate work years)**

- Less than 5 years
- 5 to less than 10 years
- 10 years and over

**Up to 20 years of age, you mainly lived in a:**

- village.
- city.

**How long have you been in the U.S.A.?**

- 1 to less than 2 years
- 2 to less than 3 years
- 3 to less than 4 years
- 4 years or more
DIRECTIONS: As an executive of the X Corporation, you will be faced with several decision situations. You are asked to rank your order of preference for each of six alternative courses of action in each of the decision situations. Your hierarchy of preference should be expressed in terms of #1 as your most preferred course of action, #2 as the 2nd preferred course of action, #3 as the 3rd preferred course of action, #4 as the 4th preferred course of action, #5 as the 5th preferred course of action, and #6 as the least preferred course of action.

1. As an executive of the X Corporation, you are faced with setting a 10-year general planning policy for your research and development department. Which order of personal preference would you assign to the following courses of action? (Please remember to give the most preferred choice #1, etc.)

   (T) a) 10-year scientific research program for discovering the truth about some hypotheses that may in the distant future increase the profit margin of X Corporation.

   (E) b) 10-year product development program that would assure the economic production of a useful product which would help the profit margin of X Corporation.

   (P) c) 10-year research program that would provide X Corporation with a very effective public relations technology that could influence a substantial percentage of the public to have a strong regard toward the firm.

   (A) d) 10-year research program that would insure a very attractive image for the firm through its stylistic products.

   (R) e) 10-year research program that would result in producing those goods and services which would contribute to the high ideals of mankind.

   (S) f) 10-year research program that would result in improved interaction between the firm and its community.

2. As an executive of the X Corporation, you are asked to recommend one of six of your subordinates to a better position in the firm. How would you rank your personal preference for the following subordinates if all of them have the same level of performance on the job, but their hobbies are:

   (P) a) Executive A belongs to a local political party and does volunteer work for them.

   (E) b) Executive B belongs to a local business club and analyzes the activities of the stock market on a weekly basis.
Executive C regularly does research in the community's library to further his knowledge.

Executive D sponsors local youth clubs in order to promote better human relations in the community.

Executive E likes religious activities and wants the Islamic or Christian system to be applied.

Executive F is a member of an ecology group whose objective is the beautification of the community's parks.

3. On behalf of X Corporation, you have authority to grant a certain sum of money to a segment of your community's environment. Which segment would your rank of personal preference indicate as appropriate for the grant?

a) Give the grant to the local university for research.

b) Give the grant to the local university in return for which the senior business students of the university would consult the smaller businesses of the community at no cost. (The small businesses present no competitive threat to your company.) The grant would cover the expenses of student consultations.

c) Give the grant to the school's political youth groups (groups of the Egyptian parties).

d) Give the grant to the school's union for the purchase of a sound system for the students' listening pleasure.

e) Give the grant to the various campus chapels for the purposes of bringing guest religious personalities on campus to lecture the students.

f) Give the grant to the student body for the purpose of providing a club on campus for informal student gatherings and discussions.

4. In order for the X Corporation in general to be better managed, what type of management team would you recruit?

a) A dominant management team.

b) An efficient management team.

c) An analytic management team.

d) A congenial management team.
5. In order for the X Corporation to be well-managed, which order of priorities would you assign to the following areas?

- **T** a) Concentrate on research.
- **E** b) Concentrate on profitability.
- **P** c) Concentrate on dominating the competition.
- **A** d) Concentrate on product elegance.
- **R** e) Concentrate so as to serve its customers, employees, and society in a Godly manner.
- **S** f) Concentrate on being devoted to the well being of its employees and customers through meeting their various personal needs.

6. You have a choice as to the location of your corporation. Which order of preference would you give to the following?

- **P** a) To be located near the state governmental buildings.
- **E** b) To be located near the local Chamber of Commerce.
- **T** c) To be located near the state's university campus.
- **S** d) To be located near the entertainment and social centers of the community.
- **R** e) To be located near the several Mosques or Churches of the community.
- **A** f) To be located in the most scenic part of the community.

7. You have six products to choose to produce which are assured of the same amount of profit. Which order of preference would you give to producing the following?

- **R** a) Religious books.
- **S** b) Sports literature for families and groups of friends.
- **P** c) Political campaign literature.
(T) d) College textbooks.
(A) e) Art prints.
(E) f) Financial publications.

8. You are asked by your secretary for your preference for the following journal subscriptions. Which order of preference would you assign to subscriptions to the following?

(P) a) A newspaper (El-Ahram, El-Akhpar, or El-Gomhoria).
(E) b) A Business and Economic Journal.
(S) c) A Psychology Journal.
(T) d) A Science Journal.
(R) e) A Religious Magazine.
(A) f) An Art Journal.

9. What would be your order of preference with regard to your future with the X Corporation?

(P) a) To increase your authority and control.
(E) b) To increase your salary, fringe benefits, and bonuses.
(S) c) To increase your popularity and esteem with your peers and subordinates.
(T) d) To increase your level of expertise in your present and future tasks.
(A) e) To increase your capabilities of producing elegant product designs in your department.
(R) f) To increase your sense of morality so as to influence the activities of your department in the same manner.

10. Which order of preference would you assign to the following characteristics when you reorganize your organizational chart?

(T) a) A logical organizational chart.
(E) b) An efficient organizational chart.
(A) c) A symmetrical organizational chart.
An organizational chart helpful in developing interpersonal relationships.

A clear-cut chain of command organizational chart.

A chart that employs ethical standards in organization.

11. What would be your order of preference for putting the picture of the following on one line of your products?

Lion.

Dove (numerous pigeons).

Microscope.

Coin.

Giraffe.

A Mosque minaret or Church cross.

12. What order of preference would you assign to the inputs from the following people in decision making?

Inputs from your boss.

Inputs from your staff specialist.

Inputs from your peers and subordinates.

Inputs from your comptroller.

Inputs from your company designer.

Inputs from your religious personnel.

13. As an executive, what order of preference would you assign to the following concepts in departmentation in X Corporation?

Division on the basis of corporate authority.

Division on the basis of specialized knowledge.

Division on the basis of your corporation's personnel needs.

Division on the basis of cost and profit centers.

Division on the basis of symmetrical considerations.
(R) f) Division on the basis of ethical considerations.

14. All else equal, what order of preference would you assign to the following courses of action?

(P) a) Increase the size of X Corporation.

(E) b) Increase the profitability of X Corporation.

(S) c) Increase the social responsibility of X Corporation.

(T) d) Increase the budget for research and development in X Corporation.

(R) e) Increase the ethical standards of the goals and objectives of X Corporation.

(A) f) Increase the aesthetic quality of the products of X Corporation.
APPENDIX C

Table 31. Analysis of Variance for Differences in Personal Value Structures Between American Business Students, Egyptian Business Students, and Egyptian Science Students

Table 32. Analysis of Variance for Differences in Choices of Action Between American Business Students, Egyptian Business Students, and Egyptian Science Students
# Table 32

**Analysis of Variance for Differences in Personal Value Structures Between American Business Students, Egyptian Business Students, and Egyptian Science Students**

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***Level of significance = 0.01

190
TABLE 33
ANALYSIS OF VARIANCE FOR DIFFERENCES IN CHOICES OF ACTION BETWEEN AMERICAN BUSINESS STUDENTS, EGYPTIAN BUSINESS STUDENTS, AND EGYPTIAN SCIENCE STUDENTS

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VITA

Hamed Ahmad Badr was born September 18, 1943 in Diarb Nigm City, Egypt. After graduating from Fagala High School in Cairo in 1962, Mr. Badr enrolled in the Faculty of Commerce, Cairo University, in September 1962.

In May 1966, Mr. Badr graduated from Cairo University with a B.S. degree in Business Administration. During this same year, he began graduate studies in the M.B.A. program at the Faculty of Commerce, Cairo University. He graduated from Cairo University in 1971 with a Master's degree in Business Administration.

From August 1975 to August 1979, Mr. Badr worked toward his Ph.D. degree in the graduate program of the Department of Management at Louisiana State University.

Mr. Badr worked as an accountant in Bank Masr from 1961 to 1964. From 1966 to 1971, he worked as a teaching graduate assistant in the Department of Business Administration at Cairo University. He also served in the Army as a translator from 1970 to 1972. After obtaining his Master's degree from Cairo University, Mr. Badr worked as an instructor in the Department of Business Administration of the university until 1974. During the period 1978 to 1979, he worked as a graduate assistant in the Department of Management at Louisiana State University.
Upon completion of the Ph.D. requirements and after graduation from Louisiana State University, Mr. Badr will resume his teaching and research career as a full-time staff member in the College of Commerce at Assyout University in Egypt.
Candidate: Hamed Ahmad R. Badr

Major Field: Management

Title of Thesis: A comparative study of the effects of personal value structures on decision making between Egyptian and American graduate students.

Approved:

[Signatures]

Edmund R. Bray
Major Professor and Chairman

James D. Tragard
Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

McComm
O'Keeffe
Banwari L. Kadim
George T. Harr
Leon C. Meggison

Date of Examination:

May 14, 1979