A CROSS-CULTURAL STUDY OF SELF-ESTEEM AND LOCUS OF CONTROL

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"In the name of God, Most Gracious, Most Merciful"

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ABSTRACT

This study investigates self-esteem and locus of control in a cross-cultural context, comparing British (specifically York) and Arab students* on achievement, conformity and cooperation versus competition. These two cultures were chosen because there are dissimilarities, West and East, Christian and Moslem, in both social and economic organization, and their modes of thinking are different from each other (Nakamura, 1964).

The independent variables were self-esteem and locus of control. The design of the assessment instruments available for the measurement of self-esteem were criticized for their persistent methodological problems and limited generality. Also, the absence of a reliable self-esteem scale validated for use with British and Arab samples encouraged the development of a new scale, entitled the Taisir Self-esteem Questionnaire (TSQ). A study describing the development of this scale, in English and Arab cultures, is reported. The instrument was validated on English and Arab populations, and data supporting its validity and reliability are presented. For the measurement of locus of control, an existing scale which has been extensively validated and appeared to lend itself to cross-cultural work (the Sphere - of - Control

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* Students from Saudi Arabia (Riyadh)

Questionnaire or SOCQ - Paulhus, 1983) was used. Arab and English samples were compared on the TSQ and SOCQ in a separate chapter, and the results were interpreted in terms of cultural, and religious, differences between both cultures.

Cross-cultural research presents a number of problems, both theoretical and methodological (see for example, Przeworski and Teune, 1970), with many studies simply comparing one psychological variable or trait between two or more cultures. Fyans (1979) has suggested instead looking at a configuration of variables at many levels, which provides a good understanding of the cultural context of the trait in a specific culture, although the interest is not merely in assessing differences and similarities between two cultures on one variable but also on the interaction of the variables in the selected cultures.

Subsequent experiments in this study divided English and Arab subjects into groups which differed in levels of self-esteem and locus of control and compared their performance on the dependent variables.

The results of a Hiloglinear Model analysis showed that there were, in general, significant findings in relation to cooperation and competition and achievement, but the "Asch effect" failed to replicate in Saudi Arabia.

The results were interpreted in terms of cultural and historical differences between countries.

Finally, a consideration of the cross-cultural implications of the findings of the study is presented.

CHAPTER ONE

INTRODUCTION

This study investigates self-esteem and locus of control in a cross-cultural context, comparing the behaviour of the British and Saudi Arabian students in the context of achievement, conformity and cooperation versus competition. In this study, self-esteem and locus of control will form the major independent variables, while academic achievement, behaviour in the Asch (1956) conformity paradigm and performance on the Prisoner's Dilemma Game (PDG - Luce and Raiffa, 1957) will form the dependent variables.

Self-esteem is a major and important construct in the field of psychology. Its impact on everyday behaviour has been pointed out by a considerable number of researchers who view individual self-esteem as responsible for a wide range of behaviours ranging from the ability to love (Rogers and Dymond, 1954), the ability to resist pressure to conform (Janis, 1954), and the ability to achieve (Purkey, 1970). Self-esteem facilitates functioning in an effective manner in a variety of situations, determining the way people perceive themselves as fulfilled and happy (Coopersmith, 1967). However, it is uncertain exactly what differences, if any, exist between British and Arab samples. Very little cross-cultural research on self-esteem has been done (Knight et

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al., 1978; Bond and Cheung, 1983), and the present researcher knows of no previous study comparing British and Arab samples on this variable. It can be said that cross-cultural comparisons of self-esteem are rare, with very few undertaken to date. Furthermore, in most cultures, different roles and values are set for males and females, and many researchers have reported sex differences between males and females belonging to the same culture in self-esteem. However, the results have often been contradictory (Lanza, 1970; Whitaker, 1973), and the aim of this study was to take account not only of self-esteem amongst British and Arab students but to take the sex factor into consideration as well.

In addition to methodological problems, there are also problems associated with self-esteem measurement. Because of this, one aim of this study was to develop a reliable and valid questionnaire for self-esteem measurement for British and Arab samples (see Chapter Four), entitled Taisir Self-esteem Questionnaire (TSQ). Self-esteem has been conceptualized as how a person evaluates his "self", and it refers to one's feelings of self-worth (Coopersmith, 1967). It is a multidimensional construct, and reflects the overall feelings of self-worth referred to as a global or general self-esteem (Rosenberg and Simmons, 1972). This general feeling of self-worth is derived from an integration of feelings in specific areas of competency. These areas are referred to as area specific self-esteem and include self-

worth as it relates to our behaviour, physical appearance, and self-satisfaction (Rosenberg and Simmons, 1972).

Although one might expect a relationship between area specific and general self-esteem, it is possible for individuals to vary in their levels of area specific self-esteem. Consequently, one cannot assume that factors related to differences in general self-esteem will also significantly affect area specific self-esteem.

An important determinant of behaviour within Rotter's social learning theory (Rotter, 1966), locus of control is defined by how much connection is perceived by subjects between their effort and the reinforcement they obtain. If people generally see consistent connections between behaviour and reinforcement, they are called internal, if they do not perceive such a connection but rather reinforcement as a result of luck, chance, they are deemed to be external. Although Rotter (1975) pointed out that the generalized expectancy of locus of control is only one of several potential determinants of behaviour, locus of control has received a huge amount of experimental validation, and its utility as a psychological concept is now beyond doubt.

Owing perhaps to the popularity of the construct, research which is relevant to the cross-cultural application of locus of control is, in contrast to self-esteem, quite

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extensive (see for example Dyal, 1984). However, no investigations could be found specifically on comparisons between British and Arab students, and the present study was aimed also at comparing students' beliefs in locus of control between British and Arab cultures. Locus of control also presents fewer problems of measurement than self-esteem. Earlier versions of the scale as Rotter's (1966) own I-E questionnaire, were shown by factor analysis to be multidimensional. A variety of scales have subsequently been developed, culminating in the spheres - of - control questionnaire (SOCQ - Paulhus, 1983) which provides an index of locus control orientation in three spheres: Personal efficacy, interpersonal control, and sociopolitical control (Paulhus, 1983; Paulhus and Christie, 1981). The SOCQ has been validated extensively and was chosen for use in the present study in its present form. The relationship between the SOCQ and the TSQ will be considered in Chapter Five, together with comparisons between British and Arab subjects' responses on both scales.

Another purpose of this study is to attempt to assess the degree to which British and Arab subjects differ in cooperation and competition as measured by a choice dilemma game paradigm. The procedures similar to the Prisoner's Dilemma Game (PDG - Luce and Raiffa, 1957) and although it is presented to subjects as a more general decision strategy it will be referred to for convenience in the thesis as the PDG.

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Cultures differ in their tendencies toward cooperation and competition (Mead, 1961), and the present study is directed toward an investigation of the relationship between self-esteem, locus of control and cooperation and competition in Arab as compared to British subjects. The present study, at least in its cross-cultural aspect, is exploratory in nature, since there is no sound basis for making predictions about differences in cooperation and competition between British and Arab cultures these findings are presented in Chapter Six.

The study also examined the role of self-esteem and locus of control in determining conformity. Conformity effects have been extensively researched in Western countries, where recent findings have generally failed to replicate the "Asch effect" (1956) in Britain (Perrin and Spencer 1980; Nicholson et al., 1985). However, Amir (1984, 1986) has recently reported relatively high conformity rates in Kuwait, a study presented in Chapter Seven will attempt to replicate the Asch experiment in Saudi Arabia, taking account of both locus of control and self-esteem. Chapter Seven also presents a study of the relationship between self-esteem and academic achievement. Self-esteem is an important construct in the context of achievement, and like self-esteem, achievement is a difficult construct to measure, but achievement does appear to be related to self-esteem (Purkey,

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1970; Wylie, 1979; Burns, 1982).

In summary, therefore, the independent variables in the present study are self-esteem and locus of control, while the dependent variables are conformity, achievement, and cooperation versus competition. The thesis will be organized and presented in the following way: First, the literature on self-esteem will be reviewed in Chapter Two. This Chapter will also include reviews of relevant cross-cultural research on the other major variables used in the study, namely locus of control, achievement, and conformity. The assessment of locus of control will also be referred to in Chapter Two, but self-esteem measurement will be discused separately in Chapter Three. In view of the number of the variables included in the study, the reviews will be brief, and will not attempt a comprehensive account of research in each field. Chapter Four will deal with the construction and validation of a self-esteem instrument specifically designed for use in this project, and Chapter Five will describe the results of a comparison between British and Arab subjects on the new scale and the SOCQ. Chapter Six deals with the role of self-esteem and locus of control in the Prisoner's Dilemma paradigm, while Chapter Seven discuses with conformity and achievement. Finally, Chapter Eight provides a summary of the main results of this study, followed by implication for future research. In each of the studies, no formal hypothesis will be advanced, since there is little available

evidence in this area describing comparisons between Arab and English. Instead, it will be assumed that the experiments test the null hypotheses.

CHAPTER TWO

SELF-ESTEEM, LOCUS OF CONTROL, CONFORMITY AND ACHIEVEMENT: THEORIES AND MEASUREMENT IN A CROSS-CULTURAL CONTEXT

In this chapter, the theory and measurement of locus of control will be briefly reviewed. The theoretical background to self-esteem will also be reviewed, while a separate chapter (Chapter Three) will be devoted to self-esteem assessment. The background to conformity and achievement will be covered in the final two sections of Chapter Two.

2.1 INTRODUCTION

In the area of cross-cultural studies, it is difficult to compare the results of different researchers (see for example Przeworski and Teune, 1970), because many different factors - methodological, theoretical, and social - affect the results of their studies. Because of this, and because there are many cross-cultural studies which are concerned with self-esteem and locus of control, it is outside the range of the present research to review all of the related empirical studies. Also, no complete resolution of the difficulties related to the self-esteem construct, and to cross-cultural studies in general, will be offered.

First, a brief historical review of self and self-esteem

theories will be presented. After that a number of different self-esteem definitions will be offered, taking account of sex and cultural differences in self-esteem. Second, a review of cultural differences in locus of control will be made. Third, the relationship between self-esteem and achievement will be reviewed, and finally, a review of cultural differences in conformity will be presented.

2.2 THE SELF AND SELF-ESTEEM

The topic of the "self" has gained attention of philosophers, sociologists, and psychologists for many centuries. This is due to the fact that man is interested in understanding himself and thinking about himself. Self-esteem has a long history as a psychological construct. Psychologists as early as James (1890) believed that self-esteem and self-concept would affect human behaviour. Early social psychologists (e.g., Cooley, 1902; and Mead, 1934) assumed that self-esteem and self-concept is formed by appraisal reflected from "significant others".

"Know thyself" is a phrase attributed to Socrates and reflects the interest that man always seems to have had in trying to understand himself. The interest in the study of self and self-esteem continues to the present and can be found in the work of poets, novelists, educators and psychologists. Philosophers have tried to answer man's search for self knowledge by designating the human essence or core

as an entity called the "self" or "spirit" or "soul".

It can be said that until the rise of psychology in the second half of the last century the philosophical understanding of the self dominated the field, but the influence of this philosophical understanding did not cease, in spite of Wilhelm Wundt's hope that psychology would not involve the soul. James (1890) considered the ego to be the individual's sense of identity which had different aspects including the mental, social, and spiritual. James (1892) assumed that the self has two parts; the first is the "I". The "I" is the "self-as knower". James saw that this part of the self was difficult to study objectively since it cannot be observed. The other part of the self in James's theory (1892) is the "me". The "me" refers to the self as known. By contrast, James saw that this part could be observed and studied. He called it the "empirical ego". The major element of the "me" is the "constituents" which are the qualities which define the self as known. These qualities may be "material me" (physical), "social me" (social), and "spiritual me" (religion). James (1892) assumed that the individual puts the constituents into a hierarchical order, with "material me" at the bottom, followed by "social me" and finally "spiritual me". James (1892) talked about other aspects of "me". One is the feelings and emotions which the constituents arouse, which he called "self-appreciation" and which he divided further into two components, self-

complacency and self-dissatisfaction. We can find two individuals who reach very high goals but one of them is happy and satisfied with himself, but the other individual is not. James (1890) explained this in the following formula:

$$\text{Self-esteem} = \frac{\text{Success}}{\text{Pretensions}}$$

". (p. 191).

It appears that this aspect of the self is the one that has received the attention of research on self-esteem.

The other two aspects of the "me" that James talked about are self-seeking and self-preservation.

The importance of James is that he considered the perceptions which an individual had about himself as an important variable in understanding human behaviour. James's study was followed by Cooley (1902), who devoted part of his book "Human Nature and the Social Order" to the study of the self and the relationship between the individual and others. Cooley (1902) defined the self as "that which is designated in common speech by the pronouns of the first person singular, "I", "me", "mine" and "myself". (p. 136). Cooley (1902) says that the idea about the individual's self comes from the imagination of what others think about him. He called this a "looking-glass" self. Cooley says "As we see our face, figure, and dress in the glass, and are interested in them because they are ours, and pleased or otherwise with them according as they do or do not answer to what we should like them to be, so in imagination we perceive in another's mind some thought of our appearance, manner, aim, deeds,

character, friends, and so on and are variously affected by it" (1902, p. 152). This process, according to Cooley, (1902) has three factors: imagination of our appearances to other people, imagination of their idea about ourselves, and the feeling of pride. Similarly, Mead (1934) saw the person's self-esteem as based on "significant others". When the child observes a "the significant other" he will imitate the observed behaviour. The other people will react to his behaviour and from this reaction he will formulate his self-image. Cooley's and Mead's theories about self-esteem represent what is named the "symbolic interaction" view. The "symbolic interaction" research (Gergen, 1971) implies that the self-esteem (self-concept) may differ according social and cultural differences, e. g., what is considered an important part of self-esteem in one culture may not be considered the same in another culture, which may develop a different perception of self-esteem.

In the late 1940s more and more psychologists started to study the self hoping that it would provide them with a better understanding of the individual and his behaviour. Raimy (1948) claimed that the person's notion of himself is a significant factor in his behaviour, and Hilgard (1949) said that self-esteem is important to all psychology as a means of understanding human motivation, "since the defense mechanisms are not understandable unless we adopt a concept of the self"

(p. 775). Snygg and Combs (1949) stated that "once the phenomenal self has become established, experience thereafter can only be interpreted in terms of that self ... all perceptions which are meaningful to the individual derive their meaning from their relation to the phenomenal self already existence" (p. 131).

As Wylie (1961) pointed out, during the 1920's through 1940's the self received little attention from the behaviourally oriented psychologists who dominated American Psychology. Rogers (1951) claims that each individual has a basic tendency to strive, maintain, enhance and actualize himself, in the process of where the individual moves from facades and external evaluations and motivations to a greater awareness of and dependence upon the internal self as an evaluation and motivation. Maslow (1954) was, also concerned with the processes of "self-actualization", and his theory of motivation postulates that the individual needs are arranged in a hierarchy. When the need which is lowest in the hierarchy is satisfied, then the next highest need emerges and presses for satisfaction. The assumption is that each person has five basic needs, "physiological", "safety", "love and belonging", "esteem" and "self- actualization" needs.

Kelly (1955) puts heavy emphasis on the unique way in which each individual views his world. It is his conviction that man creates his own ways of seeing the world in which he lives. The patterns which man creates and then fits over the

realities of which the world is composed of are called "personal constructs". Although Kelly does not directly postulate a self-concept. His ideas have had an influence in showing that the self-concept can be viewed as a personal cognitive construct of the individual (Kelly, 1955).

Diggory (1966) emphasises the way in which the individual evaluates himself. Diggory regards self as a type of reflexive relation, self is characterized by relationships in which the individual or some part of the individual is both the subject and the object. Diggory's research has concentrated on situations in which an individual evaluates himself. Diggory has attempted to specify the formal logical operations which are a part of such relationships and has placed heavy emphasis on competence as an aspect of self-esteem.

2.2.1 Specific Theories of Self-esteem

Two theories which have probably contributed most to theoretical and empirical research on self-esteem are those of Rosenberg (1965) and Coopersmith (1967). Rosenberg (1965) studied adolescent self-image, and also group differences in self-esteem such as white versus black subjects (Rosenberg and Simmons, 1972), Rosenberg (1965) assumes that all individuals have attitudes towards all sorts of objects and self is just one of these objects. Rosenberg (1965) says

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"Putting it baldly, there is no qualitative difference in the characteristics of attitudes toward the self and attitudes toward soup, soap, cereal, or suburbia" (p. 6), but he does see that there are quantitative differences between attitudes about self-attitudes and about other things. He says "there may be some quantitative differences between self-attitudes and attitudes toward other objects" (Rosenberg, 1965 p. 5). He suggests that all individuals wish that their self-attitudes could be in the same direction, a good or positive one. Rosenberg considers self-esteem to be a form of evaluative attitude which is both unitary and unidimensional, and self-esteem expresses a judgment of approval or disapproval which the individual typically maintains with regard to the self. Rosenberg (1965) described self-esteem as the feeling of self worth in which positive or negative attitudes toward the self are involved. According to Rosenberg (1965) the individual may consider himself superior to other people or respect himself for what he is as a worthwhile individual. Rosenberg's definition of self-esteem is "a positive or negative attitude toward particular object, namely, the self" (p. 30). But often self-esteem has two quite different connotations: One is that the person thinks he is very good where another indicates not feelings of superiority but that the individual feels "good enough. The individual simply feels that he is a person of worth; he accepts himself for what he is, but he does not stand in awe of himself nor does he expect others to stand in awe of him"

(p. 31). Low self-esteem indicates "self-rejection, self-dissatisfaction, self-contempt. The individual lacks respect for the self he observes. The self-picture is disagreeable, and he wishes it were otherwise" (p. 31).

Coopersmith (1967) was concerned with the antecedents of self-esteem in children. In Coopersmith's (1967) study, self-esteem was defined as a person's evaluation of himself. Self-esteem is an indication of approval or disapproval one feels about his abilities, morals, skills, and aptitudes. Self-esteem is a "personal judgement of worthiness that is expressed in the attitudes the individual holds toward himself" (p. 5). He considers self-esteem as an abstraction that the individual develops, through experience, with respect to his attributes and capacities. One of the dimensions of self which form the basis of self-esteem is evaluation. Coopersmith (1967) considers self-esteem as an evaluative component of the self and refers to one's feelings of self-worth. Coopersmith says "by self-esteem we refer to the evaluation which the individual makes and customarily maintains with regard to himself. It expresses an attitude of approval or disapproval, and indicates the extent to which the individual believes himself to be capable, significant, successful, and worthy" (1967, p. 4-5).
This involves the examination of one's own attributes on performance followed by a comparison with some personal

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standard. Coopersmith (1967) identifies four variables which determine the individual's self-esteem: success, defences, values, and aspirations. Coopersmith says "the process of self-judgment derives from a subjective judgment of success, with that appraisal weighted according to the value placed upon different areas of capacity and performance, measured against a person's personal goals and standards and filtered through his capacity to defend himself against presumed or actual occurrences of failure." (1967, p. 242). Coopersmith (1967) developed a measure of self-esteem for young children, which was based on the notion that self-esteem is an evaluative attitude towards the individual's self as an object.

2.2.2 Summary

In this brief review of the self and self-esteem theories three primary constructs of self-esteem have been reviewed: the actualized or idealized self (Maslow, 1954; Rogers, 1951); the looking-glass self (Cooley, 1902; Mead, 1934); and finally attitudes toward the self or self worth (Rosenberg, 1965; Coopersmith, 1967). More contemporary models of self-esteem tend to be linked to specific measurement techniques, and are consequently operationally defined (see for example Norem-Hebeisen, 1976; Lynch, Norem-Hebeisen and Gergen, 1981); these will be discused in a later section of chapter four (see section 4.1.1).

2.2.3 Definitions of self-esteem

In spite of the tremendous amount of research on self-esteem
there is no agreed-upon definition of the construct. This is
because researchers from different backgrounds have been
involved in studying self-esteem. Shavelson et al. (1976)
suggested that the imprecision and variation in definitions
and constructs has hindered the generalizability of the self-
perception research. And a review of the literature reveals a
list of terms to define self-esteem such as self-concept,
self-regard, self-image, self-evaluation, self-assessment,
identity, self-value, self-estimate, and self-perception.
Many of these terms overlap with each other and some of these
are used interchangeably. This overlapping of definitions,
and inability to conceptualize and standardize a definition
of self-esteem, has made it very difficult to make a
comparison between the results of the many studies of self-
esteem.

Thus, James defined self-esteem as two kinds of attitudes:
"how a person actually perceives himself with respect to some
quality or ability and how he might be or ought to be"
(James, 1890, p. 310). Snygg and Combs defined self-esteem
as "those parts of the phenomenal field which the individual
has differentiated as definite and fairly stable
characteristics of himself" (1949, p. 112). Rogers defined
self-esteem as the way an individual views himself as a

"person of worth, worthy of respect rather than condemnation" (1951, p. 376). Coopersmith defines it as "the evaluation which the individual makes and customarily maintains with regard to himself: it expresses an attitude of approval or disapproval, and indicates the extent to which the individual believes himself to be capable, significant, successful, and worthy. In short, self-esteem is a personal judgment of worthiness that expressed in the attitudes the individual holds towards himself". (1967, p. 4-5). According to Rosenberg "high self-esteem expresses the feeling that one is good enough ... low self-esteem, on the other hand, implies self-rejection, self-dissatisfaction, self-contempt" (Rosenberg, 1965, p. 31). As Coller defined self-esteem "a multidimensional construct which covers and includes the total range of one's perceptions and evaluation of himself" (Coller, 1971, p. 68). He wanted to say that self-esteem is not a unitary construct but a multidimensional one which includes self-evaluation which one perceives from other people. Wylie defined self-esteem "self-regard is self-esteem, the congruence between self and ideal self, and discrepancies between self and ideal-self" (Wylie, 1961, p. 40). Ziller defined self-esteem as "a component of the self system which regulates the extent to which the self system is maintained under conditions of strain, such as during the processing of new information concerning the self" (Ziller et al., 1969; p. 84).

In the present project the terms self-esteem and self-

concept will be used interchangeably in the same manner as that used by previous psychologists such as Gergen (1971), Wylie (1968), Shavelson et al. (1976), Burns (1979), and Rosenberg (1979), and following Coopersmith (1967) self-esteem will be defined as "the evaluation which the individual makes and customarily maintains with regard to the self: it expresses an attitude of approval or disapproval, and indicates the extent to which the individual believes himself to be capable, significant, successful, and worthy" (Coopersmith, 1967, p. 4-5).

2.2.4   Sex Differences in self-esteem

In many societies in this world the socialization process for males is different from that for females. There are certain roles, attitudes, and interests which are taught differently to males and females, and different cultures place varying emphasis on the distinction between the social roles of males and females. Nisbett and Gordon (1967) and Jacobson et al. (1969) found no sex differences between male and female university students on self-esteem. While, Soares and Soares (1971) found that the pre-school black boys they studied had lower self-concept than girls. Wylie (1968) concluded that most of the American studies have found that the girls of ages between eight and thirteen have more positive self-concept than boys. Burns (1979) reported from Australian studies that boys have more positive self-concept than girls. Smith (1975, 1978) found that Australian boys generally had higher self-concept on each dimension of the Sears (1964) Self-concept Inventory.

However, Smith found no sex differences in the scores for Coopersmith (1959) Self-esteem Inventory (SEI). Rosenberg and Simmons (1975) found that adolescent females' self-image is less favourable than males. The same result was found by Offer, Ostrove, and Howard (1977) and Gove and Herb (1974). Spence et al. (1975) found that high self-esteem is associated more frequently with masculine sex typing than

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with feminine sex typing, with males having higher self-esteem than females. Wylie (1979) in her review of the research conducted before the seventies concluded that there was no evidence for sex differences in overall self-esteem, claiming that "evidence from these studies is inconsistent: null results appear as frequently as results favouring males. In two studies females exceeded males on overall self-regard. ... The majority report null results, while no trend in favor of either sex is discernible among the rest" (Wylie, 1979, p. 278). She said that sex differences in specific components of self-esteem may disappear when the items are summed to obtain a total score. Dusek and Flaherty (1981) found differences in specific self-concepts that were consistent with sex role stereotypes; boys had lower self-concept in congeniality and sociability but higher self-concepts in achievement, leadership and masculinity.

Marsh et al. (1984) found few sex differences in total self-concept, while Fleming and Courtney (1984) found significant sex effects in the self-esteem of university subjects, with differences in physical abilities favouring males. In summary, it can be said that there is little evidence for sex differences in total self-esteem, but there appear to be sex differences in some dimensions of self-esteem which are consistent with sex role stereotypes.

2.2.5 Cultural Differences in Self-esteem

According to James (1890), the social self is one of the main parts of the "me"; This part includes the values, and standards of the society and incorporates the way people interact and solve problems that arise amongst themselves. Thus the cultural values are transmitted from generation to generation through the process of socialization, but despite Hallowell's (1955) claim that the individual self-esteem and his interpretation of his own experiences cannot be separated from the concept of the self that is normative in his society, cross-cultural comparisons of self-esteem and self-concept studies are rare. Bond and Cheung (1983), for example, found that few studies about self-concept were done outside North America and Northern Europe.

Amongst those studies that have been conducted, Coleman, (1966) and McDaniel (1967) found that self-esteem of Mexican-American students was lower and more negative when it compared to the non-Mexican-American students. Weinland et al. (1976) found that Danish males and American females had higher self-confidence than American males and Danish females in total self-concept score, and they found that American students achieved higher than Danish students. McDaniel and Bustamante (1979) compared the self-concept of children in United Sates and Mexico, and found that the United States children seemed more concerned about their feelings and

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behaviours than Mexican children. Lerner et al. (1980) found that Japanese adolescents appeared to have lower self-esteem and a less favourable view of their bodies than Americans did. However, Lerner et al. (1980) found that there is no relationship between self-esteem and body attitudes for Japanese adolescents. Frazier and Deblassie (1982) found that there was no difference in self-concept between Mexican-American students and non-Mexican-American students in terms of academic success, and self-esteem.

In summary, there is clearly some confusion in the literature over the relationship between culture and self-esteem, and studies across cultures where social system, language, and religion are very different (such as Britain and Arab countries) can provide an important contribution to our understanding of this relationship.

2.3 LOCUS OF CONTROL: INTRODUCTION

Locus of control was the second independent variable investigated in the present study. This construct refers to an individual's generalized orientation toward control of reinforcement, which is generally "internal" or "external". The construct has been extensively investigated since its introduction through Rotter's Social Learning theory (1954). Rotter (1966) identified the construct of Internal-external control of reinforcement (I-E) as being the degree to which an individual believes his reinforcements are dependent upon his own behaviours (internal) or are controlled by forces beyond his control, such as luck, or chance (external). Research has subsequently attempted to relate locus of control to various personality variables. Several books and articles (Rotter, 1966; Joe, 1971; Lefcourt, 1972, 1976, 1981, Phares, 1976) have reviewed the construct of locus of control, and these reviews show a relative absence of studies comparing subjects from widely different cultural origins such as British versus Arab groups. Indeed, the literature indicates that little is known about the development of this dimension of personality in Arab cultures. There is a need for research which compares locus of control in divergent cultures, and the present study compared British and Arab subjects on locus of control and examined its role in the context of self-esteem. Regarding the measurement of locus of control, a number of scales have been proposed as

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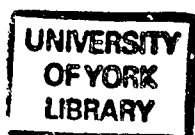
improvement on Rotter's original. One of these, the Sphere -
of - Control Questionnaire (SOCQ - Paulhus, 1983) was used in
the present study (see section 2.3.2).

2.3.1 Cross-cultural studies on Locus of Control

The construct of locus of control has been subject of
psychological research since the late 1950s (e. g., Rotter,
1975; Phares, 1957; Rotter, and Seeman and Liverant, 1962;
Rotter, 1966). As noted by Phares (1976), such cross-cultural
comparisons are particularly important, not just because they
may ultimately mediate group differences in certain kinds of
behaviour, but also because of their implications with
respect to the antecedents of internal-external beliefs.

Hsieh, Shybut, and Lotsof (1969) compared Hong Kong
Chinese adolescents with Chinese-American and Anglo-
Americans. They found native born Chinese to be most
external, Chinese-Americans intermediate, and Anglo-Americans
most internal in I-E scores. However, Parsons, Schneider, and
Hansen (1970) found that I-E orientations of students from
the United States and Denmark were more similar than
different, the Danish males were slightly more external than
the Americans males, but there was no difference between
American and Danish females. Schneider and Parsons (1970) in
more detailed study, subdivided the I-E scale into five

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subscales based on the content of items of Rotter scale (1966), and found that Danish and American subjects were significantly different in their patterns of scoring. Jessor et al. (1970) found that two groups of Italian youths were more external than United States youths. Reitz and Groff (1972) studied I-E orientation of workers in Mexico, Thailand, and USA, and they found that the Thailand workers were significantly more external in orientation than the Americans, with the Mexicans being intermediate. They also found that the females were more external than males in the three countries. Kim (1977) found that Canadians were more external than Koreans, and Carment (1974) in comparing Canadian and Indian students and workers found that the Indians, in both groups, were more internal than Canadians. McGinnies et al. (1974) studied locus of control in five countries, Australia, Japan, New Zealand, Sweden, and the United States. They found that females subjects were more external than males. Also they found that the mean scores of I-E were lowest among Japanese.

Parsons and Schneider (1974) compared scores for students from several countries (USA, Canada, West Germany, France, Israel, Italy, Japan, and India), and found that while Indians tended to be internal and Japanese external, the six Western and Middle Eastern countries were in the middle range. They also found that females were more external than males. Rafaei and Rahman (1976) found no significant differences between Malaysian secondary students and

Australian university students, but when secondary students alone were compared, the Australians were more external than the Malaysians. Malikiosi and Ryckman (1977) found that Greeks have a stronger belief that their lives are controlled by chance and powerful others, but they did not find any differences on the internal dimension of the Levenson (1973a) locus of control scale. Christy (1978) found that Hong Kong Chinese were more internal than American-born Chinese when she compared community college females students from the two cultures. Khanna and Khanna (1979) found that Indians were internal but less than the results which were reported by Carment (1974). Furnham and Henry (1980) administered the Rotter (1966) Locus of Control Scale to three groups of South African nurses; European, Indian, and African. They found no significant differences on the scores among these three groups. Furnham and Henry (1980) reviewed over thirty cross-cultural locus of control studies and they found that most of these studies neglected the multidimensionality nature of locus of control construct this led them to say "Cross-cultural studies have neglected to match population groups sufficiently carefully and to consider the multidimensional nature of the concept, locus of control" (Furnham and Henry, 1980, p. 23). Chandler et al. (1981) administered Lefcourt's MMCS (Lefcourt, Von Baeyer, Ware, and Cox, 1979) in India, South Africa, United States, Japan, and Yugoslavia. They found that Japanese were external in attribution of their

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successes, but they were the most internal of all samples in attributing their failures. Lack of effort was the strongest attribution of their failure. In contrast, the United States subjects saw that effort as a cause of their successes. Krampen and Wieberg (1981) found that the Japanese students were more external on the Levenson's (1973a) subscales than American students, the Japanese and American were similar on the "powerful others" scale. Chan (1981) found that Hong Kong Chinese sample were more external than the Canadian sample.

Reviewing research before 1981, Hui (1982) found that the results of cross-cultural studies on locus of control were inconsistent, and he raised a number of methodological issues such as dimensionality of measuring instruments. However, the data do support that broadly Eastern samples appear more external than Western samples, and Retiz and Groff (1974) hypothesized that workers from economically developed cultures and countries would be more internal in areas such as leadership and success than those workers from developing cultures. They hypothesized that subjects from Eastern countries would be more external than Westerners due to the differences in social customs.

In summary, then many cross-cultural studies report significant differences in locus of control (see also Bond and Tornatzky, 1973; Cole and Cole, 1974; Garza and Ames,

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1974; Louden, 1978; Malikiosi and Ryckman, 1977; Munro, 1979;
Pedhazur and Wheeler, 1971; Reimanis, 1977; and Tyler and
Holsinger, 1975), but there have been no specific comparisons
to date between British and Arab subjects.

2.3.2 Measurement of Locus of control

Rotter (1966) originally argued that his Internal-
external scale was essentially a "broad gauge instrument",
with correspondingly low levels of prediction in specific
areas. Rotter's (1966) I-E scale was consequently thought to
comprise one general factor (Franklin, 1963; Rotter, 1966).
However, Rotter (1975) later acknowledged that his scale
might be multidimensional, and that it might be appropriate
to use subscales of the test to measure specific
expectations: "they may be useful if it can be demonstrated
that reliable and logical prediction can be made from the
subscales to specific behaviours and that a particular
subscale score produces a significantly higher relationship
than that of the score of the total score" (p. 63).
Subsequently factor analysis (see for example Gurin et al.,
1969; Mirels, 1970), did indeed show that the scale comprised
more than one factor, although these factors tended to differ
from sample to sample and across sexes.

Rotter's idea have been endorsed by Phares (1976) and

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Lefcourt (1976) who both advocate that future research may appropriately aim for assessment of control for specific situations. Levenson (1973a, 1973b, 1974), for example, developed three subscales in Likert form which she labelled internal, powerful others and chance. The three subscales permit a separate measurement of the three major sources of control over the individual reinforcements. In separating these sources of control, Levenson's model ignores the requirement that internality and externality be ipsative and substitutes the notion of a control "profile" for characterizing individuals.

More recently, Paulhus and colleagues (Paulhus and Christie, 1981; Paulhus, 1983), have developed the Spheres of Control Questionnaire (SOCQ), which proposes three concentric areas of control: personal efficacy, interpersonal control and sociopolitical control. This scale is particularly useful in providing a measure of the individual's expectancy in terms of spheres (personal efficacy, interpersonal control, and sociopolitical control), which ranges from external to internal, thus dividing the expectancy into a meaningful set of attributes for characterizing people (Paulhus and Christie, 1981). The scale has been quite extensively validated, and in view of clear advantages it has over other existing scales, it was chosen for inclusion in the present study.

2.4 ACHIEVEMENT AND SELF-ESTEEM

There has been a substantial amount of research on the relationship between self-esteem and achievement in the recent years (for example see Purkey, 1970; Wylie, 1979; Burns, 1982). Some of this work has a cross-cultural flavor, but most was done within and across ethnic groups such as blacks and whites (Porter, 1974; Bagley et al., 1982; Gibby and Gabler, 1967; Guggenheim, 1969; Busk at el., 1973; Gustafson and Owens, 1971; Linton, 1972; Porter, 1974; Porters and Wilson, 1976; Verma and Bagley, 1979). By contrast little comparable work is in truly cross-cultural contexts has been done, specially involving Arab cultures. A further problem is that achievement conventionally measured in academic settings, and because of the differences in the ways in which students are grouped into university courses and differences in the organization and assessment of courses between cultures, cross-cultural work on achievement in the context of higher education presents a number of problems.

Maehr (1974) has suggested that the question on what motivates an individual to achieve can be answered in two ways: the first considers motivation to be a stable personality trait which was consistent since its development in the early learning experiences (McClelland, 1961), while

the second, conceptualizes achievement to be caused by immediate situational and social conditions with which the individual interacts (Atkinson and Raynor, 1974; Sewell, Hanser and Featherman, 1976). Maehr (1976) argues that achievement is a function of the individual's cultural background, but in view of the paucity of genuinely cross-cultural studies, this review of the literature will briefly cover general findings on the relationship between self-esteem and achievement.

The construct of self-esteem and academic achievement has been of interest to many researchers for some time, and the findings have essentially indicated that there is a relationship between self-esteem (self-concept) and academic achievement (LaBenne and Green, 1969; Hamachek, 1971; Burns, 1979, 1982; Purkey, 1970; Thomas, 1973; Wylie, 1974). Purkey (1970) claims that "Over-all, the research evidence clearly shows a persistent and significant relationship between self concept and academic achievement", and Jones and Grieneeks (1970) found that identity rating, self-concept of ability, self-expression, and scholastic aptitude were positively associated with each other. Self-concept of ability was the most effective and consistent predictor of achievement, even better than scholastic aptitude.

Uguroglu and Walberg, (1979) made a quantitative synthesis of studies investigating the relationship between

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self-concept and academic achievement, they found that there was an average correlation of .41 for academic self-concept and .29 for general self-concept. Hansford and Hattie (1982) investigated the relationship between self-report measures and self-esteem (self-concept). They found that the mean correlation between measures of self and achievement or performance was .21. Among many studies measures of general self-esteem or self-concept correlated about .20 with actual ability, while those of self-concept of ability (academic self-concept) correlated about .40 with actual ability. Some studies failed to find any substantial relationship between self-esteem and academic achievement (e. g., Wattenberg and Clifford, 1964; Lewis, 1972; Williams, 1973). Hall (1972) in a study of college freshmen examined a number of personality variables including self-concept, achievement level, socioeconomic status and ethnic background (Mexican American and Anglos). He found no significant effect for self-concept on achievement. Albott and Haney (1972) in a study using university undergraduates investigated psychology quiz and self-concept. They found an effect for self-concept on achievement.

There appears to be a positive relationship between males' self-esteem and their achievement but less of a relationship for females (Campbell, 1965; Bledsoe, 1967). Purkey (1970) reports that successful students are ones who are likely to see themselves as positive individuals. He reports a study by

Gowan that indicates high achievers are characterized by self-confidence, self-acceptance, and positive self-concept. Purkey (1970) reports that a composite portrait of successful students would show that they have relatively high opinion of themselves and are optimistic about their future performance. Most researchers who studied self-attitudes believe that students who fail to live up to their own academic expectations suffer losses in self-esteem. For example, a study was done by Gibby and Gibby (1967). Research studies indicated that people with high self-esteem tend to be successful both academically and socially (Coopersmith, 1968). There is a positive relationship between self-esteem and achievement. Simon and Simon (1975) investigated the relationship between self-esteem and standardized academic achievement. They reported that the differences in significance of achievement and self-esteem correlations for boys and girls are not borne out. Also they found positive significant correlation between self-esteem and achievement for both boys and girls. While many of these studies are correlation studies and do not suggest cause and effect, they imply that successful students see themselves as positive individuals and that the failing students do have a poor self-esteem. Although the research does not provide evidence which comes first, the positive self-esteem or academic success, it suggests a strong relationship between the two variables.

2.5 CROSS-CULTURAL STUDIES OF CONFORMITY

In society we are taught to obey and to conform, but what makes one society conform more than others? This section of the chapter presents a brief review of the literature on conformity across cultures and societies. Research on conformity and related topics has a long history in social psychology, dating back to Allport's (1924) work on social facilitation. Another psychologist interested in conformity was Musafer Sherif (1935, 1936, 1937). Using the autokinetic effect as an ambiguous stimulus, he found when viewing the effect in small groups, subjects influenced each other's judgements as to the amount the stimulus-light actually moved. Sherif suggested that these subjects or individuals, through mutual interaction, gradually arrived at a social norm to govern their behaviour in this ambiguous situation. When Sherif tested some subjects individually again, he found that they retained their socially established range of judgements even in the absence of any kind of group pressure. Asch (1951) conducted the classic demonstration of conformity. In his work, Asch (1951) put a group of eight confederates to judge the comparative lengths of a set of lines in a way that contradicted the perception of a naive subject placed in the same situation and asked each subject to determine the shortest of three lines.

The shortest line was clearly distinguishable; it was an unambiguous situation. Asch (1965) had the eight confederates purposefully select an incorrect line, and then examined the subject's response in the light of the clearly wrong responses of the confederates. Asch (1956) found that the naive subject agreed with the group about one-third of the time, even though a control group was able to make the correct discrimination easily. Judgements were made publicly, with the naive subject responding after most of the other confederates. On the other side, Asch (1965) found that no subject conformed on every trial. In other words, the situation did not elicit total conformity from subjects.

In analysis of different groups of subjects, Asch (1965) found that although "very few" yielded nearly completely to majority influence, they did not think that they yielded at all. These people perceived the majority estimates as correct and did not feel as though they themselves had conformed. Most of the subjects who conformed lacked confidence in their estimates and felt a tendency to go along with the majority when in doubt. Others who conformed knew they were right, but did not want to appear different from the majority. These people did not conform internally, they retained their belief based on what they observed, but publicly they conformed. In follow-up studies, Asch found that if the subject had some support from someone in the group, conformity to the majority influence declined substantially.

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The Sherif and Asch experiments may be viewed as opposite
ends of a dimension of stimulus ambiguity. Sherif's work
employed highly ambiguous autokinetic effect for which
physical referents are minimal. In contrast, the Asch
experiment demonstrates group influence in the face of clear
objective information to the contrary.

Crutchfield (1955) modified the Asch paradigm in order
to test a number of subjects simultaneously. He used no
confederates, he seated his subjects in separate booths,
presented the stimuli they were to judge on a screen before
them and manipulated the situation such that each subject
thought that the other subjects were unanimously making
incorrect choices. Crutchfield (1955) found that when
subjects are isolated but supplied the choices of
confederates, conformity is less likely to occur than when
subjects are face to face with group members. When subjects,
after hearing the faked responses of the other individuals,
were asked to say their answers via a microphone, conformity
was greater than when subjects were asked to record their
responses by pressing a key, or by writing it down on a piece
of paper. In Crutchfield's (1955) experiments and studies,
subjects conformed more when they responded publicly than
when their responses were made privately. Conformity is
defined as some attitudinal or behavioral change that occurs
as a result of some real or imagined group pressure (Asch,

1956; Krech, Crutchfield and Ballachey, 1962). Kiesler and Kiesler define conformity as "change in behaviour or belief toward a group as a result of real or imagined group pressure" (Kiesler and Kiesler, 1969, p. 2). Conformity may have three different meanings which are used in the literature: (a) Going along with group or behaving in a way consistent with that of majority, (b) A change in attitudes or beliefs as a result of group pressure, (c) Personality trait (Kiesler, 1969).

In a replication of Asch's experiment, Pollis and Cammaler (1968) found that a woman and her "best friend" practically ignored, and were not influenced by, the wrong choices by the majority. Several studies have found that cultural factors effect conformity, conformity generally is assumed to be as result or a function of different socialization processes and cultural patterns and has been studied cross-culturally, e. g., Milgram (1961) found that Norwegians tend to conform more than French; Whittaker and Meade (1967) replicated Asch's study of conformity in several countries, Brazil, Arab, China, and Rhodesia. They found that Rhodesians tend to conform more than Brazilians, Arabs or Chinese. Chu (1966) found that Chinese are more persuadable than Americans.

Timaeus (1968) using Asch's procedures found that German students are less conforming than American students and also he found that female subjects are more conforming than male

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subjects. Sistrunk and Clement, 1970; Sistrunk, Clement, and Guenther, 1971 found that Brazilians conform more than Americans in all age groups studied by using Asch's procedures. Claeys (1967) using a modified Crutchfield technique, found that there is no difference between American subjects and Congolese subjects. Frager (1970) studied a group of Japanese students in an Asch type conformity test. He found that Japanese students showed less conformity and more anti-conformity in comparison to the results obtained from American subjects (Asch, 1956). McKissack (1971), using Asch procedures, compared Ghanaian and American subjects, he found that Ghanaians were more conforming than Americans. Chandra (1973) replicated Asch's type study in Fiji. He compared Fiji natives and Indians, he found that Indians conformed more than Fijians; also he obtained a conformity rate of 36% among indigenous Fijians. Women showed significantly greater conformity than men. Bergsma (1977) compared American and Chinese subjects, he found that Chinese adults were more conforming than American adults.

Recently, Perrin and Spencer (1980) attempted to replicate the original Asch experiment, but found that British student subjects do not conform like American student subjects did thirty-seven years ago. They were unable to replicate the "Asch effect" with British university undergraduate subjects. They argue that "Asch effect" is not

at all a "rock bottom" phenomenon; it is a product of its time and culture. They concluded that the effect is "a useful indicator of the cultural expectations subjects bring to the experiment from their contemporary world, as well as revealing something of the pressures subjects experience from their experiments" (Perrin and Spencer, 1980, p. 406). Larsen (1974) similarly did not find the same degree of conformity as in the Asch experiment. Larsen said "different time periods create different pressures toward conformity, which in turn may be reflected in different levels of conformity behavior" (1974, p. 304). Both Larsen (1974) and Perrin and Spencer (1980) assumed that pressures to conform in North America and Europe have decreased. Others have found the reverse. Lamb and Alsikafi (1980) using the Asch model with university students hypothesized that conformity rates in studies today will be higher than those in the previous studies. They found that conformity is higher than in the Asch experiment and they concluded "that conformity is dependent on the social milieu, but the milieu is such that conformity is greater now than it was in Asch's day" (p. 15). Doms and Van Avermaet (1981) studied a group of Belgian subjects and they found almost the same rates of conformity obtained by Asch. In contrast to Perrin and Spencer and others they claim that we are dealing with a universal and timeless phenomenon, and that the "basic conformity effect is a more universal and timeless phenomenon than one would lead us to believe" (Doms and Van Avermaet, 1981, p. 384).

Amir (1984) attempted to replicate the Asch experiment in Kuwait with university student subjects. He found an "Asch effect" comparable to Asch's (1951) classical study. Furthermore, Amir (1986), using Asch procedures compared Kuwait university students with Sudan university students, and found an "Asch effect" in both samples. Also he found that Kuwaiti subjects were more conforming than Sudanese subjects. Johana and Kahn (1984) administered the Cattell Clinical Analysis Questionnaire to American and Indonesian college students, they found that females in both cultures were higher than males on sensitivity, conformity, and shrewdness, and males were higher than females on stability, dominance, impulsiveness and radicalness. Nicholson, Cole, and Rocklin (1985) using Asch technique compared British and United States university students, they found that there is no significant difference between British and US students in conformity. Also the number of error responses were less than those reported by Asch (1951, 1952, 1956). They said "Whatever the specific causes for the differences in the degree of conformity that have been noted (e. g. Milgram, 1961; Larsen, 1974; Perrin & Spencer, 1981, and the present study), we believe that the Asch paradigm may provide a useful indicator of fluctuations in group cohesion over time and in changing national circumstances" (Nicholson, Cole, and Rocklin, 1985, p. 62).

In summary, although this review is not comprehensive, it has demonstrated that there is a contradiction in results based on different methods. It appears that there is renewed interest in conformity research which decreased during the last decade, although attempted replications of the "Asch effect" especially across cultures may be criticized for the lack of comparability between different techniques to measure conformity. Also, many variables could account for the conformity differences which may be attributed to socio-cultural factors, which have not always been taken into account. In the present study, an attempt was made to replicate the original Asch (1956) paradigm on a Saudi Arabian sample, taking account of individual differences in self-esteem and locus of control.

CHAPTER THREE

SELF-ESTEEM MEASUREMENT

3.1 INTRODUCTION

There are a great many different methods available for measuring self-esteem. Such diversity is due to the fact that there are many theoretical approaches to the understanding of self-esteem, as well as the different aims of the researchers. The choice of the method, therefore, is determined by the theoretical background of the researcher, his previous experience and his personal preference, although the researcher must justify his choice logically by pointing out the advantages of his choice and the advantages and disadvantages of other methods which have not been chosen as far as the aims of his study are concerned. These issues have important implications for the purpose of this study, which includes the development of a new, purpose - designed scale for use in Arab and British cultures. The chapter will first review existing self-esteem measurement methods and problems, and will be followed in chapter four by the construction and validation of the new scale.

3.2 SELF-ESTEEM MEASUREMENT

There are a number of ways of classifying self-esteem tests. Wylie (1968) has distinguished three categories:

i   Measures of self-regard or evaluation along specified dimensions.

ii   Measures of configurational properties of self-concept.

iii Measures of the conscious self-concept, usually some evaluative aspects of it.

However, self-esteem has been measured in almost as many ways as there are of defining it. A simpler classification distinguishes between self-report questionnaires or sorting methods, and observational techniques.

3.2.1   Self-report Methods: Here, self-esteem is inferred from the subject's own responses, which can be given in a variety of forms. Self-reports are economical and practical in that they can be scored and interpreted easily, and the researcher can obtain a self-description from a subject in a short period of time because the measures are structured or semi-structured. In general, the attendant problems with this type are fakebility, social desirability, response styles, and acquiescence. However, some of these problems can be controlled to some extent by, for example, using equal number of negative and positive statements, by establishing rapport with the subjects, by providing a non-threatening

climate, and by assuring anonymity when administering the self-report instruments.

Self-report techniques can be further subdivided into the following: (1) Rating Scales, which are the most common, although they are particularly vulnerable in terms of error of central tendency, response set, and acquiescence. Other problems are in the differential meanings and ambiguity of trait names or scale units to the respondent. (2) Adjective Check Lists, which are commonly used with children because they relate more effectively to complete thoughts rather than isolated words (like names or adjectives) for describing themselves. (3) Semantic Differentials, which employ categories on a continuum which separates a pair of dichotomous traits, though such a form necessitates the respondent's making finer distinctions about himself which he may unable to do. Fewer points are more likely to add only chance variance to the individual's judgment about himself. Another problem is the ground which he can use if he does not care to respond on a particular item. The advantage of this form is that it provides both direction and intensity of response on a continuum between two terms which are opposite in meaning. (4) Q-Sorts, where the respondent sorts out statements which he perceives as ranging from least characteristic to most characteristic of himself in a quasi-normal distribution of piles. Although the Q technique provides for certain uniqueness in measurement, individuals

may be grouped according to similarity in profiles but may be entirely different in personality structure. Cluster analysis using some type of distance function could be a possible answer to this problem. One obvious limitation of the Q sort is the fact that the procedure is time consuming when a large number of subjects take part in a research study, because the sorting of statements is usually administered individually to each subject.

Two other forms - open-ended questionnaires and pictorial or projective techniques - are also used occasionally. However, they both present particular problems of scoring and interpretation, and will not be described here.

3.2.2 <u>Observational Methods</u> Here, self-esteem is inferred from the individual's behaviour. The variety of this type ranges from the structured interview to the categorizing of behaviours by a clinically trained observer or the measuring of the perceptions of a third person, notably one or more of the "significant other". Direct observations are useful for very young children who cannot use language with facility and who have attention spans too short for testing situations. However, the presence of the observer may produce behaviour on the part of the subject which is different than the subject's behaviour would be if the observer were not present.

Finally, self-esteem may be inferred from the interaction of two or more types often by assessing the congruence between self-ratings and ratings of others, either by clinically trained observers or other people.

3.3 GENERAL PROBLEMS IN MEASURING SELF-ESTEEM

As with any personality measure, there are problems in self-esteem assessment. These may be seen as essentially those of establishing construct validity as in Cronbach and Meehl's (1955) sense of this term. Construct validity is necessary because subject's cognitions and attitudes about himself are private and beyond direct observation by the investigator. In order to index the construct involving a subject's self-esteem the researcher must use some form of self-report which response made by the subjects as a basis for his inferences. Self-report behaviour has usually taken the form of verbal response or some of a choice response when the subject is instructed to indicate specified conscious processes. Despite their limitations these methods seem to be the only kinds which are appropriate to this type of construct in this researcher's opinion. Phenomenologists would like to assume that a subject's self-report responses are determined by his phenomenal field. But we can not take this for granted, these responses may be influenced by the following factors:

    i. The subject's intent to select what he wishes to reveal to the researcher.

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ii. The subject's intent to say that he has attitudes or
perceptions which he does not have.

iii. The subject's response habits, particularly those
involving introspection and use of language.

iv. A host of situational and methodological factors
which may induce variations, also may exert other
more superficial influence on the responses obtained.

One problem in measuring self-esteem is that subjects
with low self-esteem, in contrast to those high self-esteem,
will attempt to structure their environment so as to enhance
self-esteem (Engel, 1959). This is consistent with the view
that a dominant need for human beings is to acquire an
adequate level of self-esteem. A further problem in measuring
self-esteem is that a subject with low self-esteem may wish
to hide this fact from others. Stair (1967) suggests that an
individual with low self-esteem will try to hide his feelings
of inadequacy when he interacts with other people whom he
feels to be important. Another problem involves "faking good"
subjects who may hide their true appraisal of themselves
because they are afraid of the negative evaluation they will
receive if they are honest. Also, it is possible that
individuals with very low self-esteem will label themselves
as worthless individuals (Kelly, 1975). A major problem in
this researcher's opinion, is that it has been very difficult
to integrate this construct systematically into a framework
of personality functioning. Generally, responding in a

socially desirable manner presents the greatest problem in assessing self-esteem, and this will be considered in more detail in the next section.

3.3.1 Social Desirability

Subjects may attribute to themselves traits which social consensus would indicate are socially desirable and acceptable while rejecting those that are socially undesirable and unacceptable. It is easy to falsify responses so that a positive or a good picture is presented on self-report scale. This happens when there are incentives, for gain read as in selection or when the evaluation is of the core of the subject as with self-esteem studies. When items are ambiguous it is difficult for the subject deliberately to present a particular picture of himself. However, with items concerning self-esteem it is difficult to hide their meaning and relevance. It can be argued that social desirability is a factor that is part of one's attitude to himself. Wylie (1961) says "no way has been worked out to determine in what cases and under what circumstances the social desirability variable distorts individual self-reports away from validity in reflecting subject's phenomenal field" (p. 28). Subjects' tendencies to respond in a "socially desirable" way on self-esteem instruments are quite probably irrelevant or contaminating variables which decrease the construct validity of self-esteem questionnaires. Cowen and Tongas (1959)

consider social desirability a very serious validity threat. This potentially invalidating influence has received great empirical attention by Crowne and Stephens (1961); Crowne, Stephens and Kelly (1961); Edwards (1957, 1967, 1970); and Jackson (1967). Many researchers have found correlation between self-esteem measures and social desirability (Kenny, 1956; Cowen and Tongas, 1959; and Meisels and Ford, 1969). Crowne and Marlowe (1960) say that the correlation has two possible interpretations "either the tendency to respond in socially desirable fashion is all that is being measured" or else the two variables "amount to the same thing".

3.3.2 Implications for validity of self-esteem

One must ask how and to what degree could a subject's tendencies to respond in a socially desirable way invalidate his self-esteem questionnaire and then to see how we can reduce the invalidating influences upon—our questionnaire. This can be handled by establishing testing conditions which increase the rapport with subjects and make it worthwhile from subject's point of view to be honest as possible. There is no way to be sure that the desired conditions have been obtained. It is well established that when the subject is asked to fake socially desirable self-reports consciously, different results are obtained as opposed to insecure

conditions (e.g. Jones, Gergen, and Davis, 1962; Eiseneman and Townsend, 1970). This sort of finding does not enable us to infer that conscious distortion is eliminated under the latter conditions. There are other methods which try to minimize dishonesty or unintentional yielding to social-desirability; these include:

i.   Attempts to force subjects to be honest.

ii.   Attempts to make subjects respond to item content without reference to its social desirability value.

iii. Attempts to correct for subject's dishonesty.

None of these methods solve the problem of validity of self-esteem research. The threat of the social desirability effect on self-esteem remains plausible but unsubstantiated. People may respond to test in a favourable fashion in a stereotypical fashion. Social desirability does not constitute a validity threat for self-esteem since the priority of this explanation is essentially a theoretical premise. Whereas the idea of social desirability as a property of an item is determined by social values.

In summary, as with any personality measure, there are problems in self-esteem assessment. However, these problems may be particularly acute in the evaluation of the self. Burns (1982) has listed a number of especially problematic issues, including the subject being defensive and wishing to give socially acceptable answers rather than reveal his true self, feeling threatened by the "testing atmosphere", and

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items being too vague or too open to interpretation.

3.4 SPECIFIC METHODOLOGICAL PROBLEMS IN SELF-ESTEEM MEASUREMENT

The construct of self-esteem has been used by many people in diverse ways. Reviews of the literature, (for example, see Wylie 1961, 1974) suggest that self-esteem has been related to almost every variable at one time or another. Despite the popularity of self esteem, no standard theoretical or operational definition exists, (Burns, 1979; Lynch, Norem-Hebeisen, and Gergen, 1981; Rosenberg, 1979; Shavelson, Hubner and Stanton, 1976; Wells and Marwell, 1976; Wylie, 1961, 1974).

Despite considerable interest in self-esteem and self-concept there have been persistent methodological problems in measuring this construct (Wylie, 1961, 1974; Wells and Marwell, 1976; Shavelson et al., 1976; Burns, 1979). Gecas's (1982) review confirmed that self-esteem measurement is still a "serious problem" in self-concept research. Wells and Marewell (1976) described the self-esteem literature in general as having an "indeterminant character". Wylie (1961, 1974) was also quite critical of research in this area arguing that there are far too many instruments used to measure self-esteem and that most are never reevaluated for their adequacy or perceived utility. Reviewers note that the

instruments of self-esteem are not equivalent (LaBenne and Green, 1969). Another thing which is observed in the literature is that many researchers develop idiosyncratic measures for use in one particular study, thus making it impossible to generalize results across studies which utilize different instruments (Shavelson et al., 1976).

The main problem in self-esteem research is validity. The present researcher would like to emphasize the importance of validity since it has been ignored in the past. Wylie (1961, 1979) lists hundreds of articles and research reports on self-esteem (self-concept). An examination of these reports is interesting. Most studies purporting to explore self-esteem are, in fact, not measures of self-esteem at all.

In general, validation data on self-esteem (self-concept) measures are weak. Reviews of self-esteem show that there are general fundamental gaps in the instruments (Crandall, 1973; Burns, 1979; Wylie, 1974; Wells and Marwell, 1976; Shavelson et al., 1976). All reviews said that much more careful and systematic work is needed to establish the validity of the instruments in use. Crandall (1973) indicates that "The general lack of psychometric work in this area makes it easy to criticize all the existing measures. ... Research must deal with careful operationalization to make self-esteem valuable. Subsequent findings can improve our knowledge. When the findings are negative, the construct suffers even though it is the measures that are at fault. In a very real

sense, such as in the case of IQ, the concept is literally that : which is measured" (p. 51). Unfortunately, such validation data is missing in the self-esteem area. Wylie (1961, 1974); Crandall (1973); Burns (1979) reviewed a number of self-esteem measures and they found that most of self-esteem measures lack validity. As Wells and Marwell (1976) have observed, the most frequent form of validation is simple face validity or substitution of faith for evidence. Reliability information, based on either internal consistency, split-half, or test-retest, is frequently also missing. Some studies include only one type of reliability data. Others may indicate that the measures have been determined to be reliable, but do not include data which permit comparisons to be made. In the majority of the instruments reviewed, internal consistency and split-half and test-retest reliabilities have not been reported. Wylie (1974) emphasizes that reliability estimates should be relevant to the subjects whose results are being interpreted in a particular study. Wylie (1974) says "far too little attention has been paid to determining and reporting reliability figures, and to evaluating alternate explanations of obtained results of studies in the light of the degree of reliability of instrumentation. For the great majority of self-concept instruments in common use it is possible to compute split-half or internal consistency coefficient; but a large proportion of workers report few or none of these. Test-retest reliability estimates (whether using the same or

alternate forms) are even rarer in the published literature".
(p. 122). When instruments are being selected or developed
for use the matter of psychometric evaluation must be taken
seriously. Through the last decades self-esteem instruments
consisted of a wide-mixture of self-referent items, little
effort was made to develop or to refine these instruments in
order to measure specific facts. More recently, researchers
have developed self-esteem instruments specifically to
measure particular aspects of self-esteem that are based on a
theoretical model, and to use factor analysis to test the
existence of these aspects. This approach produced
instruments in which multiple facets of self-esteem are
clearly identified (e.g., Boersma and Chapman, 1979; Dusek
and Flaherty, 1981; Fleming and Courtney, 1984; Harter, 1982;
Marsh, et al., 1984; and Soares and Soares, 1982).

3.5 SUMMARY: GENERAL REMARKS

There are a numerous self-esteem measures available which
vary greatly in their reliability and validity. Indeed, many
investigators rely heavily on face validity. Four points
might be made in summary:
1. A general criticism that one finds in the main reviews of
self-esteem theory, methodology, and research is that the
constructs used in the research are vague and not well
defined (Wylie, 1961, 1974; Wells and Marwell, 1976; Burns,

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1979; and Shavelson et al., 1976). This criticism prompted both Wylie (1974) and Shavelson et al. (1976) to suggest that the researcher should begin by giving a literary definition of the terms he uses.

2. Wylie (1974) pointed out that a large number of the studies that she reviewed lacked information about validity and reliability of the scales. For example, Wylie (1968) reported that 90% of the 22 sets of Q-sort scales she reviewed had no information about the construct validity. Two-thirds of the adjective Check Lists, Rating Scales and Questionnaires lacked information about reliability.

3. One of the major problems which self-esteem measurement shares with personality measurement is that the investigator has to accept whatever the subject says in describing himself. This depends upon the linguistic ability and the true cooperation of the subjects. Gordon (1966) disagrees with this. He described the "objective reality" as meaningless as far as the person's self-esteem is concerned. He feels that there is no point to any argument over what is a person's "real" self-esteem, since we must rely on operational definitions anyway. He added that any method depends upon the researcher's expectation that the subject will give true answers about himself.

4. One of the major weaknesses of the self-esteem measures is the non-equivalence of the measures, i.e. one cannot compare between the tests results. It is not possible to validate a self-esteem measure by comparing it with the results of

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another self-esteem measure. Because of this, one has to be very cautious when making a comparison between the results of one's research and those of the previous researchers.

In general, research instruments often are not included in the published research, or adequate information is not available on scoring procedures for a researcher in another location to follow upon or replicate that research.

In summary, there are countless numbers of self-esteem measures and yet no firm body of evidence with which to justify them. Because of this reason and the other problems which are presented in this study, the researcher saw it not only as a good idea but as a necessity to develop a questionnaire that would be valid for use with English and Arab samples. Although self-report measures are prone to some problems of response and scoring, this technique was employed as the most appropriate in the present study.

CHAPTER FOUR

THE CONSTRUCTION AND VALIDATION OF A SELF-ESTEEM QUESTIONNAIRE

4.1 INTRODUCTION

As noted in the previous chapters, the research on self-esteem has been hampered by the lack of an assessment that is reliable and valid. Wylie (1974) has provided a particularly poignant indictment of the state of measurement in self-concept and self-esteem. One of her primary concerns is the proliferation of measuring instruments with relatively little attention devoted to evaluation of them. Self-esteem research has suffered from a paucity of theoretical models and psychometrically sound measurement instruments. Reviews of self-concept and self-esteem research more generally have found this to be a fundamental gap in instruments development (Crandall, 1973; Wells and Marwell, 1976; Wylie, 1974).

As Wells and Marwell (1976) have observed, the most frequent form of validation is simple face validity, or substitution of faith for evidence. A large number of self-report instruments for measuring self-esteem have appeared in the literature. Many self-esteem measures have been reported in the literature (Buros, 1972; Robinson and Shaver, 1973; Mangen and Peterson, 1982). Wylie (1974), lists around one hundred questionnaires. Most of these instruments are not

valid and not reliable. In addition, most of these instruments have not been subjected to substantive construct or predictive validation but have been widely applied to gather data on individual self-esteem. Self-esteem instruments typically consist of wide-mixture of self-referent items, and blind applications of exploratory factor analysis which failed to identify salient, replicable factors (Marsh and Smith, 1982; Shavelson, et al., 1976). More recently, researchers have developed instruments to measure specific self facets that are at least loosely based on explicit theoretical models such as that proposed by Shavelson, and then used factor analyses to support these a priori factors (Soares and Soares, 1977; Boersma and Chapman, 1979; Dusek and Flaherty, 1981; Fleming and Courtney, 1984; Harter, 1982; Marsh, Smith and Barnes, 1985). In recent years one questionnaire has been developed and appears promising, the Self-Description Questionnaire (SDQ), (Marsh, Relich, and Smith, 1983). The SDQ is being developed in Australia for measuring self-concept.

4.1.1 Aims of The Study

An implicit assumption of most self-esteem theorists is that self-esteem is a multidimensional concept. This assumption is a foundation of Shavelson et al. (1976); Shavelson and Bolus, (1982); and Norem-Hebeisen, (1976). Norem-Hebeisen (1976),

described the multidimensional construct of self-esteem based on four themes: (1) basic acceptance, sense of well-being, personal autonomy, freedom of feelings, and freedom in relationships; (2) conditional acceptance, contingent on meeting standards of self and others; (3) real-ideal, the congruence between the current self-esteem and the ideal self; (4) self-evaluation, the individual's judgment of how he compares with others.

According to Shavelson's (1976) definition, self-concept is an individual's perception of self, which is formed through experience with environment, interactions with significant others, and attributions of his or her own behaviour. Self-concept is both descriptive and evaluative. Self-concept is multidimensional and hierarchically organized, with perception moving from inferences about self in sub-areas to broader areas and finally to general self-concept. Recent reviews of self-esteem research (Byrne, 1984) support this multidimensional structure of self-esteem. The aims of this study were, therefore, to design and validate a multidimensional scale for measuring self-esteem, to overcome some of the problems inherent in most self-esteem questionnaires (Wylie, 1974, Burns, 1979) and, in addition, to be able to identify individuals with high, average, and low self-esteem. Finally, to be useful for English and Arab samples.

4.2 QUESTIONNAIRE CONSTRUCTION : INTRODUCTION

The questionnaire was constructed and subsequently validated
in a series of stages. In the first stage an open-ended
questionnaire having five conceptual themes - social
relationships, future, health, academic career, and self
regard - was sent to 100 students at York University. From
these data, a large pool of items concerning self-esteem was
generated. These were organized in the form of questions
using Likert-type rating scales and presented to a group of
students to check them for ambiguities or misinterpretation.
Subsequently, the revised version was issued to a large
number of Open University students and Arab University
students and the results were subjected to factor analysis.
The final version of questionnaire was then administered to
independent samples at York University, England and King Saud
University, Saudi Arabia. A sub-group from each sample was
re-tested after six weeks as a measure of the instrument's
re-test reliability. In addition, two other measures of self-
esteem were administered simultaneously with the scale, for
comparison. Finally, a short form of the Social Desirability
Scale (Reynolds, 1982) was sent with the questionnaire.

4.2.1 Stage one: The Open-ended Questionnaire

Open-ended questionnaires have been used to a limited extent in self-esteem measurement. This technique gives a projective quality to the responses and offers an opportunity for the full expression of psychological needs; Wells and Marwell (1976) observe that "These procedures are common in general personality measurement, but they are used much less to measure self-report or self-esteem. Nonetheless, projective measurement represents a plausible methodological alternative for self-esteem measurement since it is purported to tap aspects of self-evaluation for which orthodox procedures are inadequate" (P. 124). In the present study, the open-ended questionnaire was intended primarily as a source of items for the new scale.

Method

On the basis of theoretical propositions and review of empirical findings with other scales, an open-ended questionnaire having five themes (social relationships, future, health, academic career, and self regard) was sent to a random sample of 100 students at York University. To try to ensure that the measure of self-esteem to be developed in this research did truly reflect the subject's evaluation of those things he himself considers important the open-ended questionnaire was designed as follows:

1. The subjects were asked to rate the importance of the various areas in their lives (social relationships, future, health self, academic career).

2. They were then asked to rate their self-esteem in each of these areas.

Returns were obtained from 55 male subjects (mean age 21.03; SD=3.80) and 45 female subjects (mean age 19.40; SD=3.05).

Results

A number of items were developed from the answers of the five themes. Each took the form of declarative sentence and the student was asked to indicate whether he strongly agreed, agreed, disagreed, or strongly disagreed with the item. After the items had been constructed, they were critically screened to determine whether there were any ambiguities. Also, special attention was given to items which could present problems in translation into Arabic. Items which were identified through this initial screening procedure were either modified or discarded. The items which emerged from this initial screening were then shown to a small group of 15 students from York University, who were asked to read each statement and to assign to it a numerical value between 1 (strongly agree) and 4 (strongly disagree). The items were constructed so that a positive or negative response given to item would indicate a particular point along the scale. When

the students finished reading the items, their ratings were examined. Where all of the students had shown agreement as to the rating of an item, it was considered ready for inclusion in the questionnaire. In the cases where there was disagreement between the students ratings the source of disagreement was identified and the item was either changed or excluded. If the item was changed, it was re-rated on another occasion to make sure that there was agreement among the students ratings.

The final items which were included in the questionnaire those items on which there was an agreement in the students ranking, and the items were positively and negatively worded so that the test as whole would be nearly half positive and half negative. The resulting items were checked for clarity and understanding in discussion with several students (n=15) from York University.

4.2.2 Stage Two: Selection of Additional Items

At this stage items from a number of existing questionnaires were considered for possible inclusion in the questionnaire.

Method

An initial list of behaviour and attitudes indicating self-esteem was collected from the current literature. Particular

reference was made to the work of Wylie (1974, 1979), Wells and Marwell (1976), Burns (1979), Rosenberg (1965), Coopersmith (1967, 1981) and Crandall (1973). From these a preliminary list of questions was derived, phrased in a manner appropriate to the initial items.

Results

As a consequence of discussion with subjects all the items that proved to be ambiguous were re-worded or deleted. The final questionnaire included thirty five (35) items , ten from the first stage and twenty five (25) from the second stage, and was named "Taisir's Self-esteem Questionnaire" (TSQ). A copy of TSQ English version is presented in the Appendix A (1). The questionnaire in this form contained questions regarding attitude towards self, relationships with friends, physical appearance, well-being, and family relationships. A four-point Likert type questionnaire, from negative to positive provides the opportunity for subjects to indicate the magnitude of their attitude toward self for each situation. A Likert type response Strongly Agree, Agree, Disagree, and Strongly Disagree was adopted. Nunnally (1967) suggests that the use of the multiple point rating scales of odd versus even is not critical, but he says that the even number of rating categories is preferable. A common criticism is that the neutral point is used by subjects not only to

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indicate evaluative neutrality but also for "don't Know" responses, and thus it may produce evasiveness response style. Respondents may avoid indicating extreme response to items about which they have some uncertainty or items about which have desirability connotations. Also, the neutral point may be useful in making the subject feel more comfortable and it seems to be a valid category. In order to minimize the probability of subjects developing an acquiescence approximately half of the items were positively keyed and half negatively keyed. In an attempt to reduce the social desirability response bias, administration instructions for TSQ included the promise of confidentiality. Instructions for completing the questionnaire, together with a section of items regarding demographic information, name, age, and sex, were included on the first page of the questionnaire.

4.2.3 Stage Three: Translation Into Arabic

This stage formed the initial step in the validation of the questionnaire for the Arab sample (Saudi Arabia).

Method

Great care was taken in translating the questionnaire from English to Arabic. As Triandis, Malpass, and Davidson (1973) pointed out, translation is a difficult problem. In the present study, a "back translation" technique was used which

requires at least two bilinguals, one translating from the source to the target, the other "blindly" translating from the target back to the source. The two versions are then compared in this technique, and if they are identical this suggests that the target version is equivalent to the original version. A seven step procedure advocated by Brislin (1970) was employed. In addition to the step process described above, this approach involves among other safe-guards, a "target-check" in which the best translator checks on grammar and specific word meaning with the researcher. A further check involved administering the questionnaire to groups of bilingual subjects. Arab students at King Saud University served as subjects for this step. Translation procedures were from English to Arabic to English. After that the translated questionnaire was administered to ten students to see if the questionnaire is understandable. Fink (1963), Werner and Campbell (1970) and Sinaiko (1963) reported the successful use of back translation. A copy of the Arabic version of the TSQ is presented in the Appendix.

4.3 FACTORIAL VALIDATION OF THE QUESTIONNAIRE

Numerous studies have factor analyzed self-esteem (self-concept) questionnaires and they generally find evidence for more than one factor (Shavelson, et al., 1976; Wylie, 1974; 1979). However, taken together these studies have not led to

a clear understanding of the dimensions of self-esteem. Defined factors tend to be idiosyncratic to particular instrument being considered, difficult to interpret, inconsistent across different samples, and difficult to replicate. The TSQ was developed in an attempt to overcome some of the problems inherent in many self-esteem questionnaires. Wylie's (1961, 1974) review was critical of validation studies. She stressed the need for the development of assessment procedures that explore the internal structures of the instruments, and she suggested factor analysis as an appropriate technique for this purpose. Also, as noted by Shavelson et al. (1976), without factor analysis of the instruments being considered, there is no way of determining whether a lack of divergent validity represents a lack of distinctiveness of the underlying traits or poorly constructed scales. In summary, factor analysis provides strong support for the dimensions that the questionnaire is designed to measure and the theoretical model upon which the questionnaire was based.

Initially, the responses from the English and Arab samples described in the following section were analyzed for response frequencies. In general, The distribution of responses to TSQ items was skewed. Wylie (1974) says "we know that, in actual practice, distributions of self-ratings on any one scale tend to pile up at the favourable end and are extremely skewed toward the unfavorable end" (P. 119). All items were therefore included in the factor analysis

which follow.

Subjects

(i) The British Sample

The questionnaire was administered to a large number of Open University students (n=400; males = 200 females = 200), drawn randomly from students attending residential courses at the University of York over a three week period. A covering letter accompanied the questionnaire, explaining that the study was an attempt to investigate the nature of self-perception in a student population. The confidentiality of all the information obtained was assured and subjects were not asked to provide their names. Following completion of the section on demographic information, subjects were asked to select the response on each item. The necessity of answering all the questions was stressed and subjects were invited to provide any suggestions or extra information on their self-perceptions. Three hundred and twenty five students (154 males and 171 females; Mean age 34.35; S.D 13.49) returned the completed questionnaire, representing a response rate of 77% for male population and 85.5% for female population. The overall response rate for males and females was therefore 81.3%. This was sufficiently high to indicate that unbiased sample had been obtained.

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(ii) The Arab Sample

The questionnaire (Arabic version) was administered to a large number of undergraduate university students (n= 450, males = 225; females = 225). Subjects were randomly drawn from departments of Physical Education, Psychology, Medicine, Allied Medical School, Science, and from the first year undergraduate students population. A covering letter accompanied the questionnaire, explaining that the study was an attempt to construct and validate a scale for self-perception in a student population. The confidentiality of all information obtained was assured. Following completion of the section on demographic information, subjects were asked to select the response for each question. The necessity of answering all the questions was stressed and subjects were invited to provide any suggestions and information on their self-perception. Three hundred and fifty students (201 males; 149 females; Mean age 22.2; S.D. = 6.22) returned the completed the questionnaire, representing a response rate of 89.3% for male population and 66.2% for female population. The overall response rate for males and females was therefore 77.8%, which was again sufficiently high to indicate that an unbiased sample had been obtained.

4.3.1 Results

For both English and Arab samples the questionnaire was analyzed using SPSS (Nie, Hull, Jenkins, Steinbrenner and Bent, 1975) and SPSSX (SPSS Inc., 1983). '1' was entered into the analysis if a subject endorsed Strongly Agree, '2' Agree, '3' Disagree, and '4' Strongly Disagree. In addition, '-1' was used to denote missing variables. Initially, Principal Factoring with iterations (PA2) was used, which inserts estimated communalities in the loading-diagonal (Nie, Hull, Jenkins, Steinbrenner and Bent, 1975). This method was used in preference to the Principal components in order to minimize the degree of common factor variance entered into the analysis.

Several factor analyses were performed commencing with separate analyses for the English sample overall and males and females analysed separately. This was followed by corresponding analysis for the Arab sample, and the section concludes with factor analyses for both samples combined.

4.3.1.1 English Sample : Overall

Cattell's (1966) Scree test was used to determine factor extraction rather than the minimum Eigenvalue criterion. The Scree Test suggested a two or a three factor solution,

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depending on the choice of cut-off point either at the first or second "fall off" (Cattell, 1966). (the Scree plot is shown in Appendix A(2)). A factor loading of .30 was used for inclusion in a factor, and if an item loaded on more than one factor the highest loading determined factor inclusion. In this initial analysis, an orthogonal (varimax) rotation was used to drive both a two and a three factor solution, and the results of the two factor solution was clearly shown to be the most appropriate - the 3-factor outcomes included the same number of items, but the conceptual unity of the 2-factor solution was lost. The two factors were substantially correlated (r=.36), and a second two factor solution was therefore obtained using an Oblimin (Oblique) rotation. This solution accounted for 80.7% and 19.3% of the total variance for the first and second factor respectively. A total of 31 items loaded above criterion on the two factors, which are displaying with their loadings in Table 4.1.

Table 4.1

Factor structure and loading for the two Factor

Solution Rotated to the Oblique Terminal Solution

English sample (Males and Females)*

Factor I : Negative self-image

Item		Loading
27	I often feel that I am a failure.	-.74
14	I have quite a low opinion of myself.	-.73
17	I often worry about what other people think of me.	-.66
18	I worry that other people might regard me as a failure.	-.66
22	Sometimes, I feel that I can't do anything well.	-.64
8	On the whole I am seldom satisfied with myself.	-.63
10	There are a lot of things about myself that I would like to change.	-.62
11	Generally, I feel quite confident and sure of myself.	.62
13	I often wish I were someone else.	-.56
4	There are times when I feel useless.	-.56
1	Generally speaking, I have a positive attitude towards myself.	.54
12	Things are all mixed up in my life.	-.54
3	I often wish I could have more respect for myself.	-.54
24	I like being who I am.	.49
25	Generally, I think I am a happy person.	.45
15	If things go wrong, I tend to blame myself.	-.44
21	I am satisfied with my appearance.	.42
16	I think I have an attractive personality.	.41
20	I often have a good feeling of well-being	.32

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* Item number correspond the item number in the TSQ

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Table 4.1 Continued

Factor II : Positive Self-worth	
Item	Loading
26 All in all, my friends trust me.	.61
35 People generally think of me as a decent person.	.59
31 I think that my family can rely on me.	.56
34 I feel that I have a number of good qualities	.49
32 I am usually a friendly person.	.47
5 I think I am an honest person.	.47
23 I think I am a sensitive person.	.41
2 I feel as a person I am valued by others.	.37
9 Sometimes, I have ups and downs, but I think I am a worthwhile person.	.35
30 I generally feel that other people like me.	.31
7 My friends have no confidence in me.	-.30
33 I am satisfied with my family relationships.	.30

Factor one loaded nineteen items and accounted for 80.7% of the rotated common variance. The highest loading was on item 27: "I often feel that I am a failure", and a unifying theme running through these items was the concern primarily with this view of self (failure, low opinion of self, can't do anything well). This factor was consequently labelled "Negative Self-Image".

Factor II loaded twelve items, and accounted 19.3% of the common rotated variance. The highest loading was on item 26: "All in all my friends trust me" (.61), which together with loading on item 35 ("People generally think of me as a decent person", .59) and item 31 ("I think my family can rely

on me", .56) suggested an interpretation in terms of others'
evaluations. This Factor was labelled "Positive Self-worth".
The correlation between the two factors was 0.36.

4.3.1.2 English Sample: Males

Further factor analyses were then performed on the responses
for English male and female samples independently. Principal
Factoring was again used, and for males the Scree Test again
suggested a two factor solution which accounted for 83.7% and
16.3% of the total variance for the first and second factors,
respectively. The data were subjected to oblique rotation
because of the high inter-factor correlation (r=.36), and the
factor structure and loadings for the 32 items which were
loaded on the factors are shown in Table 4.2.

Table 4.2

Factor structure and loading for the two Factor Solution Rotated to the Oblique Terminal Solution For English Males.

Factor I : Negative Self-Image	
Item	Loading
17 I often worry about what other people think of me.	-.73
27 I often feel I am a failure.	-.73
14 I have quite a low opinion of myself.	-.68
18 I worry that other people might regard me as a failure.	-.67
13 I often wish I were someone else.	-.66
24 I like being who I am.	.66
22 Sometimes, I feel that I can't do anything well.	-.65
8 On the whole I am seldom satisfied with myself.	-.65
10 There are a lot of things about myself that I would like to change.	.62
4 There are times when I feel useless.	-.59
11 Generally, I feel quite confident and sure of myself.	.59
3 I often wish I could have more respect for myself.	-.59
25 Generally, I think I am a happy person.	.57
1 Generally speaking, I have a positive attitude towards myself.	.53
12 Things are all mixed up in my life.	-.53
20 I often have a good feeling of well-being.	.49
16 I think I have an attractive personality.	.47
30 I generally feel that other people like me.	.40
15 If things go wrong, I tend to blame myself.	-.39
21 I am satisfied with my appearance.	.37
28 Sometimes, I feel I can't trust people.	-.33

Table 4.2 : Continued

Factor II : Positive Self-worth

Item		Loading
26	All in all, my friends trust me.	.61
35	People generally think of me as a decent person.	.60
34	I feel that I have a number of good qualities	.55
7	My friends have no confidence in me.	-.48
5	I think I am an honest person.	.47
2	I feel as a person I am valued by others.	.44
9	Sometimes I have ups and downs, but I think I am a worthwhile person.	.43
32	I am usually a friendly person.	.39
6	Generally, I am able to do things as well as most other people.	.37
31	I think that my family can rely on me.	.36
23	I think I am a sensitive person.	.33

Factor I loaded 21 items, accounting for 83.7% of the rotated common variance. The highest loading was -.73 on item 17: "I often worry about what other people think of me". This factor corresponded closely to the first extracted factor for the overall sample, and was therefore labelled "Negative Self-Image".

Eleven items loaded on factor II of this factor and accounted for 16.3% of the common variance. The highest loading was .61 on item 26, "All in all, my friends trust me", and this similar to the overall analysis led to the label "Positive Self-worth".

4.3.1.3 English Sample: Females

For females, the Scree test again suggested a two factor solution, accounting for 79.1% and 20.9% of the total variance for the first and the second factors, respectively. Using an oblique rotation and a factor loading criterion of .30, 17 and 12 items loaded on the first and second factors, respectively. The factor structure was similar to the male and overall samples, and the factors were again given the same labels. Two factor oblique solution are shown in Table 4.3.

The highest loading on factor I was on item 14: "I have quite a low opinion of myself" (.74), and "I often feel that I am a failure".

The highest loading on factor II was on item 31: "I think my family can rely on me" (71).

Table 4.3

Factor structure and loadings for the two Factor Solution

Rotated to the Oblique Terminal Solution

for English Females

Factor I : Negative Self-Image	
Item	**Loading**
14	I have quite a low opinion of myself.	.74
27	I often feel that I am a failure.	.73
8	On the whole I am seldom satisfied with myself.	.67
18	I worry that other people might regard me as a failure.	.66
11	Generally, I feel quite confident and sure of myself.	-.63
10	There are a lot of things about myself that I would like to change.	.63
22	Sometimes, I feel that I can't do anything well.	.60
17	I often worry about what other people think of me.	.58
4	There are times when I feel useless.	.56
1	Generally speaking, I have a positive attitude towards myself.	-.53
12	Things are all mixed up in my life.	.52
3	I often wish I could have more respect for myself.	.52
13	I often wish I were someone else.	.49
15	If things go wrong, I tend to blame myself.	.43
21	I am satisfied with my appearance.	-.42
28	Sometimes, I feel I can't trust people.	.35
25	Generally, I think I am a happy person.	-.35

Table 4.3 : Continued

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---------------------------------------------------------------------------
| Factor II  : Positive Self-Worth                                        |
| --------------------------------------------------------------------- |
|  Item                                                   | Loading       |
| --------------------------------------------------------------------- |
|  31| I think that my family can rely on me.             |   .71         |
|  32| I am usually a friendly person.                    |   .58         |
|  26| All in all, my friends trust me.                   |   .56         |
|  35| People generally think of me as a decent           |               |
|     | person.                                           |   .46         |
|  5 | I think I am an honest person.                     |   .45         |
|  33| I am satisfied with my family relationships.       |   .41         |
|  34| I feel that I have a number of good qualities      |   .38         |
|  24| I like being who I am.                             |   .37         |
|  20| I often have a good feeling of well-being.         |   .34         |
|  2 | I feel as a person I am valued by others.          |   .32         |
|  23| I think I am a sensitive person.                   |   .31         |
|  9 | Sometimes I have ups and downs, but I think        |               |
|     | I am  worthwhile person.                           |   .31         |
---------------------------------------------------------------------------
```

4.3.1.4 Arab Sample: Overall

Following Principal factoring Cattell's (1966) Scree test suggested a two factor solution, (The Scree plot is shown in Appendix A (3)). A criterion factor loading of .30 was employed, and if an item loaded on more than one factor the highest loading determined factor inclusion. The inter-factor correlation was -.21, and a two factor oblique solution comprising thirty one items was extracted which accounted for 70.8% and 29.2% of the total variance for the first and second factors, respectively. The results are shown in Table 4.4.

Table 4.4

Factor structure and loading for the two Factor

Solution Rotated to the Oblique Terminal Solution

for Arab sample (Males and Females)

Factor I : Positive Self-Worth	
Item	Loading
34 I feel that I have a number of good qualities	.63
32 I am usually a friendly person.	.62
30 I generally feel that other people like me.	.58
26 All in all, my friends trust me.	.52
16 I think I have an attractive personality.	.52
5 I think I am an honest person.	.48
11 Generally, I feel quite confident and sure of myself.	.44
31 I think that my family can rely on me.	.39
9 I have ups and downs, but I think I am a worthwhile person.	.38
19 I take good care of myself physically.	.38
6 Generally, I am able to do things as well as most other people.	.38
29 I am usually satisfied with my friends.	.37
2 I feel as a person I am valued by others.	.34
21 I am satisfied with my appearance.	.33
23 I think I am a sensitive person.	.33
35 People generally think of me as a decent person.	.33
1 Generally speaking, I have a positive attitude towards myself.	.31

Table 4.4 : Continued

Factor II : Negative Self-image	
Item	Loading
12 Things are all mixed up in my life.	.59
10 There are a lot of things about myself that I would like to change.	.57
14 I have quite a low opinion of myself.	.53
13 I often wish I were someone else.	.53
25 Generally, I think I am a happy person.	-.51
27 I often feel that I am a failure.	.48
17 I often worry about what other people think of me.	.48
8 On the whole I am seldom satisfied with myself.	.47
24 I like being who I am.	-.44
18 I worry that other people might regard me as a failure.	.43
4 There are times when I feel useless.	.42
22 Sometimes, I feel that I can't do anything well.	.41
3 I often wish I could have more respect for myself.	.41
15 If things go wrong, I tend to blame myself.	.34

The highest loading on factor I was .63, on item 34: "I feel that I have a number of good qualities", and a unifying theme running through the items was that they were concerned primarily with self-worth and self-confidence. By contrast, the items that did not load on factor one were generally concerned with negative view of the self. This factor was therefore labelled "Positive Self-worth".

Factor two loaded fourteen items and accounted for 29.2% of the rotated common variance. The highest loading was .59

on item 12: "Things are all mixed up in my life", which together with the loading on other item 10: "There are a lot of things about myself that I would like to change" and item 14:

"I have quite a low opinion of myself" suggested an interpretation in terms of negative view of self. The factor corresponded quite closely in tone to the factors labelled "Negative self-image" for previous analysis and was therefore given the same title.

As may be expected the two factors were negatively correlated, and the coefficient was modest (-.21).

4.3.1.5 Arab Sample: Males

A separate factor analysis was then performed on the male subjects, using the principal factoring. The Scree Test suggested a two factor solution, and following an oblique rotation the two extracted factors accounted for 73.2% and 26.8% of the rotated variance, respectively. The results are shown in table 4.5.

For factor one, which loaded fifteen items, the highest loading was (.71) on item 34: "I feel that I have a number of good qualities". The predominate of the factor was positive self-evaluation, and The factor was labelled "Positive Self-worth". However, it is interesting to note that, in contrast to the English male sample, the Arab males also consistently endorsed it as concerning satisfaction with

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physical appearance.

The second factor loaded twelve items, and the highest loading (.58) was on item 13: "I often wish I were someone else", which together with loadings on item 12: "Things are all mixed up in my life" and item 14: "I have a quite a low opinion of myself" again suggested an interpretation in terms "Negative Self-image".

Table 4.5

Factor structure and loading for the two Factor Solution Rotated to the Oblique Terminal Solution For Arab Males.

Factor I : Positive Self-worth	
Item	Loading
34 I feel that I have a number of good qualities	.71
30 I generally feel that other people like me.	.65
16 I think I have an attractive personality.	.60
32 I am usually a friendly person.	.59
29 I am usually satisfied with my friends.	.52
31 I think that my family can rely on me.	.51
26 All in all, my friends trust me.	.49
2 I feel as a person I am valued by others.	.42
19 I take good care of myself physically.	.40
1 Generally speaking, I have a positive attitude toward myself.	.40
21 I am satisfied with my appearance.	.39
23 I think I am a sensitive person.	.38
5 I think I am an honest person.	.38
11 Generally, I feel quite confident and sure of myself.	.35

Table 4.5 : Continued

Factor II : Negative Self-image	
Item	**Loading**
13	I often wish I were someone else.	.58
12	Things are all mixed up in my life.	.53
14	I have quite a low opinion of myself.	.53
10	There are a lot of things about myself that I would like to change.	.50
24	I like being who I am.	-.50
25	Generally, I think I am a happy person.	-.47
8	On the whole I am seldom satisfied with myself.	.46
27	I often feel that I am a failure.	.44
15	If things go wrong, I tend to blame myself.	.44
17	I often worry about what other people think of me.	.40
22	Sometimes, I feel that I can't do anything well.	.40
18	I worry that other people might regard me as a failure.	.38

4.3.1.6 Arab Sample: Females

Following the analysis for males, separate factor analysis was performed on the Arab female data. After principal factoring, a Scree Test suggested two factor solution, factor one, which loaded twenty items, loading highest (.62) on item 32: "I am usually a friendly person", and the predominate theme of the highest-loading items was a concern with social self-acceptance. This factor accounted for 71.6% of the common rotated variance. Factor two loaded fourteen items and accounted for 29.4% of the common variance, and the highest loading here (.63) was on item 27: "I often feel that I am a

failure", together with the loading on item 22: "Sometimes, I feel that I can't do anything well" and item 10: "There are a lot of things about myself that I would like to change". The item loadings for the two factors, which corresponded -.25 are shown in Table 4.6. And an oblique rotation resulted in two factors which again could be appropriately labelled "Positive Self-worth" and "Negative self-image". There were, however, some differences between these factors and those obtained for the male sample.

Table 4.6

Factor structure and loadings for the two Factor Solution

Rotated to the Oblique Terminal Solution for Arab Female

Factor I	:	Positive Self-worth	
Item			**Loading**
32		I am usually a friendly person.	.62
30		I generally feel that other people like me.	.60
34		I feel that I have a number of good qualities	.56
26		All in all, my friends trust me.	.53
16		I think I have an attractive personality.	.52
19		I take good care of myself physically.	.50
9		Sometimes I have ups and downs, but I think I am a worthwhile person.	.44
6		Generally, I am able to do things as well as most other people.	.44
21		I am satisfied with my appearance.	.43
24		I like being who I am.	.43
11		Generally, I feel quite confident and sure of myself.	.40
20		I often have a good feeling of well-being.	.39
2		I feel as a person I am valued by others.	.39
29		I am usually satisfied with my friends.	.39
23		I think I am a sensitive person.	.38
5		I think I am an honest person.	.38
7		My friends have no confidence in me.	-.37
1		Generally speaking, I have a positive attitude towards myself.	.36
33		I am satisfied with my family relationships.	.34
35		People generally think of me as a decent person.	.30

Table **4.6** : Continued

Factor II : Negative Self-Image	
Item	**Loading**
27 I often feel that I am a failure.	.63
22 Sometimes, I feel that I can't do anything well	.61
10 There are a lot of things about myself that I would like to change.	.58
18 I worry that other people might regard me as a failure.	.58
17 I often worry about what other people think of me.	.57
8 On the whole I am seldom with satisfied myself.	.56
14 I have quite a low opinion of myself.	.54
13 I often wish I were someone else.	.54
12 Things are all mixed up in my life.	.52
3 I often wish I could have more respect for myself.	.47
25 Generally, I think I am a happy person.	-.45
15 If things go wrong I tend to blame myself.	.39
4 There are times when I feel useless.	.38
28 Sometimes, I feel I can't trust people.	.35

4.3.1.7 Combined Samples

Clearly, the results of factor analysis for males and females in the Arab and English samples are directly comparable, showing indirectly that self-esteem perceptions are similar in both cultures. In view of these similarities between the factor structures obtained for the English and Arab samples, and because a single structure was required in order to contrast directly Arab and English samples in subsequent experiments, the final analyses were performed on the data for both samples combined. No separate analyses were performed for males and females. Principal factoring was used followed by Scree test, which suggested a four factor solution (the Scree plot is shown in Appendix A(4)). A factor loading of .30 was used as criterion, and if an item loaded on more than one factor the highest loading determined factor inclusion. A four factor oblique solution included thirty four items, and accounted for 21.8%, 7.8% , 2.5% and 1.8% of the total variance for the first, second, third, and fourth factor respectively.

Factor one loaded seven items, accounting for 21.8% of the common rotated variance, with the highest loading (.64) on item 21: "I am satisfied with my appearance". The theme of the factor was a concern primarily, with physical appearance, and the factor was labelled accordingly.
The loading on factor I appear in Table 4.7.

Table 4.7

Factor structure and loading for the four Factor

Solution Rotated to the Oblique Terminal Solution

for English and Arab Samples Factor I

Factor I : Physical Appearance	
Item	Loading
21 I am satisfied with my appearance.	.64
19 I take good care of myself physically.	.54
20 I often have a good feeling of well-being.	.47
4 There are times when I feel useless.	-.43
33 I am satisfied with my family relationships.	.40
11 Generally, I feel quite confident and sure of myself.	.40
1 Generally speaking, I have a positive attitude towards myself.	.34

Factor II loaded thirteen items, and accounted for 7.8% of the rotated common variance. The highest loadings (.66) was on item 18, "I worry that other people might regard me as a failure", and the factor was labelled "Negative Self-image". Items loadings are shown in Table 4.8

Table 4.8

Factor structure and loading for the four Factor

Solution Rotated to the Oblique Terminal Solution

for English and Arab Samples Factor II

Factor II: Negative Self-image		
Item		Loading
18	I worry that other people might regard me as a failure.	.66
10	There are a lot of things about myself that I would like to change.	.64
27	I often feel that I am a failure.	.61
17	I often worry about what other people think of me.	.60
14	I have quite a low opinion of myself.	.55
22	Sometimes, I feel that I can't do anything well.	.55
3	I often wish I could have more respect for myself.	.51
15	If things go wrong, I tend to blame myself.	.50
12	Things are all mixed up in my life.	.49
8	On the whole I am seldom satisfied with myself.	.48
13	I often wish I were someone else.	.42
25	Generally, I think I am a happy person.	-.40
28	Sometimes, I feel I can't trust people.	.33

Factor III loaded nine items, and accounted for 2.5% of the common variance. The highest loading (.61) was on item 26: "All in all, my friends trust me", and in view of the general theme of the factor it was labelled "Trustworthiness". Items loading for factor III are shown in Table 4.9.

Table 4.9

Factor structure and loading for the four Factor

Solution Rotated to the Oblique Terminal Solution

for English and Arab Samples Factor III

Factor III: Trustworthiness	
Item	Loading
26	All in all, my friends trust me.	.61
35	People generally think of me as a decent person.	.56
5	I think I am an honest person.	.46
34	I feel that I have a number of good qualities	.44
32	I am usually a friendly person.	.42
6	Generally, I am able to do things as well as most other people.	.39
31	I think that my family can rely on me.	.36
7	My friends have no confidence in me.	-.35
23	I think I am a sensitive person.	.32

Factor IV loaded only five items, and accounted for 1.8% of the common rotated variance. The highest loading for this factor was on item 24: "I like being who I am", and the factor was labelled "Positive Self-worth". The factor loadings are shown in Table 4.10.

Table 4.10

Factor structure and loading for the four Factor

Solution Rotated to the Oblique Terminal Solution

for English and Arab Samples Factor IV

Factor IV : Positive Self-worth	
Item	Loading
24 I like being who I am.	.44
30 I Generally, feel that other people like me.	.41
9 Sometimes I have ups and downs, but I think I am a worthwhile person.	.39
2 I feel as a person I am valued by others.	.38
16 I think I have an attractive personality.	.37

Table 4.11 shows the inter-factor correlations, which in general were quite high, except for the correlation between factor II and III.

Table 4.11

Inter-factor correlation for TSQ for

English and Arab Samples

Factor	I	II	III	IV
I	1.0			
II	-.24	1.0		
III	.42	-.13	1.0	
IV	.38	-.24	.41	1.0

4.3.2 <u>Summary</u>

The purpose of this study was to construct a multidimensional questionnaire for self-esteem measurement and to compare the structure of self-esteem for male and female subjects from English and Arab cultures. This was accomplished by the factor analyses, which showed a marked similarity between the factor structure of English and Arab subjects. For example, Factor one in the English sample "Negative Self-image" is the same as factor II in Arab sample, while factor I in the Arab sample "Positive Self-worth" is similar to factor II in the English sample "Positive Self-worth". Indeed, across all analyses, the same label could legitimately be applied to similar factors, thus simplifying the discussion.

Perhaps because of the larger pool of variance in the combined analyses, the items resolved into a four-factor structure which was both coherent and consistent with the results for each culture separately. The final form of TSQ used in this project was that obtained from the overall (English and Arab) samples. However, it should be borne in mind that the "true" self-esteem of English and Arab subjects may differ, despite similarities in factor structure. Thus - the meaning of specific words may differ, the subjects' willingness to describe themselves with favourable or unfavourable terms may differ from country to country, and the differences in the level of self-esteem for groups (male

and female) may differ from country to another because of the socialization processes experienced by the groups in each country.

4.4 FURTHER PSYCHOMETRIC ASSESSMENT OF THE TSQ

The final stages in constructing the TSQ included concurrent validation, correlating TSQ with the Social Desirability Scale, and assessing internal, test-retest and split-half reliabilities.

4.4.1 Concurrent Validation

Concurrent validity was evaluated by assessing the degree of association between TSQ scores and scores on existing scales which claim to measure self-esteem: the Self Assessment Scale (SAS - Norem-Hebeisen, 1975), and the TSCS (Tennessee Self-Concept Scale), Fitts (1965). The two instruments were selected because numerous studies are available which support the validity and reliability of the instruments. The TSCS and SAS were designed to provide a multi-dimensional description of self-esteem (self-concept).

For the first stage the questionnaires were sent to a random sample of U.K. Open University students attending summer school at York University. Returns were obtained from

forty seven (male = 17, female = 30) students with mean age 39.12; S.D 10.18. The questionnaires were scored and a series of Pearson Product Moment Correlations were performed on the TSQ total score, SAS total score, and TSCS total score. Total score of SAS and TSCS were also correlated with TSQ subscale scores. Table 4.12 shows the results of these analyses, which used the two TSQ subscales extracted from the analysis for the English sample. It can been seen that TSQ and SAS are correlated higher than those with TSCS except Factor two of TSQ with SAS, but they are statistically significant relationships.

The correlation between TSQ and TSCS and SAS provide evidence of the concurrent validity of the TSQ. The high correlation coefficients provide further support for the validity of TSQ.

For the second sample, concurrent validity was evaluated by assessing the degree of association between the Arabic TSQ scores and scores on the Self Assessment Scale (SAS - Norem-Hebeisen, 1975), Tennessee Self-Concept Scale (TSCS - Fitts, 1965). The SAS and TSCS were back translated by the procedure followed previously. Then questionnaires were sent to a random sample from King Saud University (n = 110). Returns were obtained from sixty seven (male = 38, female = 29) students with mean age 20.79; S.D 2.19. The questionnaires were scored and a series of Pearson Product

Moment Correlations were performed on the TSQ total score, SAS total score, and TSCS total score. Total scores of SAS and TSCS were also correlated with TSQ subscale scores, this time using the subscales extracted from the factor analysis for Arab subjects. Table 4.13 shows the results of the concurrent validation for Arab sample.

Table 4.12
Concurrent validity of TSQ English Sample

VARIABLE	r	N	Prob.
TSQ and SAS total scores	.81	42	.001
TSQ Factor I and SAS Total score	.80	42	.001
TSQ Factor II and SAS Total score	.54	42	.001
TSQ and TSCS total Scores	-.65	30	.001
TSQ Factor I and TSCS total score	-.65	30	.001
TSQ Factor II and TSCS total score	-.42	30	.01

Table 4.13
Concurrent validity of TSQ for Arab Sample

VARIABLE	r	N	Prob.
TSQ and SAS total scores	.59	38	.001
TSQ Factor I and SAS Total score	.50	39	.001
TSQ Factor II and SAS Total score	.61	43	.001
TSQ and TSCS total Scores	-.76	30	.001
TSQ Factor I and TSCS total score	-.66	30	.001
TSQ Factor II and TSCS total score	-.53	34	.001

Examination of the correlations between TSQ total scores and SAS, and TSCS total scores indicated high degree of association for both samples, English and Arab. The correlation between TSQ total score and the total score on the SAS, and the TSCS was high and reached statistical significance. The correlation between TSQ and TSCS was negative because the items were keyed negatively. The correlation between the scales indicates that they are measuring the same constructs. The high correlation between the TSQ total score and factor one and factor two and TSCS and SAS suggest that they are measuring similar or overlapping constructs.

The correlation between TSQ sub-scales (i.e Factor I , And Factor II) and SAS and TSCS indicated that the correlation is slightly higher for English sample. Nevertheless, the correlation for both samples was statistically significant.

Studies that have examined inter-correlations among measures found low correlation. Spitzer (1969) found poor inter-correlations among three projective self-evaluation instruments. Also Demo and Savin-Williams, (1983) obtained only correlations among three self-report measures. Examining analysis of convergent and discriminate validity, Wylie (1974) found cross instruments correlations ranging from 0 to .81 with average being about .40. The correlation between factor one and factor two with SAS and TSCS for the

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English sample indicated that the correlation was higher for factor one. While the correlation for Arab sample indicated that factor two correlated higher with SAS while factor one correlated higher with TSCS.

In a final analysis for the concurrent validation, all four factors extracted from the overall (English and Arab samples) factor analysis were correlated with SAS and TSCS scales for the English and Arab samples. The results are shown in Tables 4.14 and 4.15 for English and Arab samples, respectively. The coefficient are consistent with what might be predicted, with the correlation between TSQ and TSCS being generally lower.

Table 4.14

Concurrent validity of TSQ for English Sample

VARIABLE	r	N	Prob.
TSQ and SAS total scores	.79	47	.001
TSQ Factor I and SAS Total score	.75	47	.001
TSQ Factor II and SAS Total score	.55	47	.001
TSQ Factor III and SAS Total score	.53	47	.001
TSQ Factor IV and SAS Total score	.79	47	.001
TSQ and TSCS total Scores	-.61	47	.001
TSQ Factor I and TSCS total score	-.62	47	.001
TSQ Factor II and TSCS total score	-.61	47	.001
TSQ Factor III and TSCS total score	-.29	47	.02
TSQ Factor IV and TSCS total score	-.43	47	.001

Table 4.15

Concurrent validity of TSQ for Arab Sample

VARIABLE	r	N	Prob.
TSQ and SAS total scores	.62	47	.001
TSQ Factor I and SAS Total score	.44	46	.001
TSQ Factor II and SAS Total score	.61	46	.001
TSQ Factor III and SAS Total score	.23	46	.05
TSQ Factor IV and SAS Total score	.29	46	.02
TSQ and TSCS total Scores	-.52	35	.001
TSQ Factor I and TSCS total score	-.42	35	.001
TSQ Factor II and TSCS total score	-.44	35	.004
TSQ Factor III and TSCS total score	-.37	35	.01
TSQ Factor IV and TSCS total score	-.41	35	.001

4.4.2 Relationship to Social Desirability and Age

In order to assess the subject response tendencies, a short form of Marlowe-Crowne Social Desirability Scale (SDS - Reynolds, 1982) was correlated first with the total score of TSQ for the English subjects. Results showed a significant correlation between the TSQ and SDS scales ($r=$ -.38 df=47 P<.004), indicating that TSQ responses are confounded to some extent by social desirability. However, it could be argued that responding in a socially desirable way

does not necessarily invalidate a self-esteem questionnaire. Wylie (1961), for example, states that "a self-report response can be fairly reliably predicted on the basis of its scaled Social Desirability value and does not necessarily disprove its validity as an indicator of S's conscious self-concept" (p. 28). The correlation between self-esteem and social desirability may be predicted, as presumably low self-esteem is a socially undesirable trait, and indeed, other researchers have found a correlation between self-esteem and social desirability (see for example Kenny, 1956; Meisels and Ford, 1959). It should be borne in mind that the coefficient accounted for less than 15% of the common variance.

For the Arab sample the short form of Marlowe-Crowne Social Desirability Scale was completed by the same subjects used for the validation. (The form was back translated by the procedure followed previously). It was correlated with the total score of TSQ, and in contrast to the English sample no significant correlation emerged between the TSQ and SDS scales for the Arab subjects (r=-.05 df=50 P<.36). Regarding the relationship between self-esteem and age, Wylie (1979) reviewed research conducted before 1970 and concluded that there was no evidence for any effect of age. However, owing to the differences in age between the English and Arab samples used in this study, a correlation was computed between age and total TSQ scores for the Arab and English

samples combined. The coefficient was non-significant (r=-.002; n=609; p=.49), and neither were the corresponding coefficients for the English (r=-.0363; n=306 p=.25) and Arab (r=-.0908; n=303 p=.06) subjects separately.

4.4.3 Reliability of The TSQ

The sub-programme "Reliability" from SPSSX (1983) was used to calculate the Alpha Coefficient (Cronbach, 1951) and the split-half reliability.

4.4.3.1 Internal Consistency

Internal consistency was assessed by Cronbach's Alpha (1951) which ranged from .75 to .92 for the total test and for the subscales for the English sample (males and females), English males, English females, the Arab sample (males and females), Arab males, and Arab females respectively. These samples were the same samples as those described for the factorial validation, and the results are shown in Table 4.16.

4.4.3.2 Split-half Reliabilities

A Split-half reliability coefficient was calculated for the total TSQ score.
The Guttman's split-half (Nie, Hull, Jenkins, Steinbrenner and Bent, 1975) ranged from .77 to .93. Table 4.16 again

shows the results of this analysis. Based on these results it can be concluded that the responses for the total and subscale scores for both samples are reasonably internally consistent.

Table 4.16

Internal Consistency, and Split-half,

Reliabilities of TSQ

SAMPLE	TOTAL SCORE	FACTOR I	FACTOR II	SPLIT -HALF
English M & F*	.90 (31 ITEMS)	.90 (19 ITEMS)	.76 (12 ITEMS)	.86
English MALES	.92 (32 ITEMS)	.92 (21 ITEMS)	.80 (11 ITEMS)	.93
English FEMALES	.89 (29 ITEMS)	.89 (17 ITEMS)	.75 (12 ITEMS)	.80
ARAB M & F	.84 (31 ITEMS)	.80 (17 ITEMS)	.81 (14 ITEMS)	.78
ARAB MALES	.84 (26 ITEMS)	.82 (14 ITEMS)	.78 (12 ITEMS)	.77
ARAB FEMALES	.87 (34 ITEMS)	.84 (20 ITEMS)	.84 (14 ITEMS)	.82

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* M "male", F "female"

4.4.3.3 Test-retest Reliability

A random sample of 90 students from York University were sent the TSQ. The same group was re-tested on the questionnaire six weeks later. Sixty (male = 24, female = 26) subjects with a mean age 19.93 years (S.D 3.92) completed the questionnaire on both occasions.

For the Arab version, random sample of 100 students from King Saud University were sent the TSQ. The same group was re-tested on the questionnaire six weeks later. Seventy six (male = 30, female = 37) students with a mean age of 21.66 years (S. D 4.37) completed the questionnaire on both occasions.

A test-retest reliability estimate was calculated using Pearson Product-moment correlations between first and second administrations of the questionnaire. The results, for total and factors separately, are shown in Table 4.17. The Coefficients obtained from the re-test are high and support the reliability of the subscales and total score (Cronbach and Meehl, 1955).

Table 4.17

Test-retest Reliability of TSQ

SAMPLE		TOTAL SCORE	FACTOR I	FACTOR II
ENGLISH (MALES & FEMALES)	r N p	.88 (42) .001	.88 (42) .001	.80 (44) .001
ARAB (MALES & FEMALES)	r N p	.76 (76) .001	.70 (76) .001	.74 (76) .001

4.5 DISCUSSION

The self-esteem questionnaire (TSQ) is proposed as a reliable and a valid measure which evaluates self-esteem for two samples (English and Arab). The aims of this study were to develop a multidimensional questionnaire which measures the aspects of self-esteem, and to demonstrate the construct validity of the questionnaire. This was accomplished by Factor Analysis of the questionnaire. The initial factorial validation of TSQ produced two subscale for the English sample nominally assessing "Negative self-image" and "Positive Self-worth" and for Arab sample "Positive Self-worth" and "Negative Self-image". The results of factor analysis showed that there are some similarities between English and Arab factor structure, but this does not mean that the self-esteem is the same for both sample.

The factor analysis of the pooled samples (English and Arab) produce four subscales "Physical appearance", "Negative Self-image", "Trustworthiness" and "Positive Self-worth". TSQ was developed and validated on a large sample of university students (English and Arab) and tested for validity and reliability on a number of samples from English and Arab.

The Factor Analysis of students' ratings demonstrated the two dimensions of self-esteem the questionnaire is supposed to measure. The clarity of the factor structure of TSQ supports the multidimensionality of self-esteem. The failure of most research to demonstrate this multidimensionality stems not from the nature of self-esteem, but from the poor quality of measurement instruments and the theoretical models which have been employed. (Wylie, 1974; Burns, 1979; Shavelson et al., 1976; Wells and Marwell, 1976).

In developing TSQ two interrelated factors were found that describe the major self-esteem dimensions in English and Arab subjects. These dimensions, though sharing some similar characteristics across both samples, differ for English and Arab.

The comparison of the TSQ with other measures of self-

esteem and SAS and TSCS indicated high level concordance. TSQ correlated with other measures of self-esteem (SAS and TSCS) which indicate that they are measuring the same construct. The alpha coefficient calculated for the TSQ (total, factor one, factor two) for English and Arab samples indicated a high internal consistency.

Reliability estimates for the scale are reasonably high. TSQ has been demonstrated to be appropriate for use with English and Arab samples. Much more research needs to be done before the scale can be used with other populations in both countries. It is expected that TSQ will prove effective with university student populations and will be a useful tool for assessing self-esteem. In summary, in addition to demonstrating the multidimensionality of self-esteem, the present study appeared to lead to the development of a reliable and valid self-esteem questionnaire that can be used with English and Arab university student populations. As suggested before there was a need for an instrument designed to measure self-esteem in both cultures (English and Arab). There are many self-esteem scales. The majority of the scales, however, are constructed for use with specific populations, and more importantly, most of these scales, have not tested sufficiently for validity and reliability. The procedure used in developing the TSQ and the statistical analysis support the construct validity of the questionnaire. It is proposed that TSQ represents a psychometrically valid alternative to the other available measures.

CROSS-CULTURAL COMPARISONS OF SELF-ESTEEM AND LOCUS OF CONTROL

5.1 INTRODUCTION:

To conclude the validation of the new self-esteem scale, and in preparation for the experiments which follow, the present chapter reports on cross-cultural (Arab versus English) comparisons using scores on the TSQ and the Sphere - of - Control Questionnaire (SOCQ - Paulhus, 1983) index of locus of control. The correlation between the two scales will also be presented. With the exception of the latter data, all tables showing scores and analyses are presented in Appendix B(3) and B(4).

5.2 CROSS-CULTURAL COMPARISONS OF THE TSQ

The factor analyses suggest that there are similarities in the patterns of self-esteem responses of Arab and English subjects. However, this does not mean the two countries have comparable levels of self-esteem, and the final validation study compared the scores of Arab and English samples on the final form of the scale derived from the pooled samples. The subjects for the analysis were the same as those

described in section 6.2.1, and the data were analysed overall and for the four factors separately.

5.2.1 TSQ Total Score

The means and the standard deviations on the TSQ total score for the English and Arab samples are shown in Table 5.1 in Appendix B(3). A two-way (Country by Sex) between subjects ANOVA was performed on the TSQ total scores. The results show that there was a significant main effect of Country $(F(1,175) = 6.71;$ p<.01). indicating that English subjects have a higher overall self-esteem score than the Arab subjects. The results of this analysis are shown in Table 5.2 in Appendix B(3). A further comparison revealed that English and Arab subjects differed significantly $(t(174)=2.6;$ p<.01 - See Table 5.3 in Appendix B(3)).

5.2.2 Factor I : Physical Appearance

The means and standard deviations for English and Arab sample on factor I are shown in Table 5-4 in Appendix B(3). A two-way (Country by Sex) between subjects ANOVA was performed on the Physical Appearance scores, the results of this analysis are shown in Table 5-5 in Appendix B(3). The results show that there is a significant main effect of Country $(F(1,175) = 82.478;$ P<.001), indicating that English students have a

higher score on this factor than Arab students. A further comparison revealed that English and Arab females (t(74)= 6.19; p<.000) and English and Arab males (t(95)=6.65; p<.001) differed significantly.

Neither the main effect for Sex nor the interaction reached significance. English and Arab females had a higher scores than their male counterparts on Physical Appearance, but these differences were not significant.

5.2.3 Factor II : Negative Self-image

The means and standard deviations for the English and Arab sample on factor II are shown in Table 5-6 in Appendix B(3). A two-way (Country by Sex) between subjects ANOVA was performed on the negative self-image scores. The results of this analysis are shown in Table 5-7 in Appendix B(3). The results show that there is a significant main effect for Country F(1,175) =4.310; p<.03), indicating that Arab students have a higher score on negative self-image than English students, see Table 5-8 in Appendix B(3), although individual contrast by Country were non-significant. Neither the main effect of Sex nor the interaction effect between Country and Sex reached a significant level.

5.2.4 Factor III : Trustworthiness

The means and standard deviations for English and Arab on

factor III are shown in Table 5-9 in Appendix B(3).
A two-way (Country by Sex) between subjects ANOVA was
performed on the Trustworthiness scores. The results of this
analysis are shown in Table 5-10 in Appendix B(3). The
results show that there is a significant main effect for
Country ($F(1,175) = 24.275$; $p<.001$), indicating that English
students obtained higher score on Trustworthiness than Arab
students ($t(174)=4.94$; $p<.001$) see Table 5-8 in Appendix
B(3). A further comparison between mean of trustworthiness
scores of English and Arab females revealed a significant
difference ($t(76)=4.07$; $p<.001$ - see Table 5-11 in Appendix
B(3)) as did a comparison of English and Arab males
($t(94)=3.0$; $p<.003$ see Table 5-14 in Appendix B(3). Neither
the main effect of Sex nor the interaction effect between Sex
and Country reached a significant level.

5.2.5 Factor IV : Positive Self-worth

The means and standard deviations for English and Arab sample
on factor IV are shown in Table 5-12 in Appendix B(3).
A two-way (Country by Sex) between subjects ANOVA was
performed on the Positive Self-worth scores. The results of
this analysis are shown in Table 5-13 in Appendix B(3). The
results show that there is a significant main effect for
Country ($F(1,175)= 11.357$; $p<.001$), indicating that English
students have a higher score on this factor than Arab

students (t(174)=3.36; p<.001 - see Table 5-8 in Appendix B(3)). A further comparison between mean scores for factor IV of English and Arab females revealed a significant difference (t(66)=3.14; p<.002 - see Table 5-11 in Appendix B(3)) but a comparison between English and Arab males did not (t(86) =1.72; p<.089 - see Table 5-14 in Appendix B(3)). Neither the main effect of Sex nor the interaction effect between Sex and Country reached a significant level.

5.2.6 DISCUSSION

Cross-cultural comparisons of self-esteem subscales (physical appearance, negative self-image, trustworthiness, and positive self-worth) between the two cultures showed a significant difference between English and Arab samples on self-esteem subscales; English subjects, male and female, were more higher favourable on all dimensions than the Arab students except on factor II. The lack of any main effects for Sex is consistent with the previous findings, since many studies report no significant difference between males and females self-esteem (Coopersmith, 1967; Maccoby and Jacklin, 1974; Wylie, 1979). Relating these findings to other research, Lerner et al. (1980) found that Japanese youth have less favourable views of their bodies than American youth. Olowu, (1983) found that English subjects had more positive self-concepts on all physical self-concept scales and on most of the other subscales than Nigerian subjects,

but the Nigerians had significantly more positive self-concepts on the religious non-religious subscale. Halpin et al. (1981) found that Whites had a significantly more positive view of self-esteem than did Indians. Agrawal (1978) compared Indian, American, Australian and Irish adolescents. He found that American and Australian adolescents, in general, have higher self-esteem than do Indian and Irish adolescents, respectively.

Reviewing other studies which have sought to uncover Sex differences, Weinland et al. (1976), for example, did not find any between American males and females and or between Danish males and females. Other investigators (e.g., Coopersmith, 1967; Maccoby and Jacklin, 1974; Lerner et al., 1980) have also no Sex differences in self-esteem, and Wylie (1979) in her comprehensive review of research on self-esteem which was done before 1979 concluded that there was no evidence for Sex differences in self-esteem score.

The results of this study provide some interesting cross-cultural comparisons concerning the structure and the component of self-esteem in two cultures. The results indicate that English subjects had higher self-esteem than Arab subjects. This may be explained by the differences in social and religious factors between both samples. Also, it may be explained by the fact that the English subjects in

practice have more freedom than Arab subjects; they are free from family pressure to choose whatever they like, e. g. to join the university and to study what they like. So English students have more trust and self-confidence than Arab students. Kardiner (1945), explained the relationship between personality and the new technology, he says: "The question as to which of these mental processes predominate forms a crucial chapter in the history of Western society. Generally it can be said that since the Renaissance the projective systems have been much altered, when compared with early Christianity. Why is this factor so important? The alteration of the life of Western man is not limited to the more accurate knowledge of the outer world. This greater scientific knowledge brought with it great alterations in the basic personality of the Western man. It gave rise to a new conception of man in relation to himself, as well as to the outer world. This new conception is not describable in terms of freedom or liberty alone; it augmented the responsibilities of man for his own welfare, and helped to define this welfare in new terms, and so to define new social and personal objectives. This story of the changes is not, however, without its comic and tragic aspects. This change not only redefined relations to the deity; through its promotion of mercantilism and manufacture it indirectly had a hand in setting in motion forces which eventually led to the elimination of feudalism and to promote the predominance of the bourgeoisie with all the accompanying blessings and

evils. But these were all indirect results. The most significant consequence was the alteration of the whole superego system. All this was not a planned change, but an unconsciously systematized series of alterations, in connection with which some significant oversights were committed which did not come home to roost for hundreds of years" (Kardiner, 1945, p. 45-46). There are some limitations in these results which should be discussed. First, while the two samples, English and Arab, may be representative of the geographical areas from which they were chosen, they may be not representative of the student population in their countries. Second, while the two samples represent two cultures, there are big differences between English and Arab cultures, social life, language, religion, the English population is essentially Christian whereas the Arab population is essentially Muslim. Third, the use of tests and questionnaires in cross-cultural comparisons and research has the recognized limitation that questions may have different meanings in different cultures (see Przeworski and Teune, 1970). Nevertheless, Klineberg states: "It remains true that tests, whether of intelligence or personality, may yield valuable information regarding the ways in which particular cultural groups see the world and its problem" (1980, p. 52). In this study, we have found differences in English and Arab subjects with respect to physical appearance, negative self-image, trustworthiness,

and positive self-image. These results seem to be consistent with some of the cultural, religious, and social factors between the two samples. Indeed, Mead (1934) has found that the self is essentially a social structure and it arises in social experiences. According to this point of view, it cannot be imagined that self-esteem arises outside the social experience. This is similar to Cooley's (1902) idea of reflected appraisals, whereby the individual's self-appraisal comes out of what others think and feel about him.

In view of the sharp sex role divisions that characterize Arab society, it had been expected that there would be significant differences in self-esteem between males and females in the Arab sample. However, this was not the case. The absence of any sex difference might perhaps be attributable to the changes which have occurred recently in Saudi society with regard to the role of women. These changes have meant that Saudi women have become much more aware of the need for change in traditional sex-role stereotyped social roles, and this trend has been greatly accelerated by the social development of the country in the last decade since the rise in oil revenues. The expansion of education, the use of technology, and the presence of foreign workers have also contributed to the change in their life style, and all of these factors in conjunction may explain the absence of sex differences in the present sample.

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5.3 CROSS-CULTURAL COMPARISONS OF THE LOCUS OF CONTROL SUBSCALES

Following Paulhus (1983), the three subscales of the SOCQ are (a) personal efficacy: the extent to which the individual believes that he has the ability in a situation of personal achievement as "solving crossword puzzles, climbing mountains" (b) interpersonal control: the extent to which the individual interacts with others in dyads, "defending his interests at meetings, maintaining harmony in the family" (c) sociopolitical control: the extent the individual's goals conflict with those of the political and social system, as "taking part in demonstration, boycotting a particular product to bring down the price".

Group means, standard deviations, and numbers of subjects of personal efficacy, interpersonal control, and sociopolitical control were computed with respect to Country and Sex. Cross-cultural comparisons of these scores will be reported in the following sections, and the effects of Sex will also be examined. Although some differences were expected for Culture, the available evidence suggests that Sex differences for locus of control are negligible. Phares (1976), for example, said "A wide majority of studies does not find significant differences in I-E scores between men and women" (p. 44). This is consistent with Strickland and

Haley (1980). They observed "no Sex differences in I-E responding were assumed since overall patterns of means and standard deviations were generally the same for males and females" (p. 931). It can be said that the results of the English sample support the notion that females were more internal than females. Cooper et al. (1981) conducted a meta-analysis of ten studies which had administered the (Intellectual Achievement Responsibility Questionnaire) to elementary school children. The differences were non-significant, the results of the meta-analysis indicated that females took more responsibility for their academic success than males. Studies which suggest that females are more internal than males using different locus of control scales include Clifford and Cleary (1972) and Gruen et al. (1974).

5.3.1 Personal efficacy

The means and the standard deviations for English and Arab samples on personal efficacy are shown in Table 5-14B in Appendix B(4).

A two-way (Country by Sex) ANOVA between subjects was performed on the personal efficacy scores. The results of this analysis are shown in Table 5-15 in Appendix B(4). The results show that there is a significant main effect for Country $(F(1,174) = 28.515; P<.001)$, indicating that Arab students have a higher score on personal efficacy than English students. See Table 5-16 in Appendix B(4). Neither

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the main effect of Sex nor the interaction effect between Sex and Country reached the significant level. A further comparison between English and Arab females separately revealed a significant difference (t(76)=-2.82; p<.006), as was the comparisons between English and Arab males (t(95)=-4.69; p<.001).

5.3.2 Interpersonal Control

The means and standard deviations of English and Arab samples on interpersonal control subscale are shown in Table 5-17 in Appendix B(4). A two-way (Country by Sex) ANOVA between subjects was performed on interpersonal control scores. The results of this analysis are shown in Table 5-18 in Appendix B(4). The results show that there is a non significant main effect for Country (F(1,174)=0.269; p<.605), the mean scores for Arab students on interpersonal control were higher than the mean scores of English students, but the difference was not significant (t(173)=-0.52; p<.603 - see Table 5-16 in Appendix B(4)). Neither the main effect for Sex nor the interaction effect between Country and Sex reached a significant level. A further comparison was made between the corresponding Country subgroups with respect to Sex. A further comparison between mean scores on interpersonal score of English and Arab females revealed a non - significant difference (t(76)=.88; p<.381 - see Table 5-24 in Appendix

B(4)); also, the comparison between English and Arab males revealed a non-significant difference (t(95)=-1.52; p<.132).

5.3.3 Sociopolitical Control

The means and the standard deviations of English and Arab samples on sociopolitical control are shown in Table 5-19 in Appendix B(4). A two-way (Country by Sex) ANOVA between subjects was performed on the sociopolitical control scores. The results of this analysis are shown in Table 5-20 in Appendix B(4). The results show that there is a significant main effect for Country ($F(1,174)$ = 23.721; $p<.001$), indicating that Arab students obtained a higher score on sociopolitical control than English students (t(173)=-4.86; $p<.001$ - see Table 5-16 in Appendix B(4)).

Neither the main effect for Sex nor the interaction effect between Sex and Country reached significant level. A further comparison on sociopolitical control mean score between English and Arab females separately revealed a significant difference (t(76)=-2.04; p<.045), as was the comparison of English and Arab males (t(95)=-4.67; p<.001).

5.3.4 Discussion

Cross-cultural comparisons of locus of control between English and Arab cultures, and the comparisons of the three subscales, personal efficacy, interpersonal control and

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sociopolitical control, showed that there is a significant difference between English and Arab students in the personal efficacy and sociopolitical control but not the interpersonal control subscores. Arab students, males and females, were more internal than English students on personal efficacy. Interesting, the Arab males were more internal than females, while, in contrast, English females obtained higher scores than English males, although the interaction was not significant.

There was no significant difference between English and Arab samples on interpersonal control. Arab males have a higher score than Arab females, and although the difference was not significant, a difference might be expected: Arab males have the freedom to have social relationships with other individuals more than females. The males enjoy greater freedom of movement and travel than females. They can establish more contacts with others outside the family circle, a freedom which is denied to the females. The Arab females are not allowed to have any relationships with males before marriage. These patterns are directed by the religion and customs, and may explain why Arab males had a higher score on interpersonal control than females.

The fact that there was no significant difference between English and Arab samples overall on interpersonal

control may be interpreted in terms that the city (Riyadh) where the sample was taken is a big city and there are many foreign workers and expatriates, which weakens social relationships between people. Likewise, for the English sample, the social relationships between people may be weak in general. There was a significant difference between the English and Arab cultures on sociopolitical control. Arab males have a higher score than Arab females, and although, the difference was not significant, this result is consistent with social and political life because, again, Arab females do not have anything to do with political life, while Arab males do have. The females in Arab society play only a limited role in public life, although their influence in the family as a mother, sister, or wife, is profound. English females on the other hand, tended to have higher scores than English males although the difference was not significant.

The results of this study may be interpreted in terms of the religious and social difference between the two samples. There are big differences between both samples in values, customs, and traditions. The behaviour of English Arab students lie within a basic characteristic of their society. For behaviour guidelines, the individual looks to his family, his friends, his religion, the world around him. British were politically and economically powerful in the Gulf area till the last decades. Also, British products flooded the market which could account for the attribution of industrial and

self dependence.

Although the data did not confirm the null hypotheses, except for interpersonal control, we should be cautious in the interpretations of these results. Two issues must be noted. First, the Arab sample was asked to respond to a translated version of SOCQ. Despite the fact that a standard back translation method was employed to validate the authenticity of the original, the two versions of the instrument may have had different meanings. Second, the instrument may not measure the same thing in the two cultures. Despite these limitations, it is apparent that the beliefs in locus of control varied according to cultures. The present study found that there is no significant difference between males and females in personal efficacy, interpersonal control, and sociopolitical control, and there are cultural differences, except interpersonal control, between groups. Arab students tend to be internal, they feel that their behaviour is controlled more by themselves than by others. Arab students perceive themselves as having more control over their actions than do English students. This significant difference was found on personal efficacy, and sociopolitical control. Further research is needed with different and larger samples to confirm these results.

The findings of this study contradicted the results of

Retiz and Groff (1974). They hypothesized that workers from the East would be more external than Westerns. However, there are important differences between the present study and the Retiz and Groff (1974) study. First, they used a different scale for measuring internal-external (locus of control). The present study employed a multidimensional questionnaire (SOCQ). Second, the samples are different: the subjects in this study were students while, in their sample, they were workers from different countries. This may explain why the results of the two studies are different.

5.4 CORRELATION BETWEEN THE SELF-ESTEEM AND LOCUS OF CONTROL SCALES

Finally, the TSQ and SOCQ and scores were correlated, and the matrix of correlations for the British and Arab samples are shown in Tables 5.25 and 5.26 respectively and for both samples in Table 5.27. The results show a wide range of correlations, but the pattern for both samples is similar. They were therefore pooled for a final analysis, which is presented in Table 5.27.

Table 5.25

Correlation between SOCQ and TSQ for British sample

VARIABLE		PE	IP	SP
TSQ Factor I	r	-.151	-.369	-.416
	n	88	88	88
	p	.079	.000	.000
TSQ Factor II	r	-.113	-.327	-.248
	n	88	88	88
	p	.145	.001	.010
TSQ Factor III	r	-.233	-.151	-.331
	n	88	88	88
	p	.014	.079	.001
TSQ Factor IV	r	.190	-.311	-.428
	n	88	88	88
	p	.428	.002	.000

Table 5.26

Correlation between SOCQ and TSQ for Arab sample

VARIABLE		PE	IP	SP
TSQ Factor I	r	-.189	-.508	-.282
	n	88	88	88
	p	.039	.000	.004
TSQ Factor II	r	-.091	-.562	-.291
	n	88	88	88
	p	.199	.000	.003
TSQ Factor III	r	-.262	-.398	-.239
	n	88	88	88
	p	.007	.000	.012
TSQ Factor IV	r	-.213	-.352	-.072
	n	88	88	88
	p	.023	.000	.252

Table 5.27
Correlation between SOCQ and TSQ for British and Arab
samples

VARIABLE		PE	IP	SP
TSQ Total	r	-.232	-.482	-.389
Score	n	176	176	176
	p	.001	.000	.000
TSQ Factor I	r	-.343	-.374	-.475
	n	176	176	176
	p	.000	.000	.000
TSQ Factor II	r	-.035	-.416	-.191
	n	176	176	176
	p	.322	.000	.005
TSQ Factor III	r	-.344	-.261	-.371
	n	176	176	176
	p	.000	.000	.000
TSQ Factor IV	r	-.183	-.318	-.292
	n	176	176	176
	p	.007	.000	.000

It had been expected that the TSQ and SOCQ scores would be correlated in the direction indicated by the tables. However, the correlations were neither large enough to justify precluding one variable from the analysis, nor small enough to permit quadrant analysis. The largest correlation was between the Interpersonal Control for the overall TSQ score, and although the corresponding correlation for Personal efficacy was significant, it was somewhat lower than those for the other two factors. This result was surprising in view of the implications of self-esteem for the perception of personal competence, and suggests that further research on the relationship between self-esteem and the components of locus of control is warranted.

CHAPTER SIX

SELF-ESTEEM, LOCUS OF CONTROL, AND PRISONER'S DILEMMA PERFORMANCE

6.1 INTRODUCTION

Many studies (Deutsch, 1960; Boyle and Bonacich, 1970) provide support that there is a relationship between trust and cooperation. Deutsch assumed that "a cooperative orientation would lead to highly predictable trusting and trustworthy behaviour, whereas a competitive orientation would lead to highly predictable suspicious and untrustworthy behaviour over varied experimental conditions" (1960, p. 138). Deutsch (1960) found that there is consistency between what he assumed and his results in general. It appears that cooperative environments create trust, as well as that trust is facilitator of cooperation (Boyle and Bonacich, 1970), and Arnstein and Feigenbaum (1967) found that trust and cooperation are correlated .79.

One dimension of behaviour related to trust is self-esteem, and self-esteem is thus likely to play a prominent role in competition versus cooperation. In the first experiment, the Prisoner's Dilemma Game (PDG) was used as a

paradigm for provoking competitive or cooperative responses, and performance on an adaptation of the PDG was in turn related to scores on the new TSQ self-esteem scale amongst English and Arab subjects. Although the procedure used was not exactly the same as that described by Luce and Raiffa (1957), in that subjects were not presented with the prisoner scenario, the game will for convenience be referred to as the PDG.

Locus of control orientation also has important theoretical implications for cooperation and competition, particularly in the context of the PDG, where the outcomes are dependent upon decisions that are not explicitly negotiated. The chapter also examines the relationship between locus of control and performance on the PDG, again in a cross-cultural context. It was reported earlier that TSQ and locus of control scores were to some extent correlated, which means that subjects could not be selected from the four quadrants described by orthogonal variables. However, the coefficient was moderate, and the two scales thus have only a modest proportion of variance in common. Ideally, the data from both scales could have been analysed by multivariate methods such as MANOVA or Multiple Regression, but this was precluded by the nature of the PDG scores. The effects of self-esteem and locus of control on PDG performance were therefore analysed separately, commencing with the findings

for locus of control.

6.2 METHOD

6.2.1 Subjects

The English sample consisted of 88 students drawn randomly from the volunteer subject panel maintained by the Psychology Department at the University of York; there were 49 males and 39 females representing the full range of Arts, Science and Social Science disciplines offered at the university, and their mean age was 21.27 years (S. D. = 3.75). The Arab sample was composed of exactly the same number of males and females from King Saud University, chosen randomly from the schools of Medicine, Allied Medicine, and Science, their mean age was 21.18 years (S. D. = 1.68).

6.2.2 Independent Variables

(i) TSQ (Taisir's Self-esteem Questionnaire)

The TSQ was used for the study (see Appendix A(1)). The scores for both samples were obtained from the same items for the pooled samples (English and Arab) on the four extracted factors, although in the view of the correlations amongst the factors only the overall scale score was used in this study.

(ii) SOCQ (Spheres - of - Control Questionnaire)

The Spheres - of - Control Questionnaire (SOCQ - Paulhus, 1983) measure of perceived control (See Appendix B(1)) consists of thirty (30) forced choice items and contains three subscales:

(a) "personal efficacy - control over nonsocial environment as in personal achievement, (b) interpersonal control - control over other people in dyads and groups, and (c) sociopolitical control - control over social and political events and institutions" (Paulhus, 1983, p. 1253). Each subscale is balanced with respect to success versus failure, stable versus unstable attribution, and internal versus external attribution. The scale is scored such that the high score indicates more internal.

The SOCQ was translated into Arabic by the present researcher. The back translation was employed to validate the authenticity of the original (Brislin, 1970; 1980). After the original items were translated into Arabic, five psychologists, who were fluent in both languages, were asked to translate them back into English. A third person was consulted to *solve the disagreements. Finally, it was given* to ten students to check if the questionnaire was understandable.

6.2.3 Dependent Variable

This study is an attempt to assess the degree to which

British and Arab internal-external subjects differ in cooperation and competition behaviour. In order to create an experimental situation in which there was the same incentives for cooperation as well as for competition the Prisoner Dilemma Game (PDG, Luce and Raiffa, 1957) was used as the dependent variable. For the PDG, a card similar to that shown in Figure 5.A is placed on the table in front of the subject, who then plays against another subject or confederate (or bogus subject); in the latter procedure, which was the one used in this study, feedback is pre - determined by the experimenter (see Oskamp, 1971).

In summary, there are two cell dimensions in the PDG. There is a competitive dimension represented by red-black and black-red, and cooperative dimension represented by black-black and red-red. The crucial feature of the PDG is that it requires mutual trust while strongly tempting the players to try to double cross each other, to reach the best outcome for both. A subject in the PDG is confronted with the possibility of three intentions: the intent to cooperate (maximize with other), the intent to compete (maximize at the expense of the other), and the intent to protect oneself from the other's competition. Instructions and procedures for the PDG are given in the next section.

Figure 5.A

The Prisoner Dilemma Game (PDG)

```
-------------------------------
|          BLACK  |         RED   |
|           (5)   |         (15)  |
|   BLACK         |   BLACK       |
|    (5)          |    (0)        |
|-------------------------------|
|          BLACK  |         RED   |
|           (0)   |         (-5)  |
|   RED           |   RED         |
|    (15)         |    (-5)       |
-------------------------------
```

6.2.4 Procedure

The questionnaires were sent to the subjects two weeks before the experiment was conducted. On arrival, the subject had to pass through an adjoining cubicle to reach the test cubicle; a confederate was seated at a table in the first cubicle with game card, and was referred to as "the partner". The experiment was administered by the researcher for the English sample and for the Arab males and by the experimenter's wife for Arab females*. Subjects were given the following instructions: "You are participating in a decision making study where your decision has an effect upon your partner, as well as yourself. Your decision will earn you points which will be exchanged at the end of the experiment for money at the rate of one penny per two points.

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* Arab females were tested separately because all schools
  and universities are strictly segregated in Saudi Arabia.

You have 15 chances, and each time you can choose between black or red. The upper triangle in each of the game boxes is player A's payoff, while the triangle in the lower corner is player B's.

Player A chooses between black or red in the upper corner while player B chooses between black or red in the lower corner (see Figure 5.A). So for example:

1. If player A chooses black and player B chooses black both of them win 5 points.

2. If player A chooses red and player B chooses black A player's A wins 15 points and B zero.

3. If player A chooses black and player B chooses red, A wins zero and B wins 15.

4. If both players A and B choose red, both lose 5 points".

In summary, the payoff matrix which was explained to subjects was Black-Black: 5,5; Black-Red: 0,15; Red-Black: 15,0; Red-Red: -5,-5. After reading the instructions, subjects played 15 trials of Prisoner's Dilemma. The experimenter administered the feedback about the play of the other bogus player according to a predetermined schedule. There were 15 answers set up between red and black. (See Appendix B (2)). Subjects were given answer sheets which enabled them to write down their own play. The data, showing frequencies and percentages of internals and externals and low, average and high self-esteem subjects making either

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competitive (Red) or cooperative (Black) responses are shown in Tables 6.4, 6.5, 6.6, 6.7 in Appendix C(6.5). Data for all trials are shown, with separate tables for the English and Arab samples.

In view of the nature of the data obtained from the experiment, the Hiloglinear model (SPSSX, 1983) was used to analyse the data. The advantages of Hiloglinear, as reported by Everitt (1977), are:

1. It provides analysis of multi-dimensional contingency tables.

2. It makes it possible to identify the relative importance of the association between pairs of variables and to identify those associations of significance.

However, the model does not allow for individual contrast following significant interactions, in the way that simple main effects allow decomposition of effects in parametric analysis of variance. For the locus of control analysis, there were three independent variables: Country (English and Arab), Locus of control (Internal-external, or I-E) and Choice* (Red or Black). For self-esteem, the design was the same except for an additional level of self-esteem itself (see section 6.3.4). The results thus yield three main effects, three two-way interactions, and one three-way interaction, but owing to the limitations of the model, the

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* In the summary tables presented in the Appendix, "Choice"
  is labelled "Trial"

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interactions will be interpreted by inspection. The results of the Hiloglinear analysis are shown in Table 6.6.1.1 to Table 6.6.3.15 (see appendix C(6.1), C(6.2) and C(6.3), and in view of the number of simultaneous analyses preformed on same data base (see Miller, 1966), an Alpha value of $p < .01$ was used to evaluate all results. Although analyses were performed across all trials, the trials that were of particular interest were those where the subjects were given competitive (i.e Red choice) feedback on two consecutive trials. These were trials 3 and 7, which were separated by two trials (4 and 5) which reverted to cooperative responses. The analysis will therefore focus on trials 3, 5 and 7. Hiloglinear results for the analyses on the remaining trials appear in Appendix C(6.1) to C(6.4), together with frequencies and percentages in Appendix C(6.5) ; however, these results will not be discussed in the text.

6.3 Results for Locus of Control

Subjects were identified as internal or external by dividing their scores on personal efficacy, interpersonal control, and sociopolitical control into two groups, with students scoring above the 75th percentile labelled as internal and subjects below 25th percentile were labelled as external. The number and percentage of English and Arab subjects responding either competitively (Red) or

cooperatively (Black) for all three locus of control scales are presented for trials 1 (initial response), 3, 5 and 7 in Tables 6.1.

Table 6.1

Percentage of internals and externals giving a competitive (red) or a cooperative (black) responses on Personal Efficacy (PE), Interpersonal Control (IP) and Sociopolitical Control (SP) for English and Arab samples

			PE		IP		SP	
TRIALS N.	GROUP	COLOR	FREQ	%	FREQ	%	FREQ	%
1 English	I	RED	13	44.8	22	46.8	8	47.1
		BLACK	16	55.2	25	53.2	9	52.9
	E	RED	22	53.7	15	51.7	15	39.5
		BLACK	19	46.3	14	48.3	23	60.5
Arab	I	RED	15	26.8	14	28.0	7	22.6
		BLACK	41	73.2	36	72.0	24	77.4
	E	RED	3	21.4	9	33.3	5	45.5
		BLACK	11	78.6	18	66.7	6	54.5
3 English	I	RED	21	72.4	27	57.4	7	41.2
		BLACK	8	27.6	20	42.6	10	58.8
	E	RED	18	43.9	15	51.7	22	57.9
		BLACK	23	56.1	14	48.3	16	42.1
Arab	I	RED	41	73.2	40	80.0	23	74.2
		BLACK	15	26.8	10	20.0	8	25.8
	E	RED	9	64.3	17	63.0	8	72.7
		BLACK	5	35.7	10	37.0	3	27.3

Table 6.1 Continued

5 English	I	RED	13	44.8	27	57.4	8	47.1
		BLACK	16	55.2	20	42.6	9	52.9
	E	RED	23	56.1	16	55.2	21	55.3
		BLACK	18	43.9	13	44.8	17	44.7
Arab	I	RED	11	19.6	11	20.0	6	19.4
		BLACK	45	80.4	39	78.0	25	80.6
	E	RED	5	35.7	7	25.9	3	27.3
		BLACK	9	64.3	20	74.1	8	72.7
7 English	I	RED	17	58.6	24	51.1	4	23.5
		BLACK	12	41.2	23	48.9	13	76.5
	E	RED	24	58.5	18	62.1	22	57.9
		BLACK	17	41.5	11	37.9	16	42.1
Arab	I	RED	43	76.8	35	70.0	26	83.9
		BLACK	13	32.2	15	30.0	5	16.1
	E	RED	9	64.3	18	66.7	5	45.5
		BLACK	5	35.7	9	33.3	6	54.5

6.3.1 Personal efficacy

The results of the statistical analysis for Personal Efficacy show are shown in Appendix C(6.1).

Results for Trials 3, 5 and 7 On trial three the two-way interactions show that there was a significant association between Country and I-E (Chi-square value(df=1)= 18.76;

p<.01) and I-E by trial (Chi-square value(df=1)= 5.52; p<.01), and there were main effects for I-E (Chi-square value(df=1)= 6.09; p<.01) and for Trial three (Chi-square value(df=1)= 11.09; p<.01). On trial five the two-way interactions show that there was a significant association between Country and I-E (Chi-square value(df=1)= 17.09; p<.01) and Country by Trial (Chi-square value(df=1)= 7.15; p<.01). There were a significant main effects for I-E (Chi-square value(df=1)= 6.09; p<.01) and trial (Chi-square value(df=1)= 8.91; p<.01) but the main effect of Country was not significant. On trial seven there was a significant association between Country and I-E (Chi-square value(df=1)= 20.77; p<.01), and there were a significant main effects for I-E (Chi-square value(df=1)= 6.09; p<.01) and for Trial (Chi-square value(df=1)= 14.83; p<.01). The effect of Country was not significant.

What the results show is that on trial 1, the Arab subjects demonstrated a substantially more cooperative response than the English subjects. However, following consecutive Red feedback (trials 2 and 3), the English and Arab internals both "retaliated" with red responses, whereas the externals in both cases showed a more or less even distribution between Red and Black responses. Following two further cooperative (Black) responses (Trials 4 and 5), the English subjects reverted to an approximately even

distribution for Internals and Externals, while the Arab subjects, especially the Internals, responded highly cooperatively. Following two further Red trials (Trials 6 and 7), it was the Arab internals who responded in a particularly "retaliatory" manner - the English subjects showed an even distribution across colours for Internals and Externals.

6.3.2 Interpersonal control

The results of the statistical analysis for interpersonal control are shown (see Appendix C(6.2)).

Results For Trials 3, 5, and 7 On trial three the two-way interaction show that there was a significant association between Country and Trial (Chi-square value(df=1)= 6.47; p<.01). The other interactions effects were not significant. The individual effects show that there was a significant results for I-E (Chi-square value(df=1)= 10.65; p<.01) and for Trial (Chi-square value(df=1)= 14.14; p<.01) the effect of Country was not significant. On trial five the two-way interactions show that there was a significant association between Country and Trial (Chi-square value(df=1)= 17.48; p<.01) the other two-way interactions effect were not significant. There was a significant effect for I-E (Chi-square value(df=1)= 10.65; p<.01) and for trial (Chi-square value(df=1)= 5.96; p<.01) but the effect of Country was not significant. On trial seven none of the two way-interactions

were significant. There was a significant effect for I-E (Chi-square value(df=1)= 10.65; p<.01) and for Trial (Chi-square value(df=1)= 8.61; p<.01) the effect of Country was not significant.

The results for Interpersonal Control showed a generally similar pattern of findings to the results for Personal Efficacy. The only exception was the result for English externals on Trial 3, who showed an even distribution between Red and Black for Interpersonal Control.

6.3.3 Sociopolitical Control

The results of the statistical analysis are shown in Appendix C(6.3)).

Results For trials 3, 5 and 7 On trial three the two-way interactions show that there was a significant association between Country and I-E (Chi-square value(df=1)= 18.88; p<.01) the interaction between I-E by Trial (Chi-square value(df=1)= 5.33; p<.02) and I-E by trial three was not significant. Individual effects show that there was a significant effect for trial (Chi-square value(df=1)= 5.51; p<.01). On trial five the two-way interactions show that there was a significant association between Country and I-E (Chi-square value(df=1)= 14.70; p<.01) and Country by Trial

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(Chi-square value(df=1)= 6.73; p<.01). There was a non significant effect for Trial (Chi-square value(df=1)= 4.58; p<.03). On trial seven the two way-interactions show that there was a significant association between Country and I-E (Chi-square value(df=1)= 17.78; p<.01) and between Country and Trial seven.

Results for Sociopolitical control were again similar to the other trials, except for the responses of the English externals on trial 1, which were reversed compared to the other factors, the Arab externals on trial 1, who showed an even distribution, the English internals on trial 3, who also showed an even distribution, and the English internals and Arab externals on trial 7, where the former showed responses favoring cooperation and the latter an even distribution.

6.3.4 Results for Self-esteem (TSQ)

Responses on the TSQ were analysed in the same way as those for the SOCQ, focusing on trials 3, 5, and 7. An alpha value of <.01 was used throughout. However, the analysis for the TSQ differed from the SOCQ in that three levels were used to divide subjects into high, average and low scores on self-esteem: students scoring below 25th percentile were considered as low self-esteem subjects, students scoring on the 50th percentile were considered average, and subjects scoring above the 75th percentile were considered as high self-esteem subjects. This was done in the view of the more

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limited validation data available for the TSQ. The scales from the TSQ were also collapsed to provide a single total score. The responses, presented in the same way as the data for locus of control, are shown in Tables 6.6 and 6.7 in appendix C(6.5), while the data for Trials 1, 3, 5 and 7 are presented in Table 6.2.

Table 6.2

Percentage of Low, Average, and High self-esteem subjects giving a competitive (red) or a cooperative (black) responses for English and Arab samples

			low		Average		High	
TRIALS N.	GROUP	COLOR	FREQ	%	FREQ	%	FREQ	%
1 English		RED	9	47.4	21	52.5	11	37.9
		BLACK	10	52.6	19	47.5	18	62.1
Arab		RED	9	29.0	9	22.0	7	43.8
		BLACK	22	71.0	32	78.0	9	56.3
3 English		RED	13	68.4	19	47.5	16	55.2
		BLACK	6	31.6	21	52.5	13	44.8
Arab		RED	22	71.0	33	80.5	10	62.5
		BLACK	9	29.0	8	19.5	6	37.5
5 English		RED	9	47.4	23	57.5	16	55.2
		BLACK	10	52.6	17	42.5	13	44.8
Arab		RED	8	25.8	7	17.1	5	31.3
		BLACK	23	74.2	34	82.9	11	68.8
7 English		RED	8	42.1	25	62.5	17	58.6
		BLACK	11	57.9	15	37.5	12	41.4
Arab		RED	22	71.0	29	70.7	12	75.0
		BLACK	9	29.0	12	29.3	4	25.0

Results for Trials 3, 5 and 7   On trial three the two-way interactions show that there was a non significant association between Country and Self-esteem (Chi-square value(df=2)= 5.75; p<.05) the interaction between self-esteem

and Trial was significant (Chi-square value(df=1)= 6.23; p<.01). The other effects were not significant. Individual effects show that there was a significant result for the self-esteem (Chi-square value(df=2)= 12.40; p<.01) and for Trial (Chi-square value(df=1)= 14.40; p<.01).

On trial five the two-way interactions show there was a non significant association between Country and Self-esteem but the interaction between Country and Trial was significant (Chi-square value(df=1)= 17.81; p<.01) the interaction effect between Self-esteem and Trial was not significant. There is a significant effect for Self-esteem (Chi-square value(df=2)= 12.40; p<.01) and Trial (Chi-square value(df=1)= 9.17; p<.01) but the effect of Country was not significant.

On trial seven the two way-interactions show that there was a non significant association between Country and Self-esteem (Chi-square value(df=2)= 7.27; p<.02) and there was a non significant association between Country and Trial (Chi-squarevalue(df=1)=4.74; p<.02). There was a significant effect for Self-esteem (Chi-square value(df=2)= 12.04; p<.01) and for Trial (Chi-square value(df=1)= 14.40; p<.01). The effect of Country was not significant.

The results for trial 1 show that High self-esteem English subjects tend to respond more cooperatively. This is also true for Arab subjects, but Low and Average self-esteem Arab subjects responded in a markedly cooperatively way.

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Following two consecutive competitive trials (2 and 3), low self-esteem subjects in both cultures responded competitively; this was true of Arab average and, to some extent, Arab high self-esteem subjects as well. After two further Black trials (4 and 5), the English subjects showed an even distribution across red and black, while Arab subjects, particularly those with low and average self-esteem, shifted strongly to cooperation. Following further consecutive Red trials (Trials 6 and 7), the Arab subjects as English group reverted again to competition, an effect which was much less marked for English subjects, especially those with low self-esteem, who actually showed a reversal.

6.3.5 General Discussion

The results of this study found that there are, in general, significant differences in the PDG performance between countries and between internals and externals for all three components of the SOCQ.
There were also some significant differences between countries and low average and high self-esteem although the effects for self-esteem were less strong. Deutsch (1958; 1960; 1962) considers the Prisoner's Dilemma a type of situation as a dilemma of trust. He notes that a trusting choice is one, that if successful, offers the chooser a positive outcome that is less valuable than the noxious

outcome that would attend failure. The most important part of impression management is how one attempts to define the relationship between oneself and the other person in the situation. For example, if others perceive that they are liked and respected, this may lead to quite different outcomes from those which would occur if others perceive they are disliked. The initial perception of being liked, may be quite groundless, but it may lead to behaviors such as cooperativeness and politeness that induce the very liking, mistakenly thought to be present at the outset. The Prisoner's Dilemma is whether to trust one's partner not to confess oneself (that is to cooperate with one's partner) or to confess and to save oneself before the partner confesses (that is, to compete with one's partner) the basic reward structure of this mixed motive is cooperation versus competition. On each trial, each subject is confronted with a choice between a cooperative and competitive response.

But now let us raise this question, what makes one culture more cooperative or competitive than another culture? It seems that some cultures place more emphasis on competition than cooperation. It seems that the British society emphasises competition more than the Arab societies in general. This may be due to the differences in religion, values, and social between both countries. Intuitive comparisons of the British and Arab cultures would probably classify the British culture as more competitive and Arab

culture as more cooperative. Bethlehem (1975) has provided some evidence that there is a tendency for Western countries to produce an increase of competitiveness rather than cooperation, and indeed, the present study does suggest more cooperative behaviour by Arab subjects. However, following provocation, subjects from both cultures appear to retaliate with competition, but this occurs primarily with those who have a more internals locus of control. Other studies have reported a negative correlation between trust and externality (Frost et al., 1978; Hamsher et al., 1968), which is not generally supported by the present findings, but the shift towards competition (Red responses) by internals usually occurred after provocation (consecutive Red trials).

One possible explanation of the present differences may be in that because the internal depend mainly on themselves, it is possible that they would react to a competitive situation (Red) with renewed efforts, while in cooperative situations (Black) internals need to share responsibility for their reinforcements with others. Externals, on the other hand, should remain unaffected by whether the situation is competitive or cooperative. The results showed that internals would be most sensitive to change in the situation (red or black) and they would change their behaviour according to the situation. In contrast the externals were to some extent less sensitive to change.

It is expected to find some of these differences between English and Arab students because trust is a result of what we have learned to expect from others and how we perceive their motives (Lindskold and Bennett, 1973), and there are big differences between the two samples in terms of social organization, history, and religion. For behavioural guidelines, the individual looks to his family, his friends, his society. A final factor which may help in explaining these differences between both samples, is that there were and still are stages of war, in the Middle East, invasions and occupations. Most of the Middle Eastern countries were occupied by external countries and the effect that this may have had on attitudes of trust and cooperation may be substantial. Furthermore, the family in both cultures plays different roles. In the Arab societies the family, the parents' word, is final. Great respect for parents and elders is expected and given. It can be said that the individual's relationships with family in the Arab culture, in general, play an important role in his life and his actions. While for the British, on the other hand the individualism and self-dependence are seen to be one of the main values. In general, it can be said that for the individual, in the Arab culture, his relations with family play an important role in his life and his actions. The Arab culture is a group oriented society rather than individualistic one. While for British, on the other hand the individualism and self-dependence are seen to be one of the main values. The

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extended family is the main unit of traditional Arab culture. The father in the Arab culture, in general, makes all the decisions for his son. He chooses the son's course of study, job, and sometimes marriage. It can be said that the individual in Arab culture relies on his family for support and decisions to a far greater degree than does the individual in British culture. Berger (1962) compares the reaction of Moslems and Christians (more broadly, Arabs and Westerners) to one of the parables of the New Testament in which a man asks his two sons to do some work in the vineyard. One said he would, but did not; the second said he would not, but then relented and did the work. The Westerner might give greater credit to the second son, while the Arab would consider the first, who showed respect for his father although he did not follow through, more admirable.

Perhaps the major cross-cultural implication of the present findings is that cooperative behaviour may be a function of culturally-conditioned compliance. Because of the nature of Arab society, individuals are expected to be obedient to parental requests, a tendency which appears much less marked in Britain. British subjects may consequently be inclined to emphasis self-reward, and be unable to shift to the shared reward system possible in the cooperative game. However, the results also show an interesting change amongst Arab subjects during the latter

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part of the game, where they switched from cooperative to competitive strategies, showing more competitiveness even than their British counterparts. The findings thus suggest that while Arab subjects may initially respond in a more cooperative fashion than British subjects, presumably because of cultural differences, they will when presented with consistently competitive responses change to the opposite mode of responding.

CHAPTER SEVEN

THE EFFECTS OF SELF-ESTEEM AND LOCUS OF CONTROL ON CONFORMITY AND ACHIEVEMENT

7.1 SELF-ESTEEM, LOCUS OF CONTROL AND CONFORMITY: INTRODUCTION

Conformity was chosen as the dependent variable for this study because of its relevance to both self-esteem and locus of control, and also because so little research has investigated conformity in Arab samples. Social or interpersonal conformity was chosen because some researchers (Amir, 1984, 1986) and some observers of Arab culture have suggested that conformity is Characteristic of Arab societies. Sharabi (1977) described the socialization process in Arab culture: "The child learns to form his self-image in accordance with the opinion of others around him; he is discouraged from developing personal standards that would allow him to become independent of the opinion of others. This is strengthened by a pattern of socialization which puts little premium on questioning or independent judgment. The child is actively discouraged from trusting his own judgment and encouraged, on the contrary, always to submit to the judgment of others" (p. 246).

The attempted replication of the "Asch effect" by many researchers e. g. (Perrin and Spencer, 1980; Nicholson et al., 1985) has regenerated a great deal of recent interest and debate on conformity (Asch, 1981; Doms and Van Avermaet, 1981; Pincus, 1981). As mentioned in an earlier chapter (see chapter two, section 2.5), Perrin and Spencer (1980) found that British student subjects did not show the same compliance to a unanimous majority that American student subjects showed 37 years before. In attempting to replicate the standard Asch (1952) experiment with Arab student subjects the question was whether these subjects would be as conforming as the American student subjects 37 years ago, or would they not conform as the British student subjects reported by Perrin and Spencer (1980). In other words, can we replicating these findings in Arab countries? Amir (1984) used the Asch procedures in Kuwait with university student subjects, and succeeded in replicating the conformity effect reported by Asch; the conformity rate among the Kuwaiti student subjects was almost the same as for the original American sample. The present experiment extends the work to an independent Arab sample in Saudi Arabia, but in view of the recent findings available for British subjects (who have formed the main cross-cultural comparison in this thesis), a British sample was not included.

Several variables appear to be related to conformity,

including self-esteem and locus of control. In the area of self-esteem, the results of a number of studies indicated that individuals with low self-esteem tend to be more influenced than those with high self-esteem (Janis, 1954; Singh and Prasad, 1973). Likewise, internal subjects take a more active role than do external subjects in attempting to modify or control their environment (Schwartz and Higgins, 1979), and some researchers have found that external subjects conformed more than internal subjects (Odell, 1959; Doctor, 1971; Spector, 1983; Singh, 1984). The experiment was aimed firstly at discovering whether there was a conformity effect in the Saudi sample, and secondly at finding out whether any conformity which did occur was related to scores on locus of control or self-esteem. The data for the locus of control and self-esteem were analysed separately, and sex differences were also taken into account in each case.

7.1.1 Method

7.1.1.1 Subjects

Sixty Arab student subjects from King Saud University participated in the experiment, 30 males with a mean age of 22.13 years (S. D. 1.36) and 30 females with a mean age of 19.23 years (S. D. 1.22). The subjects were drawn randomly from the departments of Physical Education, Medicine, Science and the Allied Medical School.

7.1.1.2 Instruments

(i) The conformity Stimuli. Because this experiment is attempting to replicate the Asch (1956) experiment and to compare the results with those of Asch results, cards of the same dimensions as those described by Asch (1956) were used. Table 7.1 shows these dimensions.

Table 7.1

Majority responses to standard and comparison

lines on successive trials(*)

Trial	length of Standard (in inches)	length of comparisons lines (in inches)		
a*	10	8 3/4	10	8
b*	2	2	1	1 1/2
1	3	3 3/4	4 1/4	3
2	5	5	4	6 1/2
c*	4	3	5	4
3	3	3 3/4	4 1/4	3
4	8	6 1/4	8	6 3/4
5	5	5	4	6 1/2
6	8	6 1/4	8	6 3/4
d*	10	8 3/4	10	8
e*	2	2	1	1 1/2
7	3	3 3/4	4 1/4	3
8	5	5	4	6 1/2
f*	4	3	5	4
9	3	3 3/4	4 1/4	3
10	8	6 1/4	· 8	6 3/4
11	5	5	4	6 1/2
12	8	6 1/4	8	6 3/4

* designate "neutral" trials.

(*) Source Asch, 1956, p. 6.

(ii)   <u>Self-esteem and Locus of Control Questionnaires</u>. The same TSQ (see section 4.3.1.4) and SOCQ (see section 6.2.2) scales described earlier were used in the study.

7.1.1.3 <u>Procedure</u>

Since this experiment is trying to replicate the Asch experiment and to compare the results with those of Asch results, the original procedures were employed in terms of stimulus, procedures and setting: the experiment consisted of eighteen trials comparing two cards, and on twelve of the eighteen trials the confederates made a unanimous wrong answer before the subject's decision.

The basic features of the Asch experiment were:

1.   The subjects are instructed that they are participating in perceptual experiment where they have to match accurately the length of a given line with one of the three lines.

2.   Correct judgments are easy to make.

3.   In each experimental session there is only one naive subject, other participants are "stooges" carrying out the instructions of the researcher.

4.   Each subject, the stooges and the subject, has to say his judgement publicly.

5.   There were 18 trials, and in 12 of these trials, the confederates announced wrong judgments.

6.   The subject and the stooges are in a face to face

relationship and have not previously known each other.

7. The subjects were not allowed to talk to each other.

There was, however, one minor practical modification to Asch's procedures: in this experiment, only three stooges, rather than eight, participated in the experiment. Asch (1951, 1956, 1958) and others (Rosenberg, 1961; Goldberg, 1954) studied the extent of yielding to unanimous of 2, 3, 4, 6, 7 or 10 to 15 subjects, as well as the limiting case studies in which three subjects participated with only one confederate. More conformity resulted from participation with two confederates giving false answers. Groups of three or four confederates had the greatest majorities in inducing conformity responses; groups of eight or more subjects were somewhat less effective. Asch states "the effect appeared in full force with a majority of three" (1951, p. 188). There were also separate male and female samples in this study; the confederates were the same sex as the subjects in both cases, but the experimenter's wife conducted the experiment for the female subjects because regulations did not permit the experimenter to do so himself (see section 6.2.4).

For the procedures, there were three confederates seated in a classroom, ensuring that the subject always sat in the fourth seat. The procedure for this experiment can be summarized as follows: A group of four subjects, three

confederates and one naive subject, arrive at the laboratory. The researcher tells the group that they are participating in a study of visual perception. The following instructions were adapted from Asch effect (1956): "This is a perception experiment to compare the length of lines. On this cardboard on the left, there is one black line; on the cardboard on the right, there are three lines of different lengths. These lines are numbered 1, 2, and 3. Among the three on the right, one is of the same length as the line on the left. Every time I present a new example, please judge which one of the three is the same as the line on the left. Since the number of comparisons and the number of group members is small, please answer one at a time. Please answer as accurately as you can. Please answer in order, starting from the person on the right. There will be 18 comparisons. Each of you has to decide which of the three comparison lines on the right is equal in length to the single one on the left". The following instruction was added by the present researcher "You have to call out your answers in a loud voice and to write it down on the response sheet"*.

Prior to conducting the experiment, the researcher ran a pilot study to pre-test the manipulation on ten male subjects with a mean age of 20.9 years. The results of the pilot study

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* The instructions were back translated into Arabic language
  by the procedure followed previously.

showed that the subjects understood the instructions without any difficulties and that the manipulation was successful. After the judgment phase of the experiment the subjects completed a self-esteem questionnaire (TSQ) and locus of control questionnaire (SOCQ).

7.1.2 Results

Conformity means that "individuals tend to yield to a majority position even when that position is clearly incorrect" (Maas and Clark, 1983, p. 197). A conforming response was defined as the subject offering the same incorrect judgment voiced by the confederates on a critical trial (dummy-coded as 1 for each conforming response), and a nonconforming response occurred when the subject differed from the group consensus on a critical trial or other trials (dummy coded as 0 for each trial). Thus, every subject had a conformity score ranging from 0 to 12 on the critical trials.

Subjects scoring below the 25th percentiles on self-esteem scores, Total score, Positive Self-worth, and Negative Self-image (see section 4.3.1.4) were treated as a low self-esteem, while subjects scoring above the 75th percentiles were treated as high self-esteem. Also, subjects scoring on personal efficacy, interpersonal control, and sociopolitical control below the 25th percentiles were considered as external, while those scoring above the 75th percentile were

considered as internal. The data were analysed in two parts: first, an analysis for simple conformity effects, and secondly an analysis investigating the role of individual differences.

(i)   Overall Conformity Effects. For the overall conformity results, Table 7.2 presents the data for the Asch (1956) studies and for the Arab data collected for the present experiment.

Table 7.2

Distribution of errors in Arab sample and Asch data 1956

ERRORS	Asch (1951)*	Arab experiment
0	13	39
1	4	2
2	5	3
3	6	6
4	3	0
5	4	4
6	1	1
7	2	0
8	5	2
9	3	1
10	3	1
11	1	1
12	0	0

Total (N)	50	60
Mean	3.84	1.66
Conformity	32%	14.0%

* Source: Asch, 1965, p. 129.

Of the 60 subjects (males and females), 21 (35%) conformed on more than one trial. Thirty-nine subjects (65%) did not conform at all. The number of errors varied from zero to 11, the mean being 1.6; S. D. 2.85. In comparison to the Asch experiment showed that 37 of 50 students subjects (74%) conformed on one or more trials; the number of errors ranging from zero to 11 for a mean of 3.84. Comparing the results of this experiment to Asch results it was found that the percent of conformity is much less overall than that reported by Asch (1951): in Asch's case it was 32% but in our case it was 14.0%. The present findings thus echo those of Nicholson, et al. (1985), who found that conformity rate was .58 in British student subjects compared to 1.86 for American student subjects. The conformity in Saudi Arabia to this type of stimulus is clearly less than that reported by Asch, and similar to contemporary Western findings. By contrast, Amir (1984, 1986) did replicate the "Asch effect" in Kuwait, reporting the same compliance as Asch did 37 years ago.

(ii) Effects of Individual Differences. For the analyses including individual differences, two-way (Sex by Personality) ANOVAs were conducted on the data shown in Tables 7.3 and 7.4.

Table 7.3

Means and Standard deviations for TSQ scores overall, factor I and factor II for low and high self-esteem subjects.

SEX	TOTAL SCORE				Factor I				Factor II			
	High		Low		High		Low		High		Low	
	M	S.D	M	S.D	M	S.D	M	S.D	M	S.D	M	S.D
M	1.1	1.7	1.0	1.5	1.8	2.1	0.5	1.2	0.5	1.2	1.0	1.5
F	0.4	0.7	2.3	4.3	0.1	0.8	3.6	4.7	2.5	4.1	1.7	3.1
M and F	mean	S. D			mean	S. D			mean	S. D		
	1.32	2.67			1.96	3.27			1.40	2.70		

Table 7.4

Means and Standard deviations for SOCQ scores for Internal-external on Personal efficacy (PE), Interpersonal control (IP), and Sociopolitical control (SP).

SEX	PE				IP				SP			
	Internal		External		Internal		External		Internal		External	
	M	S.D	M	S.D	M	S.D	M	S.D	M	S.D	M	S.D
M	1.8	2.1	0.5	1.1	0.3	0.9	1.0	1.4	1.5	2.1	0.0	0.0
F	2.7	4.5	2.0	2.8	3.0	4.6	1.0	1.6	2.4	4.1	2.8	3.6
M and F	mean	S. D			mean	S. D			mean	S. D		
	1.84	2.90			1.16	1.44			2.00	3.19		

Conformity scores were used as the dependent variable, and separate analyses were conducted for self-esteem and sex and for locus of control and sex. The ANOVA summary tables appear in Appendix D(7.1).

None of the main effects nor the interactions were significant, although there was a trend for subjects scoring high on the Negative Self-image factor on the TSQ to be more conforming than low scores. In addition, while the effects for sex overall were non significant there was trend in the results indicating that females (mean = 2.14) were more conforming than males (mean = 1.20).

7.1.3 Discussion

The results of this experiment showed that the average conformity score for the Saudi student subjects is lower than that given by Asch (1956) for American student subjects thirty seven years ago. Asch reports 32% conformity on the 12 critical trials. The Saudi subjects had 14.0% conformity errors.

In part, these results may be interpreted in terms of cultural differences between American and the Arab societies. However, the Arab findings were similar to those reported for contemporary Western samples, and it seems that the "Asch effect" is not a universal one; the present findings suggest, with Perrin and Spencer (1980), that the effect is a "child

of its time". Perrin and Spencer state: "We would wish to argue that psychologists should, with Asch himself, cease to regard the effect as a "rock-bottom" one, and see it instead as a useful indicator of the cultural expectations of conformity subjects bring to the experiment their contemporary world, as well as revealing something of the pressures subjects experience from their experiments" (Perrin and Spencer, 1980, p. 406). On the other hand Doms and Van Avermaet (1981) state: "a failure to replicate an Asch effect does not necessarily and automatically also imply a general absence of conformity behaviour in the population studied" (p. 383), and it should be borne in mind that Saudi students did have a conformity rate of 14%.

Thus, comparing the results of this experiment to the results of Perrin and Spencer (1980); Nicholson et al. (1985), it can be said that the Arab student subjects appear to be more conforming than British student subjects.

In contrast to the present findings, Amir (1984) was able to replicate the Asch effect in Kuwait with university student subjects. This may perhaps be interpreted in terms of Kuwait being a smaller country with a more homogeneous population, whereas Saudi Arabia is a vast country comprising from many cultures and subgroups. Both Kuwait and Saudi Arabia are Gulf countries but still there are big differences between them. Since the modal characteristics of Arabs vary

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considerably, even from one village to another, the validity of generalizations about Arabs as a whole, like the idea of a unitary national character, become questionable. El-Islam (1982, 1984) points out that generalizations which have characterized Arabs as "human but not humane" (Hamady, 1960) are unjustifiable. El-Islam (1984) says that another source of error in this area is the inadvertent attribution of personal and interpersonal "characteristics" of today's Arabs to the Islamic code of values and behaviour.

This study showed that the Saudi student subjects did nonetheless conform to a degree (14%). This may be consistent with the social structure of the society of Saudi Arabia which emphasises the cohesive group and some pressures on the individual toward conformity to a greater extent than in the West. Also, the traditions of the Saudi family emphasis the group activity and not individuality. Melikian states: "Studies of the Saudi family have shown that it is traditional, extended, patriarchal, endogenous, authoritarian, and occasionally polygamous. Marriages are generally arranged by the parents, and the sexes are segregated ... Within the family the relationship to the parents is clearly defined by religion and tradition. It is basically a relationship of submission, obedience, and filial piety" (1977, p. 170-171).

These hierarchical relationships are also observed

amongst Saudi students, according to Melikian, and in view of his comments, it is perhaps surprising that the conformity rate was not higher. Some reasons why a conformity effect did not occur are: First this type of experiment may arouse suspiciousness and this may reduce conformity (Allen, 1966; Geller and Endler, 1973), subjects often do not behave normally because they sometimes become suspicious in this type of experiment (Stricker, 1967; Glinski et al., 1970). Second, there is an influence of the experimenter on this type of experiment (Rosenthal et al., 1966). Third, the Asch type is an artificial one and does not employ a psychological group (Pasternack, 1972).

Turning to the effects of individual differences, the results of self-esteem indicated that there were no significant differences in conformity between low and high self-esteem subjects, although the trends of the results showed that low self-esteem subject were conforming more than high self-esteem subjects. This is consistent with the results of some researchers: Stang (1972), for example, found that scores on self-esteem measures had small (low) negative correlations with conformity. Also, Wallace et al. (1983) found that self-esteem was unrelated to independence and conformity. It can be said that low self-esteem subjects were more conforming than high self-esteem subjects. Also, it was found that there was no significant difference in conformity

between internal-external on personal efficacy, interpersonal control, and sociopolitical control, which is consistent with the findings of Shute (1975) and Williams and Warchal (1981). Both of whom used Western samples. Finally there was no difference between male and female subjects in the present study.

7.2 SELF-ESTEEM AND ACHIEVEMENT: INTRODUCTION

From the literature review on self-esteem and achievement (see section 2.4) it was concluded that studies consistently reveal a positive relationship between self-esteem and achievement (Purkey, 1970; Burns, 1982). For the present study data were analysed on self-esteem, locus of control and academic achievement for both British and Arab samples.

7.2.1 Procedure and Data Analysis

The subjects for this experiment were the same as those used for the self-esteem and locus of control comparisons in chapter six (see section 6.2.1).
Achievement was measured by the final grades of English and Arab first degree student subjects. The grades were taken from the undergraduate records of York University and King Saud University, and the students came from a variety of disciplines including psychology, sociology, physics, chemistry. Grades for University of York students were in the

form of a scale ranging from "I" (First Class) to "Fail",
with the grades for King Saud University students were
awarded percentages marks. The York Scores were transformed
into a percentage mark using a scale developed at the
University of York, which is shown in Table 7.5. The TSQ and
SOCQ questionnaires were administered to the subjects one
year prior to their graduation from the university.

Table 7.5

York degree class and standard scores for English
and Arab samples

York Degree class	Standard scores	N(%) of York subjects	N(%) of Arab subjects
I	70	25(24.4)	14(17.1)
IIi	60-69	33(37.5)	23(28.0)
IIii	50-59	1(1.1)	25(30.0)
III	40-49	17(19.3)	16(19.5)
Ordinary	35-39	1(1.1)	3(3.7)
Fail	less than 35	11(12.5)	7(7.9)

The distribution of grades for the two samples thus differed,
in that the York scores used only six categories. However,
the distributions for both samples ranged across the
categorization: from "I" to "Fail" for York students, and

from 25% to 85% for the King Saud students. The percentage of the students in each culture is also shown in Table 7.5.

For the analysis Pearson Product Moment Correlation Coefficients were calculated between self-esteem total score (TSQ) and achievement for English and Arab samples separately. Stepwise Multiple regression analysis was performed on the data of the pooled samples (English and Arab), to see which factor is the greatest predictor of achievement in both samples. Two-way Analysis of Variance was performed on the data, and finally a series of t-tests were performed on the data to compare both samples on achievement and to compare between males and females within countries.

7.2.2 Results

The mean scores and Standard Deviations for both samples, by sex are shown in Table 7.6, which indicates that the distribution for Arab subjects was somewhat more truncated than for the other sample.

Table 7.6

Means and Standard deviations for achievement for English and Arab subjects.

Sample	Sex	Mean	S. D.	Number
English	M	58.03	19.45	49
	F	56.72	18.92	39
Arab	M	54.91	09.23	49
	F	62.31	14.08	39

7.2.2.1 Correlational Analyses: English and Arab Samples

For the English sample, self-esteem was positive and significantly related to achievement in the predicted direction (r=.18, df=88; p<.04). For the Arab sample, self-esteem was positively correlated with achievement in the predicted direction (r=.20, df=88; p<.02).

7.2.2.2 Analysis for the Combined Samples

For both samples (English and Arab) a Stepwise multiple regression analysis was performed using sex, country, self-esteem and locus of control as on the data of both samples as independent variables. The results indicated that self-esteem (r square =.032, df=1,174; F=5.82, p<.01) was the best predictor overall.

Next a two-way (Country by Sex) ANOVA between subjects was performed on the data. None of the main effects nor the interaction were significant (see Table 7.14 in Appendix D(7.1)). However, the trend of the results for the English sample indicated that males (MEAN = 58.03) scored slightly higher than females (MEAN = 56.72). Where by contrast, Arab females (MEAN = 62.31) had a higher score on achievement than the males (MEAN = 54.91). This difference was in first significant (t(86)=-2.83; p<.004), but the individual contrast was made in the absence of a significant interaction. Overall, the trend of the results indicated the Arab students (MEAN = 58.19) had a higher score than the English students (MEAN = 57.44), but the difference may simply have resulted from differences in grading procedures.

7.3 LOCUS OF CONTROL AND ACHIEVEMENT

Finally, the SOCQ scores were correlated with the academic grades. As shown in Table 7.7 none of the coefficients were significant, with the exception of Sociopolitical control and, to some extent, Personal efficacy amongst Arab students. No further analyses were performed on the data.

Table 7.7

Correlation between SOCQ subscores Personal efficacy (PE), Interpersonal control (IP) and Sociopolitical control (SP) and achievement scores

Sample		PE	IP	SP
English	Achievement scores	r=.1247 n=88 p=.123	-.085 88 .482	-.0997 88 .178
Arab	Achievement scores	r=-2015 n=88 p=.03	-.072 88 .252	-.2245 88 .018

7.4 DISCUSSION

The results confirmed the predicted positive correlation between self-esteem and achievement ($r=.18$ and $r=.20$ for English and Arab samples, respectively). These results are consistent with the literature (Purkey, 1970; Burns, 1982; Hamachek, 1971; LaBenne and Green, 1969), and Purkey (1970) concluded that "there is a persistent and significant relationship between the self-concept and academic achievement" (p. 27).

When males and females within countries were compared it was found that English males had a higher score than females but the difference was not significant. In contrast, when

Arab males and females were compared it was found that females had a higher score than males. Although the literature reviewed was specifically concerned with the relationship between self-esteem and achievement, a number of studies reveal contradictory findings related to sex differences. In general most of the studies contain findings which indicate a self-esteem and achievement relationship which is either greater (a high correlation) for males than females (Jones and Grieneeks, 1970; Brookover and Thomas, 1964), or significant correlations are found for males but not for females (Bledsoe, 1967; Alberti, 1971; Kubiniec, 1970). Some studies have findings which indicate that for females a self-esteem variable contributes more to an achievement variable than for males (Binder et al., 1970; Jones and Strowig, 1968; Brookover and Thomas, 1964; Bledsoe, 1967). But Jones and Grieneek (1970) report that self-esteem is a better predictor of achievement for males than for females. Fink (1962) found a stronger relationship between self-esteem and school achievement for males than for females, and Shaw et al. (1960) and Shaw and Alves (1963) indicate that male achievers have more positive self-esteem than male underachievers, but that this relationship does not hold for female achievers and underachievers. Kubiniec (1970) using a factor analytic approach to the measurement of self-esteem found a significant relationship between "phenomenal self" and achievement for males but not for females. Kubiniec (1970) concludes that for males the

evaluative aspect of self, regardless of the descriptive aspects account for variations in achievement. This evaluative factor does not appear to be important for the female. In fact, for females, perception of the external environment appears to be a more important factor in achievement than perception of self.

The differences between males and females, where they do occur can perhaps be interpreted in that high academic achievement may negatively affect a girl's social image, with academic ability interfering with popularity. Consequently, the academically oriented female may perceive her achievements as a barrier to her social status and may begin to view herself in a less positive manner (Winchell et al., 1974; Horner, 1970, 1972). Williams (1977) indicated that high achieving females experience a paradox "because the feminine image does not include the display of intelligence, competence, and skill mastery, nor it is compatible with high-level academic or vocational achievement" (p. 185). In the present study, there was a sex difference, but only amongst Arab subjects, which again may have resulted from significant changes in Arab society in recent years.

The results also indicated that the main effect of country on achievement was not significant, but that the trend of the results indicated that Arab students had a

higher score on achievement than English students. Melikian et al. (1971) found that students from underdeveloped countries had a higher score on achievement than British students. Melikian et al. (1971) say that "McClelland's results also indicate that the level of achievement in Britain is low by international comparisons" (p. 184). Arab students may seek to achieve in order to fulfill parents' expectations, thus they may have a higher score than English students on achievement. Ramirez III and Castaneda (1974) reported a study by Ramirez and Price-Williams who Compared Mexican-American and Anglo-American children in terms of need achievement. They found that Anglo-American children scored higher on need achievement (McClelland, Atkinson, Clark and Lowell, 1953) and Mexican-American children scored higher on need achievement for the family. They indicated "That stories told by the Mexican-American children indicated that they wanted to achieve so that their parents would be proud of them so that their family might benefit from their achievements. In contrast, stories told to Anglo-American children reflected need achievement for self in which the achiever is the primary beneficiary" (p. 61). Affiliative achievement which is common in Latin-American cultures (Diaz-Guerrero, 1975) appears to be the same in the Arab culture.

However, it should be pointed out in all of these analyses that the comparisons between cultures may be confounded by a number of factors. Thus there may be

differences in assessment, and the analysis assumes standard procedures governing entry requirement, which may in fact admit students of widely differing ability across cultures. Direct comparisons are problematic in these circumstances, and the results must be regarded as tentative.

CHAPTER EIGHT

GENERAL SUMMARY, DISCUSSION AND CONCLUSIONS

8.1   INTRODUCTION

This chapter will attempt to summarize the main findings from
this research and attempt to combine them with conclusions
from the previous chapters. The wider implications of the
work will also be discussed together with   suggested
directions for future research.

It was said in the first chapter that the main aim of
this study was to compare British and Arab students (York and
Riyadh) differing in self-esteem and locus of control on
achievement, conformity and cooperation and competition.
However, cross-cultural research on self-esteem has been
inconclusive (Knight et al., 1978). Bond and Cheung indicate
that "there has ... been remarkably little research on self-
concept done in cultures outside the North American and North
Europeans axis compared to the amount of research on topics
such as leadership, modernization and conformity" (1983, p.
153-154).   There has been little work on self-esteem in Arab
cultures,   and the other main independent variable in this
study, locus of control, has similarly been neglected in the

Middle East. In the same way, the independent variables have not been extensively investigated in an Arab context - although there has been some cross-cultural research on conformity, there has been almost none using Arab students; one exception here is the work of Amir (1984), who was able to replicate the "Asch effect" in Kuwait.

The importance of cross-cultural studies cannot be overemphasized - Lambert, and Weisbrod (1971) indicated that, cross-cultural studies not only provide information and ideas about behaviour in other cultures, which is of interest in itself, but they may indirectly increase our understanding of behaviour in our own culture. This chapter will summarize the major findings of the research in the same way proposed by the project, and will discuss these results. Subsequently, the implications that these findings may have concerning cross-cultural studies will be explored.

8.2 METHODOLOGICAL ISSUE

One of the main aims of this research was to develop a valid and reliable scale for measuring self-esteem in cross-cultural context. The absence of a valid and reliable scale for measuring self-esteem in British and Arab settings (York and Riyadh) encouraged the development of multidimensional scale "Taisir Self-esteem Questionnaire" (TSQ). Bagley, et

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al. (1982) indicate that "Self-esteem research is not a well developed field in Britain, where personality theorists such as Eysenk and Cattell have dominated both theory and measurement of "self-sentiment" ... Nevertheless, a question mark hangs over studies which have attempted to use American measures in British settings without establishing their validity, and sometimes even their reliability is use with the British populations" (p. 214).

The questionnaire was designed to measure the behavioural and attitudinal concerns which are associated with self-esteem. Many existing scales have little validity and reliability (Wylie, 1974; Wells and Marwell, 1976), and the scale in TSQ is proposed as a valid and reliable alternative to existing scales for cross-cultural research, especially between Arab and English samples, since the factor analyses produced broadly similar factors in both cultures Factor analysis of the English sample produced two factors, "Negative self-image" and "Positive Self-worth", also, the factor analysis of Arab sample produce two similar factors "Positive Self-worth" and "Negative Self-image". There were thus clear similarities in the factor structure among English and Arab samples, and the factor analysis of pooled samples (English and Arab) produce four factors labelled "Physical Appearance", "Negative Self-image", "Trustworthiness" and "Positive Self-worth ".

The demonstration of the similarity of factor structure across English and Arab subjects is important, providing a rationale for comparison of mean difference in the level of self-esteem, and the Taisir's Self-esteem Questionnaire was found to be reliable and valid for measuring self-esteem in English and Arab samples, thus establishing its utility as an instrument for measuring self-esteem in this context.

8.3 RESULTS OF THE STUDY

The research findings reviewed in the initial chapters indicated that there are cultural differences is self-esteem, locus of control, and conformity, and that there was a positive relationship between self-esteem and achievement. However, there are a number of problems inherent in cross-cultural studies, some of which are:

i   The specific meanings of the words may differ from culture to culture.

ii Even if the meaning of the words is the same, still there are differences between both countries (West, East).

iii There are differences in socialization across countries and among each country subgroup (male and female).

iv While the two samples may be representative of the geographical areas from which they were chosen, still they may not be representative of the student subjects

population in their respective countries as a whole.

v   The cross-cultural research on self-esteem, locus of control, achievement, and conformity is criticized for the lack of comparability between different results because of different scales and methods are used Przeworski and Teune (1970).

The difficulties indicated above should be kept in mind when interpreting the present findings.

The results comparing the two samples on the TSQ showed that English students have a higher score on physical appearance than Arab students. English and Arab females had higher scores on physical appearance than English and Arab males, although the differences were not significant. Thus the English sample were more satisfied with their physical appearance than the Arab Sample, which is consistent with the results reported by Lerner, et al. (1980) in a different cultural context, indicating that Japanese have less favorable views of their bodies than do American subjects. Similarly Arab students have higher score on Negative Self-image than English students and although the effect of sex was not significant, English and Arab females tended to have higher scores than English and Arab males.

The results may be interpreted because of cultural and

socialization differences between both countries, which are reflected in Sharabi's (1977) description of the socialization process in Arab culture: "The child learns to form his self-image in accordance with the opinion of others around him; he is discouraged from developing personal standards that would allow him to become independent of the opinion of others. This is strengthened by a pattern of socialization which puts little premium on questioning or independent judgment. The child is actively discouraged from trusting his own judgment and encouraged, on the contrary, always to submit to the judgment of others" (p. 246).

English students also had a higher score on Trustworthiness than Arab students and although the interaction between Sex and Country was not significant, some sex differences were revealed in the two cultures: English females obtained a higher score on Trustworthiness than English males, while Arab females obtained a lower score than Arab males. There was a significant main effect for Country on Positive Self-worth, indicating that English students have a higher score on Positive Self-worth than Arab students. Although none of the other effects was significant, there was a trend for English and Arab males to have higher scores than females, and for English females to have higher scores than Arab females.

In summary, the results confirmed that there is a

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significant difference in self-esteem between English and Arab samples. The results, also, in general indicated that there were no significant differences between males and females within countries. This is consistent with other research results (Coopersmith, 1967; Maccoby and Jacklin, 1974; Lerner et al., 1980). Wylie (1979) in her comprehensive review of research on self-esteem which was done before 1979 indicated that there was no evidence for sex differences in self-esteem scores. While the sex differences within countries were not significant, the trend for English females had higher self-esteem than males. This is consistent with Weinland, et al. (1976), who found that American females tend to have higher self-esteem than males. In the case of the Arab sample, however, males tend to have higher self-esteem than females, which may be explained by the fact that English society encouraged more freedom than Arab society, particularly amongst women, who are free from the family stress to attend college and higher education.

The results for locus of control indicated that Arab students have a higher score on personal efficacy than English students. The results, also, showed that neither the main effect of sex nor the interaction effect between sex and country were significant, although English females tended to have a higher score on personal efficacy than males; Arab males on the other hand had a higher score than females. On

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interpersonal control the results showed that there were no statistically significant effects, but on Sociopolitical control, Arab students had a higher score than English students. English females tended to have a higher score on sociopolitical control than males, while the reverse occurs for Arabs but the differences were not significant.

The lack of sex differences on locus of control in the present study are consistent with other findings. Phares (1976), for example, indicated that "A wide majority of studies does not find significant differences in I-E scores between men and women" (p. 44). The trends, however, are consistent, since Arab culture gives more responsibility to males than females; the role is very clear at home, school, and work. The broader cultural differences on locus of control may be interpreted because of the differences in religion and social organization between English and Arab samples. There are a big differences between both samples in values, customs, and traditions.

The analysis of the Choice Dilemma paradigm derived from the PDG was based on Hiloglinear model (SPSSX, 1983), which allows analysis of the three-way contingency tables (in this case, Country by Choice (Red and Black) by Internal-External). Although 15 trials were used, only the analysis for the initial trial (Trial 1) and trials 3, 5, and 7 were

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discussed. Trial 3 followed bogus feedback of two consecutive competitive (Red) responses, as did trial 7, while trial five followed two cooperative (Black) responses.

In summary the results showed some interesting differences between cultures: for example, on the Personal Efficacy subscale from the SOCQ, Arab subjects showed a much greater tendency to respond cooperatively at first. On trial 5, the internal (but not external) English subjects tended to retaliate with Red, an effect which was less marked in Arab subjects. On trial seven, however, the English externals and internals showed a more or less even distribution between Red and Black while Arabs, especially internals, showed a retaliatory Red response. It appears that British society emphasizes competition more than the Arab societies in general, which may due to the differences in religion, values, and social variables between both cultures; Bethlehem (1975), for example has provided some evidence that there is a tendency for Western countries to an increase of competitiveness rather than cooperation. However, Arab subjects do respond competitively if provoked, while English subjects tended towards less competitive responses. Interestingly, the data were somewhat less supportive for the Interpersonal Control factor, and there were few comparable effects for self-esteem. For the relationship between self-esteem and achievement, on the other hand, the results showed

that there was a modest but positive correlation for both English and Arab samples respectively. However, the findings relating to self-esteem and achievement are confounded by possible differences in students selection procedures and standards of assessment between the two countries, and the data should therefore be interpreted with caution.

The results of the conformity experiment with Arab subjects showed that 35% conformed on more than one trial, while 65% of subjects did not conform at all. The number of errors varied from zero to eleven, the mean was 1.6. By comparison 74% of Asch's (1956) subjects conformed on one or more trials and the mean was 3.84. Overall, Asch reported 32% conformity, while in this experiment it was only 14%. The findings of this study are thus close to recent Western results; Nicholson, et al. (1985) found that the mean conformity rate was .58 in British students subjects, 1.86 amongst American subjects, comparing with 1.5 in the present study.

The failure to replicate the "Asch effect" does not mean that conformity does not exist (Doms and Van Avermaet, 1981), and if we compare the results of this experiment to the results reported by Perrin and Spencer (1980) and Nicholson et al. (1985) it can be said that the conformity rate in Arab society appears to be higher than in British society. However, the results for the Saudi sample are markedly

different from those reported for Kuwaiti subjects by Amir (1984), who replicated closely Asch's original findings. These differences emphasis the error of assuming uniformity amongst Arab cultures, and cautions against simplistic ditinctions between cultures is this kind of research. Sex differences in self-esteem and locus of control scores were also taken into account in this part of the study, but there were no significant effects.

The results of the project provide some interesting cross-cultural information concerning self-esteem, locus of control, achievement, and conformity. Researchers may wish to examine further cultural differences that may help to explain these findings. In summary these findings, of course, must be tested through replication. We can summarize the results of this study by saying that there are differences between English and Arab samples. These differences are due to the differences in social, values, cultural, socialization process between both countries.

8.4 IMPLICATIONS FOR FURTHER STUDIES

This study is only a first step in comparing English and Arab student subjects, and points to the need for more research with other samples and groups. Only after the accumulation of

larger and broader samples we will be able to make generalizations and predictions with any confidence. The research methodology employed in this study is recommended for its ability to obtain more reliable and valid information on the variables studied, but again further research is needed on the role of self-esteem and locus of control in Arab society.

One question that may be asked is whether these samples represent English and Arab populations, and can we generalize these results? Comparisons with other data (for example Amir 1984, 1986) indicate further research is needed to determine if the results generalize to other subcultures. It is suggested that, in any replication or further exploration of the findings of this study the sample size be increased in order to determine more conclusively significant differences between sexes and cultures.

In conclusion, an important aspect of this study is that it utilized a multi-level approach. Fyans (1979) has postulated that all cross-cultural research should be conducted from a multiple-level framework which would simultaneously examine the influence of culture components as well as situational. The multiple level framework permits the investigation of the effects of the interactions between variables from any of these levels (Fyans, 1979). Also, the results contribute to the construct validity of self-esteem

and locus of control, and provide clear guidelines for future research. The study resulted in a self-esteem scale appropriate for cross-cultural work, which should prove valuable in future research.

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APPENDICES

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Appendix D(7.1)   Chapter Seven Summary Tables

Taisir Self-esteem Questionnaire (TSQ)

Name: Age: Sex:

INSTRUCTIONS: Please indicate how you feel about each of the items below by circling the appropriate response. The responses appear on the right-hand side of the page, and have been abbreviated as follows: SA = Strongly Agree, A = Agree, D = Disagree, and SD = Strongly Disagree.

Please remember to answer all items and to circle only one response to each item.

Note: SA = Strongly Agree, A = Agree, D = Disagree, and SD = Strongly Disagree.

1. Generally speaking, I have a positive

   attitude towards myself.   SA   A   D   SD

2. I feel as a person I am valued

   by others.   SA   A   D   SD

3. I often wish I could have more

   respect for myself.   SA   A   D   SD

4. There are times when I feel useless.   SA   A   D   SD

5. I think I am an honest person.   SA   A   D   SD

6. Generally, I am able to do things

   as well as most other people.   SA   A   D   SD

7. My friends have no confidence in me.   SA   A   D   SD

8. On the whole I am seldom satisfied

   with my self.   SA   A   D   SD

9. Sometimes I have ups and downs, but

   I think I am a worthwhile person.   SA   A   D   SD

10. There are a lot of things about myself

    that I would like to change.   SA   A   D   SD

11. Generally, I feel quite confident and

    sure of myself.   SA   A   D   SD

12. Things are all mixed up in my life.   SA   A   D   SD

13. I often wish I were someone else.   SA   A   D   SD

14. I have quite a low opinion of myself.   SA   A   D   SD

15. If things go wrong, I tend to

    blame myself.   SA   A   D   SD

16. I think I have an attractive
    personality.   SA   A   D   SD

17. I often worry about what other people
    think of me.   SA   A   D   SD

18. I worry that other people might regard
    me as a failure.   SA   A   D   SD

19. I take good care of myself physically.   SA   A   D   SD

20. I often have a good feeling of
    well-being.   SA   A   D   SD

21. I am satisfied with my appearance.   SA   A   D   SD

22. Sometimes, I feel that I can't do
    anything well.   SA   A   D   SD

23. I think I am a sensitive person.   SA   A   D   SD

24. I like being who I am.   SA   A   D   SD

25. Generally, I think I am a happy
    person.   SA   A   D   SD

26. All in all, my friends trust me.   SA   A   D   SD

27. I often feel that I am a failure.   SA   A   D   SD

28. Sometimes, I feel I can't trust
    people.   SA   A   D   SD

29. I am usually satisfied with my
    friends.   SA   A   D   SD

30. I generally feel that other people
    like me.   SA   A   D   SD

31. I think that my family can rely on me.   SA   A   D   SD

32. I am usually a friendly person.   SA   A   D   SD

33. I am satisfied with my family

    relationships.   SA   A   D   SD

34. I feel that I have a number of

    good qualities.   SA   A   D   SD

35. People generally think of me as

    a decent person.   SA   A   D   SD

```
8.915 +   *
      I
      I
      I
      I
      I
2.679 +        *
      I
      I           *
      I            *  *
      I               *  *
1.553 +                  *
1.325 +                  *  *
1.209 +                     *  *
 .951 +                        *  *
 .757 +                           *  *
 .578 +                              *  *
 .394 +                                 *  *
 .260 +                                    *  *  *
 .000 +                                          *  *  *
```
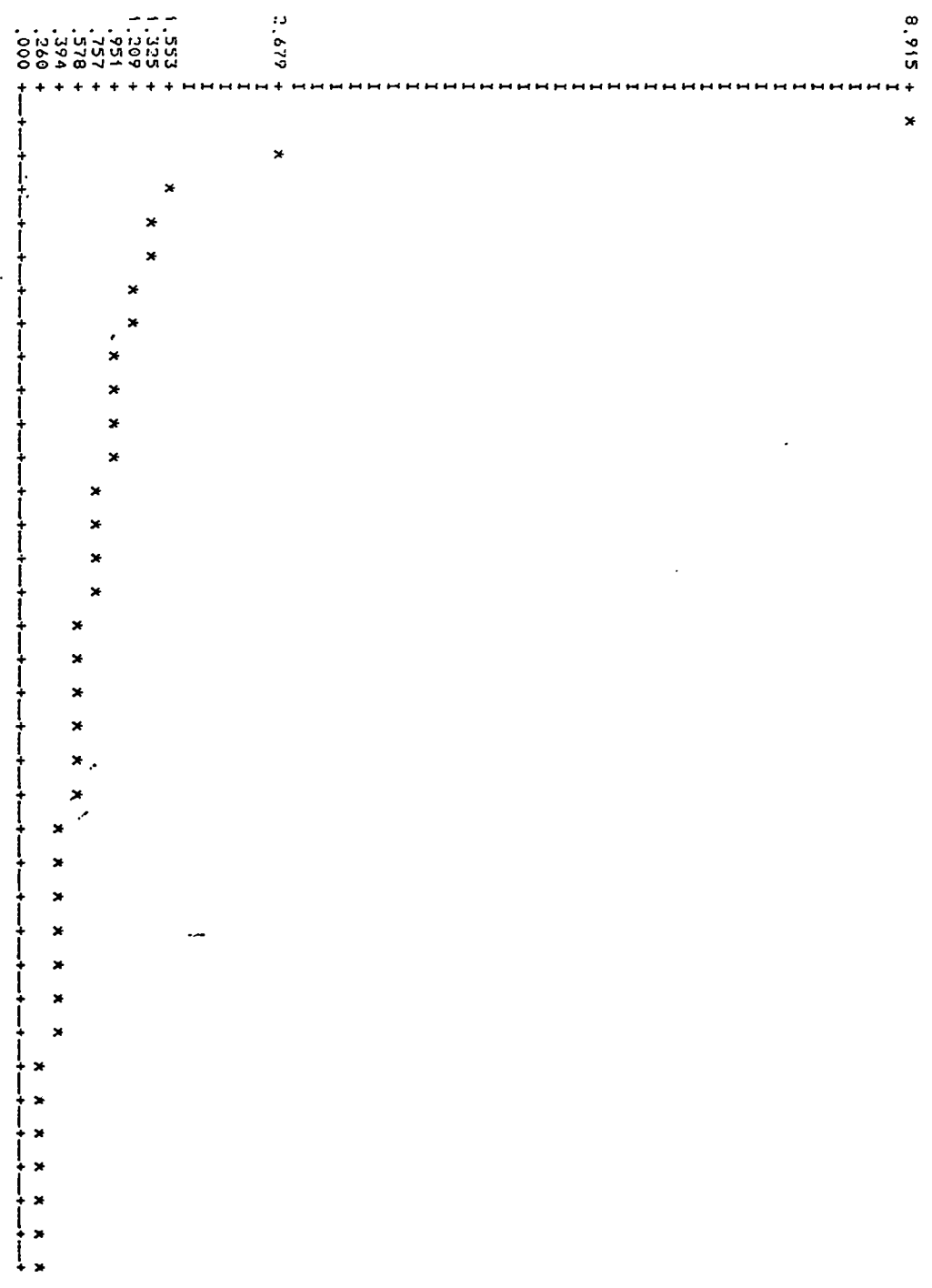
APPENDIX A(2)   CHAPTER FOUR
Scree Plot for Taisir Self-esteem Questionnaire
(TSQ) English sample

EIGENVALUES

```
6.416 +  *
      I
      I
      I
      I
      I
      I
      I
      I
      I
3.107 +        *
      I
      I           *
      I             *
      I            * * *
      I               * *
1.622 +                 *
1.399 +                * *
1.235 +                  * * *
1.106 +                    * * * *
 .978 +                      * * * *
 .806 +                        * * * *
 .679 +                          * * * *
 .559 +                            * * * *
 .425 +                              * * * *
 .291 +                                * * * *
 .000 +                                  * * *
```
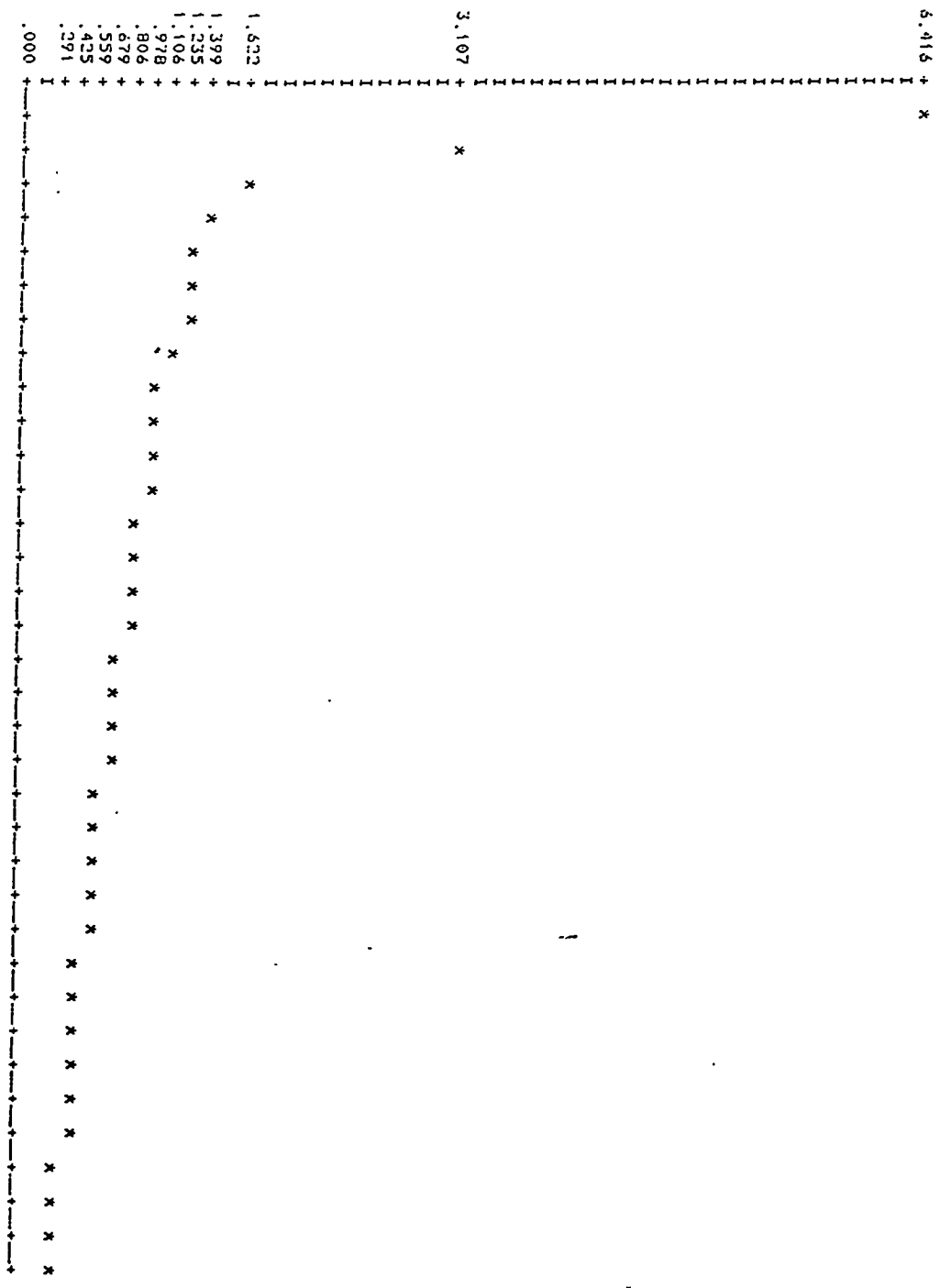

APPENDIX A(3)   CHAPTER FOUR

Scree Plot for Taisir Self-esteem Questionnaire (TSQ)

<u>Arab sample</u>

APPENDIX A(4) CHAPTER FOUR
Scree Plot for Taisir Self-esteem Questionnaire (TSQ)
English/Arab samples

Sphere-Specific Measures of Perceived Control (SOCQ)

Name: Age: Sex:

INSTRUCTIONS: Please indicate how you feel about each of the items by circling either the 'TRUE' or the 'FALSE' in the right-hand column. If you feel that an item is either neither entirely true nor false, please choose the alternative that is most characteristic of yourself.

1. Even when I'm feeling self-confident about most things, I still seem to lack the ability to control social situations.   TRUE   FALSE

2. The average citizen can have an influence on government decisions.   TRUE   FALSE

3. My major accomplishments are entirely due to my hard work and ability.   TRUE   FALSE

4. I find it easy to play an important part in most group situations   TRUE   FALSE

5. I often find it hard to get my point of view across to others.   TRUE   FALSE

6. Bad economic conditions are caused by world events that are beyond our control.   TRUE   FALSE

7. In the long run we, the voters, are responsible for bad government on a national as well as a local level.   TRUE   FALSE

8. I usually don't set goals because I have a hard time following through on them.   TRUE   FALSE

9. When I get what I want it's usually because I worked hard for it.   TRUE   FALSE

10. I have no trouble making and keeping friends.   TRUE   FALSE

11. When being interviewed I can usually steer the interviewer toward the topics I want to talk about and away from those I wish to avoid.　　TRUE　　FALSE

12. It's pointless to keep working on something that's too difficult for me.　　TRUE　　FALSE

13. On any sort of exam or competition I like to know how well I do relative to everyone else.　　TRUE　　FALSE

14. One of the major reasons wars is because people don't take enough interest in politics.　　TRUE　　FALSE

15. By taking an active part in political and social affairs we, the people, can control world events.　　TRUE　　FALSE

16. If I need help in carrying off a plan of mine, it's usually difficult to get others to help.　　TRUE　　FALSE

17. I can usually establish a close personal relationship with someone I find attractive.　　TRUE　　FALSE

18. When I make a plans I am almost certain to make them work.　　TRUE　　FALSE

19. Competition discourages excellence.　　TRUE　　FALSE

20. I'm not good at guiding the course of a conversation with several others.　　TRUE　　FALSE

21. If there's someone I want to meet I can usually arrange it.　　TRUE　　FALSE

22. It is difficult for people to have much control over the things politicians do in office.　　TRUE　　FALSE

23. I prefer to concentrate my energy on other things rather than on solving the world's problems.　　TRUE　　FALSE

24. There is nothing we, as consumers, can do to keep the cost of living from going higher.　　TRUE　　FALSE

25. In attempting to smooth over a disagreement I usually make it worse.　　TRUE　　FALSE

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26. I prefer games involving some luck
over games requiring pure skill.   TRUE   FALSE

27. When I look at it carefully I realize
it is impossible to have any really
important influence over what big
businesses do.   TRUE   FALSE

28. I can learn almost anything if I set
my mind to it.   TRUE   FALSE

29. With enough effort we can wipe out
political corruption.   TRUE   FALSE

30. Often people get ahead just by
being lucky.   TRUE   FALSE

Table (5.B)

Random feedback which was given to the subjects

Trial Number

1- Black.
2- Red.
3- Red.
4- Black.
5- Black.
6- Red.
7- Red.
8- Black.
9- Black.
10- Black.
11- Black.
12- Red.
13- Black.
14- Black.
15- Black.

Table 5-1

MEANS AND STANDARD DEVIATION OF TOTAL TSQ SCORE OF ENGLISH AND ARAB SAMPLES.

TOTAL	CODE	MEAN	STD. DEV	N
SEX	MALE			
COUNTRY	ENGLISH	71.735	11.758	49
COUNTRY	ARAB	68.490	11.000	49
SEX	FEMALE			
COUNTRY	ENGLISH	73.821	10.300	39
COUNTRY	ARAB	68.333	9.993	39
FOR ENTIRE SAMPLE		70.540	10.995	176

Table 5-2

Analysis of Variance (Total Score by Sex and Country)

SOURCE OF VARIATION	SS	DF	MS	F	SIGNF OF F
MAIN EFFECTS	830.924	2	415.462	3.525	0.032
SEX	40.418	1	40.418	0.343	0.559
COUNTRY	790.506	1	790.506	6.708	0.010
2-WAY INTERACTIONS	54.592	1	54.592	0.463	0.497
SEX BY COUNTRY	54.592	1	54.592	0.463	0.497
EXPLAINED	885.515	3	295.172	2.505	0.061
RESIDUAL	20270.206	172	117.850		
TOTAL	21155.722	175	120.890		

Table 5-3

T-TEST BETWEEN ENGLISH AND ARAB SAMPLES ON TOTAL TSQ SCORE

VARIABLE	N	MEAN	S.D.	T VALUE	DF	2-TAIL PROB
TOTAL TSQ SCORE						
ENGLISH	88	72.659	11.122			
ARAB	88	68.420	10.506	2.60	174	0.01

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Table 5-4

MEANS AND STANDARD DEVIATION OF PHYSICAL APPEARANCE (FACTOR I) OF ENGLISH AND ARAB SAMPLES.

FI	CODE	MEAN	STD. DEV	N
SEX	MALE			
COUNTRY	ENGLISH	17.510	3.163	49
COUNTRY	ARAB	13.490	2.807	49
SEX	FEMALE			
COUNTRY	ENGLISH	17.923	3.055	39
COUNTRY	ARAB	13.897	2.673	39
FOR ENTIRE SAMPLE		15.682	3.549	176

Table 5-5

Analysis of Variance (Physical Appearance by Sex and Country)

SOURCE OF VARIATION	SS	DF	MS	F	SIGNF OF F
MAIN EFFECTS	719.333	2	359.666	41.663	0.001
SEX	7.310	1	7.310	0.847	0.359
COUNTRY	712.023	1	712.023	82.478	0.001
2-WAY INTERACTIONS	0.000	1	0.000	0.000	0.995
SEX BY COUNTRY	0.000	1	0.000	0.000	0.995
EXPLAINED	719.33	3	239.778	27.775	0.001
RESIDUAL	1484.849	172	8.633		
TOTAL	2204.182	175	12.595		

Table 5-6

MEANS AND STANDARD DEVIATION OF NEGATIVE SELF-IMAGE (FACTOR II) OF ENGLISH AND ARAB SAMPLES.

FII	CODE	MEAN	STD. DEV	N
SEX	MALE			
COUNTRY	ENGLISH	32.857	6.727	49
COUNTRY	ARAB	35.469	7.349	49
SEX	FEMALE			
COUNTRY	ENGLISH	34.359	6.884	39
COUNTRY	ARAB	35.872	5.992	39
FOR ENTIRE SAMPLE		34.585	6.837	176

Table 5-7

Analysis of Variance (NEGATIVE SELF-IMAGE by Sex and Country)

SOURCE OF VARIATION	SS	DF	MS	F	SIGNF OF F
MAIN EFFECTS	238.060	2	119.030	2.582	0.079
SEX	39.372	1	39.372	0.854	0.357
COUNTRY	198.687	1	198.687	4.310	0.039
2-WAY INTERACTIONS	13.124	1	13.124	0.285	0.594
SEX BY COUNTRY	13.124	1	13.124	0.285	0.594
EXPLAINED	251.184	3	83.728	1.816	0.146
RESIDUAL	7929.537	172	46.102		
TOTAL	8180.772	175	46.747		

Table 5-8

T-TEST BETWEEN ENGLISH AND ARAB SAMPLES ON PHYSICAL
APPEARANCE (FACTOR I), NEGATIVE SELF-IMAGE (FACTOR II),
TRUSTWORTHINESS (FACTOR III), AND POSITIVE SELF-WORTH (FACTOR
IV).

VARIABLE		N	MEAN	S.D.	T VALUE	DF	2-TAIL PROB
FI	ENGLISH	88	17.693	3.105			
	ARAB	88	13.671	2.741	9.11	174	0.001
FII	ENGLISH	88	33.522	6.799			
	ARAB	88	35.647	6.747	-2.08	174	0.039
FIII	ENGLISH	88	16.375	2.597			
	ARAB	88	14.352	2.829	4.94	174	0.001
FIV	ENGLISH	88	9.909	1.672			
	ARAB	88	8.840	2.472	3.36	174	0.001

Table 5-9

MEANS AND STANDARD DEVIATION OF TRUSTWORTHINESS (FACTOR III)
OF ENGLISH AND ARAB SAMPLES.

FIII	CODE	MEAN	STD. DEV	N
SEX	MALE			
COUNTRY	ENGLISH	16.245	2.537	49
COUNTRY	ARAB	14.571	2.972	49
SEX	FEMALE			
COUNTRY	ENGLISH	16.538	2.694	39
COUNTRY	ARAB	14.077	2.650	39
FOR ENTIRE SAMPLE		15.364	2.891	176

Table 5-10

Analysis of Variance (TRUSTWORTHINESS by Sex and Country).

SOURCE OF VARIATION	SS	DF	MS	F	SIGNF OF F
MAIN EFFECTS	180.461	2	90.231	12.231	0.001
SEX	0.438	1	0.438	0.059	0.808
COUNTRY	180.023	1	180.023	24.275	0.001
2-WAY INTERACTIONS	6.743	1	6.743	0.909	0.342
SEX BY COUNTRY	6.743	1	6.743	0.909	0.342
EXPLAINED	187.205	3	62.205	8.415	0.001
RESIDUAL	1275.523	172	7.416		
TOTAL	1462.727	175	8.358		

Table 5-11

T-TEST BETWEEN ENGLISH AND ARAB FEMALES ON PHYSICAL

APPEARANCE FACTOR I), NEGATIVE SELF-IMAGE (FACTOR II),

TRUSTWORTHINESS (FACTOR III), AND POSITIVE SELF-WORTH (FACTOR

IV)

VARIABLE	N	MEAN	S.D.	T VALUE	DF	2-TAIL PROB
FACTOR I						
ENGLISH	39	17.923	3.055	6.19	75	.001
ARAB	39	13.897	2.673			
FACTOR II						
ENGLISH	39	34.359	6.884	-1.04	75	.304
ARAB	39	35.871	5.992			
FACTOR III						
ENGLISH	39	16.538	2.694	4.07	76	.001
ARAB	39	14.076	2.650			
FACTOR IV						
ENGLISH	39	9.871	1.641	3.14	66	.002
ARAB	39	8.384	2.456			

Table 5-12

MEANS AND STANDARD DEVIATION OF POSITIVE SELF-WORTH
(FACTOR IV) OF ENGLISH AND ARAB SAMPLES

FIV	CODE	MEAN	STD. DEV	N
SEX	MALE			
COUNTRY	ENGLISH	9.939	1.713	49
COUNTRY	ARAB	9.204	2.449	49
SEX	FEMALE			
COUNTRY	ENGLISH	9.872	1.641	39
COUNTRY	ARAB	8.385	2.456	39
FOR ENTIRE SAMPLE		9.375	2.172	176

Table 5-13

Analysis of Variance (POSITIVE SELF-WORTH by Sex and Country).

SOURCE OF VARIATION	SS	DF	MS	F	SIGNF OF F
MAIN EFFECTS	58.737	2	29.368	6.643	0.002
SEX	8.532	1	8.532	1.930	0.167
COUNTRY	50.205	1	50.205	11.357	0.001
2-WAY INTERACTIONS	6.148	1	6.148	1.391	0.240
SEX BY COUNTRY	6.148	1	6.148	1.391	0.240
EXPLAINED	64.885	3	21.628	4.892	0.003
RESIDUAL	760.365	172	4.421		
TOTAL	825.250	175	4.716		

Table 5-14

T-TEST BETWEEN ENGLISH AND ARAB MALES ON PHYSICAL APPEARANCE

(FACTOR I), NEGATIVE SELF-IMAGE (FACTOR II), TRUSTWORTHINESS

(FACTOR III), AND POSITIVE SELF-WORTH (FACTOR IV)

VARIABLE	N	MEAN	S.D.	T VALUE	DF	2-TAIL PROB
FACTOR I						
ENGLISH	49	17.510	3.163	6.65	95	.001
ARAB	49	13.489	2.807			
FACTOR II						
ENGLISH	49	32.857	6.727	-1.84	95	.070
ARAB	49	35.469	7.349			
FACTOR III						
ENGLISH	49	16.244	2.537	3.00	94	.003
ARAB	49	14.571	2.972			
FACTOR IV						
ENGLISH	49	9.938	1.713	1.72	86	.089
ARAB	49	9.204	2.449			

Table 5-14B

MEANS AND STANDARD DEVIATION OF PERSONAL EFFICACY (PE) OF ENGLISH AND ARAB SAMPLES.

PE	CODE	MEAN	STD. DEV	N
SEX	MALE			
COUNTRY	ENGLISH	6.122	2.195	49
COUNTRY	ARAB	7.854	1.353	48
SEX	FEMALE			
COUNTRY	ENGLISH	6.385	1.900	39
COUNTRY	ARAB	7.590	1.874	39
FOR ENTIRE SAMPLE		6.983	1.990	175

Table 5-15

Analysis of Variance (Personal efficacy by Sex and Country).

SOURCE OF VARIATION	SS	DF	MS	F	SIGNF OF F
MAIN EFFECTS	98.040	2	49.020	14.258	0.001
SEX	0.000	1	0.000	0.000	1.000
COUNTRY	98.038	1	98.038	28.515	0.001
2-WAY INTERACTIONS	2.997	1	2.997	0.872	0.352
SEX BY COUNTRY	2.997	1	2.997	0.872	0.352
EXPLAINED	101.037	3	33.679	9.796	0.001
RESIDUAL	587.911	171	3.438		
TOTAL	688.949	174	3.959		

Table 5-16

T-TEST BETWEEN ENGLISH AND ARAB SAMPLES ON PERSONAL EFFICACY (PE), INTERPERSONAL CONTROL (IP), AND SOCIOPOLITICAL CONTROL (SP).

VARIABLE	N	MEAN	S.D.	T VALUE	DF	2-TAIL PROB
PE ENGLISH	88	6.238	2.062			
ARAB	87	7.735	1.603	-5.36	173	0.001
IP ENGLISH	88	6.556	0.284			
ARAB	88	6.747	0.229	-0.52	173	0.603
SP ENGLISH	88	4.215	2.456			
ARAB	87	5.816	1.859	-4.86	173	0.001

Table 5-17

MEANS AND STANDARD DEVIATION OF INTERPERSONAL CONTROL OF
ENGLISH AND ARAB SAMPLES.

IP	CODE	MEAN	STD. DEV	N
SEX	MALE			
COUNTRY	ENGLISH	6.143	2.791	49
COUNTRY	ARAB	6.875	1.864	48
SEX	FEMALE			
COUNTRY	ENGLISH	7.077	2.432	39
COUNTRY	ARAB	6.590	2.446	39
FOR ENTIRE SAMPLE		6.651	2.411	175

Table 5-18

Analysis of Variance (Interpersonal control by Sex and

Country).

SOURCE OF VARIATION	SS	DF	MS	F	SIGNF OF F
MAIN EFFECTS	6.213	2	3.107	0.537	0.586
SEX	4.629	1	4.629	0.800	0.372
COUNTRY	1.557	1	1.557	0.269	0.605
2-WAY INTERACTIONS	16.069	1	16.069	2.777	0.097
SEX BY COUNTRY	16.069	1	16.069	2.777	0.097
EXPLAINED	22.282	3	7.427	1.284	0.282
RESIDUAL	989.455	171	5.789		
TOTAL	1011.737	174	5.815		

Table 5-19

MEANS AND STANDARD DEVIATION OF SOCIOPOLITICAL CONTROL OF ENGLISH AND ARAB SAMPLES.

SP	CODE	MEAN	STD. DEV	N
SEX	MALE			
COUNTRY	ENGLISH	4.000	2.654	49
COUNTRY	ARAB	6.104	1.666	48
SEX	FEMALE			
COUNTRY	ENGLISH	4.487	2.187	39
COUNTRY	ARAB	5.462	2.037	39
FOR ENTIRE SAMPLE		5.011	2.317	175

Table 5-20

Analysis of Variance (Sociopolitical control

by Sex and Country).

SOURCE OF VARIATION	SS	DF	MS	F	SIGNF OF F
MAIN EFFECTS	112.266	2	56.133	11.881	0.001
SEX	0.244	1	0.244	0.052	0.820
COUNTRY	112.073	1	112.073	23.721	0.001
2-WAY INTERACTIONS	13.796	1	13.796	2.920	0.089
SEX BY COUNTRY	13.796	1	13.796	2.920	0.089
EXPLAINED	126.062	3	42.021	8.894	0.001
RESIDUAL	807.519	171	4.725		
TOTAL	807.519	174	5.368		

Table 5-21

T-TEST BETWEEN ENGLISH MALES AND FEMALES ON PERSONAL
EFFICACY, INTERPERSONAL CONTROL, AND SOCIOPOLITICAL CONTROL.

VARIABLE	N	MEAN	S.D.	T VALUE	DF	2-TAIL PROB
PERSONAL EFFICACY						
MALE	49	6.122	2.195	-0.59	86	.550
FEMALE	39	6.384	1.900			
INTERPERSONAL CONTROL						
MALE	49	6.142	2.791	-1.65	86	.097
FEMALE	39	7.076	2.432			
SOCIOPOLITICAL CONTROL						
MALE	49	4.000	2.654	-0.92	86	.348
FEMALE	39	4.487	2.187			

Table 5-22

T-TEST BETWEEN ARAB MALES AND FEMALES ON PERSONAL EFFICACY,
INTERPERSONAL CONTROL, AND SOCIOPOLITICAL CONTROL.

VARIABLE	N	MEAN	S.D.	T VALUE	DF	2-TAIL PROB
PERSONAL EFFICACY						
MALE	48	7.854	1.353	0.76	85	.463
FEMALE	39	7.589	1.874			
INTERPERSONAL CONTROL						
MALE	48	6.875	1.864	0.62	85	.550
FEMALE	39	6.589	2.446			
SOCIOPOLITICAL CONTROL						
MALE	48	6.104	1.666	1.62	85	.117
FEMALE	39	5.461	2.037			

Table 5-23

T-TEST BETWEEN ENGLISH AND ARAB MALES ON PERSONAL EFFICACY, INTERPERSONAL CONTROL, AND SOCIOPOLITICAL CONTROL.

VARIABLE	N	MEAN	S.D.	T VALUE	DF	2-TAIL PROB
PERSONAL EFFICACY						
ENGLISH	49	6.122	2.195	-4.67	95	.001
ARAB	48	7.854	1.353			
INTERPERSONAL CONTROL						
ENGLISH	49	6.142	2.791	-1.52	95	.132
ARAB	48	6.875	1.864			
SOCIOPOLITICAL CONTROL						
ENGLISH	49	4.000	2.654	-4.67	95	.001
ARAB	48	6.104	1.666			

Table 5-24

T-TEST BETWEEN ENGLISH AND ARAB FEMALES ON PERSONAL EFFICACY, INTERPERSONAL CONTROL, AND SOCIOPOLITICAL CONTROL.

VARIABLE	N	MEAN	S.D.	T VALUE	DF	2-TAIL PROB
PERSONAL EFFICACY						
ENGLISH	39	6.384	1.900	-2.82	76	.006
ARAB	39	7.589	1.874			
INTERPERSONAL CONTROL						
ENGLISH	39	7.076	2.432	0.88	76	.381
ARAB	39	6.589	2.446			
SOCIOPOLITICAL CONTROL						
ENGLISH	39	4.487	2.187	-2.04	76	.045
ARAB	39	5.461	2.037			

Table 6.6.1.1

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-

EXTERNAL (PERSONAL EFFICACY) ON TRIAL ONE.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	45.304	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 1	1	.623	.4300
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	20.072	.0001
COUNTRY BY TRIAL 1	1	6.590	.0103
I-E BY TRIAL 1	1	.112	.7380
COUNTRY	1	.007	.9324
INTERNAL-EXTERNAL	1	6.095	.0136
TRIAL 1	1	7.910	.0049

Table 6.6.1.2

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-

EXTERNAL (PERSONAL EFFICACY) ON TRIAL TWO.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	31.617	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 2	1	.148	.7004
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	22.843	.0001
COUNTRY BY TRIAL 2	1	2.900	.0886
I-E BY TRIAL 2	1	.917	.3383
COUNTRY	1	.007	.9324
INTERNAL-EXTERNAL	1	6.095	.0136
TRIAL 2	1	.353	.5526

Table 6.6.1.3

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (PERSONAL EFFICACY) ON TRIAL THREE.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	49.779	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 3	1	.785	.3785
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	18.768	.0001
COUNTRY BY TRIAL 3	1	1.012	.3145
I-E BY TRIAL 3	1	5.517	.0188
COUNTRY	1	.007	.9324
INTERNAL-EXTERNAL	1	6.095	.0136
TRIAL 3	1	11.091	.0009

Table 6.6.1.4

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (PERSONAL EFFICACY) ON TRIAL FOUR.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	32.974	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 4	1	.267	.6052
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	23.031	.0001
COUNTRY BY TRIAL 4	1	2.676	.1019
I-E BY TRIAL 4	1	1.297	.2547
COUNTRY	1	.007	.9324
INTERNAL-EXTERNAL	1	6.095	.0136
TRIAL 4	1	1.622	.2028

Table 6.6.1.5

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (PERSONAL EFFICACY) ON TRIAL FIVE.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	51.405	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 5	1	.179	.6721
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	17.096	.0001
COUNTRY BY TRIAL 5	1	7.146	.0075
I-E BY TRIAL 5	1	2.125	.1449
COUNTRY	1	.007	.9324
INTERNAL-EXTERNAL	1	6.095	.0136
TRIAL 5	1	8.909	.0028

Table 6.6.1.6

THE RESULTS OF HILOGLINEAR BETWEEN YORK AND ARAB INTERNAL-EXTERNAL (PERSONAL EFFICACY) ON TRIAL SIX.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	29.856	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 6	1	.022	.8818
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	21.493	.0001
COUNTRY BY TRIAL 6	1	.354	.5516
I-E BY TRIAL 6	1	.477	.4898
COUNTRY	1	.007	.9324
INTERNAL-EXTERNAL	1	6.095	.0136
TRIAL 6	1	.353	.5526

Table 6.6.1.7

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (PERSONAL EFFICACY) ON TRIAL SEVEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	47.441	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 7	1	.510	.4752
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	20.769	.0001
COUNTRY BY TRIAL 7	1	2.429	.1191
I-E BY TRIAL 7	1	.294	.5875
COUNTRY	1	.007	.9320
INTERNAL-EXTERNAL	1	6.095	.0136
TRIAL 7	1	14.834	.0001

Table 6.6.1.8

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (PERSONAL EFFICACY) ON TRIAL EIGHT.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	33.167	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 8	1	1.186	.2761
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	22.475	.0001
COUNTRY BY TRIAL 8	1	.629	.4279
I-E BY TRIAL 8	1	1.080	.2987
COUNTRY	1	.007	.9324
INTERNAL-EXTERNAL	1	6.095	.0136
TRIAL 8	1	2.605	.1065

Table 6.6.1.9

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (PERSONAL EFFICACY) ON TRIAL NINE.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	50.257	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 9	1	.951	.3294
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	17.012	.0001
COUNTRY BY TRIAL 9	1	6.855	.0088
I-E BY TRIAL 9	1	2.348	.1254
COUNTRY	1	.007	.9320
INTERNAL-EXTERNAL	1	6.095	.0136
TRIAL 9	1	6.972	.0083

Table 6.6.1.10

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (PERSONAL EFFICACY) ON TRIAL TEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	35.384	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 10	1	1.238	.2658
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	22.594	.0001
COUNTRY BY TRIAL 10	1	1.201	.2731
I-E BY TRIAL 10	1	.875	.3496
COUNTRY	1	.007	.9325
INTERNAL-EXTERNAL	1	6.095	.0136
TRIAL 10	1	4.521	.0335

Table 6.6.1.11

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (PERSONAL EFFICACY) ON TRIAL ELEVEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	38.593	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 11	1	.783	.3761
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	22.246	.0001
COUNTRY BY TRIAL 11	1	5.727	.0167
I-E BY TRIAL 11	1	.363	.5471
COUNTRY	1	.007	.9322
INTERNAL-EXTERNAL	1	6.095	.0136
TRIAL 11	1	3.823	.0505

Table 6.6.1.12

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (PERSONAL EFFICACY) ON TRIAL TWELVE

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	28.486	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 12	1	.030	.8629
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	22.125	.0001
COUNTRY BY TRIAL 12	1	.170	.6799
I-E BY TRIAL 12	1	.203	.6520
COUNTRY	1	.007	.9328
INTERNAL-EXTERNAL	1	6.095	.0136
TRIAL 12	1	.065	.7991

Table 6.6.1.13

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (PERSONAL EFFICACY) ON TRIAL THIRTEEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	51.129	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 13	1	1.167	.2799
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	19.771	.0001
COUNTRY BY TRIAL 13	1	13.494	.0002
I-E BY TRIAL 13	1	.001	.0715
COUNTRY	1	.007	.9325
INTERNAL-EXTERNAL	1	6.095	.0136
TRIAL 13	1	6.095	.0136

Table 6.6.1.14

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (PERSONAL EFFICACY) ON TRIAL FOURTEEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	29.947	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 14	1	.680	.4096
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	21.650	.0001
COUNTRY BY TRIAL 14	1	.218	.6405
I-E BY TRIAL 14	1	.376	.5396
COUNTRY	1	.007	.9326
INTERNAL-EXTERNAL	1	6.095	.0136
TRIAL 14	1	.180	.6714

Table 6.6.1.15

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (PERSONAL EFFICACY) ON TRIAL FIFTEEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	49.680	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 15	1	.006	.9360
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	21.204	.0001
COUNTRY BY TRIAL 15	1	6.937	.0084
I-E BY TRIAL 15	1	.038	.8454
COUNTRY	1	.007	.9317
INTERNAL-EXTERNAL	1	6.185	.0129
TRIAL 15	1	13.727	.0002

Table 6.6.2.1

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (INTERPERSONAL) ON TRIAL ONE.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	23.347	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 1	1	.001	.9700
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	.047	.8276
COUNTRY BY TRIAL 1	1	5.370	.0205
I-E BY TRIAL 1	1	.358	.5498
COUNTRY	1	.000	1.0000
INTERNAL-EXTERNAL	1	10.651	.0011
TRIAL 1	1	6.787	.0092

Table 6.6.2.2

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (INTERPERSONAL) ON TRIAL TWO.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	12.340	.0899
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 2	1	.701	.4026
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	.119	.7299
COUNTRY BY TRIAL 2	1	.428	.5128
I-E BY TRIAL 2	1	.031	.8592
COUNTRY	1	.007	1.0000
INTERNAL-EXTERNAL	1	10.651	.0011
TRIAL 2	1	.421	.5163

Table 6.6.2.3

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (INTERPERSONAL) ON TRIAL THREE.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	34.871	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 3	1	1.027	.3110
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	.000	.9941
COUNTRY BY TRIAL 3	1	6.472	.0110
I-E BY TRIAL 3	1	2.353	.1250
COUNTRY	1	.000	1.0000
INTERNAL-EXTERNAL	1	10.651	.0011
TRIAL 3	1	14.142	.0002

Table 6.6.2.4

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (INTERPERSONAL) ON TRIAL FOUR.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	13.605	.0587
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 4	1	.044	.8336
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	.109	.7412
COUNTRY BY TRIAL 4	1	.103	.7481
I-E BY TRIAL 4	1	.050	.8235
COUNTRY	1	.000	.9935
INTERNAL-EXTERNAL	1	10.651	.0011
TRIAL 4	1	2.639	.1043

Table 6.6.2.5

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (INTERPERSONAL) ON TRIAL FIVE.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	34.389	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 5	1	.148	.7005
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	.086	.7696
COUNTRY BY TRIAL 5	1	17.484	.0001
I-E BY TRIAL 5	1	.005	.9424
COUNTRY	1	.000	1.0000
INTERNAL-EXTERNAL	1	10.651	.0011
TRIAL 5	1	5.960	.0146

Table 6.6.2.6

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (INTERPERSONAL) ON TRIAL SIX.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	14.062	.0501
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 6	1	.631	.4270
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	.154	.6950
COUNTRY BY TRIAL 6	1	.705	.4012
I-E BY TRIAL 6	1	.711	.3990
COUNTRY	1	.007	.9942
INTERNAL-EXTERNAL	1	10.651	.0011
TRIAL 6	1	1.291	.2558

Table 6.6.2.7

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (INTERPERSONAL) ON TRIAL SEVEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	23.114	.0016
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 7	1	.668	.4138
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	.164	.6858
COUNTRY BY TRIAL 7	1	2.849	.0914
I-E BY TRIAL 7	1	.276	.5995
COUNTRY	1	.000	1.0000
INTERNAL-EXTERNAL	1	10.651	.0011
TRIAL 7	1	8.608	.0033

Table 6.6.2.8

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (INTERPERSONAL) ON TRIAL EIGHT.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	14.119	.0491
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 8	1	.002	.9684
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	.100	.7519
COUNTRY BY TRIAL 8	1	.094	.7592
I-E BY TRIAL 8	1	.607	.4361
COUNTRY	1	.000	.9930
INTERNAL-EXTERNAL	1	10.651	.0011
TRIAL 8	1	2.639	.1043

Table 6.6.2.9

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (INTERPERSONAL) ON TRIAL NINE.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	30.289	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 9	1	.825	.3637
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	.255	.6134
COUNTRY BY TRIAL 9	1	15.860	.0001
I-E BY TRIAL 9	1	.342	.5588
COUNTRY	1	.000	.9942
INTERNAL-EXTERNAL	1	10.651	.0011
TRIAL 9	1	2.639	.1043

Table 6.6.2.10

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (INTERPERSONAL) ON TRIAL TEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	12.692	.0800
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 10	1	.589	.4429
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	.114	.7352
COUNTRY BY TRIAL 10	1	.028	.8675
I-E BY TRIAL 10	1	.021	.8836
COUNTRY	1	.000	.9920
INTERNAL-EXTERNAL	1	10.651	.0011
TRIAL 10	1	1.291	.2558

Table 6.6.2.11

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (INTERPERSONAL) ON TRIAL ELEVEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	26.034	.0005
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 11	1	.416	.5190
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	.028	.8674
COUNTRY BY TRIAL 11	1	5.421	.0199
I-E BY TRIAL 11	1	.740	.3896
COUNTRY	1	.000	1.0000
INTERNAL-EXTERNAL	1	10.651	.0011
TRIAL 11	1	8.608	.0033

Table 6.6.2.12

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (INTERPERSONAL) ON TRIAL TWELVE

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	14.529	.0425
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 12	1	2.414	.1203
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	.101	.7504
COUNTRY BY TRIAL 12	1	1.280	.2580
I-E BY TRIAL 12	1	.033	.8553
COUNTRY	1	.000	1.0000
INTERNAL-EXTERNAL	1	10.651	.0011
TRIAL 12	1	.026	.8712

Table 6.6.2.13

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (INTERPERSONAL) ON TRIAL THIRTEEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	35.478	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 13	1	.475	.4906
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	.001	.9696
COUNTRY BY TRIAL 13	1	19.970	.0001
I-E BY TRIAL 13	1	.962	.3267
COUNTRY	1	.000	.9984
INTERNAL-EXTERNAL	1	10.651	.0011
TRIAL 13	1	3.195	.0738

Table 6.6.2.14

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (INTERPERSONAL) ON TRIAL FOURTEEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	12.340	.0899
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 14	1	1.480	.2238
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	.111	.7387
COUNTRY BY TRIAL 14	1	.024	.8760
I-E BY TRIAL 14	1	.043	.8553
COUNTRY	1	.000	1.0000
INTERNAL-EXTERNAL	1	10.651	.0011
TRIAL 14	1	.026	.8713

Table 6.6.2.15

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (INTERPERSONAL) ON TRIAL FIFTEEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	33.784	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 15	1	.530	.4666
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	.145	.7037
COUNTRY BY TRIAL 15	1	10.345	.0013
I-E BY TRIAL 15	1	.138	.7100
COUNTRY	1	.027	.7803
INTERNAL-EXTERNAL	1	10.797	.0010
TRIAL 15	1	11.919	.0006

Table 6.6.3.1

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-

EXTERNAL (SOCIOPOLITICAL) ON TRIAL ONE.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	31.598	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 1	1	2.049	.1523
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	17.378	.0001
COUNTRY BY TRIAL 1	1	1.075	.2998
I-E BY TRIAL 1	1	.206	.6497
COUNTRY	1	1.748	.1862
INTERNAL-EXTERNAL	1	.010	.9189
TRIAL 1	1	7.616	.0058

Table 6.6.3.2

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH INTERNAL -EXTERNAL

AND ARAB INTERNAL-EXTERNAL (SOCIOPOLITICAL) ON TRIAL TWO.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	29.421	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 2	1	6.667	.0098
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	17.623	.0001
COUNTRY BY TRIAL 2	1	2.088	.1484
I-E BY TRIAL 2	1	.001	.9710
COUNTRY	1	1.747	.1862
INTERNAL-EXTERNAL	1	.010	.9193
TRIAL 2	1	.258	.6117

Table 6.6.3.3

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (SOCIOPOLITICAL) ON TRIAL THREE.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	31.307	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 3	1	.564	.4526
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	18.884	.0001
COUNTRY BY TRIAL 3	1	5.327	.0210
I-E BY TRIAL 3	1	.765	.3818
COUNTRY	1	1.747	.1862
INTERNAL-EXTERNAL	1	.010	.9190
TRIAL 3	1	5.506	.0190

Table 6.6.3.4

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (SOCIOPOLITICAL) ON TRIAL FOUR.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	26.563	.0004
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 4	1	1.258	.2621
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	19.411	.0001
COUNTRY BY TRIAL 4	1	2.587	.0178
I-E BY TRIAL 4	1	1.771	.1833
COUNTRY	1	1.748	.1862
INTERNAL-EXTERNAL	1	.010	.9192
TRIAL 4	1	2.329	.1270

Table 6.6.3.5

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (SOCIOPOLITICAL) ON TRIAL FIVE.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	35.246	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 5	1	.014	.9068
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	14.700	.0001
COUNTRY BY TRIAL 5	1	6.725	.0095
I-E BY TRIAL 5	1	.595	.4406
COUNTRY	1	1.747	.1862
INTERNAL-EXTERNAL	1	.010	.9192
TRIAL 5	1	4.582	.0323

Table 6.6.3.6

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (SOCIOPOLITICAL) ON TRIAL SIX.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	22.928	.0018
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 6	1	1.616	.2037
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	17.821	.0001
COUNTRY BY TRIAL 6	1	.058	.8094
I-E BY TRIAL 6	1	.540	.4625
COUNTRY	1	1.748	.1862
INTERNAL-EXTERNAL	1	.010	.9190
TRIAL 6	1	.906	.4771

Table 6.6.3.7

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (SOCIOPOLITICAL) ON TRIAL SEVEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	41.536	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 7	1	11.370	.0007
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	17.776	.0001
COUNTRY BY TRIAL 7	1	6.730	.0095
I-E BY TRIAL 7	1	.188	.6644
COUNTRY	1	1.748	.1862
INTERNAL-EXTERNAL	1	.010	.9190
TRIAL 7	1	2.995	.0835

Table 6.6.3.8

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (SOCIOPOLITICAL) ON TRIAL EIGHT.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	23.600	.0013
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 8	1	3.519	.0607
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	18.148	.0001
COUNTRY BY TRIAL 8	1	.020	.8888
I-E BY TRIAL 8	1	.268	.6044
COUNTRY	1	1.747	.1862
INTERNAL-EXTERNAL	1	.010	.9189
TRIAL 8	1	.010	.9195

Table 6.6.3.9

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (SOCIOPOLITICAL) ON TRIAL NINE.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	38.758	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 9	1	.657	.4176
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	12.722	.0004
COUNTRY BY TRIAL 9	1	1.676	.1955
I-E BY TRIAL 9	1	8.122	.0044
COUNTRY	1	1.748	.1862
INTERNAL-EXTERNAL	1	.010	.9190
TRIAL 9	1	2.995	.0835

Table 6.6.3.10

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (SOCIOPOLITICAL) ON TRIAL TEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	27.303	.0003
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 10	1	3.295	.0695
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	19.332	.0001
COUNTRY BY TRIAL 10	1	2.368	.1238
I-E BY TRIAL 10	1	1.692	.1934
COUNTRY	1	1.748	.1862
INTERNAL-EXTERNAL	1	.010	.9189
TRIAL 10	1	1.250	.2635

Appendix C(6.3) continued

Table 6.6.3.11

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (SOCIOPOLITICAL) ON TRIAL ELEVEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	34.833	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 11	1	2.559	.1097
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	17.325	.0001
COUNTRY BY TRIAL 11	1	7.726	.0054
I-E BY TRIAL 11	1	.098	.7542
COUNTRY	1	1.747	.1862
INTERNAL-EXTERNAL	1	.010	.9189
TRIAL 11	1	3.746	.0529

Table 6.6.3.12

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-
EXTERNAL (SOCIOPOLITICAL) ON TRIAL TWELVE

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	24.550	.0009
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 12	1	1.604	.2053
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	17.341	.0001
COUNTRY BY TRIAL 12	1	2.207	.1374
I-E BY TRIAL 12	1	.040	.8424
COUNTRY	1	1.747	.1862
INTERNAL-EXTERNAL	1	.010	.9190
TRIAL 12	1	.010	.9194

Table 6.6.3.13

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-

EXTERNAL (SOCIOPOLITICAL) ON TRIAL THIRTEEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	33.120	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 13	1	.003	.9589
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	15.219	.0001
COUNTRY BY TRIAL 13	1	7.766	.0053
I-E BY TRIAL 13	1	.211	.6461
COUNTRY	1	1.748	.1862
INTERNAL-EXTERNAL	1	.010	.9193
TRIAL 13	1	2.329	.1270

Table 6.6.3.14

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-

EXTERNAL (SOCIOPOLITICAL) ON TRIAL FOURTEEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	28.575	.0002
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 14	1	5.763	.0164
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	17.914	.0001
COUNTRY BY TRIAL 14	1	.309	.5785
I-E BY TRIAL 14	1	.059	.8077
COUNTRY	1	1.748	.1862
INTERNAL-EXTERNAL	1	.010	.9192
TRIAL 14	1	2.329	.1270

Table 6.6.3.15

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB INTERNAL-EXTERNAL (SOCIOPOLITICAL) ON TRIAL FIFTEEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	7	45.363	.0001
3-WAY INTERACTIONS			
COUNTRY BY I-E BY TRIAL 15	1	1.129	.2880
2-WAY INTERACTIONS			
COUNTRY BY I-E	1	12.324	.0004
COUNTRY BY TRIAL 15	1	1.934	.1643
I-E BY TRIAL 15	1	7.231	.0072
COUNTRY	1	1.504	.2201
INTERNAL-EXTERNAL	1	.000	1.0000
TRIAL 15	1	10.874	.0010

Table 6.4.1

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB Self-

esteem (S-E) ON TRIAL ONE.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	11	40.550	.0001
3-WAY INTERACTIONS			
COUNTRY BY S-E BY TRIAL 1	2	4.030	.1333
2-WAY INTERACTIONS			
COUNTRY BY S-E	2	6.571	.0374
COUNTRY BY TRIAL 1	1	6.094	.0136
S-E BY TRIAL 1	2	.015	.9923
COUNTRY	1	.000	1.0000
Self-esteem	2	12.404	.0020
TRIAL 1	1	11.118	.0009

Table 6.4.2

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB self-

esteem (S-E) ON TRIAL TWO.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	11	23.962	.0129
3-WAY INTERACTIONS			
COUNTRY BY S-E BY TRIAL 2	2	.291	.8646
2-WAY INTERACTIONS			
COUNTRY BY S-E	2	7.598	.0224
COUNTRY BY TRIAL 2	1	3.147	.0761
S-E BY TRIAL 2	2	2.166	.3385
COUNTRY	1	.000	1.0000
Self-esteem	2	12.404	.0020
TRIAL 2	1	.091	.7630

Table 6.4.3

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB Self-

esteem (S-E) ON TRIAL THREE.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	11	45.186	.0001
3-WAY INTERACTIONS			
COUNTRY BY S-E BY TRIAL 3	2	3.873	.1442
2-WAY INTERACTIONS			
COUNTRY BY S-E	2	5.754	.0563
COUNTRY BY TRIAL 3	1	6.235	.0125
S-E BY TRIAL 3	2	.565	.7540
COUNTRY	1	.000	1.0000
Self-esteem	2	12.404	.0020
TRIAL 3	1	14.402	.0001

Table 6.4.4

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB Self-

esteem (S-E) ON TRIAL FOUR.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	11	24.577	.0105
3-WAY INTERACTIONS			
COUNTRY BY S-E BY TRIAL 4	2	.689	.7085
2-WAY INTERACTIONS			
COUNTRY BY S-E	2	6.345	.0419
COUNTRY BY TRIAL 4	1	.445	.5049
S-E BY TRIAL 4	2	1.646	.4392
COUNTRY	1	.000	1.0000
Self-esteem	2	12.404	.0020
TRIAL 4	1	2.278	.1313

Table 6.4.5

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB Self-

esteem (S-E) ON TRIAL FIVE.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	11	49.639	.0001
3-WAY INTERACTIONS			
COUNTRY BY S-E BY TRIAL 5	2	1.775	.4117
2-WAY INTERACTIONS			
COUNTRY BY S-E	2	5.319	.0700
COUNTRY BY TRIAL 5	1	17.812	.0001
S-E BY TRIAL 5	2	.337	.8450
COUNTRY	1	.000	1.0000
Self-esteem	2	12.404	.0020
TRIAL 5	1	9.171	.0025

Table 6.4.6

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB Self-

esteem (S-E) ON TRIAL SIX.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	11	25.232	.0084
3-WAY INTERACTIONS			
COUNTRY BY S-E BY TRIAL 6	2	3.509	.1730
2-WAY INTERACTIONS			
COUNTRY BY S-E	2	6.653	.0359
COUNTRY BY TRIAL 6	1	.748	.3871
S-E BY TRIAL 6	2	.307	.8577
COUNTRY	1	.000	1.0000
Self-esteem	2	12.404	.0020
TRIAL 6	1	1.457	.2275

Table 6.4.7

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB Self-

esteem (S-E) ON TRIAL SEVEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	11	40.079	.0001
3-WAY INTERACTIONS			
COUNTRY BY S-E BY TRIAL 7	2	1.200	.5489
2-WAY INTERACTIONS			
COUNTRY BY S-E	2	7.277	.0263
COUNTRY BY TRIAL 7	1	4.747	.0293
S-E BY TRIAL 7	2	1.142	.5649
COUNTRY	1	.000	1.0000
Self-esteem	2	12.404	.0020
TRIAL 7	1	14.402	.0001

Table 6.4.8

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB Self-

esteem (S-E) ON TRIAL EIGHT.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	11	22.579	.0202
3-WAY INTERACTIONS			
COUNTRY BY S-E BY TRIAL 8	2	.328	.8487
2-WAY INTERACTIONS			
COUNTRY BY S-E	2	6.628	.0364
COUNTRY BY TRIAL 8	1	.472	.4920
S-E BY TRIAL 8	2	.699	.7052
COUNTRY	1	.000	1.0000
Self-esteem	2	12.404	.0020
TRIAL 8	1	1.844	.1745

Table 6.4.9

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB Self-

esteem (S-E) ON TRIAL NINE.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	11	46.867	.0001
3-WAY INTERACTIONS			
COUNTRY BY S-E BY TRIAL 9	2	1.282	.5267
2-WAY INTERACTIONS			
COUNTRY BY S-E	2	7.126	.0284
COUNTRY BY TRIAL 9	1	18.136	.0001
S-E BY TRIAL 9	2	.441	.8021
COUNTRY	1	.000	1.0000
Self-esteem	2	12.404	.0020
TRIAL 9	1	8.269	.0040

Table 6.4.10

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB Self-

esteem (S-E) ON TRIAL TEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	11	24.291	.0116
3-WAY INTERACTIONS			
COUNTRY BY S-E BY TRIAL 10	2	.904	.6364
2-WAY INTERACTIONS			
COUNTRY BY S-E	2	7.135	.0282
COUNTRY BY TRIAL 10	1	.610	.4347
S-E BY TRIAL 10	2	2.932	.2309
COUNTRY	1	.000	1.0000
Self-esteem	2	12.404	.0020
TRIAL 10	1	1.115	.2910

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Table 6.4.11

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB Self-

esteem (S-E) ON TRIAL ELEVEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	11	38.350	.0001
3-WAY INTERACTIONS			
COUNTRY BY S-E BY TRIAL 11	2	.011	.9946
2-WAY INTERACTIONS			
COUNTRY BY S-E	2	5.868	.0532
COUNTRY BY TRIAL 11	1	7.930	.0049
S-E BY TRIAL 11	2	.293	.8637
COUNTRY	1	.000	1.0000
Self-esteem	2	12.404	.0020
TRIAL 11	1	10.120	.0015

Table 6.4.12

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB Self-

esteem (S-E) ON TRIAL TWELVE

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	11	21.119	.0322
3-WAY INTERACTIONS			
COUNTRY BY S-E BY TRIAL 12	2	.505	.7768
2-WAY INTERACTIONS			
COUNTRY BY S-E	2	6.579	.0373
COUNTRY BY TRIAL 12	1	.054	.8167
S-E BY TRIAL 12	2	1.252	.5346
COUNTRY	1	.000	1.0000
Self-esteem	2	12.404	.0020
TRIAL 12	1	.023	.8802

Table 6.4.13

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB Self-esteem (S-E) ON TRIAL THIRTEEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	11	51.685	.0001
3-WAY INTERACTIONS			
COUNTRY BY S-E BY TRIAL 13	2	1.849	.3968
2-WAY INTERACTIONS			
COUNTRY BY S-E	2	5.990	.0500
COUNTRY BY TRIAL 13	1	24.000	.0001
S-E BY TRIAL 13	2	.112	.9454
COUNTRY	1	.000	1.0000
Self-esteem	2	12.404	.0020
TRIAL 13	1	5.851	.0156

Table 6.4.14

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB Self-esteem (S-E) ON TRIAL FOURTEEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	11	23.638	.0143
3-WAY INTERACTIONS			
COUNTRY BY S-E BY TRIAL 14	2	2.612	.2709
2-WAY INTERACTIONS			
COUNTRY BY S-E	2	6.652	.0359
COUNTRY BY TRIAL 14	1	.013	.9087
S-E BY TRIAL 14	2	1.437	.4874
COUNTRY	1	.000	1.0000
Self-esteem	2	12.404	.0020
TRIAL 14	1	.364	.5464

Table 6.4.15

THE RESULTS OF HILOGLINEAR BETWEEN ENGLISH AND ARAB Self-esteem (S-E) ON TRIAL FIFTEEN.

TESTS OF PARTIAL ASSOCIATIONS

EFFECT NAME	DF	PARTIAL CHISQ	PROB.
MAIN EFFECT	11	51.518	.0001
3-WAY INTERACTIONS			
COUNTRY BY S-E BY TRIAL 15	2	2.861	.2392
2-WAY INTERACTIONS			
COUNTRY BY S-E	2	6.739	.0344
COUNTRY BY TRIAL 15	1	10.990	.0009
S-E BY TRIAL 15	2	.482	.7859
COUNTRY	1	.023	.8795
Self-esteem	2	13.274	.0013
TRIAL 15	1	17.039	.0001

Table 6.4

Percentage of internals and externals giving a competitive (red) or a cooperative (black) responses on Personal Efficacy (PE), Interpersonal Control (IP) and Sociopolitical Control (SP) for English sample

			PE		IP		SP	
TRIALS N.	GROUP	COLOR	FREQ	%	FREQ	%	FREQ	%
1	I	RED	13	44.8	22	46.8	8	47.1
		BLACK	16	55.2	25	53.2	9	52.9
	E	RED	22	53.7	15	51.7	15	39.5
		BLACK	19	46.3	14	48.3	23	60.5
2	I	RED	11	37.9	22	46.8	5	29.4
		BLACK	18	62.1	25	53.2	12	70.6
	E	RED	18	43.9	12	41.4	20	52.6
		BLACK	23	56.1	17	58.6	18	47.4
3	I	RED	21	72.4	27	57.4	7	41.2
		BLACK	8	27.6	29	42.6	10	58.8
	E	RED	18	43.9	15	51.7	22	57.9
		BLACK	23	56.1	14	48.3	16	42.1
4	I	RED	12	41.4	26	55.3	6	35.3
		BLACK	17	58.6	21	44.7	11	64.7
	E	RED	23	56.1	16	55.2	23	60.5
		BLACK	18	43.9	13	44.8	15	39.5

Table 6.4 Continued

5	I	RED	13	44.8	27	57.4	8	4716
		BLACK	16	55.2	20	42.6	9	52.9
	E	RED	23	56.1	16	55.2	21	55.5
		BLACK	18	43.9	13	44.8	17	44.7
6	I	RED	14	48.3	23	48.9	6	35.3
		BLACK	15	51.7	24	51.1	11	64.7
	E	RED	22	53.7	14	48.3	21	55.3
		BLACK	19	46.3	15	51.7	17	44.7
7	I	RED	17	58.6	24	51.1	4	23.5
		BLACK	12	41.4	23	48.9	13	76.5
	E	RED	24	58.5	18	62.1	22	75.9
		BLACK	17	41.5	11	37.9	16	42.1
8	I	RED	20	69.0	26	55.3	10	58.8
		BLACK	9	31.0	21	44.7	7	41.2
	E	RED	21	51.2	18	62.1	18	47.4
		BLACK	20	48.8	11	37.9	20	52.6
9	I	RED	14	48.3	30	63.8	6	35.3
		BLACK	15	51.7	17	36.2	11	64.7
	E	RED	23	56.1	15	51.7	23	60.5
		BLACK	18	43.9	14	48.3	15	39.5
10	I	RED	16	55.2	24	51.1	5	29.4
		BLACK	13	44.8	23	48.9	12	70.6
	E	RED	23	56.1	17	58.6	23	60.5
		BLACK	18	43.9	12	41.4	15	39.5

Table 6.4 Continued

11	I	RED	12	41.4	27	57.4	6	35.3
		BLACK	17	58.6	20	42.6	11	64.7
	E	RED	22	53.7	13	44.8	20	52.6
		BLACK	19	46.3	16	55.2	18	47.4
12	I	RED	14	48.3	19	40.4	6	35.3
		BLACK	15	51.7	28	59.6	11	64.7
	E	RED	21	51.2	15	51.7	17	44.7
		BLACK	20	48.8	14	48.3	21	55.3
13	I	RED	15	51.7	26	55.3	9	52.9
		BLACK	14	48.3	21	44.7	8	47.1
	E	RED	24	58.5	20	49.0	22	57.9
		BLACK	17	41.5	9	31.0	16	42.1
14	I	RED	14	48.3	22	46.8	7	41.2
		BLACK	15	51.7	25	53.2	10	58.8
	E	RED	20	48.8	17	58.6	23	60.5
		BLACK	21	51.2	12	41.4	15	39.5
15	I	RED	13	46.4	22	47.8	5	29.4
		BLACK	15	53.6	24	52.2	12	70.6
	E	RED	18	45.0	14	50.0	19	51.4
		BLACK	22	55.0	14	50.0	18	48.6

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Table 6.5

Percentage of internals and externals giving a competitive (red) or a cooperative (black) responses on Personal Efficacy (PE), Interpersonal Control (IP) and Sociopolitical Control (SP) for Arab sample

			PE		IP		SP	
TRIALS N.	GROUP	COLOR	FREQ	%	FREQ	%	FREQ	%
1	I	RED	15	26.8	14	28.0	7	22.6
		BLACK	41	73.2	36	72.0	24	77.4
	E	RED	3	21.4	9	33.3	5	45.5
		BLACK	11	78.6	18	66.7	6	54.5
2	I	RED	29	51.8	24	48.0	22	71.0
		BLACK	27	48.2	26	52.0	9	29.0
	E	RED	9	64.3	15	55.6	4	36.4
		BLACK	5	35.7	12	44.4	7	63.6
3	I	RED	41	73.2	40	80.0	23	74.2
		BLACK	15	26.8	10	20.0	8	25.8
	E	RED	9	64.3	17	63.0	8	72.7
		BLACK	5	35.7	10	37.0	3	27.0
4	I	RED	33	58.9	29	58.0	20	64.5
		BLACK	23	41.1	21	42.0	11	35.5
	E	RED	9	64.3	15	55.6	7	63.6
		BLACK	5	35.7	12	44.4	4	36.4

Table 6.5 Continued

5	I	RED	11	19.6	11	22.0	6	19.4
		BLACK	45	80.4	39	78.0	25	80.6
	E	RED	5	35.7	7	25.9	3	27.3
		BLACK	9	64.3	20	74.1	8	72.7
6	I	RED	24	42.9	24	48.0	14	45.2
		BLACK	32	57.1	26	72.0	17	54.8
	E	RED	7	50.0	9	33.3	4	36.4
		BLACK	7	50.0	18	66.7	7	63.6
7	I	RED	43	76.8	35	70.0	26	83.9
		BLACK	13	23.2	15	30.0	5	16.1
	E	RED	9	64.3	18	66.7	5	45.5
		BLACK	5	35.7	9	33.3	6	54.5
8	I	RED	30	53.6	26	52.0	13	41.9
		BLACK	26	46.4	24	48.0	18	58.1
	E	RED	8	57.1	16	59.3	8	72.7
		BLACK	6	42.9	11	40.7	3	27.3
9	I	RED	11	19.6	13	26.0	5	16.1
		BLACK	45	80.4	37	74.0	26	83.9
	E	RED	6	42.9	8	29.6	6	54.5
		BLACK	8	57.1	19	70.4	5	45.5
10	I	RED	32	57.1	28	56.0	20	64.5
		BLACK	24	42.9	22	44.0	11	35.5
	E	RED	11	78.6	14	51.9	6	54.5
		BLACK	3	21.4	13	48.1	5	45.5

Table 6.5 Continued

11	I	RED	39	69.6	36	72.0	25	80.6
		BLACK	17	30.4	14	28.0	6	19.4
	E	RED	9	64.3	19	70.4	7	63.6
		BLACK	5	35.7	8	29.6	4	36.4
12	I	RED	28	50.0	29	58.0	20	64.5
		BLACK	28	50.0	21	42.0	11	35.5
	E	RED	8	57.1	12	44.4	5	45.5
		BLACK	6	42.9	15	55.6	6	54.5
13	I	RED	14	25.0	12	24.0	7	22.6
		BLACK	42	75.0	38	76.0	24	77.4
	E	RED	2	14.3	7	25.9	3	27.3
		BLACK	12	85.7	20	74.1	8	72.7
14	I	RED	33	58.9	27	54.0	22	71.0
		BLACK	23	41.1	23	46.0	9	29.0
	E	RED	6	42.9	12	44.4	4	36.4
		BLACK	8	57.1	15	55.6	7	63.6
15	I	RED	13	23.2	13	26.0	3	9.7
		BLACK	43	76.8	7	74.0	28	90.3
	E	RED	3	21.4	5	18.5	5	45.5
		BLACK	11	78.6	22	81.5	6	54.5

Table 6.6

Percentage of Low, Average, and High self-esteem subjects giving a competitive (red) or a cooperative (black) responses for English sample

			low		Average		High	
TRIALS N.	GROUP	COLOR	FREQ	%	FREQ	%	FREQ	%
1	I	RED	9	47.4	21	52.5	11	37.9
1	E	BLACK	10	52.6	19	47.5	18	62.1
2	I	RED	7	36.8	17	42.5	14	48.3
2	E	BLACK	12	63.2	23	57.5	15	51.7
3	I	RED	13	68.4	19	47.5	16	55.2
3	E	BLACK	6	31.6	21	52.5	13	44.8
4	I	RED	11	57.9	21	52.5	14	48.3
4	E	BLACK	8	42.1	19	47.5	15	51.7
5	I	RED	9	47.1	23	57.5	16	55.2
5	E	BLACK	10	52.6	17	42.5	13	44.8
6	I	RED	12	63.2	16	40.0	15	51.7
6	E	BLACK	7	36.8	24	60.0	14	48.3
7	I	RED	8	42.1	25	62.5	17	58.6
7	E	BLACK	11	57.9	15	37.5	12	41.4
8	I	RED	12	63.2	21	52.5	18	62.1
8	E	BLACK	7	36.8	19	47.5	11	37.9

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Table 6.6 Continued

9	I	RED	11	57.9	21	52.5	16	55.2
	E	BLACK	8	42.1	19	47.5	13	44.8
10	I	RED	7	36.8	22	55.0	17	58.6
	E	BLACK	12	63.2	18	45.0	12	41.4
11	I	RED	10	52.6	21	52.5	14	48.3
	E	BLACK	9	47.4	19	47.5	15	51.7
12	I	RED	10	52.6	19	47.5	13	44.8
	E	BLACK	9	47.4	21	52.5	16	55.2
13	I	RED	11	57.9	25	62.5	16	55.2
	E	BLACK	8	42.1	15	37.5	13	44.8
14	I	RED	9	47.4	21	52.5	15	51.7
	E	BLACK	10	52.6	19	47.5	14	48.3
15	I	RED	8	44.4	20	50.0	12	42.9
	E	BLACK	10	55.6	20	50.0	16	57.1

Table 6.7

Percentage of Low, Average, and High self-esteem subjects giving a competitive (red) or a cooperative (black) responses for Arab sample

			low		Average		High	
TRIALS N.	GROUP	COLOR	FREQ	%	FREQ	%	FREQ	%
1	I	RED	9	29.0	9	22.0	7	43.8
	E	BLACK	22	71.0	32	78.0	9	56.3
2	I	RED	15	48.4	22	53.7	11	68.8
	E	BLACK	16	51.6	19	46.7	5	31.3
3	I	RED	22	71.0	33	80.5	10	62.5
	E	BLACK	9	29.0	8	19.5	6	37.5
4	I	RED	19	61.3	26	63.4	7	43.8
	E	BLACK	12	38.7	15	36.6	9	56.3
5	I	RED	8	25.8	7	17.1	5	31.3
	E	BLACK	23	74.2	34	82.9	11	68.8
6	I	RED	11	35.5	19	46.3	7	43.8
	E	BLACK	20	64.5	22	53.7	9	56.3
7	I	RED	22	71.0	29	70.7	12	75.0
	E	BLACK	9	29.0	12	29.3	4	25.0
8	I	RED	16	51.6	21	51.2	9	56.3
	E	BLACK	15	48.4	20	48.8	7	43.8

Table 6.7 Continued

9	I	RED	8	25.8	11	26.8	2	12.5
	E	BLACK	23	74.2	30	73.2	14	87.5
10	I	RED	16	51.6	22	53.7	11	68.8
	E	BLACK	15	48.4	19	46.3	5	31.3
11	I	RED	23	74.2	30	73.2	11	68.8
	E	BLACK	8	25.8	11	26.8	5	31.3
12	I	RED	17	54.8	22	53.7	6	37.5
	E	BLACK	14	45.2	19	46.3	10	62.5
13	I	RED	8	25.8	7	17.1	5	31.3
	E	BLACK	23	74.2	34	82.9	11	68.8
14	I	RED	18	58.1	24	58.5	5	31.3
	E	BLACK	13	41.9	17	41.5	11	68.8
15	I	RED	9	29.0	6	14.6	5	31.3
	E	BLACK	22	71.0	35	85.4	11	68.8

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Table 7-8

Analysis of Variance conformity by Total self-esteem and sex.

SOURCE OF VARIATION	SS	DF	MS	F	SIGNF OF F
MAIN EFFECTS	7.566	2	3.783	.517	0.601
SELF-ESTEEM	6.125	1	6.125	0.837	0.367
SEX	0.340	1	0.340	0.047	0.831
2-WAY INTERACTIONS	8.424	1	8.424	1.152	0.292
S-E BY SEX	8.424	1	8.424	1.152	0.292
EXPLAINED	15.991	3	5.330	.729	0.543
RESIDUAL	219.451	30	7.315		
TOTAL	235.441	33	7.135		

Table 7-9

Analysis of Variance conformity by FACTOR I POSITIVE SELF-WORTH and Sex.

SOURCE OF VARIATION	SS	DF	MS	F	SIGNF OF F
MAIN EFFECTS	19.216	2	9.608	.979	0.388
SELF-ESTEEM	5.435	1	5.435	0.554	0.453
SEX	7.816	1	7.816	0.796	0.380
2-WAY INTERACTIONS	36.907	1	36.907	3.760	0.063
S-E BY SEX	36.907	1	36.907	3.760	0.063
EXPLAINED	56.123	3	18.708	1.906	0.152
RESIDUAL	274.845	28	9.816		
TOTAL	330.969	31	10.676		

Table 7-10

Analysis of Variance conformity FACTOR II NEGATIVE SELF-IMAGE

and Sex.

SOURCE OF VARIATION	SS	DF	MS	F	SIGNF OF F
MAIN EFFECTS	16.344	2	8.172	1.108	0.343
SELF-ESTEEM	.418	1	.418	0.057	0.813
SEX	16.179	1	16.179	2.194	0.149
2-WAY INTERACTIONS	3.433	1	3.433	0.465	0.500
S-E BY SEX	3.433	1	3.433	0.465	0.500
EXPLAINED	19.777	3	6.592	.894	0.455
RESIDUAL	228.623	31	7.375		
TOTAL	248.400	34	7.306		

Table 7-11

Analysis of Variance conformity by Personal efficacy (PE)

and sex.

SOURCE OF VARIATION	SS	DF	MS	F	SIGNF OF F
MAIN EFFECTS	22.970	2	11.485	1.357	0.268
PE	11.647	1	11.647	1.376	0.247
SEX	15.335	1	15.335	1.812	0.185
2-WAY INTERACTIONS	0.849	1	0.849	0.100	0.753
PE BY SEX	0.849	1	0.849	0.100	0.753
EXPLAINED	23.819	3	7.940	0.938	0.430
RESIDUAL	380.875	45	8.464		
TOTAL	404.694	48	8.431		

Table 7-12

Analysis of Variance conformity by Interpersonal control (IP) and sex.

SOURCE OF VARIATION	SS	DF	MS	F	SIGNF OF F
MAIN EFFECTS	15.229	2	7.614	1.370	0.271
IP	3.769	1	3.769	0.678	0.418
SEX	14.473	1	14.473	2.603	0.118
2-WAY INTERACTIONS	12.865	1	12.865	2.314	0.140
IP BY SEX	12.865	1	12.865	2.314	0.140
EXPLAINED	28.094	3	9.365	1.684	0.194
RESIDUAL	150.100	27	5.559		
TOTAL	178.194	30	5.940		

Table 7-13

Analysis of Variance conformity by Sociopolitical control (PE) and sex.

SOURCE OF VARIATION	SS	DF	MS	F	SIGNF OF F
MAIN EFFECTS	21.281	2	10.641	1.035	0.367
SP	0.760	1	0.760	0.074	0.788
SEX	21.162	1	21.162	2.059	0.162
2-WAY INTERACTIONS	6.360	1	6.360	0.619	0.438
SP BY SEX	6.360	1	6.360	0.619	0.438
EXPLAINED	27.641	3	9.214	0.896	0.454
RESIDUAL	308.359	30	10.279		
TOTAL	336.000	33	10.182		

Table 7-14

Analysis of Variance achievement by Country and sex.

SOURCE OF VARIATION	SS	DF	MS	F	SIGNF OF F
MAIN EFFECTS	427.220	2	213.610	0.847	0.431
Country	24.526	1	24.526	0.097	0.756
SEX	402.695	1	402.695	1.596	0.208
2-WAY INTERACTIONS	823.184	1	823.184	3.263	0.073
Country by sex	823.184	1	823.184	3.263	0.073
EXPLAINED	1250.404	3	416.801	1.652	0.179
RESIDUAL	43386.077	172	252.245		
TOTAL	44636.480	175	225.866		

Chapter four Arabic version of TSQ

بسم الله الرحمن الرحيم

استبيــــان حــــول الــذات والآخريـــــن

أخي الكريم :

فيما يلي مجموعة من العبارات التي تدور حول نظرتك الى نفسك ونظـــــرة الآخرين اليك .

والمطلــوب : ابدأ رأيك في كل من هذه العبارات , وذلك بوضع دائــرة حول الاجابة التي تناسبك أمام كل عبارة .

وتظهر الاجابات على الجانب الأيسر من الصفحة على النحـــو التالي :

١ = موافق جدا , ٢ = موافـــــق ,
٣ ــ معـــــارض , ٤ = معارض جدا .

وتذكـــر ضرورة الاجابة على جميع العبارات , وألا تختار سوى اجابــــة واحدة فقط لكل منها .

والسلام عليكم ورحمة الله وبركاته ,,,

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السـن :   الجنـس :   .

معارض جدا	معارض	موافق	موافق جدا	العبـــــــــــــــــــــــارة
٤	٣	٢	١	١ – بشكل عام ، اتجاهاتي نحو نفسي ايجابية ....
٤	٣	٢	١	٢ – يعتبرني الآخرون شخصا ذا أهميـة
٤	٣	٢	١	٣ – أحيانا ، أتمنى أن يكون لنفسي احترام أكثر ....
٤	٣	٢	١	٤ – أحيانا ، أشعر بعدم الأهميــة
٤	٣	٢	١	٥ – أنا شخص متواضع ....
٤	٣	٢	١	٦ – باستطاعتي عمل أشياء كثيرة مثل الآخرين ....
٤	٣	٢	١	٧ – أصدقائي لا يثقون في ....
٤	٣	٢	١	٨ – نادرا ما أرضى عن نفسي ......
٤	٣	٢	١	٩ – ينتابني شعور متفاوت لكن أعتقد بأنني شخص ذو قيمة (شأن) ......
٤	٣	٢	١	١٠– هناك أشياء كثيرة في نفسي أرغب في تغييرها ....
٤	٣	٢	١	١١– أشعر بأني واثق من نفسي ......
٤	٣	٢	١	١٢– حياتي ليست على ما يرام ......
٤	٣	٢	١	١٣– أتمنى لو كنت شخصا آخر ....
٤	٣	٢	١	١٤– تقديري لنفسي منخفض (قليل) ....
٤	٣	٢	١	١٥– ألوم نفسي عندما لا تسير حياتي على ما يرام ....

يتبع ٢/ ..

معــارض جــدا	معــارض	مو افــق	مو افــق جــدا	العبـــــــــــــــــــــارة
٤	٣	٢	١	١٦- أعتقد بـأنني أملك شخصية محبوبــة (جذابة) ....
٤	٣	٢	١	١٧- أحيانـا ، أقلق بسبــب مـا يـراه النـاس عني ....
٤	٣	٢	١	١٨- أخاف أن يعتبرني النـاس شخصــا فـاشلا ....
٤	٣	٢	١	١٩- أعتنـي بمظهري بشكل جيد ....
٤	٣	٢	١	٢٠- أشعر بـالسعادة أحيانـا ....
٤	٣	٢	١	٢١- أنـا راض عن مظهري ....
٤	٣	٢	١	٢٢- أحيانـا ، أشعر بـأنني غيــر قـادر علـى عمل أي شيّ بشكل جيـد ......
٤	٣	٢	١	٢٣- أنـا شخى حسـاس ....
٤	٣	٢	١	٢٤- أنـا راض عن نفسي ....
٤	٣	٢	١	٢٥- أنـا شخى سعيد في حيـاته ....
٤	٣	٢	١	٢٦- يثق أصدقـائي بي ....
٤	٣	٢	١	٢٧- أحيانـا ، أشعر بـأنني شخى فـاشـل
٤	٣	٢	١	٢٨- أحيـانـا ، لا أثق بـالآخرين ....
٤	٣	٢	١	٢٩- بشكل عـام ، أنـا مقتنع بـأصدقـائي
٤	٣	٢	١	٣٠- أعتقد بـأنني شخى محبــــوب من الآخرين ....
٤	٣	٢	١	٣١- أعتقد بـأن عـائلتي يمكن أن تعتمد علي ....
٤	٣	٢	١	٣٢- أنـا شخى ودود ....
٤	٣	٢	١	٣٣- أنـا راض عن علاقتي بـأسرتي ......
٤	٣	٢	١	٣٤- لدي كثير من الخصـال الـجيدة ....
٤	٣	٢	١	٣٥- يعتقد الآخرون بـأنني شخى جـاد ...

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