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VALIDATION OF THE HUMOR STYLES QUESTIONNAIRE:
CORRESPONDENCE BETWEEN HUMOR STYLES AND RATINGS OF SPECIFIC
TYPES OF JOKES AND THE EFFECT OF PARTICIPANTS' SOCIAL SETTINGS
ON THE HUMOR STYLE PREFERENCE

by
Sossi Berberian

A thesis
submitted in partial fulfillment of the requirements
for the degree of Master of Arts
to the Department of Psychology
of the division of Social and Behavioral Sciences
at Haigazian University

Beirut, Lebanon
August 2005

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I would also like to thank my brother Arthur for although far away, still his love and support meant a lot to me.

And importantly, my big thanks go to my beautiful aunts and nephews who made a difference by just being there.

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Abstract

The current study examined the validity of the Humor Styles Questionnaire (HSQ) (Martin et al., 2003) within the Lebanese society. The following hypotheses were tested: (1) Individuals' ratings of their style of humor on the HSQ correlates with the degree to which they liked the corresponding type of Lebanese culture-specific Abu el Abed jokes, and the likelihood of them telling the jokes to others. (2) The humor style ratings of Lebanese participants on a modified Humor Styles Questionnaire would differ depending on whether the statements referred to friends or to family members separately. Obtained results supported hypothesis one for the most part: individuals' scores on the HSQ correlated with the degree to which they liked the corresponding type of Abu el Abed jokes, for all three dimensions of humor: affiliative, self-enhancing, and hostile, but not the self-defeating style. On the other hand, correlations were significant for individuals' ratings on the HSQ and the likelihood of them telling the corresponding type of jokes to others for all four dimensions of humor: affiliative, self-enhancing, hostile, and self-defeating. Results offered partial support for hypothesis two, in that depending on whether the statements referred to friends or to family members, individuals' humor style ratings differed significantly for the affiliative and self-enhancing, but not for the hostile and self-defeating style of humor. Results were interpreted in terms of findings reached in Martin et al.'s development and initial validation of the HSQ, as well as in terms of differences between individualist and collectivist cultures.

Validation of Humor Styles Questionnaire:

Correspondence between Humor Styles and Ratings of Specific Types of Jokes and the Effect of Participants' Social Settings on the Humor Style Preference

The present research was conducted to investigate the validity of the Humor Styles Questionnaire within the Lebanese culture, in terms of individuals' style and enjoyment of humor, as well as differences in their employment of a humor style with different individuals. Different individuals use different styles of humor, as they enjoy different types of jokes. While some use a specific style of humor, they might enjoy a different type of humor embedded in jokes. Some use a specific style of humor with some people, while use a different style of humor with others. More specifically, do individuals' reports of their use of a style of humor on the Humor Styles Questionnaire reflect their actual enjoyment of that style of humor embedded in jokes? Furthermore, do individuals' reports of their use of a specific style of humor differ depending on whether the statements apply to family members or to friends?

In this study, the Humor Styles Questionnaire (Martin et al., 2003) was used to assess individuals' styles of humor, which was then compared with their actual rating of enjoyment of Lebanese culture-specific jokes depicting the various styles of humor. A further step was taken, where the Humor Styles Questionnaire was modified by separating the statements comprising friends and family members into two sets of statements: one applying to friends and the other to family members. Accordingly,

results on the Modified Humor Styles Questionnaire were compared to see if differences exist in humor style employed with friends and with family members.

Humor Styles Questionnaire (Martin et al., 2003) was originally made and used on participants in Canada whose society is mainly individualistic (Triandis, 1995). Given that the Lebanese culture is more of a collectivist one, accordingly the Humor Styles Questionnaire was used to see whether it is valid with this type of culture. Furthermore, given that the term “friends and family” are often used together in individualistic cultures, these were separated into two statements, in order to see whether within the Lebanese culture, individuals’ reporting of humor styles would change depending on whether they are using humor with family members or with friends.

Theoretical Background

Humor

Humor has existed throughout the history of mankind. It has existed in preliterate cultures that now no longer exist on earth and in the literate cultures from ancient times to the present (Koller, 1988). Humor plays a significant role in people’s lives. Phrases like having or not having a sense of humor is used to explain people’s behaviors (Ruch, 1998). According to Keith-Speigel (1969), humor related behaviors surpass all other types of emotional behaviors combined “by ten or more times” (Chapman et al., 1996). Moreover, it has been estimated that humor encompasses almost one-half of the total nature of human life (Koller, 1988).

Humor being such a prominent quality of humans, it is surprising that there has not been enough research to find out more about this characteristic (Roeckelein, 2002). Some experimental investigations of humor have appeared intermittently at least from the time Wundt established the first psychological laboratory in 1879 (Boring, 1957; cited in Chapman et al., 1996), and researchers continued to come up with articles on humor, however they always criticized the fact that there is a lack of research on this “important and ignored” topic (Chapman et al., 1996). In the 1960s, a social science magazine reported receiving unfriendly reactions when they had announced that one whole issue would be dedicated to humor research (cf. Friedman, 1969; cited in Chapman et al., 1996). Until lately, research psychologists were not focusing on the positive emotions (cf. Averill, 1973; cited in Martin et al., 1984), more specifically, on humor (cf. Browning, 1977; cited in Martin et al., 1984), but were preoccupied with the unpleasant emotions (Allport, 1960; cited in Chapman et al., 1996). However, the International conference on humor and laughter and its papers and abstracts of papers (Chapman et al., 1977) as well as other research papers (Chapman et al., 1976; Goldstein et al., 1972) brought focus on the topic of humor. Consequently, in the last decade, the concept of sense of humor witnessed its renaissance in basic and applied humor research (Ruch, 1998).

Defining humor has been a difficult challenge for philosophers, theorists and scholars. In fact there are various ways of defining humor, and many different nouns, verbs, and adjectives all related to it. Various formal and informal classifications coexist

concerning the terminology of humor, however and unlike in other disciplines, no committee has decided on the proper use of humor-related terminology (Ruch, 1998). During the Conference on Humor and Laughter held in July 1976, the Conference wished to produce a definition of humor, however, the response of the audience was overwhelmingly negative (Chapman et al., 1977). Although researchers as well as laypersons know what humor is, however there seems to be no agreement on its definition or explanation (Martin, 1998).

Generally though, there is a consensus in that humor is a universal human quality, where behaviors, events, circumstances, situations and expression of ideas are found to be funny (Koller, 1988). Humor is also having the capacity of perceiving, appreciating, expressing, as well as making something seem funny, amusing, incongruous, ludicrous (Webster's Dictionary, 1992). Furthermore, the fact that humor is universal, and much appreciated throughout the human world, it can be inferred that humor generally is well regarded, valued and desired for its pleasure-filled consequences (Fry, 1987). Moreover, it is generally agreed upon that having a sense of humor is a "highly desirable trait to possess" (Martin, 1998).

Humor plays a significant, crucial part in everyday life (Fry, 1987) as it plays a vital role in its various aspects. It is a known fact that humor gives pleasure to man, and comes out fully in times of happiness and celebrations. However, humor also operates in bad times as it upholds people, giving them courage and hope in their darkest moments of misery and surrender. The idea that there is death waiting at some point in one's life

is pushed out of the consciousness; and humor gives individuals the confidence to overcome all problems, obstacles, and frustrations of life. Humor helps individuals to cope with the stresses and tensions found in interpersonal relationships. Humor also helps individuals to tolerate, to cope with, and to move on “in a word, *survive*” those problems and difficulties that arise from the existing social systems and its procedures which are insufficient and deficient in meeting human needs (Koller, 1988). As a considerable amount of humor helps in relieving significant portions of emotional and mental stress, a study was conducted to see humor’s contribution in coping. As George Vaillant (1977) reported, the life adjustment records of over 200 Harvard students over a 40-year span showed that humor had a significant role in adjustment success and was one of the five “mature coping mechanisms” (Fry, 1987).

Besides the psychological effects, humor plays a role in the physiological aspect of individuals as well. Being in the humor state stabilizes blood pressure, oxygenates the blood, massages vital organs, stimulates circulation, improves digestion, and relaxes the body’s many systems (Koller, 1988). Furthermore, there is a considerable relationship between humor and the health of individuals and their society. In other words, other factors being held equal, the society and its individuals’ acceptance and usage of humor improves or worsens the quality and longevity of life. From 1970 to 1980, there was a decrease in humor within the United States, which coincided and contributed to a certain degree in the increased medical and social problems (Silberman, 1987).

The term humor has not always had the meaning that it has today, but rather, humor carried a very different meaning. The term humor came from its origin in Latin *humere* which means "to flow or be wet" and was first used by ancient physiologists referring to the fluids in the body that affected both physique and mind (Roeckelein, 2002). The mixture of the four humors is shown in individuals' physical appearance, physiognomy, and proneness to sickness (Ruch, 1998). Most favorably, the four *humours*: blood, black bile, phlegm, and yellow bile are balanced; but a predominance of the blood, which is red, warm and wet, yields to the sanguine temperament, meaning that a person is healthy or sanguine and is worthy of power. Black bile comes from the secretions of the liver, and if dominant yields to the melancholic temperament, which would put the person in a bad-tempered mood and the person would have a melancholic, depressive approach towards life. A predominance of the phlegm, which is white and colorless, yields to the phlegmatic temperament, and where the person is lazy, difficult, and stubborn in his or her ways. As for the yellow bile, if dominant yields to the choleric temperament, where the person is prone to be sick, and violent (Koller, 1988).

As medical science advanced, the temperament theory of humor with a variety of characterological observations added, brought forth a new meaning to humor (Stelmack and Stalikas, 1991, cited in Ruch, 1998): the predominance of humors or body fluids were responsible for behavior and mood (Oxford English Dictionary, 1561; cited in Ruch, 1998). Accordingly, humor referred to either positive mood quality (good humor) or negative mood quality (bad humor) (Ruch, 1998).

In the 1680's, throughout Europe, the word humor entered the field of the comic; it was expanded to include deviating behavior or other abnormalities. Thus humor came to be known as "an odd, uncommon, and eccentric character whose peculiarities emerged from an imbalance of body fluids and who was subsequently laughed at" (e.g. in Ben Johnson's *Everyman out of his humour*). Eventually, this person came to be known as the *humourist* and *the man of humour* (Corbin Morris, 1710-1779; cited in Ruch, 1998) and was seen as someone who has the ability to make others laugh.

Throughout the centuries, many philosophers and thinkers tried to explain humor through different theories. Consequently, there exists many theories of humor, but none is a complete theory without any deficiency, albeit each theory contributes something in explaining the concept of humor (Berger, 1987). Influenced by philosophers and thinkers, three main types of theories of humor have come forward and they are the superiority, the incongruity and the psychoanalytic theories.

The accounts of various philosophers were the base for the superiority theory of humor. Plato (427-347 B.C.) was conscious that people did not like others' ignorance, pride, and insincerity, and according to him, humorists and audiences by pointing these out, they would show that they have superior knowledge and ability (Koller, 1988). Similarly, Aristotle (384-322 B.C.) viewed comedy in imitating people who are worse than average (Berger, 1987) by finding some flaw, deformity, or ugliness (Goldstein, 1972), and making these "the butt of humor" (Koller, 1988). Thomas Hobbes (1651) postulated the "sudden glory", where the earliest man won the combat and stood over

the body of his enemy who had lost; happy that he had survived, with good humor he planned to live his life (Koller, 1988). The “sudden glory” for Hobbes is reached by seeing the infirmities of others and comparing them with our eminencies (Keith-Spiegel, 1972). Furthermore, Hobbes believed that we not only feel superior to others but also to the way we used to be. Therefore laughter is possible, since we have become superior to the way we once were, as well as superior to others (Berger, 1987).

Thus, the superiority theory is based on humiliating others, in order to raise one’s own status (Koller, 1988). This is done by comparing one’s self to others and evaluating to be smarter, prettier, more fortunate, stronger, and feel victory over them (Keith-Spiegel, 1972). Furthermore, superiority comes from ridiculing not only others, but one’s own past mistakes or foolishness (Martin, 1998).

While the superiority theory of humor is based on disparaging others or one’s former self and feeling superior, incongruity theories that are the most accepted theories of humor (Berger, 1987) explain humor in a different way.

Incongruity theories can be traced back to the writings of many philosophers. Kant (1790) noted, “Laughter is an affection arising from the sudden transformation of a strained expectation into nothing” (Keith-Spiegel, 1972). In other words, a great expectation turns into a great disappointment (Berger, 1987); it is when a person perceives something in a (serious) way and suddenly sees that same thing from a different (improbable, comical) angle, and thus responds with humor (Martin, 1998). Similarly, Schopenhauer (1819) noted that people derive pleasure from finding some

unexpected connections between ideas (Koller, 1988). He viewed that “the cause of laughter in every case is simply the sudden perception of the incongruity between a concept and the real objects which have been thought through it in some relation, and laughter itself is just the expression of this incongruity.” There exists a conflict between a thought and a perception, and the perception is always correct. Therefore, according to Schopenhauer, when a person realizes that a perception is more accurate than a thought, this realization leads to pleasure (Keith-Spiegel, 1972). Koestler (1964) used the term “bisociation” for the juxtaposition of two normally incongruous contexts, or finding similarities in concepts that are otherwise different from each other (Martin, 1998); in other words, incongruity theory is based on finding similarity or a link between dissimilarities (Koller, 1988).

Thus, incongruity theories concentrate on the cognitive aspects of humor, and according to this theory, humor arises when two normally incongruent ideas, concepts, situations are brought together in a surprising or unpredicted way (Martin, 1998), and a difference comes out between what one expects and what one gets, which is inconsistency and disharmony (Berger, 1987). More specifically, incongruity theories in the case of jokes, consider the surprise generated from the punch line, in terms of its timing and subject, and whose incongruous situation brings about humorous response (Berger, 1987).

There are many psychoanalytic theories of humor, but the most important one comes from Freud (Berger, 1987). Freud (1960) discerned among three categories of humorous

experience: the comic, the wit (otherwise known as jokes) and humor (used in a specific way and not in its general sense). According to Freud, the comic deals with nonverbal sources of humor such as clowning (Martin, 1998). In the comic situation, the pleasure is derived from economy in the expenditure of thought (Roeckelein, 2002), that is the person brings together a certain amount of mental energy that is usually checked by the superego, while expecting something to happen, and when this expected does not take place, this mental energy not being used, is released in the form of laughter (Martin, 1998). In the case of wit or jokes, which can involve enjoying nonsense or childish jokes or the expression of inhibited tendencies (Keith-Speigel, 1972), there is an economy in the expenditure of inhibition (Roeckelein, 2002). The inhibitory energy that is censored by the superego, and that usually represses the direct acting out of behaviors that are sexual and aggressive (Keith-Speigel, 1972), becomes superfluous because of the joke, and thus is released in laughter (Martin, 1998). What concerns the pleasure in the humor situation; it is derived from an economy in the expenditure of feeling (Roeckelein, 2002). Humor turns an event that would normally cause suffering into something of less significance (Keith-Speigel, 1972). It is the situations where an individual would normally feel negative emotions like fear, sadness, anger, but the humor situation including amusing or incongruous aspects turns the negative emotional state around. Thus the pleasure derived from humor comes from the redundant energy of negative emotions that is released in the form of laughter (Martin, 1998).

Therefore, psychoanalytic theories of humor involve the release of energies that are usually kept in check by the superego. Specifically, energy that is built up to be utilized in psychic channels (Koller, 1988), not being used for its normal purposes (Martin, 1998), is released in the form of laughter (Keith-Speigel, 1972).

In addition to the various theories of humor, there exists historic as well as current humor measurement tools (Ruch, 1998), as “there has been a renaissance of research interest in the “sense of humor” in recent years, partly as an attempt to define the concept but more strenuously to provide instruments for its measurement” (Ruch, 1998; cited in Roeckelein, 2002). Furthermore, it is predicted that many other instruments are under way, as further research will take place to develop new concepts, which will bring along new instruments (Ruch, 1998). Unfortunately though, according to Overholser (1992), humor measurement faces many methodological problems such as low reliability and social desirability biases (Roeckelein, 2002).

The existing humor measurement tools are designed to assess humor traits and states in adults and in children in addition to the variables (Ruch, 1998). More specifically, according to Rod Martin (1996) most humor measurements tend to assess humor appreciation (cf: Ruch, 1996; cited in Roeckelein, 2002), where individuals’ rating of how funny they find jokes and/or cartoons is measured (Roeckelein, 2002).

“Sense of humor refers to humor as a stable personality trait or individual difference variable” (Ruch, 1998; cited in Martin et al., 2003) and it has multi-faceted aspects. It includes a cognitive aspect which involves (creating, understanding, reproducing and

remembering jokes; Feingold & Mazzella, 1993); an esthetic response such as (appreciating humor, enjoying certain types of humor material; Ruch & Hehl, 1998); a pattern of habitual behavior, like (tending to laugh often, telling jokes and amusing others, laughing at others' jokes; Craik, Lampert, & Nelson, 1996; Martin & Lefcourt, 1984); an aspect of temperament trait related to emotion (that is, habitual cheerfulness; Ruch & Kohler, 1998); an attitude, like (having an outlook towards the world that is bemused, and having a positive attitude toward humor; Svebak, 1996); and an aspect of coping or defense mechanism like (tending to maintain a humorous outlook when facing adversity; Lefcourt & Martin, 1986) (Martin et al., 2003). Accordingly, different measurement tools are needed to assess the various aspects of sense of humor.

Some measurement tools among others, are designed to assess some positive aspects of humor related to well-being; they are in the form of questionnaires, self-report scales, and they are: the Coping Humor Scale – CHS (Martin & Lefcourt, 1983), that tends to measure sense of humor in coping; the Situational Humor Response Questionnaire – SHRQ (Martin & Lefcourt, 1984), that deals with the tendency to smile and laugh in a wide variety of situations; the Sense of Humor Questionnaire – SHQ-6 (Svebak, 1996) that measures sense of humor; and the Multidimensional Sense of humor Scale – MSHS (Thorson & Powell, 1993) (Martin et al., 2003) that measures sense of humor in terms of humor creativity, coping and appreciation (Ruch, 1998).

Many of the existing humor scales do not measure the degree to which individuals find humor in their everyday life (Roeckelein, 2002), nor do they mention the specific ways in which they use or express humor.

For that reason, the Humor Styles Questionnaire (HSQ) (Martin et al., 2003) was developed, and concentrates on the interpersonal and intrapsychic functions of humor that individuals use in their everyday life. Accordingly, the Humor Styles Questionnaire aims to assess four dimensions that deal with uses or functions of humor in people's daily lives. Specifically, the Humor Styles Questionnaire assesses the affiliative, self-enhancing, aggressive or hostile, and self-defeating dimensions of humor (Martin et al., 2003).

The distinction in this Humor Styles Questionnaire is to see the use of humor with regards to relationships. Accordingly, humor can be used to enhance one's relationships with others, as well as with one's self, as it can be used at the cost and detriment of one's relationships with others, and with one's self.

Correspondingly, affiliative humor is a benign and self-accepting way of employing humor, which may be used to enhance one's relationships with others. It contains the tendency to joke around with others, to say funny things, to laugh with others, and amuse others. Self-enhancing humor is humor that is tolerant and non-detrimental to others and may be used to enhance one's self. It includes a tendency to have a humorous outlook on life, as well as to use humor as a coping strategy. Aggressive or hostile humor revolves around hostile uses of humor towards others, which may be used at the

cost and detriment of one's relationships with others; and where sarcasm, excessive teasing, criticizing or manipulating, disparaging as well as ridiculing others are involved, while disregarding their feelings. As for the self-defeating humor, which is excessive self-disparaging, it may be used at the cost and detriment of one's self, and where tendencies to use humor while disparaging and ingratiating oneself, as well as by allowing one-self to be the butt of others' jokes are involved (Martin et al., 2003).

Culture

Aside from the interpersonal and intrapsychic functions of humor that individuals use in their daily lives, there also exists cultural aspect in the use of humor. Culture is usually related to a certain language, a specific time period, a place, as well as shared beliefs, attitudes, norms, roles and behaviors (Triandis, 1995). Culture is not inherited, it is learned. It comes from individuals' social environment, and not from their genes (Hofstede, 1997). In other words, culture is defined as "the sum total of the attainments and activities of any specific period, race, or people, including their implements, handicrafts, agriculture, economics, music, art, religious beliefs, traditions, language, and story" (Webster's Dictionary, 1992).

Culture has both objective and subjective aspects. Objective aspects of culture include things like roads, tools, and radio stations; while the subjective aspects contain norms, values, roles, associations, and categorizations. What concerns these subjective aspects, they are organized into patterns called cultural syndromes which in turn are the

pattern of beliefs, attitudes, self-definitions, norms, and values which can be identified in a society. Two such syndromes (Triandis, 1994) or the two poles of dimension of culture are: collectivism and individualism (Hofstede, 2001).

Collectivism is defined as a social pattern where people are very much linked to each other and view themselves as part of one or more collectives, such as family, coworkers, and nation. They are motivated by the collectives' norms, and the duties imposed on them. They give priority to the goals of the collectives over their own personal goals. While individualism is defined as a social pattern where individuals are loosely linked and are independent of the collectives. Their preferences, needs, and rights motivate them, as they give priority to their personal goals over the goals of others, and consider the advantages and disadvantages of associating with others (Triandis, 1995).

Whether individualistic or collectivistic, humor is an essential part of cultural life (Koller, 1988). "It is all pervasive; we don't know of any culture where people do not have a sense of humor" (Berger, 1987; cited in Roeckelein, 2002). Theoretically, there are no assumptions as to differences in basic cognitive or physiological processes of humor mechanisms across cultures, be it an individualist or a collectivist culture. All cultures laugh and smile at incongruities; as surprise, superiority, and tension relief are universal mechanisms (Hertzler, 1970; cited Nevo, 2001). Moreover, humor comes out from patterned interactions, norms, values, attitudes and relationships (Koller, 1988). Therefore, each culture having its own set of values, norms, and unwritten rules of what

is appropriate in humor, these determine its content, target and style to a great degree (Hertzler, 1970; cited in Nevo, 2001).

Although Ruch's (1983) 3 WD ("3 Witz-Dimensionen") humor test which was designed to measure funniness and aversiveness of the following three categories of humor: the incongruity-resolution, nonsense, and sexual (Ruch & Hehl, 1998) yielded results that were not different for the different cultures that were studied; that is the people in the studied cultures perceived and responded to humor in the same manner, with differences existing as a result of individual personality traits, rather than by membership in a specific society; hence the production of "culture-free" psychology of humor (Roeckelein, 2002). However, this phenomenon does not apply to all cultures but is rather likely to have applications throughout Western Europe and North America. Furthermore, the findings that the peoples of these specific societies perceived and responded in the same manner might have been produced by the methods that were used, where idiosyncratic items were excluded which might have been comprehensible and salient to the citizens of one country but not another (Davies, 1998).

Some researches on humor have yielded differences among cultures: where hostile jokes were more appreciated by American students than by Japanese, Belgians, Chinese, or Senegalese students (Castell & Goldstein, 1977); Chinese have more jokes revolving around social interaction; and nonliterate cultures deal with more jokes on the physical environment (Shultz, 1977). According to Ziv (1984) differences in humor across

nations clearly exist, and these are due to language, historical and traditional differences (Roeckelein, 2002).

Rationale of Study

Different cultures, whether individualistic or collectivistic influence humor in different ways. Hofstede (1976), who was the founder and manager of the Personnel Research Department at IBM, compared the goals emphasizing independence from the organization and the goals that assume dependence, and used these to call individual/collective factor, by using the country factor scores as the country Individualism Index. The index range was between 0 and 100. The Individualism Index Values for 50 countries and three regions found that the United States ranked first with an Individualism index of 91, followed by Australia (90), Great Britain (89), and Canada ranking fourth/fifth, with an actual Individualism value of 80; whereas Lebanon which is included in the Arab countries ranked 26th/27th, with an actual Individualism value of 38. Of course, there exist differences among the Arab countries, as Saudis are more collectivist than the Lebanese or Egyptians. As for the countries that ranked lowest on Individualism, these were Ecuador (8), and coming last, at the 53rd rank was Guatemala, with an Individualism index of 6 (Hofstede, 1997).

The concepts of friends and family are not the same for individualist and collectivist cultures. A study (Chiasson et al., 1996), which was conducted on students in Canada (English and French speakers, separately), the United States, and El Salvador on “what

can make a person happy” had the following concepts mentioned as the most important facets of happiness: family relationships, having meaning in life, and a positive self-concept. More specifically, the three North American groups: English and French speaking Canada, and the United States, which are individualist groups, mentioned more intrapersonal, and hedonistic factors. Whereas the Salvadoran group which is a collectivist group, mentioned more interpersonal factors. Furthermore, the three individualist North American groups referred to friendship much more frequently than the collectivist Salvadoran group. The reason for this is that in collectivist societies where strong traditional social ties exist in the form of extended families, people have less need to make specific friendships, as one’s friends are predetermined from the social environment that he or she is born into. In contrast, in individualist countries one’s friendships are not predetermined by his or her social environment, and individuals must acquire friendship personally, thus friendship becomes a bigger issue in individualist more than in collectivist cultures (Chiasson, Dube, and Blondin, 1996; cited in Hofstede, 2001).

Given that Canada is an individualist society and the development and initial validation of the Humor Styles Questionnaire was done on Canadian students (Martin et al., 2003), will the Humor Styles Questionnaire be valid in Lebanon, which is a relatively more collectivist society? More specifically, the validity of the 32-statement Humor Styles Questionnaire, which assesses four dimensions related to the different uses of humor in everyday life, is investigated in order to see whether the

questionnaire's assessment of individuals' reports of the four styles of humor predicts their enjoyment/involvement with that specific reported style of humor. Accordingly, the 32-statement Humor Styles Questionnaire was used, followed by 16 culture-specific jokes depicting a well-known traditional Lebanese comic character called Abu el Abed and where all four dimensions of humor were equally embedded within these jokes. In addition, each joke had the following 5-point rating scales: "degree to which I liked the joke", and "likelihood of me telling the joke to others".

Abu el Abed (which means Abed's father in Arabic) is famously known in Lebanon and the Arab World as Abu el Abed el Beyrouthy (from Beirut). He is the most famous and oldest Lebanese comic character. He was known as the courageous, daring comic character, with heroic stories, as he was known in politics. However, the character of Abu el Abed changed into a more silly one, as Abu el Abed jokes were told in the war shelters during the Lebanese civil war, since it was used to help the people cope with the troubles and stresses caused during war time (El Hayat; cited in AbuAbed.co.uk). These culture-specific jokes were used in this study, as Abu el Abed jokes were generally understood, liked, and used by the Lebanese public.

Since the Humor Styles Questionnaire was originally developed in an individualist society like Canada and where the statements on the questionnaire often refer to certain use of style of humor with "friends and family members" put together; and given that individualist and collectivist cultures differ in their view towards family and friends, as mentioned earlier, accordingly, the two terms "friends and family" having different

connotations in a collectivist society were separated; hence each statement on the Humor Styles Questionnaire that included the term “friends and family members” together, were cast into two separate statements, one referring to friends, and one to family members.

Statements of Hypotheses

The following hypotheses were tested in the present study:

Hypothesis 1: Participants’ scores on the Humor Styles Questionnaire for the four dimensions of humor will correlate with their ratings a) on the degree to which they liked the corresponding Abu el-Abed jokes and b) their likelihood to tell the corresponding jokes to others.

Hypothesis 2: Participants’ scores of their humor styles on the Modified Humor Styles Questionnaire will differ depending on whether the statements applied to friends or to family members separately.

CHAPTER 2

Method

Testing for the two hypotheses involved running two different studies. Study 1 and Study 2 entail two separate samples of participants. While the same procedure was used for both studies, that involved the use of the same demographic information questionnaire, two different questionnaires were used for Study 1 and Study 2.

Participants

Study 1: Humor Styles Questionnaire and Abu El Abed jokes: participants were 320 undergraduate students at Haigazian University. The sample comprised of 147 males and 169 females, with an age range between 16 and 58 years, and an average age of 20 years and five months. 58.8 percent ($n=188$) of the participants were Arab Lebanese, 37.8 percent ($n=121$) were Lebanese of Armenian origin, and 1.9 ($n=6$) were of other ethnic origin or had another nationality, and 1.6 percent ($n=5$) did not mention their ethnicity. As for the participants' religion, 62.8 percent ($n=201$) were Christians, 28.1 percent ($n=90$) were Muslims, 7.9 percent ($n=25$) were Druze, while 0.3 percent ($n=1$) and 0.9 percent ($n=3$) belonged to another religion and or did not mention their religion, respectively.

Study 2: Modified Humor Styles Questionnaire-with friends and family: participants were 320 undergraduate students at Haigazian University. The sample included 156

males and 163 females with an age range between 16 and 40 years, and an average age of 20 years and 3 months. The participants' ethnicity was as follows: 48.4 percent (n=155) were Arab Lebanese, 47.5 percent (n=152) were Armenian Lebanese, 2.5 percent (n=8) were from another ethnic group or had another nationality and 1.6 percent (n=5) did not mention. As for participants' religion, 62.8 percent (n=201) were Christians, 22.5 percent (n=72) were Muslims, 11.6 percent (n=37) were Druze, 1.3 percent (n=4) were from another religion, and 1.6 percent (n=6) did not mention their religion.

Materials

Study 1: Demographic information questionnaire was used to obtain personal and social information regarding participants. This was followed by the Humor Styles Questionnaire (Martin et al., 2003), which contains 32 statements depicting the four dimensions of humor, which was used to assess participants' style of humor in everyday life. These 32 statements contain 8 interspaced statements for each of the following four dimensions of humor: affiliative, self-enhancing, aggressive/hostile, and self-defeating, with 7-item rating scale for each statement. The rating scale ranged from (1) "totally disagree" to (7) "totally agree". The Humor Styles Questionnaire was followed by 16 Abu el Abed jokes, depicting the four dimensions of humor distributed into four interspaced jokes per humor dimension, with each joke having two 5-point rating scales. The Abu el Abed jokes were taken from the Internet, specifically, from the following

websites: abuabed.net, abuabed.co.uk, cedarseed.com, terrajoke.com, and were chosen from the jokes with the highest ratings for funniness reported on these websites. To select the jokes that fit in each of the four humor styles, from a large pool of jokes, 2 university professors and 6 university graduates were asked to decide on the unidimensionality of each joke, and accordingly, the jokes that were rated to fall within the same humor dimension were selected. The two 5-point rating scales for each joke were: “degree to which I liked the joke”, with (1) being “did not like it at all” and (5) being “liked it very much”; and the other scale being “likelihood of me telling the joke to others”, with (1) being “not likely at all” and (5) being “very likely”. With these jokes, participants’ degree of likeness, and likelihood to tell specific style of jokes to others would be assessed.

Study 2: Demographic information questionnaire was used to get personal and social information on the participants, which was followed by the Modified Humor Styles Questionnaire – friends and family. The Humor Styles Questionnaire was modified such that the statements that included the term “friends and family members” were broken into two; one referred to friends and one referred to family members. In this way, participants’ ratings on the statements depicting the four styles of humor employed with friends, and their ratings on their employment of the four styles of humor employed with family members, independent of friends, would be observed.

Procedure

For both Study 1 and Study 2, the questionnaires were administered at random, to students at the university’s student lounge, cafeteria, library, garden, and court.

Study 1: The students were given the questionnaire to complete; a confidential demographic information questionnaire, followed by the Humor Styles Questionnaire, followed by the Abu el-Abed jokes with its two 5-point rating scales.

Study 2: The confidential demographic information questionnaire, followed by the Modified Humor Styles Questionnaire – friends and family members were administered.

Table 1
Mean Humor Dimensions Scores and Standard Deviations on the Humor Styles Questionnaire

HSQ	Mean	Standard Deviation
Affiliative	39.9	7.2
Self-Defeating	13.3	10.8
Hostile	29.3	9.6
Self-Defending	27.4	7.9

CHAPTER 3

Results of Humor Styles Questionnaire and Jokes

Study I

In order to test for relationship in scores on the Humor Styles Questionnaire and the ratings on corresponding type of jokes in Study 1, a set of Pearson product-moment correlation (two-tailed) was performed.

Table 1 presents the mean scores and the standard deviation for the four humor dimensions on the Humor Styles Questionnaire.

Table 1
Mean Humor Dimension Scores and Standard Deviation on the Humor Styles Questionnaire

HSQ	Mean	Standard Deviation
Affiliative	39.0	7.2
Self-Enhancing	35.3	10.0
Hostile	29.3	9.6
Self-Defeating	27.4	7.9

A Pearson product-moment correlation (two-tailed) was performed to test for relationship in participants' scores on the Humor Styles Questionnaire and their rating scores on the degree to which they liked the corresponding type of jokes. Results were significant, yielding positive correlations for the three styles of humor: affiliative, self-enhancing, and hostile on the HSQ and the degree of liking of the corresponding jokes. Results were not significant for the self-defeating style of humor on the HSQ and the degree of liking of self-defeating jokes (see Table 2).

Similarly, the Pearson product-moment correlation (two-tailed) was performed to test for relationship in participants' scores on the Humor Styles Questionnaire and their rating scores on the likelihood of them telling the corresponding type of jokes to others. Results were significant with positive correlations for all four styles of humor: affiliative, self-enhancing, hostile, and self-defeating (see Table 2).

Hostile Jokes	Degree of Liking Jokes	0.173**	0.032	0.259**	0.223**
	Likelihood of Telling Jokes to Others	0.112*	0.028	0.362**	0.328**
Self-Defeating Jokes	Degree of Liking Jokes	0.009	0.219**	0.151**	0.026
	Likelihood of Telling Jokes to Others	0.044	0.345**	0.090	0.121*

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

Table 2

Correlations between Humor Styles Questionnaire and Liking and Telling of Jokes as a function of Ratings for the Jokes

		Humor Styles Questionnaire			
Ratings for Jokes		Affiliative	Self-Enhancing	Hostile	Self-Defeating
Affiliative Joke	Degree of Liking Joke	.307**	.290**	.290**	.041
	Likelihood of Telling Joke to Others	.178**	.233**	.218**	.204**
Self-Enhancing Joke	Degree of Liking Joke	.063	.151**	.093	.218**
	Likelihood of Telling Joke to Others	.052	.171**	.090	.282**
Hostile Joke	Degree of Liking Joke	.173**	.052	.256**	.223**
	Likelihood of Telling Joke to Others	.112*	.028	.302**	.328**
Self-Defeating Joke	Degree of Liking Joke	.109	.421**	.151**	.026
	Likelihood of Telling Joke to Others	.044	.345**	.098	.121*

**Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)

A Pearson product-moment correlation (two-tailed) was performed to test for relationship in participants' rating scores on the degree to which they liked the jokes and the likelihood of them telling the jokes to others. Results revealed high significance with positive correlations for all four styles of humor embedded in jokes: affiliative, self-enhancing, hostile, self-defeating. Table 3 presents the correlation between both rating scores: degree of liking the joke, and the likelihood of telling the joke to others, for each of the four styles of humor in the jokes.

Table 3

Correlations between Rating Scores: Degree of Liking the Joke and Likelihood of Telling the Joke to Others, for the Four Humor Styles in Jokes

Likelihood of Retelling the Joke	Degree of Liking the Joke			
	Affiliative Joke	Self-Enhancing Joke	Hostile Joke	Self-Defeating Joke
Affiliative Joke	.811**			
Self-Enhancing Joke		.813**		
Hostile Joke			.833**	
Self-Defeating Joke				.826**

**Correlation is significant at the 0.01 level (2-tailed)

Since past studies have shown some gender differences in the use and enjoyment of humor, consequently, a Pearson product-moment correlation (two-tailed) was performed to test for relationship according to participants' gender and their scores on the Humor Styles Questionnaire and their rating scores on the degree to which they liked the corresponding type of jokes.

Table 4 shows the results for the Females' scores on the Humor Styles Questionnaire and their ratings for the degree to which they liked the corresponding jokes for all four styles of humor embedded within these jokes. Results were significant yielding positive correlations for the affiliative and hostile styles. Results were not significant for the self-enhancing, and the self-defeating styles, yielding non-significant negative correlation for this latter.

Similarly, Table 4 reveals the results for the Males' scores on the Humor Styles Questionnaire and their ratings for the degree to which they liked the corresponding jokes for all of the four styles of humor embedded in the jokes. Results revealed positive significant correlations for the three styles of humor: affiliative, self-enhancing, and hostile and their corresponding type of humor in jokes. Results were not significant for the self-defeating style of humor and its corresponding jokes.

In general, results show some gender difference as females' affiliative and hostile, but not their self-enhancing and self-defeating styles on the Humor Styles Questionnaire were positively correlated with degree of liking the corresponding jokes; whereas the males' affiliative, hostile, and self-enhancing styles, but not their self-defeating style on

the Humor Styles Questionnaire positively correlated with the degree of liking the corresponding jokes.

Table 4
Gender Correlations between HSQ and Degree of Liking the Joke as a Function of Rating

Degree of Liking the Joke	Humor Styles Questionnaire				
		Affiliative	Self-Enhancing	Hostile	Self-Defeating
Affiliative Joke	Females	.264**	.288**	.266**	-.059
	Males	.346**	.291**	.313**	.159
Self-Enhancing Joke	Females	.005	.139	.154	.109
	Males	.138	.177*	.022	.322**
Hostile Joke	Females	.117	.073	.224**	.155*
	Males	.226**	.040	.291**	.291**
Self-Defeating Joke	Females	.038	.365**	.140	-.042
	Males	.183*	.483**	.159	.095

**Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)

Also, a Pearson product-moment correlation (two-tailed) was performed to test for relationship according to gender in participants' scores on the Humor Styles Questionnaire and their rating scores on the likelihood of them telling the corresponding type of jokes to others.

Table 5 presents the results for the Females' scores on the Humor Styles Questionnaire and their ratings for their likelihood to tell the corresponding jokes to others for all four styles of humor embedded in the jokes. Results confirmed positive significant correlations for the affiliative style and the hostile styles. Results did not yield significant correlation for the self-enhancing, and the self-defeating styles.

Similarly, Table 5 shows the results for the Males' scores on the Humor Styles Questionnaire and their ratings for their likelihood to tell the corresponding jokes to others for all of the four styles of humor embedded in the jokes. Results confirmed positive significant correlations for the three styles of humor: affiliative, self-enhancing, and hostile styles. However, results did not yield significant correlations for the self-defeating style of humor and its corresponding jokes.

More generally, results show some gender difference as females' affiliative and hostile, but not their self-enhancing and self-defeating styles on the Humor Styles Questionnaire positively correlated with their likelihood to tell the corresponding jokes to others; whereas the males' affiliative, hostile, and self-enhancing styles, but not their self-defeating style on the Humor Styles Questionnaire positively correlated with their likelihood to tell the corresponding jokes to others.

In summary, participants' affiliative, self-enhancing, and hostile, but not their self-defeating styles on the Humor Styles Questionnaire positively correlated with their ratings on the degree to which they liked the corresponding type of jokes. Also, participants' scores on all four dimensions of humor, affiliative, self-enhancing, hostile, and self-defeating styles on the Humor Styles Questionnaire positively correlated with their likelihood to tell the corresponding type of jokes to others.

Table 5

Gender Correlations between HSQ and Likelihood of Telling the Joke to Others as a Function of Ratings of Jokes

Likelihood of Telling Joke		Humor Styles Questionnaire			
		Affiliative	Self- Enhancing	Hostile	Self- Defeating
Affiliative Joke	Females	.164*	.218**	.167*	.107
	Males	.197*	.258*	.292**	.303**
Self- Enhancing Joke	Females	.010	.145	.135	.207**
	Males	.119	.218*	.048	.352**
Hostile Joke	Females	.073	.038	.262**	.303**
	Males	.161	.030	.354**	.348**
Self- Defeating Joke	Females	.035	.315**	.131	.077
	Males	.063	.394**	.061	.161

**Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)

CHAPTER 4

Discussion of Humor Styles Questionnaire and Jokes

The hypothesis that participants' scores on the Humor Styles Questionnaire for the four styles of humor will correlate with their ratings on the degree to which they liked the Abu el Abed jokes that depict the corresponding style of humor and their likelihood to tell the jokes to others, was supported for the most part.

Participants' mean scores on the four dimensions of humor on the Humor Styles Questionnaire showed that the hierarchy of their reported use of humor style in descending order was: affiliative, self-enhancing, hostile and self-defeating styles of humor.

The participants' preferred styles of humor as revealed by their ratings on the Humor Styles Questionnaire correlated significantly with their ratings for the degree to which they liked the corresponding type of Abu el Abed jokes, specifically, participants' scores on the HSQ for the affiliative, self-enhancing, and hostile styles of humor, allow the prediction of the degree of their liking of the corresponding type of jokes. Whereas the non-significant correlation for their self-defeating style of humor on the Humor Styles Questionnaire and their ratings on the degree to which they liked the self-defeating jokes, imply that participants reported use of self-defeating style does not predict the degree to which they enjoy self-defeating jokes. Moreover, results revealed positive correlations for all four styles.

Also, significant positive correlations between participants' scores on the Humor Styles Questionnaire's four styles of humor on the one hand, and the likelihood of them telling the corresponding types of Abu el Abed jokes to others on the other hand, imply that the likelihood of participants to tell all four styles of jokes can be predicted from their scores on the HSQ. For example, participants' affiliative style of humor on the Humor Styles Questionnaire allows the prediction of their likelihood to tell the corresponding affiliative type of jokes to others.

These results imply that the Humor Styles Questionnaire's affiliative, self-enhancing, and hostile styles, but not the self-defeating styles are valid when considering their significant correlation with enjoyment of the corresponding type of jokes. And, when considering the significant correlation with the likelihood of telling the corresponding type of jokes to others, the Humor Styles Questionnaire with all four of its humor styles, affiliative, self-enhancing, hostile, and self-defeating is valid.

However, one very important point to be considered is that, all the results yielded low correlations, meaning that there are other variables affecting the relationship between the humor styles on the Humor Styles Questionnaire and the degree of liking and likelihood of telling the corresponding types of jokes.

Results that participants' self-defeating style of humor does not correlate with their liking of the corresponding type of joke, but significantly correlates with their telling the corresponding type of jokes to others, can be explained in the following way: while liking of a joke is self-referent, the telling of jokes is other-referent. In other words, a

person liking a joke applies to him or herself; while the telling of jokes involves other people outside of one's self. Consequently, it is possible that participants may not personally like a joke, but nevertheless tell it to others, taking into consideration that those others will laugh or like the joke.

Concerning participants' scores on the Humor Styles Questionnaire and their degree of liking the corresponding jokes, there exist some overlaps between the styles of humor. That is, scores on all of the affiliative, self-enhancing, and hostile styles of humor showed significant correlations with the degree of liking the affiliative Abu el Abed jokes. Similarly, the self-enhancing, and self-defeating styles correlated significantly with the ratings on the degree to which they liked the self-enhancing jokes. Also, participants' scores on the affiliative, hostile and self-defeating styles correlated significantly with the ratings on the degree to which they liked the hostile style of jokes. And interestingly, participants' scores for the self-defeating styles on the Humor Styles Questionnaire were not significant related to their ratings on the self-defeating jokes as expected. Instead the self-enhancing, and hostile styles on the Humor Styles Questionnaire were significant related to the rating of likeness for the self-defeating jokes.

Regarding participants' scores on the Humor Styles Questionnaire and the likelihood of them telling the corresponding style of jokes to others, correlations were significant for the affiliative, self-enhancing and hostile styles with the affiliative jokes. Participants' likelihood to tell self-enhancing style of jokes to others correlated

significantly with their self-enhancing style as well as their self-defeating styles on the Humor Styles Questionnaire. What concerns the hostile and self-defeating styles, these were significantly correlated with participants' likelihood to tell hostile jokes to others. As to what concerns participants' scores on the self-defeating and self-enhancing styles on the Humor Styles Questionnaire, these correlated significantly with their likelihood to tell the self-defeating jokes to others.

The Lebanese participants' non-significant correlation for the self-defeating style of humor on the Humor Styles Questionnaire, and the degree to which they liked the corresponding self-defeating Abu el Abed jokes, could be explained in the following way. It is a fact that nationality and race affect the humor sense differentially (Goldstein, 1972), as each culture determines the content, target and style appropriate in the use of humor (e.g., Hertzler, 1970; cited in Nevo et al., 2001). Furthermore, "cultural preferences may affect both the specific content and the perception of incongruities and their resolutions, as well as the interpretation of the surprise element" (e.g., Hertzler, 1970; cited in Nevo et al., 2001). Therefore, it is possible that within the Lebanese culture, the concept of the self-defeating dimension of humor is not understood as the use of humor that involves the excessive disparaging of one's self, as well as allowing one-self to be the butt of others' jokes, which is a style of humor that is detrimental to the self; instead the concept of this style may be confused with the self-enhancing and hostiles styles of humor. In other words, the Lebanese participants' self-defeating style on the Humor Styles Questionnaire is positively correlated with their liking of self-

enhancing and hostile jokes, as it is positively correlated with the likelihood of telling all four affiliative, self-enhancing, hostile and self-defeating jokes, with the self-defeating jokes having the lowest correlation.

Furthermore, the fact that the Lebanese participants' ratings on the various styles of humor on the Humor Styles Questionnaire significantly correlated with the degree to which they liked and the likelihood of them telling the corresponding as well as the not corresponding types of Abu el Abed jokes, shows that the different humor styles can include to some degree specifications from another style. For example, participants' affiliative style of humor on the Humor Styles Questionnaire significantly correlated with the corresponding affiliative type of Abu el Abed jokes as well as the not corresponding hostile type of jokes on both, degree to which they liked the joke and the likelihood to tell the joke to others. A reason for this is that affiliative humor may include some small degree of hostile acts, like ridiculing of others and making fun of people not very much liked and who are outside the group (Obrdlik, 1942; cited in Martin et al., 2003), in addition to some fun teasing of individuals within the group (Martin et al., 2003). Also, the Lebanese participants' scores for the self-defeating style of humor correlating significantly with the likelihood of them to tell affiliative style of jokes, could be due to the fact that individuals who gently bring out their faults and who do not act very seriously when it comes to themselves, are liked more and are perceived to be less threatening to others and thus self-defeating style is part of affiliative style (Vaillant, 1977; Ziv, 1984; cited in Martin et al., 2003).

Results concerning the correlation between the participants' ratings for the degree to which they like the jokes and their likelihood of telling the jokes to others were highly significant. Participants who rated that they liked a joke also rated that they were likely to tell the joke to others.

A separate analysis was conducted to assess gender differences, and results were tested for both females and males and their scores on the Humor Styles Questionnaire for the four styles of humor and their ratings for the degree to which they liked the corresponding style of humor embedded in the Abu el Abed jokes, as well as their likelihood to tell the jokes to others. Results yielded some gender differences.

What concerns female participants' scores on the four styles of humor on the Humor Styles Questionnaire and their ratings for the degree to which they liked the corresponding style of Abu el Abed jokes and the likelihood of them telling these jokes to others, results were mixed for the different styles. Whereas females' affiliative and hostile styles on the Humor Styles Questionnaire yielding significant positive correlations, allows the prediction of their degree of liking and their likelihood of telling the corresponding types of jokes to others; no such prediction is possible for their self-enhancing and self-defeating styles of humor and the corresponding types of jokes, as no significant correlations were yielded.

Regarding the male participants, the positive significant results lead us to say that based on their scores for the affiliative, self-enhancing, and hostile styles on the Humor Styles Questionnaire, their ratings on the degree to which they liked the corresponding

styles of Abu el Abed jokes and the likelihood of them telling these jokes to others, can be predicted; however, no such prediction is possible for the self-defeating style, as there was no significant correlation for this style and the degree of liking and the likelihood of telling these corresponding styles of jokes to others.

Interestingly, both males' and females' scores on the self-defeating style of humor on the Humor Styles Questionnaire, and their ratings on the degree of liking and their likelihood to tell the self-defeating jokes to others were not significantly correlated; that is the Lebanese males' and females' self-defeating styles does not enable us to tell their degree of liking and their likelihood to tell the corresponding self-defeating type of jokes.

The Lebanese participants', whether females' or males', non-significant correlation for the self-defeating style and the corresponding self-defeating jokes might be due to some cultural influences and concepts related to appropriateness of humor which might lead them to confuse, misunderstand and or overlap the concept of self-defeating style of humor.

Furthermore, the correlations in general between the styles of humor on the Humor Styles Questionnaire and the degree of liking and the likelihood of telling the corresponding styles of jokes to others was higher for the males than for the females on all four styles of humor, which means that males' scores on the Humor Styles Questionnaire predicted the degree to which they liked and the likelihood of them to tell

the corresponding styles of jokes to others, more than the females; however, the difference between these correlations was very small.

More specifically, there were significant correlations for female participants' affiliative, self-enhancing and hostile styles of humor and their likelihood to tell the corresponding affiliative jokes to others. Similarly, there was no significant correlation for the females' self-enhancing style and the likelihood to tell the corresponding self-enhancing jokes to others; instead the correlation was significant for the self-defeating style and the self-enhancing jokes. As for the likelihood to tell the hostile style of jokes to others, these were significantly correlated with the hostile as well the self-defeating styles the Humor Styles Questionnaire. Finally, females' self-defeating style did not correlate significantly with their likelihood to tell the self-defeating jokes to others, instead the correlation was significant between their self-enhancing style and their likelihood of telling self-defeating Abu el Abed jokes to others.

Whereas for the male participants, their scores on the affiliative, self-enhancing, and hostile styles correlated significantly with the likelihood of telling the affiliative jokes to others. Like the female participants, the males' scores on the self-defeating style on the Humor Styles Questionnaire correlated with their ratings for the likelihood of telling the self-defeating as well as the self-enhancing jokes to others. Finally, similar to the female participants, the males' scores on the self-enhancing style correlated significantly with their ratings of telling the self-defeating jokes to others.

As mentioned before, the Lebanese participants, whether males' or females' ratings on the various styles of humor on the Humor Styles Questionnaire significantly correlating with the degree to which they liked and the likelihood of them telling the corresponding Abu el Abed jokes to others, shows that the humor styles contain to some degree, specifications from another style, such as the affiliative humor including some small degree of hostile acts such as ridiculing others and making fun of people not very much liked and who are outside the group (Obrdlik, 1942; cited in Martin et al., 2003), as well as some fun teasing of persons within the group (Martin et al., 2003). Also, the self-defeating style of humor involving persons who gently bring out their faults and who do not take themselves very seriously, are liked more and are perceived to be less threatening to others, making self-defeating style part of affiliative style (Vaillant, 1977; Ziv, 1984; cited in Martin et al., 2003).

Table 6

Reliability of the items in the Four Humor Styles for Friends

Factors	Cronbach's Alpha
1 (Self-Defeating)	.785
2 (Self-Defeating)	.712
3 (Affiliative)	.895
4 (Hostile)	.543

CHAPTER 5

Results of Modified Humor Styles Questionnaire

Study II

A factor analysis was performed to obtain the clusters for the four humor styles statements with friends; the following number of items was generated. Factor 1 (self-enhancing): 10 items; Factor 2 (self-defeating): 6 items; Factor 3 (affiliative): 7 items; and Factor 4 (hostile): 5 items. Some items that did not fit within the given factor were dropped.

A reliability test was performed on each of these factors. Table 6 presents the Cronbach’s alpha for the four factors: Factor 1 (self-enhancing); Factor 2 (self-defeating); Factor 3 (affiliative); Factor 4 (hostile).

Table 6

Reliability of the items in the Four Humor Styles for Friends

Factors	Cronbach’s Alpha
1 (Self-Enhancing)	.786
2 (Self-Defeating)	.712
3 (Affiliative)	.696
4 (Hostile)	.543

Similarly, a factor analysis was performed for the four humor styles statements with family; yielding the following number of items. Factor 1 (self-enhancing): 6 items; Factor 2 (self-defeating): 6 items; Factor 3 (Affiliative): 6 items; and Factor 4 (hostile): 5 items. Some items that did not fit within the given factor were dropped.

A reliability test was performed, yielding Cronbach's alpha for all four factors: Factor 1 (self-enhancing); Factor 2 (self-defeating); Factor 3 (affiliative); Factor 4 (hostile) (see Table 7).

Table 7

Reliability of the items in the Four Humor Styles for Family

Factors	Cronbach's Alpha
1 (Self-Enhancing)	.791
2 (Self-Defeating)	.689
3 (Affiliative)	.699
4 (Hostile)	.366

A Paired Sample t-test (2-tailed) was performed to test for differences in participants' scores on the Modified Humor Styles Questionnaire on the statements with friends separately, and family members separately, for each of the four styles of humor which include the selected items or statements per factor resulted from the Factor Analysis. Results yielded significant differences for the affiliative and self-enhancing styles of humor, but not for the hostile and self-defeating styles. That is participants' scores of humor style on the statements with friends differed significantly from their scores on statements with family members when using the affiliative and self-enhancing styles, but not when using the hostile and self-defeating styles (see Table 8).

Table 8

t-Test for Ratings on Statements with Friends vs. Family Members for the Humor Styles

Rating on statements with Friends vs. Family Members	t	p
Affiliative	13.90	0.00
Self-Enhancing	67.04	0.00
Hostile	-1.43	0.15
Self-Defeating	-9.43	0.36

A Pearson product-moment correlation was performed to test for relationship between participants' scores on the statements with friends and the statements with family members for the four styles of humor which include the selected items per Factor. Results were significant for all the statements on the four styles (see Table 9).

Table 9
Correlations between the Statements with Friends and Family for the Four Humor Styles

Rating on statements with Friends vs. Family Members	r	p
Affiliative	0.69	0.00
Self-Enhancing	0.93	0.00
Hostile	0.69	0.00
Self-Defeating	0.87	0.00

Paired Sample t-tests (2-tailed) were performed to test for differences according to participants' gender and their scores on the Modified Humor Styles Questionnaire on the statements with friends separately, and family members separately, for each of the four styles of humor which are made up of the selected items per humor Factor. Table 10

shows significant differences on the affiliative and self-enhancing styles of humor, but not for the hostile and self-defeating styles for the females. Whereas for the males results yielded significant difference for the affiliative, but not for the self-enhancing, hostile and self-defeating styles.

Table 10

t-Test for Ratings on Statements with Friends vs. Family Members for the Humor Styles For Females and Males

Rating on statements with Friends vs. Family Members		t	p
Affiliative	Females	10.49	0.00
	Males	9.04	0.00
Self-Enhancing	Females	45.12	0.00
	Males	50.96	0.00
Hostile	Females	-1.49	0.13
	Males	-0.63	0.52
Self-Defeating	Females	-1.33	0.18
	Males	0.02	0.98

CHAPTER 6

Discussion Results of Modified Humor Styles Questionnaire

The items for the four factors on the Modified Humor Styles Questionnaire's statements with friends were 10 items for the self-enhancing style, 6 items for the self-defeating, 7 items for the affiliative, and 5 items for the hostile styles of humor. All four factors showed internal consistency with Cronbach's alpha ranging from .54 to .78

Whereas, the items for the four factors on the Modified Humor Styles Questionnaire's statements with family members were 6 items for each of the self-enhancing, self-defeating, and affiliative styles, and 5 items for the hostile style of humor. The first three factors showed internal consistency with Cronbach's alpha ranging from .68 to .79, while the fourth hostile factor, had a low Cronbach's alpha of .36.

The hypothesis that the participants' scores on Modified Humor Styles Questionnaire for the statements with friends and family members put separately will differ from each other was supported for the affiliative and self-enhancing styles, but not for the hostile and self-defeating styles. Accordingly, participants differed significantly when using affiliative and self-enhancing style of humor with friends and with family members; but did not differ significantly when using hostile and self-defeating style of humor.

The significant difference may be due to individual and cultural aspects in that in all cultures, there exists a joking relationships which is defined as "a relation between two

persons in which one is by custom permitted, and some instances required, to tease or make fun of the other, who in turn is required to take no offence"; however, this joking relationship varies among different societies (Radcliffe-Brown, 1940; cited in Goldstein et al., 1972)., as for example based on the concept of ingroup versus outgroup, some poking fun is allowed among members of family, but is not accepted from nonfamily members (Koller, 1988). Moreover, considering the presence of collectivism in Lebanon, and given the fact that within collectivist societies individuals' social behavior differs when interacting with an ingroup member than with an outgroup member, while this happens only slightly in people within individualist societies (Triandis, 1995). Consequently, we can imply that the Lebanese individuals' use of humor will differ with members of ingroup which is the family versus outgroup which is friends depending on the style of humor that is used.

Results also showed that although there is a significant difference in the use of certain styles of humor depending on whether with friends or family members, however, there exists a significant correlation between all four styles of humor, as the use of a style of humor with one group allows the prediction of the use of the same style with the other group, albeit, with differences.

Concerning gender differences and difference in the use of style of humor depending on whether it applies to friends or family members, female participants differed significantly in their use of affiliative and self-enhancing styles depending on whether with friends or family members, but not in their use of hostile and self-defeating styles;

similarly, male participants differed in their use of affiliative and self-enhancing style with friends and family members, but not in their use of hostile, and self-defeating styles. Moreover, while females differed more than males on their use of affiliative style with friends and family members, males differed more on the self-enhancing style.

Results may be interpreted in terms of the fact that individuals' social behavior within collectivist societies differs when interacting with an ingroup member than with an outgroup member (Triandis, 1995). Furthermore, as each culture has its own set of gender role socialization (Nevo, 2001), accordingly, this may explain females' and males' differing in their use of style depending on whether with friends or family members.

CHAPTER 7

Conclusion

Humor has existed throughout centuries, as it plays an important role in people's lives. There are various aspects to humor, and many measurement tools to assess it. One such measurement tool that is designed to assess people's use of humor in their everyday life is Rod Martin et al.'s (2003) Humor Styles Questionnaire. Specifically, the Humor Styles Questionnaire assesses four dimensions of humor: affiliative, self-enhancing, hostile, and self-defeating. The validity of the Humor Styles Questionnaire in the Lebanese society was investigated in the following ways:

- 1- The validity of the Humor Styles Questionnaire with regards to Lebanese culture-specific Abu el Abed jokes was tested. More specifically, whether individuals' reports of the four dimensions of humor on the Humor Styles Questionnaire correlates with the degree to which they like the corresponding style of humor embedded in Abu el Abed jokes, and the likelihood of them telling these corresponding types of jokes to others.

- 2- The Lebanese individuals' scores on the Modified Humor Styles Questionnaire – Friends and Family were tested to see whether they differ in their use of humor depending on whether it applies to friends or to family members.

Obtained results tended to support the first hypothesis for the most part. That is, individuals' scores on the Humor Styles Questionnaire correlated with the degree to which they like the corresponding style of Abu el Abed jokes for the affiliative, self-

enhancing and hostile styles of humor, but not the self-defeating style. While, their scores on the Humor Styles Questionnaire and the likelihood of them telling the corresponding type of jokes to others correlated significantly on all four dimensions: affiliative, self-enhancing, hostile, and self-defeating.

Results supported some parts of the second hypothesis, where Lebanese individuals differed significantly in their use of affiliative and self-enhancing, but not their hostile and self-defeating styles of humor depending on whether the statements applied to friends or to family members.

Results of Study I were interpreted in the following ways:

Individuals' scores on the Humor Styles Questionnaire correlated significantly with their degree of liking the corresponding types of jokes for the affiliative, self-enhancing, and hostile styles, but not for the self-defeating style. While their scores on all four humor dimensions on the Humor Styles Questionnaire correlated significantly with their likelihood to tell the corresponding types jokes to others. Since liking a joke is self-referent, while telling a joke is others-referent, accordingly individuals may not personally like a joke, but nevertheless tell it, considering that although they don't like a joke, others may find that joke funny and may respond with laughter. Furthermore, since cultural preferences may affect perception of incongruities (Hertzler, 1970; cited in Nevo et al., 2001), it is possible that within the Lebanese society, the self-defeating style and the degree of liking the corresponding self-defeating jokes is not perceived as it is perceived in more individualistic society. Moreover, as individuals' humor styles in

many cases, correlated with the corresponding as well with non-corresponding styles of jokes, these may be explained in terms of the different humor styles including to some degree specifications of other styles (Martin et al., 2003), or another explanation may be that the jokes may not be strictly speaking uni-dimensional, as suggested by the low correlations between the humor styles on the Humor Styles Questionnaire and the enjoyment and telling of corresponding type of jokes to others

Results of Study II were interpreted in the following ways:

As individuals differed in their affiliative and self-enhancing scores on the Humor Styles Questionnaire, but not their hostile and self-defeating styles, depending on whether the statements applied to friends or to family members, these were explained in terms of the difference in individuals' social behavior with members of ingroup versus the outgroup as part of the collectivist culture, as opposed to the only slight difference among persons in individualist culture (Radcliffe-Brown, 1940; cited in Goldstein et al., 1972).

Some limitations included the fact that the jokes can be perceived as multi-dimensional, that is although one major humor style emerges in the jokes, however they tend to include some other dimensions of humor as well. Accordingly, participants may well find and like that minor aspect of another dimension of humor.

Also, this study included only Lebanese culture-specific Abu el Abed jokes. Future research might include a wider array of jokes, in order to make the applicability of the Humor Styles Questionnaire wider.

While administering the Humor Styles Questionnaire, many participants had trouble with rating the first statement, which is put in a negative form, that is “I usually don’t laugh or ...”, while the 7-point rating scale goes from “totally disagree” to “totally agree”. Thus participants were confused in their ratings on this statement, where in order to report that they usually laugh, they should put “totally disagree”.

Concerning the Modified Humor Styles Questionnaire, each statement on the Humor Styles Questionnaire that included “friends and family” put together, were substituted by blanks, and across both friends and family members boxes were provided for the ratings. Although significant differences were found in participants’ differing in their ratings of some style of humor when applying to friends and to family members, however, many rated the first option, which is friends, and automatically gave the same rating to family members, without giving it much thought. If the same statement, however once including friends, and another time including family members were put mixed in the questionnaire, instead of one next to each other, greater differences might have emerged.

Also, the study was done on Lebanese university students, who as compared with Lebanese who have not attended any university may carry more individualist characteristics. Therefore, future research on non-college educated Lebanese, and who may be more collectivist may be expected to yield greater difference in their use of style of humor with friends and family members.

This study was conducted to examine the validity of the Humor Styles Questionnaire in the Lebanese society. Results confirmed that the hypotheses that the Lebanese

individuals' scores on the Humor Styles Questionnaire correlated significantly with the degree to which they liked the corresponding styles of Abu el Abed jokes for the affiliative, self-enhancing, and hostile styles of humor, but not the self-defeating styles. Furthermore, their scores on the HSQ correlated significantly with the likelihood of them telling the corresponding types of Abu el Abed jokes to others for all four humor styles: affiliative, self-enhancing, hostile, and self-defeating.

Also, the statements that included the terms "friends and family" put together on the Humor Styles Questionnaire were separated, so that these statements referred once to friends and another time to family members. Results yielded significant difference in the Lebanese individuals' use of affiliative and self-enhancing style of humor depending on whether applied to friends or family, but not in their use of hostile and self-defeating styles.

Finally, the Humor Styles Questionnaire applied on Lebanese individuals showed to be valid, and brought forth some aspects regarding the self-defeating dimension of humor, and interesting new findings came up with the separation of the statements applied to friends and family within the Humor Styles Questionnaire.

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APPENDIX A

Demographic Information Questionnaire

The purpose of this questionnaire is to have some personal information in order to see differences in the perception of humor according to age, sex, religion, ethnicity, one's immediate circle, as well as other cultural impressions.
In addition, this questionnaire is strictly confidential; therefore, you do not have to write your name.

Age:.....

Gender: Female ☐ Male ☐

Religion: Christian ☐ Muslim ☐ Druze ☐ Other ☐

Ethnicity: Armenian ☐ Arab ☐ Other ☐.....

Family/Friends:

Number of family members including yourself:.....

Number of close friends:.....

Number of friends in general:.....

Country or countries you have lived in for more than a year (other than Lebanon):

Name of country:..... Number of years:.....

Name of country:..... Number of years:.....

APPENDIX B

Humor Styles Questionnaire

People experience and express humor in many different ways. Below is a list of statements describing different ways in which humor might be experienced. Please read each statement carefully, and indicate the degree to which you agree or disagree with it. Please respond as honestly and objectively as you can. Use the following scale:

Totally Disagree	Moderately Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Moderately Agree	Totally Agree
1	2	3	4	5	6	7

1- I usually don't laugh or joke around much with other people.

1 2 3 4 5 6 7

2- If I am feeling depressed, I can usually cheer myself up with humor.

1 2 3 4 5 6 7

3- If someone makes a mistake, I will often tease them about it.

1 2 3 4 5 6 7

4- I let people laugh at me or make fun at my expense more than I should.

1 2 3 4 5 6 7

5- I don't have to work very hard at making other people laugh - I seem to be a naturally humorous person.

1 2 3 4 5 6 7

6- Even when I'm by myself, I'm often amused by the absurdities of life.

1 2 3 4 5 6 7

7- People are never offended or hurt by my sense of humor.

1 2 3 4 5 6 7

8- I will often get carried away in putting myself down if it makes my family or friends laugh.

1 2 3 4 5 6 7

9- I rarely make other people laugh by telling funny stories about myself.

1 2 3 4 5 6 7

10- If I am feeling upset or unhappy I usually try to think of something funny about the situation to make myself feel better.

1 2 3 4 5 6 7

11- When telling jokes or saying funny things, I am usually not very concerned about how other people are taking it.

1 2 3 4 5 6 7

12- I often try to make people like or accept me more by saying something funny about my own weaknesses, blunders, or faults.

1 2 3 4 5 6 7

13- I laugh and joke a lot with my closest friends.

1 2 3 4 5 6 7

14- My humorous outlook on life keeps me from getting overly upset or depressed about things.

1 2 3 4 5 6 7

15- I do not like it when people use humor as a way of criticizing or putting someone down.

1 2 3 4 5 6 7

16- I don't often say funny things to put myself down.

1 2 3 4 5 6 7

17- I usually don't like to tell jokes or amuse people.

1 2 3 4 5 6 7

18- If I'm by myself and I'm feeling unhappy, I make an effort to think of something funny to cheer myself up.

1 2 3 4 5 6 7

19- Sometimes I think of something that is so funny that I can't stop myself from saying it, even if it is not appropriate for the situation.

1 2 3 4 5 6 7

20- I often go overboard in putting myself down when I am making jokes or trying to be funny.

1 2 3 4 5 6 7

21- I enjoy making people laugh.

1 2 3 4 5 6 7

22- If I am feeling sad or upset, I usually lose my sense of humor.

1 2 3 4 5 6 7

23- I never participate in laughing at others even if all my friends are doing it.

1 2 3 4 5 6 7

24- When I am with friends or family, I often seem to be the one that other people make fun of or joke about.

1 2 3 4 5 6 7

25- I don't often joke around with my friends.

1 2 3 4 5 6 7

26- It is my experience that thinking about some amusing aspect of a situation is often a very effective way of coping with problems.

1 2 3 4 5 6 7

27- If I don't like someone, I often use humor or teasing to put them down.

1 2 3 4 5 6 7

28- If I am having problems or feeling unhappy, I often cover it up by joking around, so that even my closest friends don't know how I really feel.

1 2 3 4 5 6 7

29- I usually can't think of witty things to say when I'm with other people.

1 2 3 4 5 6 7

30- I don't need to be with other people to feel amused – I can usually find things to laugh about even when I'm by myself.

1 2 3 4 5 6 7

31- Even if something is really funny to me, I will not laugh or joke about it if someone will be offended.

1 2 3 4 5 6 7

32- Letting others laugh at me is my way of keeping my friends and family in good spirits.

1 2 3 4 5 6 7

APPENDIX C

Abu El Abed Jokes

Please read each joke, and indicate the degree to which you liked it, and the likelihood of you to tell the joke to others, by circling a number in the designated box, using the scales below.

Degree to which I liked the joke

1	2	3	4	5
Did not like it at all		Neither liked it nor disliked it		Liked it very much

Likelihood of me telling the joke to others

1	2	3	4	5
Not likely at all		Neither likely nor unlikely		Very likely

1- Abu El Abed Upset with his Wife
Abu El Abed was sitting at the coffee shop one day totally upset.
His best friend Abu Steif met him and said: "What's wrong Abu El Abed?"
Abu El Abed: "I can never understand women."
Abu Steif: "It seems that you had a fight with Em El Abed... What's wrong?"
Abu El Abed: "Nothing... The other night it was my birthday ... I came home to see my wife Em El Abed dressed up especially for me and told me that her gift to me was that I could do whatever I wanted with her that night."
Abu Steif: "Wow! ...But why are you so unhappy? That sounds like a very exciting gift to me... and what did you do?"
Abu El Abed went on: "Well, I thought about it and sent her home to her mother. Now she won't speak to me nor does she answer my phone calls."

Degree to which I liked the joke	1	2	3	4	5
Likelihood of me telling the joke to others	1	2	3	4	5

2- The Balcony

One day Abu El Abed wanted to make love to Em El Abed but his son Abed happened to be home.

Abu El Abed: "Abed my son, go to the balcony and see what is happening on the street."

Abed went to the balcony and Abu El Abed got in bed with Em El Abed, and he started asking: "What's happening outside ya Abed" (making sure that his son is on the balcony)

Abed: "Our neighbor Abu Steif is making love to Em Steif."

Abu El Abed: "How did you know that?"

Abed: "Coz Steif is on the balcony just like me."

Degree to which I liked the joke	1	2	3	4	5
Likelihood of me telling the joke to others	1	2	3	4	5

3- Abu El Abed Parking His Car

Abu El Abed was arrested once by a policeman for unlawfully parking his car in one of New York City's streets. He was then taken to court where the judge asked him: "Why did you park your car on that street? Don't you know it is not allowed to park there?"

Abu El Abed: "Who said it is not allowed to park there? I saw it clearly written on the sign "FINE FOR PARKING HERE"

Degree to which I liked the joke	1	2	3	4	5
Likelihood of me telling the joke to others	1	2	3	4	5

4-Stranded on an Island

Abu El Abed, Abu Steif, and Abu Zakaria were all stranded on a remote island for two years. They ate coconuts for breakfast, lunch, and dinner. They couldn't wait until someone rescued them. For that reason, Abu El Abed went out to the beach everyday to look for signs of rescuers. As luck would have it, Abu El Abed happened to come upon a bottle that he cleaned and, of course, a Genie came out.

Genie: I will grant one wish for you and for each of your friends,

Abu El Abed: I will wait to see what Abu Steif and Abu Zakaria will wish for before I make any wish, is that alright?

Genie: no problem

Abu Steif: "I'd like to go back home."

Abu Zakaria: "I would also like to go back home."

Genie: "Bye Bye, and your wishes are granted."

Two days later, Abu El Abed decided to make his wish.

Abu El Abed: "You know what, I'm bored without my friends; I wish they were back here again."

Degree to which I liked the joke	1	2	3	4	5
Likelihood of me telling the joke to others	1	2	3	4	5

5-Abu El Abed Buying Grapes

Abu El Abed went to the market to buy some fruits and vegetables...

Abu El Abed: "How much are the grapes ya m3allim?"

M3allim: "Al 3inab bil 3an'oud b'alfein, wal mfarfat b'alf." (The cluster of grapes is 2000, and the crumbled grapes are 1000.)

Abu El Abed: "Eh, farfotly 3an'oudein 3mol ma3rouf!" (Ok then, please crumble two clusters of grapes for me.)

Degree to which I liked the joke	1	2	3	4	5
Likelihood of me telling the joke to others	1	2	3	4	5

6- Claudia Schiffer

One day Claudia Schiffer was visiting Beirut. Accompanied by a guide, she saw all the touristy attractions. The guide then asked her if there was anything else she wanted to see. She said that she wanted to meet a typical Lebanese. The guide decided that the most typical Lebanese is Abu El Abed, so he took her to Abu El Abed who was having his "arguileh" at his favorite coffee shop near Rawsheh.

In the conversation with Abu El Abed, Claudia remarked that she loves Lebanon, but the only problem is that there are too many religions and sects in Lebanon. "There is only one God, why have him represented by so many sects and religions fighting each other" she remarked.

Abu El Abed replied, "You are wrong Claudia there is more than one God."

Claudia wondered, "What do you mean there is more than one God?"

Abu El Abed: "Of course, there is more than one God; do you mean to tell me that the God who created you is the same one that created Em El Abed?"

Degree to which I liked the joke	1	2	3	4	5
Likelihood of me telling the joke to others	1	2	3	4	5

7-The London Bus

Abu El Abed and his friend Abu Steif, on their first trip outside Basta, find themselves in London- England. Once there, they decide to get on a double-decker bus. Abu El Abed decides to sit upstairs while Abu Steif sits in the lower level. Ten minutes into the ride Abu El Abed screams to Abu Steif:

Abu El Abed: "Hey Abu Steif, where did you guys reach?"

Abu Steif: "We'll be at the Buckingham Palace in five minutes, and you?"

Abu El Abed: "We're still waiting for the chauffeur to come. The bastard didn't show up yet!"

Degree to which I liked the joke	1	2	3	4	5
Likelihood of me telling the joke to others	1	2	3	4	5

8- Abu El Abed and Photography

Bush was sitting in his oval office wondering which country to invade next, when his telephone rang.

"Hallo Mr. Bush" a heavily accented voice said. This is Abu El Abed, down 'ere at Ahwet El Ajeiz in Beirut. I am calling to tell you that we are officially declaring war on you, yes you!"

Mr. Bush replied, "This is indeed important news! How big is your army?"

"Right now," said Abu El Abed, "there is myself, my cousin Mustafa, my next-door-neighbor Abou Khaled, and the whole team from the Ahwet. That makes eight!"

Mr. Bush paused, "I must tell you Abu El Abed, that I have one million men in my army waiting to move on my command."

"Holy jeez," said Abu El Abed. "I'll have to call you back!" Sure enough, the next day, Abu El Abed called again: "Mr. Bush, the war is still on! We have managed to acquire some infantry equipment!"

"And what equipment would that be Abu El Abed?" Mr. Bush asked.

Abu El Abed: "Well sir, we have two Mercedes 180, and a truck."

Mr. Bush sighed. "I must tell you Abu El Abed, that I have 16,000 tanks and 14,000 armored personnel carriers. And since we last spoke, I've increased my army to TWO MILLION!"

"Lah lah lah lah," said Abu El Abed, "I'll have to call you back."

Sure enough, Abu El Abed called again the next day. "Mr. Bush! I am sorry to have to tell you that we have had to call off this war."

"I'm sorry to hear that" said Mr. Bush. "Why the sudden change of heart?"

"Well, sir," said Abu El Abed, "we all sat down and had a long chat, and come to realize that there's no way we can feed two million prisoners."

LEBANESE CONFIDENCE CANNOT BE SHAKEN!

Degree to which I liked the joke	1	2	3	4	5
Likelihood of me telling the joke to others	1	2	3	4	5

9- Abu El Abed has been learning English. The day of the exam comes:

Examiner: "How do you say: Ta3a la hón?" ("Come here")

Abu El Abed: "Come here"

Examiner: "How do you say: Roo7h la honeek?" ("Go there")

Abu El Abed: "I go there and I say: Come here."

Degree to which I liked the joke	1	2	3	4	5
Likelihood of me telling the joke to others	1	2	3	4	5

10- Abu El Abed's 25th Wedding Anniversary

Abu El Abed and Abu Steif were sitting and chatting in Ahwet El Ajaiz.

Abu Steif: "Ya Abu El Abed, your 25th wedding anniversary is coming up. What are you going to do for Em El Abed?"

Abu El Abed: "I am going to take her to China."

Abu Steif: "All the way to China! That's incredible! If you are going to take her to China on your 25th anniversary, what will you do for her on your 50th anniversary?"

Abu El Abed: "I will go to China and bring her back."

Degree to which I liked the joke	1	2	3	4	5
Likelihood of me telling the joke to others	1	2	3	4	5

11-Em El Abed Singing

Abu El Abed's wife Em El Abed has a new hobby; she likes to sing...

From time to time she would practice while in the living room... Whenever she would start in on a song, Abu El Abed would head outside to the balcony.

Em El Abed, hurt, said, "What's the matter Abu El Abed? Don't you like my singing...? Every time I start singing you head outside to the balcony...?"

Abu El Abed replied, "Who said this honey, of course I love your singing, but I just want to make sure the neighbors see me and know I'm not beating you!"

Degree to which I liked the joke	1	2	3	4	5
Likelihood of me telling the joke to others	1	2	3	4	5

12- Abu El Abed Returns from London

Abu El Abed went with Em El Abed to London. When they returned to Lebanon, his friends asked him: "What about the Mad Cow?" Abu El Abed replied: "She really enjoyed it there and wanted to stay" (Em El Abed!!!).

Degree to which I liked the joke	1	2	3	4	5
Likelihood of me telling the joke to others	1	2	3	4	5

13- Abu El Abed & Mobile Phone

One day, Abu El Abed bought a mobile phone and was very happy about it. The same night he went to see his girlfriend, and while in bed with her, his mobile phone rang and Em El Abed was on the other end of the line. Abu El Abed jumped from the bed shocked and screaming: "Em El Abed, how did you know I am here...?"

Degree to which I liked the joke	1	2	3	4	5
Likelihood of me telling the joke to others	1	2	3	4	5

14-Abu El Abed watched a Western movie and came out of the theater so hyped up, he tried to pick on someone to start a fight.
"Who wants to fight? Who wants to fight? I want to fight!"
A large guy looked him in the eyes and said: "I want to fight."
Abu El Abed took a quick look at him and went on: "There's two of us now, who wants to fight??"

Degree to which I liked the joke	1	2	3	4	5
Likelihood of me telling the joke to others	1	2	3	4	5

15- Vacation
Abu El Abed and Abu Steif talking one afternoon... Abu El Abed says, "I really need a vacation. Only this year I'm going to do it a little differently. The last few years, I took your suggestions as to where to go. Three years ago you said to go to Cyprus. I went to Cyprus and Em El Abed got pregnant. Then two years ago, you told me to go to Greece, and Em El Abed got pregnant again. Last year you suggested Turkey and damn, Em El Abed got pregnant again."
Abu Steif: "So, what are you going to do this year that's different?"
Abu El Abed: "This year I'm taking Em El Abed with me."

Degree to which I liked the joke	1	2	3	4	5
Likelihood of me telling the joke to others	1	2	3	4	5

16- Abu El Abed Wants To Loose Weight
Abu El Abed goes to a specialist doctor wanting to lose some weight.
The doctor: "If you want to loose that extra weight, you have to jog 10 km a day for sixty days." Two months later Abu El Abed calls his doctor: "Well I have done exactly what you told me and have lost all those extra kilograms.... But now I have another problem.
The doctor: "And what is this problem?"
Abu El Abed: "I am six hundred kilometers away from home.... How can I come back now...?"

Degree to which I liked the joke	1	2	3	4	5
Likelihood of me telling the joke to others	1	2	3	4	5

APPENDIX D

Modified Humor Styles Questionnaire – Friends and Family

People experience and express humor in many different ways. Below is a list of statements describing different ways in which humor might be experienced. Please read each statement and indicate the degree to which you agree or disagree with it; when applicable, please substitute the blanks once with "friend/s", and another time with "family member/s" and indicate in the designated boxes the degree to which you agree or disagree with the statement by circling a number using the scale below.

Totally Disagree	Moderately Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Moderately Agree	Totally Agree
1	2	3	4	5	6	7

Friend/s	Family member/s
----------	-----------------

1- I usually don't laugh or joke around much with (*friend/s; family member/s*)

1 2 3 4 5 6 7	1 2 3 4 5 6 7
---------------	---------------

2- If I am feeling depressed, I can usually cheer myself up with humor.

1 2 3 4 5 6 7

3- If a (*friend/s; family member/s*) makes a mistake, I will often tease him or her about it.

1 2 3 4 5 6 7	1 2 3 4 5 6 7
---------------	---------------

4- I let (*friend/s; family member/s*) laugh at me or make fun at my expense more than I should.

1 2 3 4 5 6 7	1 2 3 4 5 6 7
---------------	---------------

5- I don't have to work very hard at making (*friend/s; family member/s*) laugh - I seem to be a naturally humorous person.

1 2 3 4 5 6 7	1 2 3 4 5 6 7
---------------	---------------

6- Even when I'm by myself, I'm often amused by the absurdities of life.

1 2 3 4 5 6 7

7- My (*friend/s; family member/s*) are never offended or hurt by my sense of humor.

1 2 3 4 5 6 7	1 2 3 4 5 6 7
---------------	---------------

8- I will often get carried away in putting myself down if it makes my (*friend/s; family member/s*) laugh.

1 2 3 4 5 6 7	1 2 3 4 5 6 7
---------------	---------------

	Friend/s	Family member/s
9- I rarely make my (<i>friend/s; family member/s</i>) laugh by telling funny stories about myself.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
10- If I am feeling upset or unhappy I usually try to think of something funny about the situation to make myself feel better.	1 2 3 4 5 6 7	
11- When telling jokes or saying funny things, I am usually not very concerned about how my (<i>friend/s; family member/s</i>) are taking it.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
12- I often try to make (<i>friend/s; family member/s</i>) like or accept me more by saying something funny about my own weaknesses, blunders, or faults.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
13- I laugh and joke a lot with my closest (<i>friend/s; family member/s</i>)	1 2 3 4 5 6 7	1 2 3 4 5 6 7
14- My humorous outlook on life keeps me from getting overly upset or depressed about things.	1 2 3 4 5 6 7	
15- I do not like it when (<i>friend/s; family member/s</i>) use humor as a way of criticizing or putting someone down.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
16- I don't often say funny things to put myself down.	1 2 3 4 5 6 7	
17- I usually don't like to tell jokes or amuse (<i>friend/s; family member/s</i>)	1 2 3 4 5 6 7	1 2 3 4 5 6 7
18- If I'm by myself and I'm feeling unhappy, I make an effort to think of something funny to cheer myself up.	1 2 3 4 5 6 7	
19- Sometimes I think of something that is so funny that I can't stop myself from saying it to (<i>friend/s; family member/s</i>) , even if it is not appropriate for the situation.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
20- I often go overboard in putting myself down when I am making jokes or trying to be funny.	1 2 3 4 5 6 7	
21- I enjoy making (<i>friend/s; family member/s</i>) laugh.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
22- If I am feeling sad or upset, I usually lose my sense of humor.	1 2 3 4 5 6 7	

	Friend/s	Family member/s
23- I never participate in laughing at (<i>friend/s; family member/s</i>) even if all my friends are doing it.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
I never participate in laughing at (<i>friend/s; family member/s</i>) even if all my family members are doing it.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
24- When I am with friends, I often seem to be the one that (<i>friend/s; family member/s</i>) make fun of or joke about.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
When I am with family, I often seem to be the one that (<i>friend/s; family member/s</i>) make fun of or joke about.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
25- I don't often joke around with my (<i>friend/s; family member/s</i>)	1 2 3 4 5 6 7	1 2 3 4 5 6 7
26- It is my experience that thinking about some amusing aspect of a situation is often a very effective way of coping with problems.	1 2 3 4 5 6 7	
27- If I don't like a (<i>friend/s; family member/s</i>) , I often use humor or teasing to put him or her down.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
28- If I am having problems or feeling unhappy, I often cover it up by joking around, so that even my closest (<i>friend/s; family member/s</i>) don't know how I really feel.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
29- I usually can't think of witty things to say when I'm with (<i>friend/s; family member/s</i>).	1 2 3 4 5 6 7	1 2 3 4 5 6 7
30- I don't need to be with (<i>friend/s; family member/s</i>) to feel amused - I can usually find things to laugh about even when I'm by myself.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
31- Even if something is really funny to me, I will not laugh or joke about it if (<i>friend/s; family member/s</i>) will be offended.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
32- Letting others laugh at me is my way of keeping my (<i>friend/s; family member/s</i>) in good spirits.	1 2 3 4 5 6 7	1 2 3 4 5 6 7

APPENDIX E

Factor Analysis– Friends

Descriptive Statistics

	Mean	Std. Deviation(a)	Analysis N(a)	Missing N
hsqmodified1a	5.2194	2.19049	320	1
hsqmodified2	4.7233	1.91648	320	2
hsqmodified3a	3.7484	2.07472	320	6
hsqmodified4a	2.6250	1.86453	320	0
hsqmodified5a	5.2069	1.54792	320	1
hsqmodified6	4.7184	1.89863	320	4
hsqmodified8a	3.5563	2.03324	320	9
hsqmodified10	4.6489	2.01614	320	1
hsqmodified11a	3.7823	1.96998	320	3
hsqmodified12a	3.2152	1.94869	320	4
hsqmodified13a	5.9619	1.54914	320	5
hsqmodified14	4.4968	1.93183	320	6
hsqmodified15a	2.8889	1.99773	320	5
hsqmodified16	3.2286	2.06292	320	5
hsqmodified17a	5.0541	1.97641	320	6
hsqmodified18	4.7611	1.92743	320	6
hsqmodified19a	4.9842	1.79944	320	4
hsqmodified20	2.9391	1.70730	320	8
hsqmodified21a	5.8734	1.46317	320	4
hsqmodified23a	3.6571	2.17060	320	5
hsqmodified24a	3.2364	1.93184	320	7
hsqmodified25a	5.4127	1.82833	320	5
hsqmodified26	4.8530	1.76632	320	7
hsqmodified27a	3.3639	2.08228	320	4
hsqmodified29a	4.7500	1.80777	320	8
hsqmodified30a	4.2713	2.05158	320	3
hsqmodified31a	3.2862	2.06854	320	2
hsqmodified32a	2.8233	1.93799	320	3

a For each variable, missing values are replaced with the variable mean.

Validity of HSQ 81

Communalities

	Initial	Extraction
hsqmodified1a	1.000	.406
hsqmodified2	1.000	.441
hsqmodified3a	1.000	.337
hsqmodified4a	1.000	.260
hsqmodified5a	1.000	.381
hsqmodified6	1.000	.434
hsqmodified8a	1.000	.588
hsqmodified10	1.000	.513
hsqmodified11a	1.000	.235
hsqmodified12a	1.000	.389
hsqmodified13a	1.000	.461
hsqmodified14	1.000	.459
hsqmodified15a	1.000	.428
hsqmodified16	1.000	.417
hsqmodified17a	1.000	.572
hsqmodified18	1.000	.509
hsqmodified19a	1.000	.409
hsqmodified20	1.000	.446
hsqmodified21a	1.000	.409
hsqmodified23a	1.000	.335
hsqmodified24a	1.000	.350
hsqmodified25a	1.000	.460
hsqmodified26	1.000	.509
hsqmodified27a	1.000	.373
hsqmodified29a	1.000	.346
hsqmodified30a	1.000	.317
hsqmodified31a	1.000	.205
hsqmodified32a	1.000	.389

Extraction Method: Principal Component Analysis.

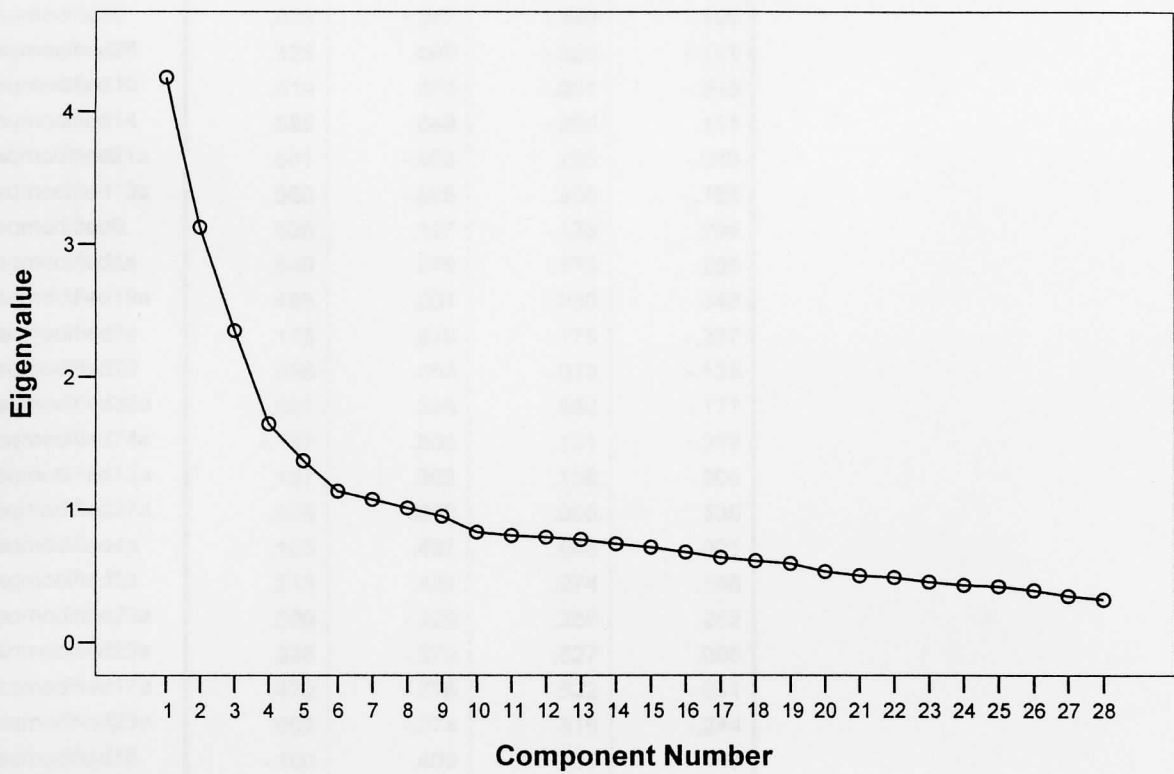
Validity of HSQ 82

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.256	15.198	15.198	4.256	15.198	15.198	3.789	13.532	13.532
2	3.128	11.172	26.370	3.128	11.172	26.370	2.902	10.363	23.895
3	2.348	8.385	34.756	2.348	8.385	34.756	2.799	9.997	33.892
4	1.646	5.879	40.635	1.646	5.879	40.635	1.888	6.742	40.635
5	1.369	4.890	45.525						
6	1.140	4.071	49.597						
7	1.077	3.845	53.442						
8	1.012	3.616	57.057						
9	.950	3.394	60.452						
10	.830	2.965	63.417						
11	.805	2.876	66.293						
12	.792	2.828	69.120						
13	.775	2.767	71.888						
14	.741	2.648	74.535						
15	.716	2.558	77.093						
16	.679	2.427	79.520						
17	.639	2.283	81.802						
18	.614	2.193	83.995						
19	.593	2.118	86.114						
20	.533	1.904	88.017						
21	.502	1.793	89.811						
22	.488	1.743	91.554						
23	.454	1.623	93.177						
24	.430	1.537	94.714						
25	.421	1.502	96.216						
26	.390	1.395	97.611						
27	.348	1.241	98.852						
28	.321	1.148	100.000						

Extraction Method: Principal Component Analysis.

Scree Plot



Component Matrix(a)

	Component			
	1	2	3	4
hsqmodified18	.649	-.003	-.253	-.154
hsqmodified2	.633	-.047	-.140	-.135
hsqmodified26	.625	.006	-.320	-.121
hsqmodified10	.619	.088	-.251	-.243
hsqmodified14	.585	-.049	-.320	.111
hsqmodified21a	.581	-.068	.255	-.049
hsqmodified13a	.568	-.098	.336	-.125
hsqmodified6	.558	.127	-.133	.299
hsqmodified5a	.549	.079	.175	.205
hsqmodified19a	.496	.201	-.030	.348
hsqmodified8a	.116	.679	.175	-.287
hsqmodified20	.058	.653	-.013	-.125
hsqmodified32a	.021	.595	.052	-.177
hsqmodified24a	-.167	.505	.121	-.229
hsqmodified12a	.157	.502	.138	-.306
hsqmodified27a	.006	.500	.095	.338
hsqmodified4a	.103	.497	.046	-.021
hsqmodified3a	.213	.422	.274	.196
hsqmodified29a	.309	-.329	.280	.252
hsqmodified25a	.328	-.272	.527	.005
hsqmodified17a	.470	-.276	.522	-.051
hsqmodified23a	.062	-.074	.516	-.244
hsqmodified16	-.160	.409	.451	.146
hsqmodified30a	.312	.161	-.386	.213
hsqmodified31a	.024	.047	.348	.284
hsqmodified15a	-.095	.095	.311	.559
hsqmodified1a	.262	-.312	.325	-.366
hsqmodified11a	.208	.218	-.213	.314

Extraction Method: Principal Component Analysis.
a. 4 components extracted.

Rotated Component Matrix(a)

	Component			
	1	2	3	4
hsqmodified14	.667	-.107	.020	-.054
hsqmodified26	.665	.032	.094	-.238
hsqmodified18	.649	.049	.170	-.238
hsqmodified10	.615	.164	.155	-.290
hsqmodified6	.614	.014	.037	.236
hsqmodified2	.584	.021	.255	-.184
hsqmodified19a	.532	.077	.047	.343
hsqmodified30a	.497	.017	-.258	.056
hsqmodified5a	.450	.060	.310	.280
hsqmodified11a	.356	.055	-.226	.233
hsqmodified8a	.042	.763	.068	.011
hsqmodified20	.101	.641	-.145	.060
hsqmodified32a	.024	.618	-.079	.028
hsqmodified12a	.072	.604	.121	-.067
hsqmodified24a	-.189	.556	-.073	-.011
hsqmodified4a	.117	.474	-.062	.134
hsqmodified17a	.144	-.110	.724	.122
hsqmodified25a	.029	-.134	.641	.171
hsqmodified13a	.316	.052	.598	.024
hsqmodified1a	-.013	-.074	.582	-.247
hsqmodified23a	-.224	.120	.520	.002
hsqmodified21a	.380	.037	.510	.060
hsqmodified29a	.160	-.324	.386	.257
hsqmodified15a	-.106	-.072	-.011	.641
hsqmodified27a	.079	.346	-.183	.463
hsqmodified16	-.268	.388	.095	.431
hsqmodified31a	-.074	.001	.174	.411
hsqmodified3a	.146	.373	.120	.403

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 7 iterations.

Component Transformation Matrix

Component	1	2	3	4
1	.874	.061	.482	.011
2	.104	.909	-.308	.262
3	-.438	.179	.760	.446
4	.185	-.372	-.308	.856

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

APPENDIX F

Factor Analysis– Family

Descriptive Statistics

	Mean	Std. Deviation(a)	Analysis N(a)	Missing N
hsqmodified2	4.7233	1.91648	320	2
hsqmodified3b	3.7764	2.04368	320	7
hsqmodified4b	2.6677	1.85536	320	4
hsqmodified5b	5.0737	1.55697	320	8
hsqmodified6	4.7184	1.89863	320	4
hsqmodified8b	3.5523	1.95214	320	14
hsqmodified10	4.6489	2.01614	320	1
hsqmodified11b	3.8153	1.99787	320	6
hsqmodified12b	3.1968	1.88360	320	5
hsqmodified13b	5.5414	1.69080	320	6
hsqmodified14	4.4968	1.93183	320	6
hsqmodified15b	2.9221	2.02657	320	12
hsqmodified17b	4.9486	1.96615	320	9
hsqmodified18	4.7611	1.92743	320	6
hsqmodified20	2.9391	1.70730	320	8
hsqmodified21b	5.7613	1.53163	320	10
hsqmodified24d	3.3955	1.88905	320	9
hsqmodified25b	5.1565	1.85301	320	7
hsqmodified26	4.8530	1.76632	320	7
hsqmodified27b	3.1032	1.93199	320	10
hsqmodified29b	4.6720	1.81358	320	6
hsqmodified31b	3.2618	2.03978	320	3
hsqmodified32b	2.9172	1.93940	320	6

a For each variable, missing values are replaced with the variable mean.

Communalities

	Initial	Extraction
hsqmodified2	1.000	.464
hsqmodified3b	1.000	.376
hsqmodified4b	1.000	.266
hsqmodified5b	1.000	.421
hsqmodified6	1.000	.326
hsqmodified8b	1.000	.564
hsqmodified10	1.000	.574
hsqmodified11b	1.000	.245
hsqmodified12b	1.000	.332
hsqmodified13b	1.000	.521
hsqmodified14	1.000	.410
hsqmodified15b	1.000	.372
hsqmodified17b	1.000	.537
hsqmodified18	1.000	.583
hsqmodified20	1.000	.480
hsqmodified21b	1.000	.402
hsqmodified24d	1.000	.350
hsqmodified25b	1.000	.515
hsqmodified26	1.000	.575
hsqmodified27b	1.000	.428
hsqmodified29b	1.000	.231
hsqmodified31b	1.000	.294
hsqmodified32b	1.000	.368

Extraction Method: Principal Component Analysis.

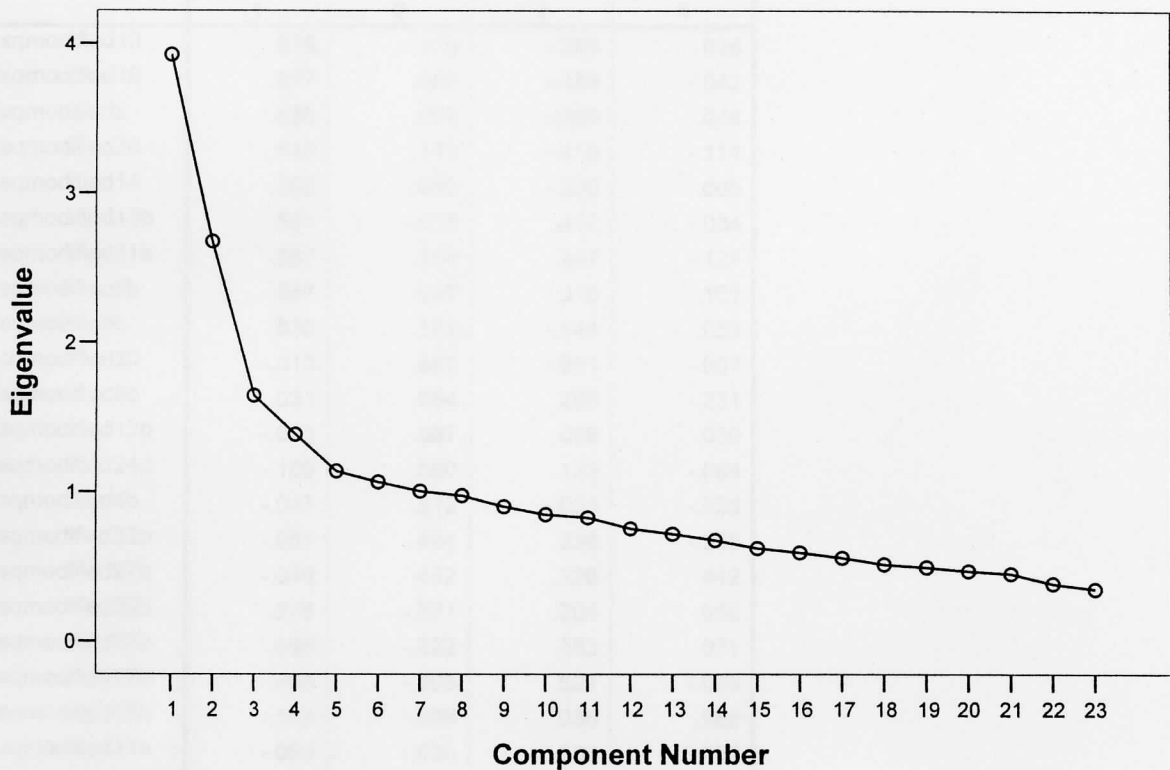
Validity of HSQ 88

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.926	17.071	17.071	3.926	17.071	17.071	3.222	14.009	14.009
2	2.678	11.642	28.713	2.678	11.642	28.713	2.578	11.208	25.217
3	1.645	7.150	35.863	1.645	7.150	35.863	2.405	10.456	35.673
4	1.385	6.022	41.885	1.385	6.022	41.885	1.429	6.211	41.885
5	1.140	4.957	46.842						
6	1.067	4.639	51.481						
7	1.006	4.372	55.854						
8	.976	4.242	60.096						
9	.903	3.924	64.020						
10	.849	3.691	67.712						
11	.829	3.605	71.317						
12	.756	3.288	74.605						
13	.719	3.128	77.732						
14	.678	2.947	80.679						
15	.623	2.709	83.389						
16	.595	2.588	85.977						
17	.559	2.430	88.407						
18	.515	2.239	90.646						
19	.496	2.154	92.800						
20	.471	2.046	94.846						
21	.452	1.966	96.813						
22	.385	1.673	98.486						
23	.348	1.514	100.000						

Extraction Method: Principal Component Analysis.

Scree Plot



Validity of HSQ 90

Component Matrix(a)

	Component			
	1	2	3	4
hsqmodified10	.679	.179	-.283	.026
hsqmodified18	.677	.083	-.339	-.042
hsqmodified2	.658	.001	-.169	.044
hsqmodified26	.610	.117	-.419	-.114
hsqmodified14	.592	-.008	-.230	.085
hsqmodified13b	.591	-.018	.412	-.034
hsqmodified21b	.587	.010	.207	-.121
hsqmodified5b	.557	.029	.316	.101
hsqmodified6	.530	.151	-.144	.039
hsqmodified20	-.013	.685	-.061	-.087
hsqmodified8b	.031	.654	.286	-.231
hsqmodified12b	-.023	.567	.098	.030
hsqmodified24d	-.108	.560	.133	-.084
hsqmodified4b	-.047	.512	-.033	-.023
hsqmodified32b	-.081	.494	.236	-.250
hsqmodified27b	-.049	.462	.128	.442
hsqmodified29b	.278	-.331	.204	.050
hsqmodified25b	.398	-.222	.553	.031
hsqmodified17b	.468	-.206	.521	-.065
hsqmodified15b	-.153	-.039	.038	.588
hsqmodified31b	-.059	-.038	.081	.531
hsqmodified3b	.127	.337	.129	.479
hsqmodified11b	.206	.178	-.173	.376

Extraction Method: Principal Component Analysis.
a 4 components extracted.

Rotated Component Matrix(a)

	Component			
	1	2	3	4
hsqmodified18	.754	-.021	.097	-.066
hsqmodified26	.746	.010	-.010	-.136
hsqmodified10	.744	.070	.125	.023
hsqmodified2	.634	-.076	.235	.018
hsqmodified14	.612	-.103	.148	.053
hsqmodified6	.541	.079	.157	.044
hsqmodified8b	-.020	.732	.142	-.086
hsqmodified20	.140	.656	-.171	.032
hsqmodified24d	-.065	.585	-.048	.031
hsqmodified32b	-.114	.577	.066	-.136
hsqmodified12b	.028	.558	-.032	.139
hsqmodified4b	.068	.487	-.140	.067
hsqmodified17b	.066	-.086	.722	-.065
hsqmodified25b	-.009	-.110	.708	.031
hsqmodified13b	.261	.057	.670	-.012
hsqmodified5b	.296	.055	.562	.121
hsqmodified21b	.370	.053	.501	-.109
hsqmodified29b	.062	-.292	.377	.002
hsqmodified15b	-.137	-.135	-.066	.575
hsqmodified3b	.108	.252	.105	.539
hsqmodified27b	-.016	.386	-.016	.528
hsqmodified31b	-.084	-.118	.023	.522
hsqmodified11b	.305	.048	-.064	.382

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 5 iterations.

Component Transformation Matrix

Component	1	2	3	4
1	.823	-.046	.566	-.017
2	.175	.953	-.172	.178
3	-.539	.229	.806	.084
4	.028	-.193	-.028	.980

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.