
Social Anxiety in Three Western Societies



Rien van Dam-Baggen

University of Amsterdam



Floris Kraaimaat

University of Nijmegen



Güliz Elal

Boğaziçi University

The present study investigates whether empirical data support the notion that people in Western societies do not differ with regard to social anxiety. Social anxiety in Dutch students ($N = 425$) was compared with that experienced by students in the United States ($N = 440$) and Turkey ($N = 349$). Social anxiety was operationalized with the Inventory of Interpersonal Situations (IIS; Van Dam-Baggen & Kraaimaat, 1987, 1999, 2000), which measures two aspects of social anxiety, i.e., discomfort in social situations and frequency of social responses. The original Dutch version of the IIS (IOA) was translated into a U.S. English version (the IIS) and a Turkish version (KADE). First, it was shown that the American, Dutch, and Turkish versions of the IIS measured the same construct in terms of factor structure. Second, American students generally appeared more socially anxious than did the Dutch and Turkish students, whereas the latter's social anxiety slightly surpassed that of Dutch subjects. The American students also showed fewer social skills than both other groups, who did not differ in this respect. The results are somewhat more differentiated with respect to the domains of social anxiety, and they are discussed in terms of cross-cultural differences and their implications for clinical practice. © 2003 Wiley Periodicals, Inc. *J Clin Psychol* 59: 673–686, 2003.

Keywords: social anxiety; cross-cultural research

The authors would like to thank Ton de Bruin, Jim Caulfield, Herman de Groot, Carmen Leung, Tözge Öztas, Martine Vanrykeghem, Brenda Townes, Indry Wardhani, and Andrew Williams for their help in collecting data. Correspondence concerning this article should be addressed to: Rien van Dam-Baggen, Department of Psychology, University of Amsterdam, Roetersstraat 15, 1018 WB Amsterdam, the Netherlands; e-mail: dambaggen@psy.uva.nl.

The term social anxiety generally is used as a common-sense construct, referring mainly to subjective distress experienced in social situations. In the behavioral scientific literature, a variety of synonyms has been used for social anxiety, e.g., shyness, social inhibition, interpersonal anxiety, communication apprehension, embarrassment, reticence, and self-consciousness (Van Dam-Baggen & Kraaimaat, 1989). The broad range of conceptions of social anxiety may lead to underestimating the prevalence of social anxiety. In addition, it should be noted that social phobia is considered a separate diagnostic entity (in the field of psychiatry, e.g., DSM-III and subsequent editions; American Psychiatric Association, 1980, 1987, 1994). As far as other behaviors are concerned, such as shyness and social withdrawal, this has been considered only a secondary phenomenon to other disorders or syndromes. The advantage of a dimensional approach to social anxiety in comparison to psychiatric classification, as with DM, is that it provides a more highly differentiated and sensitive picture than figures on prevalence and incidence.

Social anxiety has been conceived of as a multiply determined, complex concept containing physiological, cognitive, and behavioral aspects (Beidel, Turner, & Dancu, 1985; Van Dam-Baggen & Kraaimaat, 1989, 2000). It has been shown that these aspects are influenced differentially by environmental and individual variables (Van Dam-Baggen, Van Heck, & Kraaimaat, 1992). In the literature on social anxiety, it often is assumed that similar samples in various Western cultures do not differ with respect to their level of social anxiety and the type of social responses they display. This contention is illustrated by the widespread use of similar assessment instruments and treatment procedures in European and North American countries. The question is whether this is justifiable, as studies on emotions have revealed that everyone is born with the same basic emotions, but that the development and expression of emotions differ across cultures (Mesquita & Frijda, 1992).

The main question in cross-cultural research is the extent to which behavior is influenced by culture (Poortinga & Hofstede, 1986). The premise is that differences in behavior and emotions between two populations can be attributed to cultural factors when the populations differ in terms of language, habitat, attitudes, and customs. Cultural factors have been divided into ecological and socio-cultural factors (Poortinga & Hofstede, 1986). Ecological factors refer to the physical environment in its broadest sense, including food and architecture. Socio-cultural factors refer to values, attitudes, beliefs, educational styles, family structure, and social structure—in short, the rules in relationships and communication. These rules are the basis of interactions and vary in different social situations and across cultures (Argyle & Henderson, 1985; Wilson & Gallois, 1993). Some rules are accepted universally, such as respect for privacy, whereas others depend more on the situation. For example, while joking and teasing are an important rule governing social interactions in Great Britain, they are *prohibited* in other cultures. Socio-cultural factors are relevant to research on social anxiety across cultures. In the literature, there are several intercultural variations in the Western concept of social anxiety. Examples are shyness, shame, display of honor, concern for reputation, submissiveness, courtesy, modesty, and humiliation. Some variations are difficult to translate because of their specific meaning, as is the case with the Japanese concept for social anxiety, i.e., *taijin kyofy sho* (DSM-IV; American Psychiatric Association, 1994), which serves to maintain social acceptance and equality in social interactions (Chapman, Mannuzza, & Fyer, 1995; Heckelman & Schneier, 1995). Western Judeo-Christian-oriented values such as autonomy and individualism partly deviate from those of non-Western societies, for example, in Muslim-oriented cultures with their values of authoritarianism and collectivism (Mansour, Zernitsky-Shurka, & Florian, 1987). The problem in studies on the universality versus particularity of cross-cultural behavior is the lack of a standard for comparing the similarities and

differences in emotions across cultures (Mesquita, Frijda, & Scherer, 1997). The solution recommended for this problem is to divide the concept under study into several underlying components and separately investigate the generalizability of each (Mesquita et al., 1997; Pepitone & Triandis, 1987). It is assumed that each component will vary from culture to culture, which means that every component has to be examined separately. In the literature, there are consistent differences as well as similarities between the components of several emotions, depending to some degree on the level of description and the distinction between potential versus actual (Mesquita et al., 1997).

Cross-cultural studies on social anxiety are unexplored territory. Two types of studies can be distinguished, i.e., studies in which similar samples from different countries are compared (cross-national or multinational studies, e.g., Carmona & Lorr, 1992; Kleinknecht, Dinnel, Kleinknecht, Hiruma, & Harada, 1997; Makris, Juster, Heimberg, Öst, & Rapee, 1994; Mavreas & Bebbington, 1988) and studies in which samples from different cultures in a single country are compared (e.g., Florian & Zernitsky-Shurka, 1987; Fukuyama, & Greenfield, 1983; Furnham, 1979, 1983; Mansour et al., 1987; Sue, Ino, & Sue, 1983; Sue, Sue, & Ino, 1990; Zane, Sue, Li-tze Hu, & Kwon, 1991). A relatively greater number of studies have been based on culturally different samples in one country. This is probably because samples in one country are more easily accessible than those in foreign countries. This emphasizes the fact that convenience sampling often is adopted in cross-cultural research, i.e., samples are used that are easily accessible (e.g., are familiar to collaborators in that culture). Another consideration in sample selection for cross-cultural studies is that subjects from different cultural groups have to be similar in terms of relevant background characteristics so that sample differences can be ruled out as alternative explanations for any cultural differences observed. For these reasons, college students often are used in cross-cultural comparisons (see Van de Vijver & Leung, 1997). In previous research, there have been promising findings with respect to the equivalence of the construct of social anxiety across several Dutch samples (Van Dam-Baggen, Kraaimaat, & Kiers, 1992). It should be noted that results obtained with students could not be generalized automatically to other samples from the same cultural group in or outside a country. This is illustrated by a study by Mavreas and Bebbington (1988) that compared normal Greek subjects living in Athens with normal Greek subjects living in London.

Another issue in cross-cultural research concerns the translation of the instruments used (see Geisinger, 1994; Sechrest, Fay, & Zaidi, 1972). Translation of words describing an emotion may change their meaning (cf. the Dutch word for distress to the American or Turkish words for distress), but it also is possible that situations that function as relevant antecedents in one culture will not have the same function in another culture (cf. the meaning of authority in the US and in the Netherlands). To monitor translation errors, checking the equivalence of the original and the translated construct has been recommended (e.g., Poortinga, 1989; Van de Vijver & Leung, 1997). If the factor structures of a measure used between different cultural groups correspond, it could be inferred that the psychological constructs underlying the different versions of this measure are identical. This makes possible meaningful cross-cultural comparisons of levels of social anxiety in groups that are culturally different. A literature search revealed only one study where the equivalence of the original and translated constructs was examined (Kleinknecht et al., 1997). Sometimes the original measure is not even translated into the native language of the cultural group, especially in cross-cultural studies in one country. For example, Florian and Zernitsky-Shurka (1987) used a Hebrew version of their inventory for Jewish Israelis, but they did not have an Arabic version for Arab Israelis, arguing that the latter studied at a Hebrew university. The problem is that it remains unclear whether differences

between the groups should be attributed to cultural affiliation or insufficient comprehension of the *foreign* language.

To explore the generalizability of social anxiety across cultures, a research project was set up to investigate several components of social anxiety. Two components of social anxiety were included, i.e., the emotional/cognitive and the behavioral components. Both were measured by the Inventory of Interpersonal Situations (IIS; Van Dam-Baggen & Kraaimaat, 1987, 1999, 2000), in which the subjects rated the level of discomfort and the frequency of social responses. The *first* question to be considered is whether the constructs underlying the original and translated measures were equivalent in student samples from three different Western societies—American, Dutch, and Turkish. If equal factor structures are obtained, i.e., similar domains or response classes, it can be concluded that the underlying IIS constructs are identical. The *second* question to be answered is whether these student samples differ in terms of social anxiety, i.e., in their level of discomfort reported in social situations and in their level of social responses reported.

Method

Instrument

Social anxiety was measured with the Inventory of Interpersonal Situations (IIS; Van Dam-Baggen & Kraaimaat, 1987, 1999, 2000), which consists of two scales, i.e., Discomfort and Frequency of occurrence. These scales consist of the same 35 items, which are responses in social situations. The level of discomfort and the frequency of performing the response are rated with 5-point Likert scales. Extensive studies on the psychometric properties of the IIS have demonstrated the adequate validity and reliability of both scales' total scores on all levels in clinical and non-clinical samples (for a review see Van Dam-Baggen & Kraaimaat, 1999, 2000). Five sub-scales were derived empirically, representing the following domains or response classes: (a) Giving criticism, (b) Expressing opinions, (c) Giving compliments, (d) Initiating contacts, and (e) Positive self-evaluation. All sub-scales showed sufficient internal consistency (Van Dam-Baggen & Kraaimaat, 1987, 1999, 2000). The IIS items are provided in the appendix.

Experts on methodological issues in cross-cultural research such as Van de Vijver & Leung (1997) propose making the use of the same instrument the default choice in cross-cultural research. They mention several advantages of this, i.e., the possibility of comparing results with other findings reported in the literature, the possibility of maintaining scale equivalence, and the small expense and effort required to administer an existing instrument in comparison to the cost of developing and establishing the psychometric properties of a new or adapted instrument. These advantages prompted us to use an existing instrument. This meant that the original Dutch IIS [Inventarisatielijst Omgaan met Anderen (IOA); Van Dam-Baggen & Kraaimaat, 1987] had to be translated into a U.S. English version and a Turkish version. The U.S. English version was used to translate the IIS into Turkish. Several procedures were used to check these translations, including translation into the target language/translation back into the source language, which resulted in the Inventory of Interpersonal Situations (IIS) and the Kisiler Arasi Durumlar Envanteri (KADE; see Öztas, 1996).

Subjects

The present study was performed among college students from three Western societies, namely the US, the Netherlands, and Turkey. This selection of societies was based on convenience sampling and was not related to theoretical considerations.

Data on the American students ($N = 440$) were collected at several universities in the US—the University of Hawaii at Manoa, the University of Washington in Seattle, and the University of Central Florida in Orlando. This sample consisted of 163 men and 277 women with a mean age of 21.1 years ($SD = 5.1$). Data on the Dutch students ($N = 425$) were collected at several universities in the Netherlands, e.g., in Utrecht and Amsterdam. This sample consisted of 167 men and 258 women with a mean age of 21.5 years ($SD = 4.1$). Data on the Turkish students ($N = 349$) were collected at two universities in Istanbul, Turkey. This sample consisted of 153 men and 196 women with a mean age of 20.4 years ($SD = 4.8$). All samples consisted of students from several faculties, who were, with some exceptions, of Caucasian ethnicity. The language of the IIS version the subjects completed was the primary language for all of them. The samples did not differ in terms of gender ($\chi^2(2) = 3.1, p = .22$).

Results

Clustering of Social Responses

In cross-cultural research aimed at comparing samples, the constructs measured by the original and translated instruments have to be equivalent (Van de Vijver & Leung, 1997). Accordingly, the first step in this study was to determine whether the three constructs measured by the three language versions of the IIS meet this requirement across the American, Dutch, and Turkish student samples. The conceptual structure was assessed in two ways: (a) by empirically examining how the samples match in their ranking of discomfort and frequency items, and (b) by exploring the consistency of item clustering across the student groups.

Ranking Method. The correspondence of item ranking was investigated by computing Spearman rank-order correlations between the group mean item ratings ($N = 35$). A significant between-group association of $\rho = .82$ was revealed for the Discomfort Scale items for the American and Dutch samples, $\rho = .77$ for the Dutch and Turkish samples, and $\rho = .71$ for the American and Turkish samples. Coefficients of $\rho = .79$ (American–Dutch), $\rho = .80$ (Dutch–Turkish), and $\rho = .78$ (American–Turkish) were found for the Frequency scale. This means that there was a correspondence between the samples on social responses that caused relatively more or less social anxiety and were performed more or less frequently.

Simultaneous Components Analysis. In previous research, the conceptual structure of the IIS was investigated in different populations in the Netherlands (Van Dam-Baggen, Kraaimaat, et al., 1992). These studies revealed that the clustering of social responses was rather invariant across socially anxious and non-socially anxious Dutch populations. In the present study, structural equivalence was investigated through confirmative comparison of the structures of the American and Turkish student samples to the previously established conceptual structure of the Dutch version of the IIS.

The equivalence of factorial structures, i.e., the consistency of item clustering, was investigated with the Simultaneous Components Analysis (SCA; Kiers & Ten Berge, 1989; Millsap & Meredith, 1988; Ten Berge & Kiers, 1990). Like the Principal Components Analysis, SCA computes components as weighted sum scores of the variables, but it uses exactly the same weights for this computation to measure exactly the same constructs in the samples. The component weights should contribute to the components' optimally representing the variables. For the present study, it was investigated whether

the factorial structure with five sub-scales or response classes (see Instrument section), previously confirmed in several Dutch samples, could be replicated in the foreign-student samples.

Discomfort. After oblique rotation, SCA showed that the factorial structure with the five sub-scales explained 48 and 48.7% of the variance for the American and the Dutch students, respectively, whereas the explained variances would have been 51.7 and 51.5%, respectively, with separate PCAs. With respect to the Turkish and Dutch students, SCA explained 44.9 and 48.2%, respectively, after oblique rotation, whereas the explained variances would have been 51.5 and 49.5%, respectively, with separate PCAs. To determine whether the components have almost the same loadings in both samples, Tucker's Φ coefficients were computed, which appeared greater than .97 for the American–Dutch comparison and greater than .96 for the Turkish–Dutch comparison, which, in both cases, is indicative that both foreign samples fit the structure found in previous research.

Frequency of Occurrence. After oblique rotation, SCA revealed that the factorial structure with the five sub-scales explained 56.9 and 40.9% of the variance for the American and the Dutch students, respectively, whereas the explained variances would have been only slightly higher with separate PCAs, i.e., 60.1 and 43.5%, respectively. With respect to the Turkish and Dutch students, SCA explained 42.1 and 40.9%, respectively, after oblique rotation, whereas the explained variances would again have been only slightly higher with separate PCAs, i.e., 45.4 and 43.5%, respectively. Tucker's Φ s were greater than .92 for the American–Dutch comparison and greater than .95 for the Turkish–Dutch comparison, which, in both cases, is indicative that both foreign samples fit the structure found in the previous study.

In conclusion, the 5 sub-scales or response classes—Giving Criticism, Expressing Opinions, Giving Compliments, Initiating Contact, and Positive Self-evaluation—were proven equivalent for the three language versions of the Discomfort and Frequency scales—i.e., appeared to be coherent social-anxiety domains in the three cultural samples.

Differences in Level of Social Anxiety

Discomfort and Frequency of Occurrence. Now that it is clear that the IIS measures similar psychological domains of social anxiety in the three societies, the question arises of whether the *level* of social anxiety experienced differs in these societies. Analyses of Variance (ANOVAs) with the main factors of *group* and *gender* were performed to determine differences in levels of discomfort and frequency of occurrence of responses between the three samples. Effect sizes were computed for the significant differences. Differences between groups were examined with Scheffé tests. Due to the large size of the samples, significance levels were set at $p < .001$. In Table 1, the means of the IIS Discomfort and Frequency scales and the ANOVA F values are given.

For the Discomfort scale, a significant main effect was shown for groups ($F(2, 1206) = 88.7$; effect size: $H^2 = 0.13$). Scheffé tests revealed that the American students reported significantly more discomfort than did the Dutch and Turkish students, whereas the Turkish students' discomfort slightly surpassed that of the Dutch students. No significant main effect was found based on sex. Finally, there was no significant interaction effect found for groups when comparing the sex factor.

For the Frequency scale, a significant main effect also was evident for groups ($F(2, 1195) = 37.0$; effect size: $H^2 = 0.06$). The American students reported a lower frequency than the Dutch and Turkish students, who did not differ with respect to reported

Table 1
Means (Standard Deviations Between Parentheses) of the IIS Discomfort and Frequency Scales for Women and Men of Each Sample, As Well As F Values of the ANOVAs

	Women			Men			$F_{\text{group}}^{\dagger}$	F_{sex}^{\dagger}	F_{gxs}^{\dagger}
	USA M	Dutch M	Turkish M	USA M	Dutch M	Turkish M			
Discomfort	87.6 (19.2)	70.3 (16.0)	74.4 (15.5)	86.6 (19.6)	71.9 (17.2)	76.2 (17.9)	88.7* (0.13)	0.6	0.8
Frequency	105.1 (15.9)	111.7 (13.4)	111.1 (14.8)	100.5 (15.2)	110.8 (13.3)	108.9 (16.4)	37.0* (0.06)	8.6	1.5

$^{\dagger}F_{\text{group}}$ (2, 1206); F_{sex} (1, 1206); F_{gxs} (2, 1206)

* $p < .001$

frequency of responses in social situations. No significant main effect was found based on gender. Finally, there was no significant interaction effect established for groups when comparing the gender factor.

Domains of Social Anxiety. With respect to the domains of social anxiety reflected by the sub-scales of the IIS, differences between groups were explored by one-way analyses of variance followed by Scheffé tests. To correct for scalar differences, the absolute sum scores of the sub-scales were transformed into proportional scores by dividing the sum score of each sub-scale by the total score of the Discomfort and Frequency scales. The results of the one-way analyses of variance including effect sizes (H^2) and the Scheffé tests are given in Table 2. Due to the large size of the samples, significance levels were set at $p < .001$.

Table 2
F Values of the One-Way Analyses for the Proportional Contribution of the Sub-scales of Discomfort and Frequency, Effect Sizes (H^2), As Well As the Differences Identified by Scheffé ($p < .001$) Between the Groups, Including the Direction of the Difference (< or >)

	$F_{(2,1212)}$	H^2	D-A †	D-T †	A-T †
Discomfort					
Criticism	17.6*	0.03		>	
Opinion	20.3*	0.03		>	>
Compliments	1.0				
Initiating contact	11.9*	0.02	>		
Positive self-evaluations	65.6*	0.08		>	>
Frequency					
Criticism	23.6*	0.03		<	<
Opinion	12.5*	0.02		<	<
Compliments	9.3*	0.01		>	>
Initiating contact	7.1*	0.01			
Positive self-evaluations	70.0*	0.10	<	<	<

† D-A = Dutch-American; D-T = Dutch-Turkish; A-T = American-Turkish

* $p < .001$

After correction for scalar differences, the proportional scores of all Discomfort sub-scales, except Compliments, showed a significant main effect for groups (see Table 2). Scheffé tests revealed that the Dutch students showed relatively higher social anxiety than did the Turkish students on the sub-scales of Criticism, Opinion, and Positive Self-evaluation. On Criticism, the American students did not differ from the Dutch or the Turkish students. Furthermore, the American students showed relatively higher social anxiety than did the Turkish students on Opinion and Positive Self-evaluation. Finally, the Dutch students surpassed the American students in Initiating Contacts (see Fig. 1 for a profile of the three groups in the 5 domains of social anxiety).

After correction for scalar differences, all Frequency sub-scales showed a significant main effect for groups (see Table 2). Scheffé tests revealed that the American students showed relatively lower response frequency than the Turkish students on the sub-scales of Criticism, Opinion, and Positive Self-evaluation, and higher response frequency on Compliments. The Dutch students showed relatively higher response frequency than did the Turkish students on Compliments and lower frequency on Criticism and Positive Self-evaluation. On Positive Self-evaluation, the Dutch students surpassed the American students (see Fig. 2 for a profile of the three groups in the 5 domains of response frequency).

Discussion and Conclusions

The object of the present study was to investigate cross-cultural differences in social anxiety between student samples from three Western societies, i.e., the US, the Netherlands,

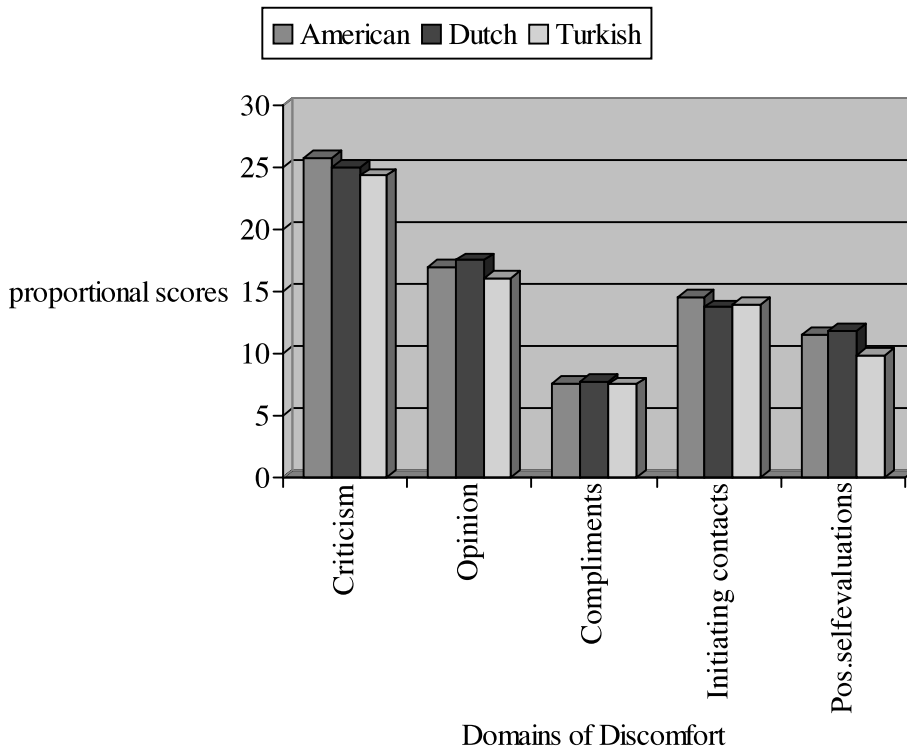


Figure 1. The proportional scores of the 5 domains of Discomfort for the American, Dutch, and Turkish students.

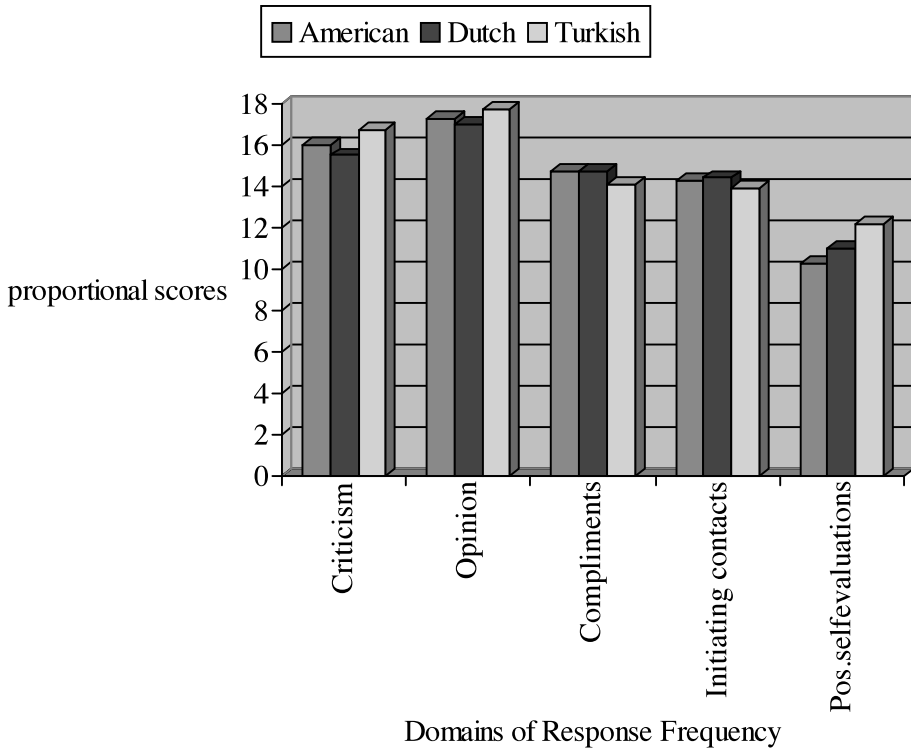


Figure 2. The proportional scores of the 5 domains of Response frequency for the American, Dutch, and Turkish students.

and Turkey. The Inventory of Interpersonal Situations (IIS) was used to measure two components of social anxiety, i.e., the emotional/cognitive component with the Discomfort scale (level of discomfort in social situations) and the behavioral component with the Frequency scale (frequency of occurrence of social responses). Using the method of translation/back translation, the original Dutch IIS (IOA) was translated into U.S. English and Turkish.

To control for the structural equivalence of the original Dutch and the American and Turkish versions of the IIS, the factor structures of the Discomfort and Frequency scales were compared. Both the emotional/cognitive and the behavioral-frequency components of social anxiety appeared to be equivalent for students from the three Western societies, i.e., the 5 empirically derived sub-scales of the original IIS seemed to be coherent domains of social anxiety in the three cultural samples. Consequently, it could be concluded that the same constructs are measured by the American, Dutch, and Turkish versions of the IIS.

Comparison of the level of social anxiety in the three samples revealed that American students reported a higher level of social anxiety than did Dutch and Turkish students. Dutch students reported a slightly lower level of social anxiety than did the Turkish students. With respect to response frequency, the American students reported a lower level than did Dutch and Turkish students, whereas Dutch and Turkish students did not differ in this regard. The fact that main effects were found for groups for both aspects of social anxiety might reflect cross-societal differences between American, Dutch, and Turkish students. The differences between the American students and both other groups

in terms of the emotional/cognitive component especially are substantial and indicate social differences. An alternative explanation might be that the differences found are due to the translation of the questionnaire. In particular, translation of the quality of the negative emotion might have resulted in different set points for the Discomfort section of the IIS. However, differences between the groups on the behavioral component of social anxiety are rather slight and their statistical significance would probably be due to the large size of the samples.

Societal differences were revealed with respect to the domains of social anxiety. After correction for scalar differences, main effects were found for four out of five sub-scales of Discomfort and for all sub-scales of Frequency of occurrence. For the emotional/cognitive component of social anxiety, it was revealed that the Turkish students have relatively lower social anxiety when expressing opinions (e.g., "Expressing an opinion that differs from those around you") and positive self-evaluations (e.g., "Telling someone that you are pleased with something you did") than both other groups. With respect to the behavioral component of social anxiety, it emerged that the Turkish students show a relatively higher response frequency in giving criticism (e.g., "Telling a friend that he/she is doing something that bothers you") and expressing positive self-evaluations, at the same time showing the relatively lowest response frequency on giving compliments (e.g., "Complimenting someone for a job well done") than both other groups. While the American students demonstrated overall higher levels of social anxiety than did both other groups, it was shown that the pattern of societal differences is somewhat more differentiated with respect to the domains of social anxiety. It might be hypothesized that the above differences in domains of social anxiety between the societies reflect the different religious and cultural orientations of the three samples, i.e., mainly Judeo-Christian for the American and Dutch versus a Muslim orientation for the Turkish students. An alternative explanation might be that the differences found are due to the accessibility of the universities participating in this study. In particular, the two universities in Turkey are highly competitive to get in to, as contrasted with other Turkish universities. In a previous study, it was found that the Turkish students of our sample are lower socially anxious than their counterparts of other Turkish universities (Öztaş, 1996), which also might have influenced the results of this study.

What do the results of this study mean for cross-cultural research and clinical practice? First, the generalizability of the construct of social anxiety across three Western societies was established, i.e., social anxiety means much the same thing in these societies in terms of covariance structure of the scales used to measure it here. This finding supports the use of similar assessment instruments. On the other hand, the fact that the level of social anxiety differs in these societies demonstrates that it is necessary to develop separate standards for measures of social anxiety for different cultural societies.

The strengths of the present study are the large samples used, the homogeneity of the samples due to the use of students, and the fact that each sample consists of a broad range of students from throughout the countries. The use of student samples, however, poses some limitations for the generalization of the results. One is that results obtained with students in their home countries cannot be transferred automatically to students of the *same* nationality living in foreign countries (e.g., Mavreas & Bebbington, 1988). Another is that the results cannot simply be generalized to other samples in the same country, such as normal subjects or socially anxious patients.

The present study did not demonstrate differences between men and women, which is consistent with the literature on social anxiety (see Van Dam-Baggen & Kraaimaat, 2000). However, cross-cultural studies do point to the role of gender in cultural differences (e.g., Florian & Zernitsky-Shurka, 1987; Mansour et al., 1987). Closer inspection

of their findings reveals that the contribution of gender might be attributable to the different values and orientations of men and women in Muslim societies. The role of gender and other factors such as religion and race often is not very clear in explaining cultural differences. We suggest considering these factors as much as possible in cross-cultural research.

One of the strengths of our study was also that the IIS was translated into the primary language of the participants. The contribution of language to cross-cultural differences in emotions undeniably is revealed. This means that recommendations for the adequate use of translated measures are not only relevant to cross-cultural research, but also to clinical practice: translated measures should be used only in clinical assessment when validity and reliability have been established for a specific sample in a specific country.

Finally, because of the explorative character of this study, a priori predictions could not be made about cultural differences. Although it often is revealed that American students are more socially anxious and less assertive than their counterparts in other societies (Carmona & Lorr, 1992; Gudykunst, Yang, & Nishida, 1987; Kleinknecht et al., 1997; Margalit & Mauger, 1985; Thompson & Klopf, 1995), the fact is that there is at present no valid post-hoc explanation for these differences.

Appendix

Items in the Inventory of Interpersonal Situations

1. Joining a conversation in a small group of people.
2. Telling a friend that he/she is doing something that bothers you.
3. Resisting pressure to accept an offer (e.g., at the door, in the street).
4. Accepting a compliment for something you did.
5. Asking a friend to help you with something.
6. Requesting the return of something you have lent to someone.
7. Turning down a request to lend someone money.
8. Refusing a request from an authority figure (e.g., employer, superior, teacher).
9. Telling someone that you are pleased with what he/she did for you.
10. Asking someone to stop bothering you in a public place (theatre, subway).
11. Keeping eye contact during a conversation.
12. Asking for information (at a window or booth).
13. Initiating a conversation with an attractive male or female.
14. Expressing an opinion that differs from that of the person with whom you are talking.
15. Initiating a conversation with a stranger.
16. Expressing an opinion that differs from that of those around you.
17. Complimenting someone for a job well done.
18. Returning a defective item (e.g., in a store or restaurant).
19. Asking for a further explanation of something you did not understand.
20. Expressing your opinion in a conversation with a group of unfamiliar people.
21. Telling someone that he/she has offended you.
22. Refusing a request from a person you like.
23. Expressing your appreciation for a present.
24. Telling someone that he/she is good looking.

25. Discussing why someone seems to avoid you.
26. Telling someone that you like it that he or she appreciates you.
27. Agreeing with a compliment about your looks.
28. Telling someone that you are pleased with something you did.
29. Introducing yourself to someone.
30. Expressing your opinion of life.
31. Telling someone you no longer want to see him/her.
32. Insisting that someone contributes his/her share.
33. Telling someone that the way he/she is talking disturbs you.
34. Expressing your opinion to an authority figure (e.g., employer, superior, teacher).
35. Asking a friend to go out with you.

References

- American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders DSM (3rd ed.)*. Washington, DC: Author.
- American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders DSM (3rd rev. ed.)*. Washington, DC: Author.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders DSM (4th ed.)*. Washington, DC: Author.
- Argyle, M., & Henderson, M. (1985). *The anatomy of relationships and the rules and skills to manage them successfully*. Harmondsworth, England: Penguin.
- Beidel, D.C., Turner, S.M., & Dancu, C.V. (1985). Physiological, cognitive and behavioral aspects of social anxiety. *Behaviour Research and Therapy*, 23, 109–117.
- Carmona, A.E., & Lorr, M. (1992). Dimensions of assertiveness: a cross-cultural comparison of Chilean and U.S. subjects. *Personality and Individual Differences*, 13, 45–48.
- Chapman, T.F.M., Mannuzza, S., & Fyer, A.J. (1995). Epidemiology and family studies of social phobia. In R.G. Heimberg, M.R. Liebowitz, D.A. Hope, & F.R. Schneier (Eds.), *Social phobia. Diagnosis, assessment and treatment* (pp. 21–40). New York: Guilford.
- Florian, V., & Zernitsky-Shurka, E. (1987). The effect of culture and gender on self-reported assertive behavior. *International Journal of Psychology*, 22, 83–95.
- Fukuyama, M.A., & Greenfield, T.K. (1983). Dimensions of assertiveness in an Asian-American student population. *Journal of Counseling Psychology*, 30, 429–432.
- Furnham, A. (1979). Assertiveness in three cultures: multidimensionality and cultural differences. *Journal of Clinical Psychology*, 35, 522–527.
- Furnham, A. (1983). Social difficulty in three cultures. *International Journal of Psychology*, 18, 215–228.
- Geisinger, K.F. (1994). Cross-cultural normative assessment: translation and adaptation issues influencing the normative interpretation of assessment instruments. *Psychological Assessment*, 6, 304–312.
- Gudykunst, W.B., Yang, S.-M., & Nishida, T. (1987). Cultural differences in self-consciousness and self-monitoring. *Communication Research*, 14, 7–34.
- Heckelman, L.R., & Schneier, F.R. (1995). Diagnostic issues. In R.G. Heimberg, M.R. Liebowitz, D.A. Hope, & F.R. Schneier (Eds.), *Social phobia. Diagnosis, assessment and treatment* (pp. 3–20). New York: Guilford.
- Kiers, H.A.L., & Ten Berge, J.M.F. (1989). Alternating least squares algorithms for simultaneous components analysis with equal component weight matrices in two or more populations. *Psychometrika*, 54, 467–473.

- Kleinknecht, R.A., Dinnel, D.L., Kleinknecht, E.E., Hiruma, N., & Harada, N. (1997). Cultural factors in social anxiety: A comparison of social phobia symptoms and taijin kyofusho. *Journal of Anxiety Disorders*, 11, 157–177.
- Makris, G.S., Juster, H.R., Heimberg, R.G., Öst, L.G., & Rapee, R.M. (1994). Assessment of social phobia: A multinational comparison. Paper presented at the 28th annual meeting of the AABT, San Diego, CA.
- Mansour, G., Zernitsky-Shurka, E., & Florian, V. (1987). Self-reported assertion of males with and without a physical disability: A cross-cultural study. *International Journal of Rehabilitation Research*, 10, 167–174.
- Margalit, B.A., & Mauger, P.A. (1985). Aggressiveness and assertiveness: A cross-cultural study of Israel and the United States. *Journal of Cross-Cultural Psychology*, 16, 497–511.
- Mavreas, V.G., & Bebbington, P.E. (1988). Greeks, British Greek Cypriots and Londoners: A comparison of morbidity. *Psychological Medicine*, 18, 433–442.
- Mesquita, B., & Frijda, N.H. (1992). Cultural variations in emotions: A review. *Psychological Bulletin*, 112, 179–204.
- Mesquita, B., Frijda, N.H., & Scherer, K.P. (1997). Culture and emotion. In J.W. Berry, P.R. Dasen, & T.S. Saraswathi (Eds.), *Handbook of cross-cultural psychology: Vol. 2. Basic processes and human development*. Boston, MA: Allyn & Bacon.
- Millsap, R.E., & Meredith, W. (1988). Components analysis in cross-sectional and longitudinal data. *Psychometrika*, 53, 123–134.
- Öztaş, T. (1996). The relationship between social anxiety, socio-demographic variables and family attitudes in Turkish university students. Unpublished master's thesis, Bogaziçi University, Istanbul.
- Pepitone, A., & Triandis, H.C. (1987). On the universality of social psychological theories. *Journal of Cross-cultural Psychology*, 18, 471–498.
- Poortinga, Y.H. (1989). Equivalence of cross-cultural data: An overview of basic issues. *International Journal of Psychology*, 24, 737–756.
- Poortinga, Y.H., & Hofstede, G. (1986). Inleiding op het themanummer over crossculturele psychologie [Introduction to the special issue on cross-cultural psychology]. *Nederlands Tijdschrift voor de Psychologie*, 41, 151–156.
- Sechrest, L., Fay, T.L., & Zaidi, S.M.H. (1972). Problems of translation in cross-cultural research. *Journal of Cross-Cultural Psychology*, 3, 41–56.
- Sue, D., Ino, S., & Sue, D.M. (1983). Non-assertiveness of Asian Americans: An inaccurate assumption? *Journal of Counseling Psychology*, 30, 581–588.
- Sue, D., Sue, D.M., & Ino, S. (1990). Assertiveness and social anxiety in Chinese-American women. *Journal of Psychology*, 124, 155–163.
- Ten Berge, J.M.F., & Kiers, H.A.L. (1990). Simultane componenten-analyse voor twee of meer groepen personen [Simultaneous components analysis for two or more groups of people]. *Nederlands Tijdschrift voor de Psychologie*, 45, 221–226.
- Thompson, C.A., & Klopf, D.W. (1995). Social style among North American, Finnish, Japanese and Korean university students. *Psychological Reports*, 77, 60–62.
- Van Dam-Baggen, C.M.J., & Kraaimaat, F.W. (1987). Handleiding bij de Inventarisatielijst Omgaan met Anderen, de IOA [Manual of the inventory of interpersonal situations: IIS]. Lisse: Swets & Zeitlinger.
- Van Dam-Baggen, C.M.J., & Kraaimaat, F.W. (2000). Inventarisatielijst Omgaan met Anderen (IOA). Handleiding (2e geheel herziene druk) [Inventory of interpersonal situations (IIS) manual (completely rev. 2nd ed.)]. Lisse: Swets & Zeitlinger.
- Van Dam-Baggen, C.M.J., Kraaimaat, F.W., & Kiers, H.A.L. (1992). Een exploratief onderzoek naar de structuur van sociale angst bij sociaal angstige psychiatrische patiënten [An exploratory study of the structure of social anxiety in socially anxious psychiatric patients]. *Nederlands Tijdschrift voor de Psychologie*, 47, 41–45.

- Van Dam-Baggen, R., & Kraaimaat, F. (1989). Social anxiety: A review. In P.M.G. Emmelkamp, W.T.A.M. Everaerd, F.W. Kraaimaat, & M.J.M. van Son (Eds.), *Fresh perspectives on anxiety disorders. Annual series of European research in behavior therapy* (Vol. 4). Amsterdam/Lisse: Swets & Zeitlinger.
- Van Dam-Baggen, R., & Kraaimaat, F. (1999). Assessing social anxiety: The inventory of interpersonal situations (IIS). *European Journal of Psychological Assessment*, 15, 25–38.
- Van Dam-Baggen, R., Van Heck, G.L., & Kraaimaat, F. (1992). Consistency of social anxiety in psychiatric patients: Properties of persons, situations, response classes, and types of data. *Anxiety, Stress and Coping*, 5, 285–300.
- Van de Vijver, F.J.R., & Leung, K. (1997). Methods and data analysis of comparative research. In J.W. Berry, Y.H. Poortinga, & J.S. Pandey (Eds.), *Handbook of cross-cultural psychology: Vol. 1. Theory and method*. Boston, MA: Allyn & Bacon.
- Wilson, K., & Gallois, C. (1993). *Assertion & its social context*. Oxford, England: Pergamon.
- Zane, N.W.S., Sue, S., Li-tze Hu, S.S., & Kwon, J.H. (1991). Asian-American assertion: A social learning analysis of cultural differences. *Journal of Counseling Psychology*, 38, 63–70.