

A German version of Spence and Helmreich's Extended Personal Attributes Questionnaire (EPAQ), a measure of socially desirable and undesirable components of "Masculine" instrumentality and "feminine" expressivity, was administered to three samples in West Germany to determine whether its psychometric properties in that setting were similar to those found in samples in the United States. Factor analyses and scale intercorrelations conducted on the data from male and female high school and college students closely replicated the results reported for U.S. groups. Significant sex differences in the predicted direction were also found on all scales. The data thus support the conceptual model of masculine and feminine personality traits proposed by Spence and Helmreich as being useful for another country, West Germany, as well as the usefulness of the EPAQ as a measuring device. In addition, intracultural comparisons of the German samples were conducted to determine the relevance of the personality dimensions tapped by the EPAQ to vocational self-selection. Significant differences in theoretically reasonable directions were found between high school and college students and samples of individuals enrolled in a social work training program and a training program for nursery school teachers.

**MASCULINE (INSTRUMENTAL) AND
FEMININE (EXPRESSIVE) TRAITS
A Comparison Between Students
in the United States and West Germany**

THOMAS E. RUNGE
AGFA-GEVAERT AG, Munich

DIETER FREY
*Christian-Albrecht—Universitaet Kiel
Federal Republic of Germany*

**PETER M. GOLLWITZER
ROBERT L. HELMREICH
JANET T. SPENCE**
University of Texas—Austin

that masculinity and femininity form essentially independent dimensions.

Evidence favoring the dualistic formulation has been provided by Spence and Helmreich and their colleagues (e.g., Spence et al., 1975; Spence and Helmreich, 1978) with their self-report instrument, the Personal Attributes Questionnaire (PAQ). This instrument consists of three scales, each containing eight bipolar items. The Masculinity (M+) scale contains instrumental, agentic traits (e.g., independent) that, according to the ratings of United States students, are considered to be socially desirable to some degree in both sexes but stereotypically more characteristic of males. The Femininity (F+) scale contains socially desirable expressive, communal traits (e.g., helpful) that are stereotypically more characteristic of females. Self-report data from a number of samples, all residing in the United States but diverse in age, socioeconomic background, and geographical location, consistently show that males score higher on M+ and lower on F+ than do females. However, the correlation between M+ and F+ scales within each sex is uniformly close to zero, thus supporting the dualistic conception of these masculine and feminine attributes. Factor analyses (Helmreich, et al., forthcoming) confirm this result. These analyses have produced two orthogonal factors in each sex, corresponding to the M+ and F+ scales.

The PAQ contains a third scale, labeled Masculinity-Femininity (M-F), that is more bipolar in nature. Items assigned to this scale had social desirability ratings that differentiated the sexes, the ideal female falling toward one pole (e.g., submissive) and the ideal male toward the other (e.g., dominant). The scale is mixed in content, containing several agentic traits and a number of traits reflecting emotional vulnerability (e.g., feelings easily hurt). Scores on the M-F scale (keyed in a masculine direction) correlate positively with M+ and negatively with F+. Sex differences in the predicted direction also appear on this scale.

Studies with the PAQ (e.g., Spence et al., 1975; Spence and Helmreich, 1978) indicate that masculine instrumentality is positively associated in both sexes with self-esteem and social competence, achievement motivation, and a number of other indices of effective functioning. Feminine expressiveness, particularly when combined with instrumentality, tends to show similar relationships, although they are neither as consistent across measures nor usually as substantial as those found with instrumentality. Contrary to popular belief, sex-typing in these personality dimensions is not related in any simple way to *sex-role* attitudes or preferences, although these personality patterns are not without their implications for role behaviors.

The PAQ, it will be noted, measures personality traits that are socially desirable for one or both sexes. Some instrumental and expressive traits, however, are socially undesirable, re-responding to Bakan's (1966) notions of unmitigated agency or communion, and may have deleterious consequences for their possessor. To explore these possibilities, Spence et al. (1979) have recently developed additional masculinity and femininity scales containing socially undesirable characteristics. The negative Masculinity (M-) scale is made up of undesirable items that are agentic in nature and stereotypically more characteristic of men than women (e.g., arrogant). Two negative Femininity (F-) subscales were devised, one (F_C-) reflecting undesirable communal qualities (e.g., subordinates self to others) and the other (F_{VA}-) reflecting verbal passive-aggressiveness (e.g., complaining). Males report themselves significantly higher on M- and lower on the two F- scales than females, as expected. Correlations between parallel positive and negative scales (e.g., M+ vs. M-) are low in both sexes. As expected from Bakan's theorizing, correlations that are both more substantial and negative in direction tend to occur between cross-typed negative and positive scores (e.g., F+ vs. M-). Finally, different patterns of positive and negative scale scores have been found to be related to self-esteem and social

competence, and the occurrence of neurotic problems and to acting-out behaviors (Spence et al., 1979; Holahan and Spence, forthcoming).

In summary, the evidence suggests that instrumentality and expressiveness, as personality dimensions, have implications for other important characteristics and behaviors in both sexes, and also theoretical implications for traditional conceptions of masculinity and femininity and the contributions of instrumentality and expressiveness to the maintenance of sex-role systems.

Empirical data collected with the PAQ and other similar instruments have come almost exclusively from the United States. The major purpose of the present study was to gather data from another country, West Germany, to determine whether a German version of the instrument would show a similar clustering of positive and negative traits within each sex and whether the sex differences in these trait dimensions found in U.S. samples would also be obtained.

A number of theorists have claimed that sex differences in instrumentality and expressiveness have their origin, at least in part, in differential socialization experiences, including sex-linked childrearing practices. To the extent that the sex-role divisions in a given society or culture emphasize the split between instrumental and expressive functions discussed by Parsons (1955), one might expect differential socialization for instrumental and expressive personality traits. Cross-cultural data collected by Block (1973) from the United States and five European countries support the socialization hypothesis, indicating that in general, boys are educated to control affect and to display instrumental behaviors while girls are encouraged to be emotional and empathic and to restrain aggression. All of these countries, it should be noted, have similar sex-role structures.

It seemed reasonable to anticipate that German males and females, like their counterparts in the United States, would exhibit differences in instrumental and expressive qualities, if

only because of the similarities between the two countries in their role expectations for males and females. However, it could also be the case that the particular examples of instrumental and expressive traits that differentiate the sexes might vary from one country to another. Block's cross-cultural data give some credence to this possibility. Thus, in using a translation of the PAQ, an instrument whose items were selected from ideal and typical stereotypes in the United States, a heavy burden of proof is being placed on a limited set of instrumental and expressive characteristics.

Data were obtained from samples of students enrolled in several types of schools (high school, college, social work school, and nursery teacher training school) in the Federal Republic of Germany. One of the purposes of obtaining these diverse samples was to conduct comparisons that might throw light on the question of congruence between personality and vocational choice. Helping professions, such as social work and nursery school teaching, are not only female-dominated (and regarded as feminine professions) but within each sex are also likely to attract individuals who are highly expressive in their personal attributes. Thus, one might expect that trainees in these professions, particularly males, would exhibit more (socially desirable) expressive characteristics than unselected, same-sex peers. Studies in the United States (e.g., Wertheim et al., 1978) have supported the implications of these speculations.

METHOD

DESCRIPTION OF QUESTIONNAIRES

Extended Personal Attributes Questionnaire (EPAQ). The 40-item EPAQ is a self-report measure consisting of three "positive" and three "negative" scales (item descriptions and scale assignments are shown in Table 1). The positive Mascul-

linity (M+) scale contains items describing characteristics of an instrumental, agentic nature that (in U.S. samples) are socially desirable in both sexes but are believed to be present to a greater degree in the typical male than in the typical female. The positive Femininity (F+) scale contains expressive and communal traits that are socially desirable in both sexes but believed to be more characteristic of females. The third, Masculinity-Femininity (M-F) scale contains items in which social desirability ratings fall toward different poles for the two sexes. Two of the items reflect instrumentality ("aggressive" and "dominant"), while the others reflect emotional vulnerability (e.g., "doesn't cry easily," "feelings not easily hurt"). Each scale consists of eight items, each accompanied by a five-point rating scale. The total score on each scale is a unit-weighted, sum score that can vary from 0 to 32. Factor analyses of the M+ and F+ scales indicate that they are unidimensional and orthogonal (Helmreich et al., forthcoming). Analyses of all three scales revealed that M-F items cluster with the M+ items, but for theoretical reasons they have been retained as a separate scale.

The three negative scales consist of a negative Masculinity (M-) scale and two negative Femininity subscales (F_C- and $F_{VA}-$). The M- scale is composed of eight items that, like the M+ scale, are agentic in content and stereotypically more characteristic of males than females, but are socially *undesirable* in both sexes. The negative Femininity scales, each containing four items, are made up of items stereotypically more characteristic of females but again are socially undesirable in both sexes. The first subscale, F_C- , has items reflecting excessive selflessness, or "unmitigated communion." The second subscale, $F_{VA}-$, has items reflecting verbal passive-aggressiveness.

German Extended Personal Attributes Questionnaire (GEPAQ). A translation, followed by back-translation, followed by translation schema was employed to obtain the

TABLE 1

Rotated Oblique Factor Pattern Matrix of Masculine and Feminine Items for Males and Females

M ⁺ Scale	Males Factor		Females Factor		F ⁺ Scale Items		Males Factor		Females Factor	
	I Masc	II Fem	I Masc	II Fem			I Masc	II Fem	I Masc	II Fem
Independent	.16	.04	.38	-.01	Emotional		.13	.49	-.17	.31
Active	.39	-.25	.62	.24	Devotes self to others		-.07	.42	.05	.36
Competitive	.29	-.05	.09	-.02	Gentle		.25	.34	-.28	.43
Decisive	.52	.08	.47	.04	Helpful		-.08	.53	.11	.35
Never gives up	.45	-.16	.50	.04	Kind		-.08	.58	.08	.43
Self-confident	.68	-.11	.75	.10	Aware of feelings		-.07	.53	.12	.50
Feels superior	.55	-.05	.66	-.04	Understanding		-.06	.48	-.04	.55
Stands up under pressure	.51	-.02	.54	.10	Warm		-.08	.56	.14	.54

German version of the EPAQ. All three translations were conducted independently by native speakers of German.¹

SUBJECTS

A sample of 805 students, all from the Federal Republic of Germany, was obtained. The sample included 348 male and 132 female high school students, ranging in age from approximately 17 to 20 years, who were from schools in Wiesentheid, Wuerzburg, Miltenberg, and Mannheim; 195 male and 132 female students who were enrolled at the University of Mannheim and at Christian-Albrecht University at Kiel were also tested. Finally, data were obtained from two additional samples consisting of 41 males and 79 female students who attended a school for social work in Regensburg, and of 90 female students who attended a school for nursery school teaching in Wuerzburg. The data for the U.S. comparison sample, consisting of 1465 female and 854 male students, are reported in Helmreich et al. (forthcoming).² In most cases, the EPAQ was administered to groups of students in their classrooms; a few were contacted in their dormitories.

RESULTS

ANALYSES OF POSITIVE SCALES

Item means. The items on the M+ and F+ scales, it will be recalled, had all been rated as socially desirable characteristics in both sexes by U.S. samples. The social desirability of M-F items was differentially related to sex, the ideal female falling toward the stereotypic "feminine" pole and the ideal male toward the stereotypic "masculine" pole. As might be expected from these data, the self-report means of both sexes in U.S. sample fall toward the "masculine" poles for items on the M+

scale and toward the "feminine" for items on the F+ scale. On the M-F scale, female means tend to lie toward the "feminine" pole and male means toward the "masculine" pole.

It was not possible to obtain ideal ratings of the items from the German sample, but item means were used to make inferences about social desirability. The results parallel the U.S. data, except for two items, "competitiveness" (M+ item) and "aggressiveness" (M-F item). For the aggressive item (translated as "aggressive"), the means of both sexes fell toward the pole labeled "not at all aggressive," suggesting that this attribute is not positively valued by German respondents. Furthermore, the women had a somewhat higher mean than the men, a further contradiction of the U.S. data. For the competitiveness ("wettbewerbsorientiert") item, the mean of German females but not males fell toward the noncompetitive extreme. Thus, according to the criteria used to assign items to scales in the original development of the PAQ, this attribute appeared to have the properties of an M-F item in the German sample.

Factor Analyses. Factor analyses, parallel to those performed by Helmreich et al. (forthcoming) were first conducted to determine whether the factor structure was similar to that found in U.S. samples. For this purpose, only the data from high school and college samples were used. Analyses were performed separately for males and females. In a first step, the Kaiser-Meyere-Olkin measure of sampling adequacy and Bartlett's index of sphericity were computed. The Kaiser-Meyer-Olkin measures ranged from .72 to .80, and Bartlett's indices ranged from 596 to 2250 with all p values less than .0001. These results show that all matrices are highly adequate for factor analysis.

Initial factor analyses included only the M+ and F+ items. The Joereskog maximum likelihood technique with oblique rotation was employed.³ Table 1 shows the rotated factor pattern matrix. The structure were highly comparable to those

obtained in all U.S. samples (Helmreich et al., forthcoming), with separate instrumental and expressive trait factors in each sex. Thus, the dualistic conceptualization of instrumentality and expressivity is also normative in Germany. As shown in Table 1, the results for the individual items produced satisfactory loading for every item except "competitiveness" in females. This latter outcome is consistent with the analysis of means reported above; competitiveness is apparently undesirable in females and does not load with the other, desirable characteristics. It was therefore decided to drop this item and base further computations with the M+ scale on the remaining seven items.

Additional factor analyses were conducted for the full 24-item scale. Four items of the M-F scale reflecting emotional vulnerability ("needs approval," "feelings easily hurt," "cries easily," and "need for security") loaded positively on the expressive factor and negatively on the instrumental factor, suggesting the bipolarity of these attributes. This finding is somewhat at variance with U.S. results, where these items loaded only with the instrumental factor in both sexes. However, even in U.S. samples, bipolarity is suggested by the positive correlation of total M-F scores with M+ scores and negative correlations with F+ scores.

Three of the remaining four M-F items ("dominant," "not excitable," and "worldly") load on the M+ scale, as in the U.S. samples. The remaining item, "aggressive," loads on neither factor, reflecting again the apparent undesirability of the trait in this population. This item was therefore dropped from the M-F scale of the GEPAQ. All further computations using the German M-F scale are based on a 7-item scale.

ANALYSES OF NEGATIVE SCALES

Item Means. All of the item means for both sexes fall toward the pole indicating lack of the designated attribute. These data suggest that as in the U.S. sample, all of the items were

considered socially undesirable. One item, "spineless," produced extreme negative (denial) responses in almost all the respondents, with a mean of .8 and a mode of 0. "Spineless," as a psychological metaphor (as opposed to a physiological condition), has no exact equivalent in German. An attempt was therefore made to substitute a psychological equivalent ("stehe nicht zu meinen Ansichten"). It is evident from the extremity of response choice that the translation did not capture the meaning of the original concept.

Factor Analyses. In the U.S. sample, the factor analyses by Helmreich et al. (forthcoming) gave a three-factor solution for females corresponding to the three scales. This result was replicated in the German females. Among U.S. males, however, the M- and the F_{VA} - items tended to cluster together as one factor. In the sample of German males, one F_{VA} - item ("whiny") had a higher loading on the F_C - than the F_{VA} -factor. With the exception of this item, a three-factor solution emerged.

SCALE RELIABILITIES

Reliabilities of the six subscales of the instruments were computed for each sex. Cronbach's alpha coefficients for the unit-weighted subscales ranged from .54 to .72 with a mean of .63 for males, and from .52 to .77 with a mean of .65 for females. In general, reliabilities of the scales are satisfactory, and comparable with U.S. results. The F_C - scale is least reliable in both sexes.

SEX DIFFERENCES ON GEPAQ SCALES

In studies with American respondents, it will be recalled, significant sex differences in the predicted direction have been obtained for each scale. These findings were replicated in the German high school and college student sample. A series of

TABLE 2

**Rotated Oblique Factor Pattern Matrix of Negative Masculinity
and Negative Femininity Items**

	Males			Females		
	I M-	Factor II F _{VA}	III F _C	I M-	Factor II F _{VA}	III F _C
<u>M- Items</u>						
Arrogant	.54	.00	-.03	.61	-.01	.02
Boastful	.45	-.01	-.01	.37	.04	.10
Egotistical	.59	.13	-.05	.63	-.17	-.05
Greedy	.48	.05	.13	.45	-.08	.11
Dictatorial	.43	.07	-.07	.49	-.12	-.15
Cynical	.40	-.08	.05	.41	.01	-.07
Unprincipled	.33	-.06	-.01	.37	.05	-.09
Hostile	.35	.04	-.00	.40	.06	.15
<u>F_{VA} Items</u>						
Whiny	.10	.16	.28	.00	-.35	.13
Complaining	-.20	1.03	.02	.04	-.77	-.03
Nagging	.12	.41	-.03	.23	-.42	.07
Fussy	.12	.22	.24	.03	-.49	-.07
<u>F_C Items</u>						
Spineless	.05	-.04	.38	.03	.04	.14
Subordinates self	-.15	.00	.54	-.26	-.13	.42
Servile	-.03	-.01	.74	-.02	-.11	.66
Gullible	.01	-.02	.42	-.02	-.17	.33

one-way analyses of variance revealed that males score higher than females on the M+, M-, and M-F scales, with Fs of 26.2, 36.2 and 36.2, respectively ($p < .001$). Significant sex differences ($p \leq .01$) in favor of females were also obtained on the three femininity scales, with Fs of 37.6, 5.5, and 18.0 on the F+, F - and F - scales. Thus, the labels "masculinity" and "femininity" operationally applied to the scales in U.S. studies are also appropriate for the German sample.

INTERCORRELATIONS OF GEPAQ SUBSCALES

The pattern of correlations among the scales shown in Table 3 also replicates previous results. The correlations of M+ and F+ are close to zero, but more substantial correlations, with reversed signs, are found between M-F and each of the positive scales. Correlations between parallel positive and negative scales (e.g., M+ vs. M-) are also close to zero. As in the United States, moderate negative correlations of cross-typed positive and negative scales are found.

JOINT DISTRIBUTIONS

Spence and Helmreich (Spence et al., 1975; Spence and Helmreich, 1978) have devised a categorical system, based on a median split, as a convenient method of describing the joint distribution of masculinity and femininity scores within each sex. Starting with the M+ and F+ scales, the median of some normative group of males and females is first found for each of these scales and respondents are then classified into one of four categorical groups, according to their position above or below each of the two medians. For mnemonic purposes, these groups have been identified as Androgynous (above the median on both M+ and F+), Masculine (above on M+, below on F+), Feminine (below on M+, above on F+), and Undifferentiated (below on both M+ and F+). The percentages of each sex falling into the four categories are predictable from the results of the analyses showing sex differences on the two scales but a very low correlation between the scales within each sex. Thus, the highest percentage of individuals of each sex is sex-typed (Masculine males, Feminine females) and the lowest percentage is cross-typed (Feminine males, Masculine females).

A similar analysis was undertaken of the data from the German high school and college samples. (The median for the reduced 7-item M+ [16] and for F+ [23] was the mean of the

TABLE 3
Intercorrelations of the Six GEPAQ-Scales (Females are above diagonal; males are below diagonal)^a

	M+	F+	M-F	M-	F \bar{A}	F \bar{C}
M+						
F+	.22	.17	.59	.01	-.36	-.53
M-F	.54	-.03	-.06	-.41	-.15	-.08
M-	.02	-.28	-.03	.07	-.49	-.43
F \bar{A}	-.43	-.11	-.52	.28	.34	-.02
F \bar{C}	-.50	-.10	-.42	-.02	.26	.26

a. "Aggressive" is dropped from the M-F scale and is added to the M- scale.

medians of the males and females in the total sample of 805 students. For samples of college students in the United States, the medians are 21 for the M+ scale [8 items] and 23 for the F+ scale.) The distribution across categories for each sex yielded 27.8% Undifferentiated, 10.6% Feminine, 31.9% Masculine and 24.7% Androgynous respondents among males, and 21% Undifferentiated, 32.3% Feminine, 16.3% Masculine and 30.4% Androgynous respondents among females. These percentages are highly comparable to those reported by Spence and Helmreich (1978), thus confirming that the joint occurrence of M+ and F+ scores within individuals is predictable from the analyses of the separate scales.

It has also been shown that the mean scores of respondents within each of the four categorical groups on the remaining masculinity and femininity scales are as predicted from analyses of the separate scales. Such analyses were conducted for the German sample but the results will not be reported here since they provide no surprises. For example, within each sex, the means on M- were highest for individuals in the Masculine and Undifferentiated categories and lowest for individuals in the Androgynous and Feminine categories. These results follow from the finding that M- scores are unrelated to M+ scores but significantly correlated in a negative direction with F+.

SUBSAMPLE COMPARISONS

As stated earlier, the second purpose of this study was to compare masculinity and femininity scores from various subsamples and their relation to vocational interests. Orthogonal contrasts between the subsamples within each sex revealed significant mean differences on the F+ scale for males, and on the F+, M-, and F_C- scales for females, as can be seen from Table 4. Since social work is a helping profession, it is not surprising that an elevation in feminine expressiveness is found in these male students. Although one cannot discount the

TABLE 4
Descriptive Statistics on the GEPAQ for German Samples

Scale	Males ¹						Females					
	Social Work Students		High School & College Students		Social Work Students		High School & College Students		Nursery School Teaching Students			
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
M+ ²	16.56	3.28	16.57	4.00	15.49	3.67	14.97	4.39	15.57	4.01		
F+	23.15 ^a	2.95	21.70 ^b	3.97	23.57 ^a	3.26	23.48 ^a	3.47	24.47 ^b	3.18		
M-F	13.73	3.11	14.38	3.71	11.23	3.60	10.93	3.78	11.36	3.74		
M-	12.20	5.37	12.87	4.90	10.33 ^a	5.52	10.63 ^a	5.01	8.90 ^b	5.03		
FVA	6.27	2.29	6.81	2.64	7.65	2.38	7.67	2.80	7.83	2.22		
F-C	3.61	1.91	4.06	2.07	3.88 ^a	2.05	4.42 ^b	2.04	4.99 ^c	1.97		
N	41		543		79		264		90			

1. Different superscripts signify mean differences within each sex, $p \leq .05$.

2. M+ scale is based on seven items after "competitive" has been dropped.

impact of training on these students, it seems more likely that this elevation represents self-selection processes. It should also be noted that the means on the M+ scale for the male social work students are comparable to those of the other groups. Expressiveness was not gained at the expense of instrumentality.

Nursery school teaching students, all females, report themselves to be higher in femininity and lower in negative masculinity than the other two female groups. The presence of desirable expressive qualities and the absence of undesirable agentic qualities seem particularly appropriate in those who have elected to become educators of young children. It is, however, noteworthy that these students are higher on the F_C-scale, reflecting unmitigated communion, than the other groups of females.

A final note: It is unlikely that any of the above findings are caused by difference in age or intelligence, since in previous studies with EPAQ scales in the United States no significant correlations could be obtained with either age or intelligence.

DISCUSSION

Three items, namely "aggressive" (aggressiv), "competitive" (wettbewerbsorientiert), and "spineless" (stehe nicht zu meinen Ansichten) did not fit the existing scales, item analysis revealing that they possess characteristics different from those of their corresponding American counterparts. "Aggressive" was therefore moved to the M- scale; the other two were dropped. At this point, it cannot be decided whether the translation failed or whether these concepts are perceived differently in Germany than in the United States.

With the modifications noted above, the results obtained from this German sample of high school and college students with the GEPAQ closely replicated those obtained from U.S.

students with the EPAQ. Thus, factor analyses of the six scales for each sex were comparable to those previously reported for U.S. samples, similar patterns of correlations were found between the scales, and sex differences in the expected direction were found on all scales.

It would be possible to generate de nova a German PAQ, using the same set of procedures employed by Spence and Helmreich and their colleagues: develop a pool of trait items, obtain ratings of the typical and the ideal (German) male and female, and so forth. The results may have produced somewhat different exemplars of instrumental and expressive characteristics from those appearing on the German translation of the EPAQ. The similarity of the results obtained with EPAQ and GEPAQ is therefore even more impressive, suggesting not only the cross-cultural validity of the conceptual model of positive and negative expressiveness and instrumentality, but also that the present GEPAQ can be useful in research with German respondents on the implications of these sex-typed characteristics.

Concrete evidence on the utility of the instrument is provided by comparisons of the data obtained from unselected high school and college students and from nursery school training students and social work students. The higher expressiveness (F+) of the latter groups appears to reflect the self-selection of these students into helping professions and is an example of personal attributes concurring with job requirements.

The usefulness of the same clusters of instrumental and expressive traits to describe masculinity and femininity in the United States and Germany may be attributed to the similar history of sex role division and sex role attitudes in the two countries. It seems worthwhile to direct future cross-cultural investigations toward countries that have dissimilar cultures. A study of Mexican students currently underway should provide interesting comparisons.

NOTES

1. The guideline for translating was to convey the *meaning* for a given item, which had priority over literal translation. After all three translations had been established independently, the three translators discussed problem items until a satisfactory solution was found. Further, all three translators agreed to use the word *nicht* ("not") instead of *ueberhaupt nicht* ("not at all") throughout all scales. It was felt that *ueberhaupt nicht* ("not at all") would be too strong a term in the German context, probably preventing subjects from using this option and restricting the range of the scale. All items on the GEPAQ were arranged to match the order and layout of the English version of the EPAQ.

2. These students were drawn from gymnasiums, institutions of higher education in Germany that are comparable to high school and the first semesters of a college or university in the United States. Throughout this article, these respondents will be referred to as high school students.

3. J-Factor (Joereskog) analysis subroutine in SPSS (Nie et al., 1975) oblique rotation was employed for this and all the following factor analyses. Delta was set to 0.

REFERENCES

- BAKAN, D. (1966) *The Duality of Human Existence*. Chicago: Rand McNally.
- BEM, S. L. (1974) "The measurement of psychological androgyny." *J. of Consulting and Clinical Psychology* 42: 155-162.
- BLOCK, J. H. (1978) "Conceptions of sex roles: some cross-cultural and longitudinal perspectives." *Amer. Psychologist* 28: 512-526.
- CARLSON, R. (1971) "Sex differences in ego functioning." *J. of Consulting and Clinical Psychology* 37: 267-277.
- HELMREICH, R. L., J. T. SPENCE and J. A. WILHELM (forthcoming) "A psychometric analysis of the Personal Attributes Questionnaire." *Sex Roles*.
- HOLAHAN, C. and J. T. SPENCE (forthcoming) "Desirable and undesirable masculine and feminine traits in counseling clients and unselected students." *J. of Consulting and Clinical Psychology*.
- NIE, N. H., C. H. HULL, J. G. JENKINS, K. STEINBRENNER, and D. H. BENT (1975) *SPSS: Statistical Package for the Social Sciences*. New York: McGraw Hill.
- PARSONS, T. (1955) "Family structure and the socialization of the child," in T. Parsons and R. F. Bales (eds.) *Family, Socialization, and Interaction Process*. New York: Macmillan.
- SPENCE, J. T. and R. L. HELMREICH (forthcoming) "On assessing androgyny." *Sex Roles*.
- (1978) *Masculinity and Femininity: Their Psychological Dimensions, Correlates, and Antecedents*. Austin: Univ. of Texas Press.

- and C. K. HOLAHAN (1979) "Negative and positive components of psychological masculinity and femininity and their relationships to self-reports of neurotic and acting-out behaviors." *J. of Personality and Social Psychology* 37: 1631-1644.
- SPENCE, J. T., R. L. HELMREICH, and J. STAPP (1975) "Ratings of self and peers on sex-role attributes and their relation to self-esteem and conceptions of masculinity and femininity." *J. of Personality and Social Psychology* 32: 29-39.
- WERTHEIM, E. G., C. S. WIDOM, and L. H. WORTZEL (1978) "Multivariate analysis of male and female professional career choice correlates." *J. of Applied Psychology* 63: 234-242.

Thomas E. Runge received his Ph.D. from the University of Texas at Austin. His research interests focus on the psychology of work and leisure, achievement motivation, masculinity and femininity, and applied psychology. A native of West Germany, he recently accepted a position as a psychologist with AGFA-GEVAERT AG in Munich.

*Dieter Frey received his Ph.D. from the University of Mannheim in West Germany. He is Professor and Acting Director in the Department of Psychology of the University of Kiel (West Germany). His main research interest is in the field of experimental and applied social psychology, especially research in dissonance, reactance, attribution, and so forth. He is editor of the book *Kognitive Theorien der Sozialpsychologie* (Bern, Huber 1978).*

Peter M. Gollwitzer received his M.A. from Ruhr University at Bochum in West Germany. A native of Germany, he is currently a research assistant in the Department of Psychology at the University of Texas at Austin. His main research interests include achievement motivation as well as self-presentation and symbolic self-completion.

*Robert L. Helmreich received his Ph.D. from Yale University. He is Professor and Chairman of the graduate program in social psychology at the University of Texas at Austin. His main research interests focus on achievement motivation, masculinity and femininity, and applied social psychology. Recently, he coauthored a book with Janet Spence, *Masculinity and Femininity: Their Psychological Dimensions, Correlates, and Antecedents*.*

Janet T. Spence received her Ph.D. from the University of Iowa. Currently, she is Ashbel Smith Professor of Psychology and Educational Psychology at the University of Texas at Austin. Her major research interests include sex roles and sex differences and achievement motivation. These themes are explored in her recent book with Robert L. Helmreich (see above).

Eigenschaftsfragebogen

Die folgenden Fragen sollen untersuchen, wie Sie sich selbst sehen. Jede Frage besteht aus einem Eigenschaftspaar, das durch die Buchstaben

A, B, C, D und E

getrennt ist. Zum Beispiel:

Nicht sportlich A.....B.....C.....D.....E Sehr sportlich

Jedes Paar beschreibt gegensätzliche Eigenschaften. Das bedeutet, daß Sie nie beide gleichzeitig haben können, wie etwa 'nicht sportlich' und 'sehr sportlich'.

Die Buchstaben stellen Abstufungen zwischen den Extremen dar. Wählen sie den Buchstaben, der Sie auf diesen Abstufungen am besten beschreibt. Wenn Sie glauben, daß Sie nicht sportlich sind, wählen Sie 'A'; falls Sie glauben, daß Sie sehr sportlich sind, dann wählen Sie 'E'. Wenn Sie nur durchschnittlich sportlich sind, wählen Sie 'C', usw.

Sobald Sie den Buchstaben gewählt haben, der Sie am besten beschreibt, markieren Sie Ihre Antwort, indem Sie einen Kreis um den entsprechenden Buchstaben ziehen. Falls Sie beispielsweise bei der ersten Frage 'B' gewählt hätten und 'E' bei der zweiten Frage, dann müßte Ihr Antwortbogen so aussehen:

1. A.....**B**.....C.....D.....E

2. A.....B.....C.....D.....**E**

Lassen Sie möglichst keine Frage unbeantwortet, auch wenn Sie Schwierigkeiten haben, sich zu entscheiden. Bitte nehmen Sie jetzt Ihren Antwortbogen und beginnen Sie.

Ich halte mich für ...

- | | | |
|--|---------------------------|--|
| 1. Nicht aggressiv | A.....B.....C.....D.....E | Sehr aggressiv |
| 2. Sehr weinerlich | A.....B.....C.....D.....E | Nicht weinerlich |
| 3. Nicht unabhängig | A.....B.....C.....D.....E | Völlig unabhängig |
| 4. Nicht arrogant | A.....B.....C.....D.....E | Sehr arrogant |
| 5. Nicht gefühlsbetont | A.....B.....C.....D.....E | Sehr gefühlsbetont |
| 6. Sehr unterordnend | A.....B.....C.....D.....E | Sehr dominant |
| 7. Sehr prahlerisch | A.....B.....C.....D.....E | Nicht prahlerisch |
| 8. Nicht erregbar
in einer Krise | A.....B.....C.....D.....E | Sehr erregbar
in einer Krise |
| 9. Sehr passiv | A.....B.....C.....D.....E | Sehr aktiv |
| 10. Nicht überheblich | A.....B.....C.....D.....E | Sehr überheblich |
| 11. Fähig, auf andere
einzugehen | A.....B.....C.....D.....E | Völlig unfähig, auf
andere einzugehen |
| 12. Stehe nicht zu
meinen Ansichten | A.....B.....C.....D.....E | Stehe zu meinen
Ansichten |
| 13. Sehr rauh | A.....B.....C.....D.....E | Sehr zart |

14. Klage nie	A.....B.....C.....D.....E	Klage viel
15. Nicht hilfreich zu anderen	A.....B.....C.....D.....E	Sehr hilfreich zu anderen
16. Nicht wettbewerbsorientiert	A.....B.....C.....D.....E	Sehr wettbewerbsorientiert
17. Anderen gegenüber unterordnend	A.....B.....C.....D.....E	Anderen gegenüber nie unterordnend
18. Sehr häuslich	A.....B.....C.....D.....E	Sehr weltzugewandt
19. Sehr gierig	A.....B.....C.....D.....E	Nicht gierig
20. Sehr unfreundlich	A.....B.....C.....D.....E	Sehr freundlich
21. Uninteressiert an der Billigung durch andere	A.....B.....C.....D.....E	Der Billigung durch andere sehr bedürftig
22. Sehr diktatorisch	A.....B.....C.....D.....E	Nicht diktatorisch
23. In Gefühlen nicht verletzlich	A.....B.....C.....D.....E	In Gefühlen leicht verletzlich
24. Nörgle nie	A.....B.....C.....D.....E	Nörgle viel
25. Der Gefühle anderer nicht bewußt	A.....B.....C.....D.....E	Der Gefühle anderer sehr bewußt
26. Fälle leicht Entscheidungen	A.....B.....C.....D.....E	Fälle schwer Entscheidungen

- | | | |
|---|---------------------------|---|
| 27. Sehr nervös | A.....B.....C.....D.....E | Nicht nervös |
| 28. Gebe leicht auf | A.....B.....C.....D.....E | Gebe nie leicht auf |
| 29. Sehr zynisch | A.....B.....C.....D.....E | Nicht zynisch |
| 30. Weine nie | A.....B.....C.....D.....E | Breche leicht in Tränen aus |
| 31. Nicht selbstsicher | A.....B.....C.....D.....E | Sehr selbstsicher |
| 32. Nicht nur auf mich selbst bedacht; halte mich an Grundsätze | A.....B.....C.....D.....E | Nur auf mich selbst bedacht; halte mich an keine Grundsätze |
| 33. Fühle mich unterlegen | A.....B.....C.....D.....E | Fühle mich überlegen |
| 34. Nicht feindselig | A.....B.....C.....D.....E | Sehr feindselig |
| 35. Nicht verständnisvoll gegenüber anderen | A.....B.....C.....D.....E | Sehr verständnisvoll gegenüber anderen |
| 36. Sehr kühl in Beziehungen zu anderen | A.....B.....C.....D.....E | Sehr herzlich in Beziehungen zu anderen |
| 37. Sehr unterwürfig | A.....B.....C.....D.....E | Nicht unterwürfig |
| 38. Geringes Sicherheitsbedürfnis | A.....B.....C.....D.....E | Starkes Sicherheitsbedürfnis |
| 39. Nicht leichtgläubig | A.....B.....C.....D.....E | Sehr leichtgläubig |
| 40. Kann Druck nicht | A.....B.....C.....D.....E | Kann Druck gut |

Fragebogen zu Arbeit und Familie

Die folgenden Sätze beschreiben Stellungnahmen zu Arbeitsbedingungen und Leistungsanforderungen.

Geben Sie bitte für jede Stellungnahme an, wie weit Sie dieser persönlich zustimmen können, indem Sie den entsprechenden Buchstaben auf der

Skala A, B, C, D und E

auswählen.

Sobald Sie sich Ihrer Antwort gewiß sind, kennzeichnen Sie bitte den Buchstaben in Ihrem Antwortbogen.

53. Ich ziehe es vor, unter Bedingungen zu arbeiten, die ein hohes Maß an Können erfordern.

A	B	C	D	E
Stimme völlig überein	Stimme teil- weise zu	Bin weder zu- stimmend noch ablehnend	Lehne ich teilweise ab	Lehne ich völlig ab

54. Ich freue mich, wenn ich eine Arbeit gut getan habe.

A	B	C	D	E
Stimme völlig überein	Stimme teil- weise zu	Bin weder zu- stimmend noch ablehnend	Lehne ich teilweise ab	Lehne ich völlig ab

55. Erfolg ist wichtig in Arbeit und Spiel.

A	B	C	D	E
Stimme völlig überein	Stimme teil- weise zu	Bin weder zu- stimmend noch ablehnend	Lehne ich teilweise ab	Lehne ich völlig ab

56. Ich traue mich häufiger an Aufgaben heran, bei denen der Erfolg ungewiß ist, als an Aufgaben, bei denen der Erfolg gewiß ist.

A	B	C	D	E
Stimme völlig überein	Stimme teil- weise zu	Bin weder zu- stimmend noch ablehnend	Lehne ich teilweise ab	Lehne ich völlig ab

57. Manchmal setze ich nicht meine volle Leistungsfähigkeit ein, da ich glaube, daß mir andere eine gute Leistung übel nehmen.

A	B	C	D	E
Stimme völlig überein	Stimme teil- weise zu	Bin weder zu- stimmend noch ablehnend	Lehne ich teilweise ab	Lehne ich völlig ab

58. Es befriedigt mich, meine früheren Leistungen zu übertreffen, auch wenn ich dabei nicht die Leistung anderer übertreffe.

A	B	C	D	E
Stimme völlig überein	Stimme teil- weise zu	Bin weder zu- stimmend noch ablehnend	Lehne ich teilweise ab	Lehne ich völlig ab

59. Harte Arbeit habe ich gerne.

A	B	C	D	E
Stimme völlig überein	Stimme teil- weise zu	Bin weder zu- stimmend noch ablehnend	Lehne ich teilweise ab	Lehne ich völlig ab

60. Frühere Leistungen zu verbessern, macht mir Freude.

A	B	C	D	E
Stimme völlig überein	Stimme teil- weise zu	Bin weder zu- stimmend noch ablehnend	Lehne ich teilweise ab	Lehne ich völlig ab

61. Es ärgert mich, wenn andere besser sind als ich.

A	B	C	D	E
Stimme völlig überein	Stimme teil- weise zu	Bin weder zu- stimmend noch ablehnend	Lehne ich teilweise ab	Lehne ich völlig ab

62. Ich habe es gern, immer aktiv zu sein.

A	B	C	D	E
Stimme völlig überein	Stimme teil- weise zu	Bin weder zu- stimmend noch ablehnend	Lehne ich teilweise ab	Lehne ich völlig ab

63. Ich strengte mich mehr an, wenn ich mit anderen im Wettbewerb stehe.

A	B	C	D	E
Stimme völlig überein	Stimme teil- weise zu	Bin weder zu- stimmend noch ablehnend	Lehne ich teilweise ab	Lehne ich völlig ab

64. Es ist wichtig für mich, einen Beruf zu ergreifen, in dem Beförderung und Aufstieg möglich sind.

A	B	C	D	E
Stimme völlig überein	Stimme teil- weise zu	Bin weder zu- stimmend noch ablehnend	Lehne ich teilweise ab	Lehne ich völlig ab

65. Angenommen ich heirate (bin verheiratet), dann hätte ich es gerne, daß mein Ehepartner einen gutbezahlten Beruf ausübt.

A	B	C	D	E
Stimme völlig überein	Stimme teil- weise zu	Bin weder zu- stimmend noch ablehnend	Lehne ich teilweise ab	Lehne ich völlig ab

66. Meine Lebenszufriedenheit ist eng mit einem gutbezahlten Beruf verknüpft.

A	B	C	D	E
Stimme völlig überein	Stimme teil- weise zu	Bin weder zu- stimmend noch ablehnend	Lehne ich teilweise ab	Lehne ich völlig ab

67. Angenommen, ich heirate (bin verheiratet), dann hätte ich es gerne, daß mein Ehepartner eine berufliche Laufbahn einschlägt, die Anerkennung und Prestige mit sich bringt.

A	B	C	D	E
Stimme völlig überein	Stimme teil- weise zu	Bin weder zu- stimmend noch ablehnend	Lehne ich teilweise ab	Lehne ich völlig ab

68. Es ist wichtig für mich, eine berufliche Laufbahn zu ergreifen, die Prestige und Anerkennung mit sich bringt.

A	B	C	D	E
Stimme völlig überein	Stimme teil- weise zu	Bin weder zu- stimmend noch ablehnend	Lehne ich teilweise ab	Lehne ich völlig ab

69. Angenommen ich heirate (bin verh.), dann würde es mir nichts ausmachen, wenn mein Ehepartner einen qualifizierteren Beruf ausübt als ich.

A	B	C	D	E
Stimme völlig überein	Stimme teil- weise zu	Bin weder zu- stimmend noch ablehnend	Lehne ich teilweise ab	Lehne ich völlig ab

70. Mit welchem Mindestmaß an Ausbildung wären Sie zufrieden?

- a. Hauptschulabschluß
- b. Mittlere Reife/abgeschlossene Lehre
- c. Abitur/Fachoberschulabschluß
- d. Pädagogische Hochschule/Fachhochschule usw.
- e. Universität (Diplom, Staatsexamen, Promotion)

71. Wie wichtig, glauben Sie, wird - verglichen mit Ihrem Beruf - Ihre Ehe für Ihre Lebenszufriedenheit sein?

- a. Ehe ist das wichtigste; ich werde nur arbeiten, um meinen Lebensunterhalt zu bestreiten.
- b. Ehe ist wichtiger als Beruf.
- c. Ehe und Beruf sind gleich wichtig.
- d. Ehe ist weniger wichtig als Beruf.
- e. Ehe ist nicht wichtig; ich wäre schon zufrieden, auch wenn ich nicht heiraten würde (geheiratet hätte).

72. Wieviele Kinder halten Sie für ideal?

- a. 0
- b. 1
- c. 2
- d. 3
- e. 4 oder mehr