

The present study examines the perceived trustworthiness of nineteen selected occupations based on U.S. and Korean student samples. Specifically, it compares the rating and ranking methods of assessing trustworthiness, examines the possibility of sex and culture differences, and evaluates the effects of subjects' levels of trustfulness. The relative trustworthiness of the nineteen occupations was highly similar across rating and ranking methods, sex, culture, and level of trustfulness. However, there was a significant relationship between level of trustfulness and level of perceived trustworthiness. Implications of these findings for future work on trustworthiness, and for survey research in general, are discussed.

PERCEIVED TRUSTWORTHINESS OF OCCUPATIONS

Personality Effects and Cross-Cultural Generalizability

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In recent years there has been a surge of interest in the phenomenon of trust (see Rotter, 1971; Singer and Singer, 1972: 397-398; Wrightsman, 1974). This development, which may have been precipitated by earlier calls for systematic attention (Deutsch, 1958) or by sociopolitical events of recent years, is notable for its concern with immediate social problems. For instance, the declining level of interpersonal trust among college students has been reported (Hochreich and Rotter, 1970), and the steadily decreasing level of trust in government has been monitored using national samples (Miller, 1974). Furthermore, various occupations have been compared in terms of their perceived trustworthiness (Rotter

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and Stein, 1971). In these days of concern over credibility, the implications of such studies are self-evident. Indeed, the national news media have quickly picked up Rotter and Stein's finding that politicians, along with used car salesmen, ranked the lowest in trustworthiness.

The social relevance of a study increases rather than obviates the need for a sound methodology, and indeed one might say that this increase is proportionate to the seriousness of the study's implications. This perspective has prompted us to examine several aspects of the Rotter and Stein study.

Rotter and Stein compared twenty occupations in terms of judged trustworthiness. They first had subjects rate on a four-point scale the trustworthiness of each of the twenty occupations; the occupations were then ranked according to mean ratings. However, several issues need to be noted regarding the general procedure used in this study. First, the method of ranking the occupations on the basis of subjects' ratings has not been compared to the method of having subjects directly rank the occupations. Second, the possibility of sex differences in the perceived trustworthiness of occupations has not been investigated, and in the absence of information on sex differences, the use of a combined sample of males and females is at best an equivocal procedure. Third, it is conceivable that a person's level of trustfulness may influence the way he/she perceives the trustworthiness of occupations. That is, the level of an individual's trustfulness may affect the mean level and range of his/her ratings, the relative standing of the occupations may change as a function of the rater's trustfulness, or both. Unless raters are matched for the level of trustfulness, group comparisons may be confounded by this possible relationship between ratings of trustworthiness and the rater's trustfulness.

The present study examines these three issues, using cross-cultural data, i.e., U.S. and Korean college student samples. Cross-cultural comparisons are of intrinsic interest, and the social and political relevance of perceived trustworthiness provides an added justification for such an analysis. Furthermore, cross-cultural comparisons may be

viewed as an extreme form of cross-validation and, as such, a finding of cross-cultural generalizability would bear on the credibility of obtained relationships.

METHOD

A multisection questionnaire was administered to a U.S. sample of 187 undergraduates at the University of Michigan (Ann Arbor) and to a Korean sample of 204 undergraduates at the Yonsei University (Seoul). The U.S. students were paid for their participation, while the Korean students participated as part of a course requirement. Only two sections from this questionnaire are pertinent to the present paper.

The first of these 2 sections contained 132 trust-related items with which subjects expressed their agreement or disagreement using a 5-point Likert format with response categories of (1) "Strongly agree," (2) "Mildly agree," (3) "Agree and disagree equally," (4) "Mildly disagree," and (5) "Strongly disagree." Interspersed among the 132 items were the 25 items of the Rotter Interpersonal Trust Scale (Rotter, 1967) and the 14 items of the Trustworthiness Subscale from Wrightsman's Philosophies of Human Nature Scale (Wrightsman, 1964).

The second section concerned each subject's perception of the trustworthiness of 19 occupations. These occupations were selected to be familiar to students in both cultures and were based on those used by Rotter and Stein (1971). Six of their occupations which were judged inapplicable to Korean students (e.g., "TV repairmen" and "auto repairmen") were replaced by five occupations more appropriate to both samples (i.e., "farmers," "laborers," "Congressmen," "merchants," and "college students").¹ This second section had 2 parts, one on "rating" the trustworthiness of each occupation and the second on "ranking" the 19 occupations in terms of their trustworthiness. Instructions for the rating part were:

We are interested in learning what your opinions are concerning the TRUSTWORTHINESS of various occupational groups; that is, the extent to which you trust what the members of these

occupational groups say and do, and how they act, in the course of their jobs. There are nineteen occupational groups listed below, each of which is followed by six possible degrees of trustworthiness. Considering the members of each occupational group as a whole, indicate how trustworthy you consider that group to be.

Each occupation was followed by the rating categories of "Very untrustworthy," "Untrustworthy," "Somewhat untrustworthy," "Somewhat trustworthy," "Trustworthy," and "Highly trustworthy." The subjects circled that category which they considered to be the most appropriate response. For scoring purposes, numerical values of 1 through 6 were assigned to the rating categories (i.e., 1 for "Very untrustworthy" through 6 for "Highly trustworthy"). Instructions for the ranking part of this section were:

We are interested in your opinions concerning the **RELATIVE TRUSTWORTHINESS** of the nineteen occupational groups listed below; that is, your comparison of the extent to which you trust what the members of these occupational groups do and say, and how they act, in the course of their jobs. Considering the members of each occupational group as a whole, we would like you to rank these groups from **MOST TRUSTWORTHY** to **LEAST TRUSTWORTHY**.

The subjects were asked to avoid ties if possible.

The first section of the questionnaire was completed by all U.S. and Korean subjects. The Korean subjects finished both the rating and ranking parts of the second section, while the U.S. subjects completed either the rating or the ranking part.

The elimination of those subjects who failed to follow the instructions resulted in sample sizes of 182 (101 males and 81 females) for the Korean sample, 88 (32 males and 56 females) for the U.S. subsample which rated the occupations, and 92 (35 males and 57 females) for the U.S. subsample which ranked the occupations.

Both the mean rating and the mean ranking of each occupation were computed for males, females, and the total sample within the U.S. and Korean samples. (Hereafter, the

rating and ranking of an occupation refer to its mean rating and mean ranking.)

COMPARISON OF RATING AND RANKING METHODS

Within each cultural sample, the rating and ranking procedures were compared on the basis of product-moment correlations between the profile of 19 ratings and the corresponding profile of 19 rankings separately for males, females, and the total sample. (Recall that in the U.S. sample the ratings and rankings were obtained from different subjects, since subjects in the U.S. sample completed either the rating or ranking part of the second section.)

SEX DIFFERENCES

Within each cultural sample, sex differences were examined for both profile shape and level. The similarity in shape (i.e., the relative standing of the 19 occupations) was evaluated on the basis of correlations between the male ratings and female ratings, and between the male and female rankings. Difference in level was assessed by a t-test between the mean of the 19 male ratings versus that of the 19 female ratings.

EFFECTS OF TRUSTFULNESS ON THE TRUSTWORTHINESS RATINGS

Within both cultural groups, the mean of each subject's ratings for the 19 occupations was computed, and this value was then correlated with his/her score on the Rotter Interpersonal Trust Scale and on the Wrightsman Trustworthiness measure. Furthermore, to examine the possibility of an interaction between trustfulness and the rating of trustworthiness of occupations, both the U.S. and Korean samples were split into 3 groups on the basis of trust scores (i.e., high, medium, low trust groups). This partitioning was carried out twice in each sample, using first the Rotter score and then the Wrightsman score. In all splits, standardized scores of $\pm .50$ were used as cutting points. To determine the

similarity of trustworthiness as perceived by these groups, correlations between the profiles of ratings were computed for all possible pairs of the 3 Rotter and of the 3 Wrightsman groups. In addition to this analysis of similarity in profile shapes, the profile levels were also compared by an F-test among the 3 Rotter and among the 3 Wrightsman groups.

It is conceivable that the degree of differentiation among the occupations may vary as a function of the subject's level of trustfulness. That is, the high, medium, and low groups may differ in their proportions of naive, nondiscriminating subjects and of differentiating or discriminating subjects. To examine the possibility of such a relationship between trustfulness and the range of differentiation, the standard deviation of the 19 ratings was computed for each subject. A frequency distribution of these standard deviations was then plotted for each group, and the shapes of the distributions were examined. In addition, the differences among the means of the standard deviations for the high, medium, and low trust groups were compared within the U.S. and Korean samples.

CROSS-CULTURAL GENERALIZABILITY

Comparisons were made between the U.S. and Korean samples on both the rating and ranking methods. Specifically, correlations were calculated between the U.S. ratings and Korean ratings, and between the U.S. rankings and Korean rankings, separately for males, females, and the total sample. Furthermore, the means of the U.S. ratings and the Korean ratings were compared for males, females, and the total sample.

As a stringent test of cross-cultural generalizability, comparisons were made between the U.S. and Korean samples across methods. That is, the U.S. ratings were correlated with the Korean rankings, and the U.S. rankings with the Korean ratings, separately for males, females, and the total sample.

RESULTS

COMPARISON OF RATING AND RANKING METHODS

The correlations between the rating and ranking methods were all extremely high: .97, .98, and .98 for males, females, and the total sample in the U.S. sample, and .97, .97, and .98 in the Korean sample. Thus the 2 methods of assessing relative trustworthiness of the 19 occupations share approximately 94% of their variance; this high degree of comparability holds for males, females, and the total sample in both cultures.

SEX DIFFERENCES

Correlations between the male and female ratings and between the male and female rankings were .97 and .97 for the U.S. sample, and .97 and .97 for the Korean sample. Means of the male and female profiles did not differ significantly in either cultural sample ($t = .59$ and $.69$ for the U.S. and Korean samples, respectively). Thus, there were no sex differences in either profile shapes or profile means.

EFFECTS OF TRUSTFULNESS ON TRUSTWORTHINESS RATINGS

As indicated in Table 1, the correlations of the Rotter and the Wrightsman scores with mean ratings of the 19 occupations ranged from .41 to .65.² All correlations were significantly different from zero. Thus the level of one's trustfulness, whether measured by the Rotter or Wrightsman index, is strongly related to the level of one's perceived trustworthiness of these occupations. One could regard this finding as a contribution to the construct validation of these 2 measures.

Consistent with these significant correlations of the Rotter and Wrightsman scores with mean ratings of the 19 occupations, there was a progressive decline in the mean of the 19 ratings from the high to medium to low trust groups (see Table 2). The declines were significant within the U.S. sample

TABLE 1
Correlation of Raters' Scores on the Rotter and Wrightsman Scales with their Mean Ratings of 19 Occupations

| Scale | U. S. | | | Korea | | |
|------------|-------|---------|-------|-------|---------|-------|
| | Males | Females | Total | Males | Females | Total |
| Rotter | .57** | .65** | .62** | .57** | .44** | .47** |
| Wrightsman | .42* | .62** | .57** | .49* | .46* | .41 |
| N | 32 | 56 | 88 | 101 | 81 | 182 |

* $p < .05$; ** $p < .01$

for both the Rotter-based groups ($F_{2,54} = 7.64, p < .01$) and the Wrightsman-based groups ($F_{2,54} = 4.29, p < .05$). In the Korean sample, however, this trend of progressive decline did not reach statistical significance for the Rotter-based groups ($F_{2,54} = 2.30, p > .10$) or for the Wrightsman-based groups ($F_{2,54} = 1.55, p > .10$).

As shown in Table 2, the intercorrelations among the profiles of ratings for the 3 Rotter groups and the 3 Wrightsman groups were extremely high in both samples (median correlations of .97 and .97 for the U.S. and Korean samples, respectively). Thus, differing levels of trustfulness do not affect the relative trustworthiness of the occupations. In summary, then, the level of trustfulness of raters affects the mean level of perceived trustworthiness of occupations, but not the relative standing of occupations.

Frequency distributions based on standard deviations of individual subjects were plotted for each of the high, medium, and low groups. These distributions were all skewed positively and similar in shape. Furthermore, none of the distributions showed any sign of bimodality. These data suggest that the proportions of naive, nondiscriminating subjects and of differentiating, discriminating subjects do not vary across the groups. However, within both the U.S. and Korean samples the mean of these distributions increased from the high to medium to low group for the Rotter- as well as the Wrightsman-based groups. For both samples, this

TABLE 2
Correlations of the Trustworthiness Ratings of
Occupations among the High, Medium, and Low Trust Groups
as Assessed by the Rotter and Wrightsman Scales

| | | U. S. | | | | | | | |
|------------|-----------|--------------|--------|------|-------------------|--------|------|----------|-----------|
| Korea | | Rotter Scale | | | Wrightsman Scales | | | <u>M</u> | <u>SD</u> |
| | | High | Medium | Low | High | Medium | Low | | |
| | High | | .97 | .93 | | | | 4.49 | .66 |
| Rotter | Medium | .99 | | .98 | | | | 3.87 | .82 |
| | Low | .96 | .96 | | | | | 3.48 | .85 |
| | High | | | | | .97 | .96 | 4.34 | .73 |
| Wrightsman | Medium | | | | .98 | | .97 | 3.78 | .82 |
| | Low | | | | .96 | .98 | | 3.53 | .81 |
| | <u>M</u> | 4.02 | 3.71 | 3.42 | 3.96 | 3.70 | 3.46 | | |
| | <u>SD</u> | .79 | .84 | .89 | .83 | .81 | .86 | | |

NOTE: The upper triangle contains correlations, means, and standard deviations for the U.S. sample, with corresponding values for the Korean sample in the lower triangle.

increase in means was significant only for the Rotter-based subgroups ($F_{2,85} = 4.08, p < .025$, and $F_{2,179} = 3.28, p < .05$, for the U.S. and Korean samples, respectively). This increase is open to at least two interpretations. First, it may be that subjects with lower levels of trustfulness make finer discriminations among the occupations. Alternatively, since the mean ratings for the low groups are near the center of the response range while the mean ratings for the high groups are nearer the upper end of the response range, the progressive decline in standard deviations of ratings with increasing levels of trust may be attributable to a ceiling effect.

CROSS-CULTURAL GENERALIZABILITY

Table 3 lists (for both the U.S. and Korean samples) the nineteen occupations, their mean ratings, and their ranks as derived from the mean ratings. The ordering of occupations was quite similar for the U.S. and the Korean samples (rank order correlation = .90). The only noticeable discrepancies were clergymen, physicians, merchants (all of which were at

TABLE 3
Mean Ratings and Rankings of Nineteen Occupations
from the Two Studies Indicated

| Occupation | Rotter & Stein | | Present Study | | | |
|----------------------------|-----------------|------|-----------------|------|-----------------|------|
| | Study | | U. S. | | Korea | |
| | Mean Ratings | Rank | Mean Ratings | Rank | Mean Ratings | Rank |
| Clergymen | 1.40 | (2) | 5.01 | (1) | 4.47 | (5) |
| Physicians | 1.38 | (1) | 5.00 | (2) | 4.30 | (7) |
| Farmers | -- | --- | 4.95 | (3) | 4.98 | (1) |
| College Professors | 1.61 | (4) | 4.68 | (4) | 4.78 | (2) |
| University Students | -- | --- | 4.40 | (5) | 4.54 | (3) |
| High School Teachers | 1.75 | (6) | 4.39 | (6) | 4.23 | (8) |
| Psychiatrists | 1.63 | (5) | 4.38 | (7) | 4.37 | (6) |
| Lawyers | 1.79 | (7) | 4.32 | (8) | 3.88 | (10) |
| Judges | 1.53 | (3) | 4.26 | (9) | 4.54 | (4) |
| Laborers | -- | --- | 4.22 | (10) | 4.15 | (9) |
| Police | 2.07 | (8) | 3.66 | (11) | 3.13 | (14) |
| Merchants | -- | --- | 3.63 | (12) | 2.61 | (16) |
| Reporters | 2.10 | (9) | 3.61 | (13) | 3.43 | (11) |
| Congressmen | -- | --- | 3.14 | (14) | 2.60 | (17) |
| Labor Union Officials | 2.67 | (12) | 3.13 | (15) | 3.04 | (15) |
| Executives of Large | | | | | | |
| Corporations | 2.31 | (10) | 3.10 | (16) | 3.25 | (13) |
| Army Generals | 2.34 | (11) | 2.90 | (17) | 3.40 | (12) |
| Used Car/Goods | | | | | | |
| Salesmen | 3.23 | (14) | 2.63 | (18) | 2.26 | (18) |
| Politicians | 3.06 | (13) | 2.62 | (19) | 2.47 | (19) |

least four ranks lower in the Korean sample), and judges and army generals (which were both five ranks higher in the Korean sample). Farmers are perceived to be the most trustworthy occupation by the Korean sample and clergymen by the U.S. sample.

As expected from Rotter and Stein (1971), politicians and used car salesmen (used goods salesmen for the Korean sample, see note 1) were rated the least trustworthy occupations in both samples. There was substantial agreement between our U.S. sample and the Rotter and Stein sample in perceived trustworthiness of occupations, as indicated by a between-studies correlation of .94 across the fourteen common occupations (see Table 3).

As shown in Table 4, the high cross-cultural correlations for both the rating and ranking methods (median = .91) indicate that the two student samples perceive the relative trustworthiness of the nineteen occupations in a highly similar manner. Although these correlations are uniformly higher for the rankings than for the ratings, and higher for the females than for the males, none of these pairwise differences was significant. Furthermore, there were no significant differences between the two samples in their mean ratings of all nineteen occupations ($t = .01, 1.34, \text{ and } .70$ for males, females, and total samples, respectively). Thus, there is strong evidence for a high degree of cross-cultural generalizability for both the rating and the ranking methods.

The cross-method, cross-cultural correlations (e.g., Korean ratings versus U.S. rankings) are exceptionally high (median = .90), although these correlations constitute the most stringent comparisons of the two methods. That is, approximately

TABLE 4
Cross-Cultural Correlations Within and Between the
Mean Ratings and the Mean Rankings of Nineteen Occupations

| Comparison | Correlations | | |
|--------------------------------------|--------------|---------|-------|
| | Males | Females | Total |
| Korean ratings versus U.S. ratings | .85 | .92 | .90 |
| Korean ratings versus U.S. rankings | .88 | .91 | .90 |
| Korean rankings versus U.S. rankings | .90 | .95 | .93 |
| Korean rankings versus U.S. ratings | .85 | .93 | .91 |

81% of the ratings and ranking variance is in common, even when the two different methods are utilized in samples from cultures as diverse as those of the United States and Korea.

COMMENTS

To summarize the major findings of the present study, the judged trustworthiness of occupations is quite consistent across method of assessing trustworthiness, sex and level of trustfulness of raters, and culture. However, the level of trustfulness of raters does affect the degree to which they attribute trustworthiness to occupations.

These findings have several implications. First, since the rating and ranking methods of assessing the trustworthiness of occupations produced nearly identical results in both the U.S. and Korean samples, the choice of one method over the other in future studies should weigh factors such as the relative ease and greater versatility of the rating method. However, the possible vulnerability of the rating method to stylistic variables such as position preference and extreme response style remains an open question. Second, the absence of sex differences suggests that future studies on the perceived trustworthiness of occupations need not consider sex as a relevant variable. Third, the findings underscore the need to match groups on the level of trustfulness or to partial out the effects of trustfulness prior to comparing them for mean levels of perceived trustworthiness of occupations. In this connection; we draw the reader's attention to the common practice in survey and public opinion research of comparing groups on the basis of information obtained using the rating format. Our findings regarding the effects of respondents' levels of trustfulness suggest that group comparisons should be interpreted in light of the possible confounding by group differences on related personality variables. Fourth, the demonstration of consistency in perceived trustworthiness across cultures underscores the

need to articulate the causal context or determinants of perceived trustworthiness. The observed consistency may be due to the culturally shared prestige value, role expectation, or role performance of various occupations. In addition to these cross-culturally valid determinants, the unique socio-political history of a given society is likely to be an important determinant. For example, the low degree of trustworthiness attributed to army generals in the U.S. sample may be related to the recent experience of the Vietnam War, while the military coup of 1960 in Korea might be responsible for the somewhat higher rank assigned to army generals in the Korean sample. It appears that a study of the causal context of perceived trustworthiness will need to attend to culture-specific factors as well as to factors of more general applicability.

NOTES

1. In the Korean version of the questionnaire, "used goods salesmen" was substituted for "used car salesmen."

2. There were several interesting trends in the correlational data presented in Table 1, although none of the pairwise differences within a given trend was significant. First, the correlations based on the Rotter scale were higher than those based on the Wrightsman in five out of six instances. Second, the correlations for the U.S. sample were larger in five out of six instances than the comparable values for the Korean sample. (This might have been expected, since both measures were developed with U.S. college students.) Third, females showed higher correlations in the U.S. sample while in the Korean sample males showed higher correlations, thus suggesting a possible sex by culture interaction in the relationship between trustfulness and the mean level of attributed trustworthiness.

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