

A CROSS-CULTURAL STUDY OF THE
MEASUREMENT, DETERMINANTS, AND
EFFECTS OF STEREOTYPE ACCURACY

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ABSTRACT

A CROSS-CULTURAL STUDY OF THE MEASUREMENT, DETERMINANTS, AND EFFECTS OF STEREOTYPE ACCURACY

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The purpose of the study was to investigate some of the determinants and relationships of stereotype accuracy. For these goals a test was needed that would measure this aspect of social sensitivity, leading to the development of the Knowledge of People Test. The test consists of four subscales, items drawn and formulated using data from E. K. Strong. Reliabilities ranged from .23 to .69 for the American student sample, with reliabilities for foreign students being similar to these. A second test of stereotype accuracy was also developed; Interests of Psychologists, with a reliability of .73. Reliabilities were lower than hoped for and no evidence was found for a general ability except within the foreign student sample. Indications here were that some foreign judges were consistent over all measurements, presenting support for a general ability, in contrast to the apparent specific ability for the American students.

Limited evidence was found that accuracy in judging the stereotype was related positively to observational judgment of the individual, but little or no evidence was obtained to support a positive relationship with inferential judgment of the individual.

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A comparison of means for foreign and American students provides some insight into the role knowledge of the group plays in the accuracy score. Differences between the means were all significant beyond the .01 level, supporting the importance of knowledge. Correlations for similarity were not partialled out, so the exact contribution of genuine skill is unknown, but it appears that skill or knowledge may possibly be a major determinant of stereotype accuracy.

With knowledge lacking or at a minimum it appears liking or favorableness plays a part in the accuracy score. This contention is supported by the positive relationships between stereotype accuracy and an attitude scale on America and Americans. Foreign student correlations were higher than American students, indicating they relied more on such things as favorableness or liking instead of knowledge, which, relatively speaking they lacked. An interesting factor was mean scores on the attitude scores, the American sample had a mean score of 34.8, the foreign sample a mean of 34.7. These scores are favorable to America on the attitude scale, with no difference between the samples.

Length of time in the United States and length of time to remain in the United States failed to correlate significantly with either accuracy scores or attitude scores. It seems mere presence in the United States does not improve accuracy. The lack of correlation with the attitude scale

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demonstrates an unsuccessful attempt to replicate the "U"
curve of adjustment. This is possibly due to weaknesses in
the attitude scale.

Significant results were obtained, however, when foreign
students were compared on attitude scores and accuracy scores
when broken into six geographic origins. The geographic
origin of the student is important then in determining their
favorableness towards the United States and their accuracy in
judging Americans. More research is needed to develop the
breakdowns by origin farther with larger samples comparing
individual countries rather than groups of countries.

Relationships between stereotype accuracy and various
personality traits were investigated by item analysis and
correlation methods. Results obtained were weak and generally
insignificant and no firm conclusions were reached.

APPROVED

DATE

Henry Clay Smith
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INTRODUCTION

The ability to understand people or interpersonal sensitivity is an elusive goal toward which psychologists have longed worked. The development of this ability is a goal in teaching psychology, training clinicians, and the development of executive personnel. In a resume of studies, Taft (1955) reported that present training methods fall short of the desired goal. Training evaluations, however, have been beset by conceptual and methodological difficulties. Cronbach (1955) was the first to systematize the methodology of the research in this area. From his work and that of Gage and Cronbach (1955), Bronfenbrenner, et al (1958), and Cline (1960) it is evident that the ability to understand others consists of at least two major and independent components: The ability to differentiate between individuals (differential accuracy) and the ability to judge group norms (stereotype accuracy).

With this realization more meaningful research has been carried out and it was soon apparent that stereotype accuracy is an important variable. Investigation of the experimental evidence indicates that judgment of individuals is not the best and most efficient manner of judging, but that sticking to a

stereotype, even when judging an individual, is more accurate. Meehl (1954) reviewed twenty studies comparing the accuracy of predictions based on an actuarial stereotype and the accuracy of predictions based on the judgments of clinicians, counselors, and social workers. In nineteen of these cases it was found that judgments based on the actuarial method were equal to or superior to those made individually. Training people to predict using a stereotype has also been found to increase accuracy (Crow, 1957, 1959; Crow and Farson, 1960). Stereotype accuracy has also been found to be positively related to leadership. Showel (1960) found that leaders have more accurate stereotypes than non-leaders, thus better enabling them to further group goals. He also found the increased stereotype accuracy also guides the leader to more effective individual sensitivity, further aiding him to understand the needs and goals of the group.

The present study was designed to develop improved measures of stereotype accuracy, to explore some determinants of the differences between those with low and high stereotype accuracy, and to test specific hypotheses concerning the relationships between stereotype accuracy, past experience or exposure, and attitudes.

To test the hypotheses and provide a comparison group a sample of Michigan State foreign students were included in the design. These foreign students present an opportunity to

investigate the determinants in the judging situation for the foreign student and check any differences as contrasted with the American student. A comparison of scores and reliabilities of the American and foreign students should also provide information on the judging task in general.

THE PROBLEM

The specific hypotheses tested in the present study were the following:

1. Accuracy in judging the norms of a group is positively related to accuracy in judging individuals. The better a judge understands the group, the better he can understand the individuals in the group.
2. Stereotype accuracy is positively related to experience. The more contact a judge has with a social group, the more likely he is to judge the group accurately. Experience here could be said to be analogous to knowledge of the social group, experiential reference, et cetera. The greater the knowledge, the less projection there should be.
3. Stereotype accuracy is positively related to favorableness of attitude. The better a judge understands a group, the more favorable his attitudes toward the group are likely to be, and the more likely he is to project his interests on the group.
4. Stereotype accuracy is related to similarity. The more similar a judge is to the group, the more accurate the judgments are likely to be; the more similar he is, the more likely he is to assume he is similar. Also, the more favorable the judge's attitude toward a group, the more likely he is to assume that he is similar to the group. Here positive relationships are postulated between assumed similarity, actual similarity, and accuracy; and a negative relationship between assumed similarity and projection.
5. Stereotype accuracy is positively related to the following traits: self-confidence, lack of inhibition, social extrovert, and lacking tact. These are the major findings of Bronfenbrenner, et al (1958) as regards personality variables. A check will be made to see how the results coincide with these traits.

A sample of foreign students were included in the study and the last two hypotheses deals with them. In 1955, Lysgaard demonstrated the "U" curve of adjustment of attitude of foreigners. The first of these hypotheses is an attempt to duplicate part of the curve. The second deals with the foreign students on a geographic basis to determine the relationship between geographic origin and attitude score.

6. Length of time to remain in the United States correlates negatively with attitude scores.
7. Attitude score is related to geographic origin of foreign students. The foreign student sample is to be divided into six origins, and the attitude scores compared.

Since the testing of these hypotheses required instruments for the measurement of stereotype accuracy, a major preliminary task was the development of measures of such accuracy and the determination of their reliability and generality.

HISTORY OF THE PROBLEM

The experimental history of stereotype accuracy is comparatively short. The evolution of the concept will be traced, how it is measured, and comments on the findings as regards generality of accuracy in judging stereotypes will be made. Finally, short summaries of background material concerning the specific hypotheses about relationships between stereotype accuracy and other variables will be presented.

Evolution of the Stereotype Accuracy Concept

Stereotype accuracy describes a judge's ability to predict the norm for others or a group of others (Cronbach, 1955). This simple definition came after many years of research on the variable empathy, the starting place for stereotype accuracy. Empathic ability or taking the role of another has a long history with many psychologists having concerned themselves with the problem. Research, however, was spotty and characterized by an unsystematic approach. Cottrill and Dymond (1949) pioneered the push to modernize, emphasize, and enlarge upon the problem. The problem under consideration was how to measure and utilize the concept of empathic ability, considered by many a single generalized trait or ability. In the decade following 110 studies were reported bearing on this

problem as compared with 35 from 1940 to 1950 (Smith, 1961).

It was soon evident that this apparently straight-forward problem did not yield straight-forward data. As early as 1943 Travers and Wallen noticed that personal opinion seemed to be a major determinant of predictions made by judges. Cronbach (1946) noted the effect of response sets on test scores in general. Bender and Hastdorf (1950, 1952, 1953) reported the effect of projection and similarity on the empathy scores. Bender and Hastdorf blamed these artifacts for their failures to obtain consistent results and get a valid measure of the generalized ability.

Fiedler (1951, 1953) reports the effects of another artifact, similarity, both real and assumed. Assumed similarity was found to be highly consistent and reliable and possibly a measure of unconscious attitudes.

Gage, Leavitt, and Stone (1954) say the failure to realize the existence of these artifacts plus comparisons of studies with differing methodologies has led to the contradictory results so often reported. A statement by Bruner and Tagiuri (1954) points up the existing conditions in this area of research:

The development of research in . . . has been somewhat hindered by an excess of empirical enthusiasm and perhaps a deficit of theoretical surmise.

Cronbach (1955) presents a detailed analysis of the ability to understand others stating that many have given

important psychological interpretation to compounded artifacts with too much operationism and not enough conceptualization. Cronbach divides the conventional accuracy or empathy score into four components; two of which represent differencing abilities, and two, response sets.

Differential Accuracy: Reflects the judge's ability to predict differences between others, in other words, prediction on an individual basis.

) Stereotype Accuracy: The judge's ability to predict the norm.

Elevation: This reflects the judge's characteristic way of using the response scale, a response set of the judge's mean.

Differential Elevation: This reflects how closely the judge's average prediction for another corresponds to the other's central tendency of response; a response set of deviation. This component also appears as an integral part of the assumed similarity score.

Young (1944) thought of stereotypes as being always in error, attaching a bad connotation to the concept. Ichheiser (1949), however, believed stereotypes were valuable aids. He believed that stereotypes are good classifiers, "The Dewey Decimal System of the Mind." Cronbach (1955) suggests that judgments using a stereotype are the more accurate, that they provide any consistency or generality to be found. Cline

(1958), following Cronbach's recommendations for a more analytical study of the problem, found that stereotype accuracy did account for a large portion of the generality in making judgments. He suggests that instead of striving to eliminate this component from accuracy scores in order to have "purer" measurers, research should be aimed at understanding stere^otype accuracy.

Measurement of Stereotype Accuracy

Gage and Cronbach (1955) report another aspect of stereotype accuracy typically ignored by researchers in the past. Stereotypes may be measured either directly or indirectly. Direct measurement occurs when the judge is told the group and asked to judge what is typical for that group. In the indirect measure the judge observes a series of individuals in a group and is asked to judge each of them individually. The experimenter then calculates the average judgment over the series, and this is the judge's unconscious or implicit stereotype. Comparing this to the actual average of the individuals gives a measure of stereotype accuracy. This indirect measure involves an additional artifact, the judge's "implicit personality theory" (Cronbach, 1955); a description of the generalized other, representing the judge's view of both a stereotype's average and individual differences of others.

Indirect: The interest in this paper is with direct measures, but some of the indirect measures shall be briefly

mentioned for illustrative purposes. Unknowingly, Dymond (1949), actually measured stereotypes indirectly and not general empathic ability. Lindgren and Robinson (1953) developed a similar measure and found that the conventional accuracy score, when employed on an individual basis, was largely a function of correspondence with the group norm. Here then we tap the judge's implicit assumptions regarding the modal patterns of responding. Cline and Richards (1959) used such a measure, employing movies of interviews, with the judges asked to predict on other variables for the subjects. The authors concluded that a large portion of the accuracy was due to the implicit stereotypes of the judge, and was not due to judging on an individual basis.

Direct: Use of the direct measure provides a more manageable and easily administered test. A direct test that requires little extrapolation on the part of the judged, combined with considerable acquaintance by the judge of the judged, largely eliminates the effects of favorability and liking. Ease of administration and relative lack of artifacts probably account for the preponderance of direct measures in the literature.

Speroff and Kerr (1951) made one of the earliest attempts to develop a pure direct measure of stereotype accuracy,

designed to measure more objective and stable aspects of empathic ability. Their test is the lone paper and pencil test in the literature, and extremely contradictory results have been obtained through its use (Zavala, 1960).

Zavala expressed a desire to develop a paper and pencil test that would measure more general stereotypes than those measured by Speroff and Kerr and a measurement that would be more valid. Zavala constructed four subscales to be incorporated into a total test: The College Man Scale, The Woman Stereotype Scale, The Sex Differences Scale, and The Age Stereotype Scale.

The College Man Scale--The items for this subscale were drawn from the Strong Vocational Interest Blank. E. K. Strong compared the interests of a large number of persons in regard to occupations, amusements, and activities. He tabulated the results in percentages for each activity, amusement, or interest. Each item in this scale consisted of four interests, the correct answer for an item was that listed by Strong as having the highest preference. For example, for college men in general the per cent who liked the following interests were:

Advertiser . . .	53%	Aviator . . .	65%
Politician . . .	40%	Poet . . .	19%
Surgeon. . . .	46%		

Thus, several four-choice multiple-choice items can be generated from these five elements. Of the four choices included in any item, that choice (on the basis of Strong's figures),

which has the highest per cent as being liked, is the correct answer.

The Woman Stereotype Scale--Developed in the same manner as the College Man Stereotype, except that figures for the average woman were used as criteria for correct answers.

The Sex Differences Scale--The criterion used in selecting correct answers for this subscale were differences in preferences by sex. The correct answer is the interest, amusement, or activity that is most popular among women and least popular with men.

The Age Stereotype Scale--Criteria here are age levels and their preferences. In this scale only one activity or interest was given in each item. The judge's task is to pick the age group for which he thinks that activity is most popular. Age levels to choose from are 15, 25, and 55 year olds. As with the other subscales Strong's figures were used as the basis for the correct answer.

Zavala's test had 30 items per scale selected by item analysis from earlier forms.

Bronfenbrenner, et al (1958) asked college students to estimate the per cent of students who would use each of 50 different adjectives in describing themselves. The accuracy score was based on the difference between the actual percentage and the judge's estimate.

Gage and Suci (1951) provide another example of the measurement of the direct stereotype. They had teachers

estimate the opinions of the group and found a positive and significant relationship between accuracy and popularity of the teacher. To the author's knowledge no other studies are known that relate primarily to the problem of the measurement of stereotype accuracy. Other studies have been done with direct measurement, but their primary concern is not with this measurement, but to investigate other variables such as leadership, popularity, efficiency, knowledge of group, et cetera.

Generality of Stereotype Accuracy

There are two basic problems in the measurement of stereotype accuracy, both pertinent to the question is there such a thing as a "good" judge or a "bad" judge. The first has to do with the reliability of the test: Are the judges consistent over the complete test? Is the good judge of one item concerning a group, equally good on other items? The second deals with correlations between different stereotypes: Is the good judge of one group a good judge of another group?

Numerous studies have been done dealing with the problem of internal consistency. One of the most thorough, which seems to indicate the current status on this matter, was that of Bronfenbrenner, et al(1958). Bronfenbrenner reports a reliability of .85 computed by split-half method corrected by the Spearman-Brown formula. Many other studies have reported consistencies in the range of .70 to .85, so it seems there is

such a thing as a "good" judge over items pertaining to a group or series of individuals.

Zavala (1960) is one, however, who did not report high reliability. He reported reliabilities on his subscales that ranged from .37 to .60. These were test-retest reliabilities, whereas coefficients referred to above were of the split-half variety. On the basis of these findings though it appears there is some doubt whether all tests or stereotypes are general even over one stereotype. Zavala also attempted a direct measure of the generality of stereotype accuracy with his four subscales. Intercorrelations ranged from $-.19$ to $.28$, thus as measured by this test, stereotype accuracy appears to be a specific ability. An interesting note to Zavala's paper is his proposed extension of Cronbach's model of the dimensions of empathic ability. He maintains that the Sex Stereotype Scale is not measuring stereotype accuracy, but is instead measuring differential stereotype accuracy or the judgment of differences between groups. According to this logic the Age Scale should also be put in this class, as it notes differences between groups. Intercorrelations of the scales shows that the Sex and Age Scales correlated negatively or zero correlation with the Men and Women Scales, and that the Sex and Age Scales were significantly related in the positive direction.

It is not the purpose of this paper to investigate the mathematical properties of the empathy variable or of

stereotype accuracy. If the proposed component would be accepted, Cronbach's (1955) model could possibly be extended in other dimensions. This problem could also be examined in the manner taken by Bronfenbrenner, et al (1958). Bronfenbrenner tentatively speaks of a new dimension analogous to Zavala's, that of stereotype accuracy between groups. He feels that possibly this can be explained as dealing with the matter of generality of ability over stereotypes or specific situations, that is, you might have tests to measure each and every kind of stereotype, between stereotypes, et cetera, and find these un-correlated because of the situational factor or knowledge factor, rather than in the light of different and independent abilities. This comes right back to the lack of generality found by Zavala, generality depends on the test and what is being measured; it seems there is no general ability.

No other studies known to the author have attempted to directly measure generality of the ability to accurately judge a stereotype. Gage and Cronbach (1955) doubt there is generality, but that it depends on the situation, response patterns, and specific traits measured. Cline and Richards (1959), as well as others, believe that any generality in judgment over groups, items, or individuals is a function of an accurate stereotype, and with an accurate stereotype lacking no accuracy exists. As it stands now, there is no evidence supporting generality of stereotype accuracy as an ability.

Determinants and Relationships of Stereotype Accuracy

Many variables combine to determine stereotype accuracy, and it in turn has an influence on other variables. A brief summary of the literature pertaining to the relationships hypothesized in this paper follows.

The relation between stereotype accuracy and ability to judge individuals: Accuracy in judging the norms of a group is positively related to accuracy in judging individuals. Little evidence is available concerning the relationship of the accurate judge of stereotypes and the accurate judge of individuals. The literature does seem to point out that possibly judgment of individuals is not the best and most efficient manner of judging, but says nothing of the proposed relationship, except that they are somewhat independent abilities.

Cronbach (1955), Crow (1957), and Crow and Farson (1960) offer evidence that stereotype accuracy is by far the more accurate method of judging, even judging individuals. Cline (1960) also says the major determinant in judging others is judgment of the typical individual, especially so with knowledge of the other at a minimal level.

Bronfenbrenner, et al (1958) is the only person to have studied directly the relationship between judgment of the stereotype and judgment of the individual. Bronfenbrenner reports a correlation of .05 between accuracy in judging the group norm and accuracy in judging the individual. This is

complementary to the other studies which leads to the belief that accuracy in judging the stereotype would be independent of the judgment of the individual.

The studies cited seem to present contradictory statements: accuracy in one ability is proposed as independent of the other ability, but that judgment using a stereotype is more accurate. It would appear then that if a person has an accurate stereotype it should help him in individual judgments, in other words a positive relationship between the two abilities. This relationship could be dependent on the tests and measures used.

The relation between stereotype accuracy and experience: Stereotype accuracy is positively related to experience. Of all of the variables that determine stereotype accuracy, the major determinant is apparently knowledge of the group being judged. Knowledge of the group also appears to be the only variable that determines ability to judge, the other variables being response sets or a function of similarity and/or liking. Cronbach (1955) reports that the most accurate judge has an experiential referent for the items, and that with this referent lacking a high accuracy score will probably be a reflection of a response set that fits the intermediary key.

Bronfenbrenner, et al (1958) talks of somewhat the same general idea, his definitions of ability seem analogous to knowledge or Cronbach's experiential referents. Bronfenbrenner

talks of differentiating abilities, such as sensitivity to judging sexes, roles, age groups, referent groups, et cetera, and that the good judge of one is not necessarily the good judge of another. The effects of other variables was also reported, but that their influence was always overshadowed by the component of the accuracy attributable to the recognition of objective properties of the external social world or knowledge. Bronfenbrenner controlled for error contributed by response sets and similarity of the judge to the judged and found that the component attributed to social sensitivity or judgment ability was the major determinant of the accuracy score in judging others.

An obvious manner to test this hypothesis is the comparison of foreign students versus American students, a further check would be the correlation between time in the United States and accuracy score for the foreign students.

The relationship between stereotype accuracy and favorableness: Stereotype accuracy is positively related to favorableness of attitude. No previous studies have been done that relate directly to this proposed relationship; favorableness has been used before, but to the author's knowledge it has never been measured directly, only inferred. Fiedler (1951, 1953) regards liking or favorableness of the social object or person being judged an important variable. If a person likes the group, it was found they would assume similarity, and

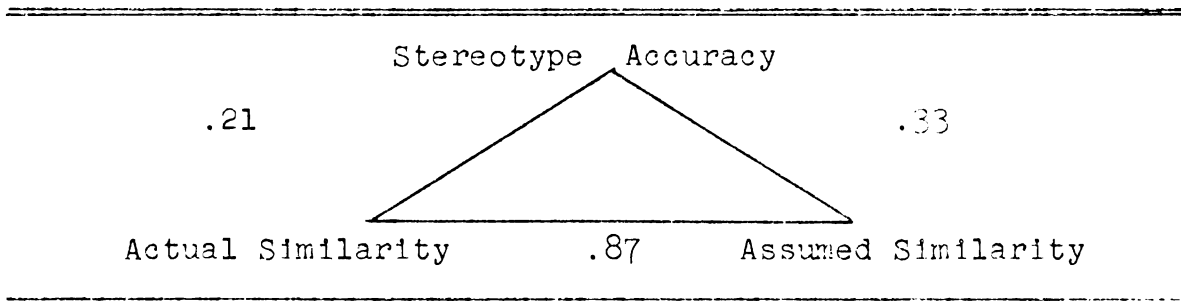
assumed similarity has been found to be positively related with accuracy. Bender and Hastdorf (1950, 1952, 1953) report the effect of projection on the accuracy score. People when judging tend to project their own values or assume similarity when knowledge is lacking if their attitudes are favorable. So accuracy in judging, according to Fiedler, Bender and Hastdorf, and Cronbach (1955) should be positively related to favorableness and projection, with this artifact of the judgment score contributing more with minimal knowledge or experiential referents to use for judgmental basis.

The relation between stereotype accuracy and similarity: Stereotype accuracy is related to similarity; positive relationships between assumed and actual similarity, between both types of similarity and accuracy score, and between similarity scores and favorableness.

As knowledge of the group becomes minimal, other variables become more important to accuracy. Bronfenbrenner, et al (1958) demonstrated that similarity tends to operate more fully when less knowledge of the group is available, usually though the typical person knew he was typical, the eccentric knew he was eccentric, in both cases tending to increase the accuracy score in judging the norm. Table 1 illustrates some of the results Bronfenbrenner obtained. It shows that the more similar a person is, the more accurate his judgments are likely to be; the more he is actually similar, the more he will assume he

is similar and assume similarity in judging; and the more he assumes similarity the more he is likely to be accurate.

TABLE 1.--Relationships Between Assumed Similarity, Actual Similarity, and Stereotype Accuracy.
(Data from Bronfenbrenner, et al, 1958)



Bronfenbrenner also proposed a further relationship of assumed similarity. The essential idea is that favorableness affects assumed similarity in the following manner:

1. If the judge and judged have similar views and the judge is favorably disposed, he is likely to assume similarity and be correct.
2. If the judge and judged have similar views, but the judge is unfavorable, he is likely to assume dissimilarity and be wrong.
3. If the judge and judged have dissimilar views, but the judge is favorably disposed, he is likely to assume similarity and be wrong.
4. If the judge and judged have dissimilar views, and the judge is unfavorably disposed, he is likely to assume dissimilarity and be right.

So we find a relationship between favorableness and assumed similarity, with favorableness apparently being a determinant of how similarity is assumed or not assumed. This in turn has an effect on the accuracy with which the stereotype is judged.

The relation between stereotype accuracy and personality: Stereotype accuracy is positively related to the following traits: self-confidence, lack of inhibition, social extrovert, and lacking tact.

Dymond (1950) reports a positive relationship between accuracy in judgment and self-insight. Bronfenbrenner, et al (1958), in a broader study, found that the accurate judge was outgoing or uninhibited, self-assured, friendly, and somewhat of an extrovert who at times could be irritating personally. The data was gained from self-descriptions of student subjects on a 50 word adjective check list. Some of the relationships were weak, but Bronfenbrenner feels the description fits the typical young college student who is sociable and friendly, but who has not quite learned all he could in the art of getting along with others, i.e., the use of tact. This cluster of traits associated with accuracy resembles the sex role stereotype for young men in American middle-class culture, a socially aggressive and outgoing person. Bronfenbrenner suggests this is no accident, the person who knows the modal values of his sub-culture, is himself, one who has found a place in that sub-culture through identification with its expectations for his sex role.

The relation between attitude score and time: Length of time to remain in the United States should correlate negatively with attitude scores. Lysgaard (1955) demonstrated

what he called the "U" curve of adjustment. When a foreigner enters the United States it is usually with a rather idealistic viewpoint or stereotype of the United States, which would lead to a high attitude score. After being here a while, the foreigner learns the realities and practicalities of the United States and his attitude takes a corresponding drop. As the foreigner prepares to leave this country, he is aware of the problems of adjustment he faces at home and that the United States is not so bad after all, thus the attitude score rises again. So we find the "U" curve, with a high attitude score, dropping, and then rising again.

Terdal (1960) demonstrated the dropping aspect of the curve with African, Chinese, and South American students, but did not carry his study further to check the rest of the "U" curve. Terdal measured attitude toward America and Americans utilizing a 20 item Thurstone type scale. He found attitude scores became progressively unfavorable the longer the student was in the United States. There are, however, some methodological shortcomings of this study regarding biased samples, but it is still in agreement with the beginning part of the "U" curve. The biased sample resulted from a 50% return of mailed questionnaires leading to unequal samples and unequal proportion of returns depending on home origin or country, in other words return rate varied with origin.

The relation between geographic origin and attitude score: Attitude score is related to geographic origin of foreign students. Terdal (1960) found that students from Africa has more negative attitudes than did students from South America and China. Students from China received lower attitude scores than the South American students, but not significantly so. Such things as race differences, intensity of nationalism, and the relative wealth of the various countries were offered as possible explanations for the differences.

If, as proposed, favorableness of attitude affects the accuracy score, it would be interesting to see if the accuracy score varied according to the geographic origin. It would be expected from previous research that the attitude scores would be different, but even more interesting if the differences in attitude score is also reflected in the accuracy scores.

METHOD

A discussion of the stereotype accuracy scales concerning development, reliability, intercorrelations, generality, and conclusions is the beginning section. The following sections are then presented parallel to the order of the hypotheses presented earlier. An index and description of the samples used is found in the section on measures of experience.

Measures of Stereotype Accuracy

Development. The present scales are essentially revisions of Zavala's (1960) test. The items were drawn in the same manner, from data by E. K. Strong, accumulated in the development of the Strong Vocational Interest Blank. Strong compared the interests of a large number of persons in regard to occupations, amusements, and activities, results being tabulated in percentages for each activity, amusement, or interest. Items in the scales (Appendix A: Knowledge of People Test) required predictions as to what the preferred interest, activity, et cetera, were for various groups depending on the subscale. The correct answer for an item was that listed by Strong as having the highest percentage.

The main difference between the present scales and those of Zavala is a matter of length. Another difference concerns

the male stereotype subscale, Zavala using information and items pertaining to the average college man, the present form using information and items pertaining to the average American business and/or professional man. A third difference concerns the Age Difference Scale. Zavala's test presented the problem of choosing the most popular activity or interest from three age groups; 15, 25, or 55 year-olds. The present test asks for a discrimination between 15 and 55 year-olds only.

Following is a short description of each of the subscales:

Knowledge of Men: This scale asks for the preferred interest, occupation, or amusement among American Business and/or professional men. Consists of 60 items.

Knowledge of Women: This scale asks for the preferred interest, et cetera, for American women. Consists of 60 items.

Knowledge of Sex Differences: Criterion used in selecting correct answers for this scale were differences in preferences by sex. The correct answer is the interest, et cetera, that is most popular among women and least popular with men. Consists of 30 items.

Knowledge of Age Differences: Criteria here are age levels and preferences. In this scale only one activity or interest was given in each item. The judge must pick the age group for which he thinks the interest, et cetera, is most popular. Age groups are 15 and 55 year-olds. Consists of 60 items.

Reliability. Table 2 furnishes reliabilities of the present scales as compared to the reliabilities from Zavala. Reliabilities in the study were split-half, odd-even, corrected Pearson Product-Moment coefficients, Zavala computed test-retest coefficients with an interval of six weeks. Figures in parentheses represent coefficients adjusted to test lengths equal to those of Zavala for purposes of closer comparison.

TABLE 2--Reliabilities of the Scales for American and Foreign Students and Compared to Results of Zavala

Scale	Zavala's Scales (N=77)	Present Scales	
		Americans (N=127)	Foreign (N=91)
Knowledge of Men	.60	.69(.53)	.70
Knowledge of Women	.44	.44(.28)	.83
Knowledge of Sex Difference	.46	.23(.13)	.49
Knowledge of Age Difference	.37	.44*(.44)	.85
TOTAL	.56	.60*(.49)	.88

*N=119.

Intercorrelations. Table 3 shows the intercorrelations of the scales for Zavala (N=77), American Students (N=111), and the Foreign Students (N=91).

TABLE 3--Intercorrelations of the Scales for American and Foreign Students and Zavala.

Scale	Knowledge of Men	Knowledge of Women	Knowledge of Sex	Knowledge of Age
Knowledge of Men				
Zavala	-			
American	-			
Foreign	-			
Knowledge of Women				
Zavala	.11	-		
American	.29**	-		
Foreign	.44**	-		
Knowledge of Sex				
Difference				
Zavala	-.19	.08	-	
American	-.01	.21*	-	
Foreign	.17	.35**	-	
Knowledge of Age				
Difference				
Zavala	-.01	.00	.28**	-
American	.00	.06	.01	-
Foreign	.36**	.41**	.17	-
TOTAL				
Zavala	.47**	.44**	.47**	.66**
American	.72**	.67**	.33**	.44**
Foreign	.75**	.81**	.48**	.72**

*Significant at .05 level.

**Significant at .01 level

Critical Levels: Zavala: .05 = .22, .01 = .26
 American: .05 = .19, .01 = .25
 Foreign: .05 = .21, .01 = .27

Conclusions. It is somewhat meaningless to compare the reliability of the present scales with those of Zavala as we have different type coefficients. Even with these considerations

the reliabilities in the two studies are somewhat comparable, though Zavala's are generally higher when test length is equalized. In light of these results it seems dubious as to what was gained by the rather extensive lengthening of the scales. The only possible gain would be found in the inter-correlations, the present scales presenting a little more evidence for a weak general ability across some of the stereotypes. More will be said of this in the "Discussion," also as to the higher coefficients reported for the foreign students.

As a further check on the relationships between stereotypes, a supplementary scale was devised on the Interests of Psychologists. This scale consists of 120 items developed from the Strong data in the same manner as the other stereotype scales. Here the information is about psychologists and their preferred interest, occupation, or amusement. American students only took this scale. Table 4 shows the correlations between the Psychologist Stereotype Test and Knowledge of People Test (N=111).

TABLE 4--Relationships between Interests of Psychologists and Stereotype Accuracy Scales.

Scale	Interests of Psychologists Scale
Knowledge of Men	-.11
Knowledge of Women	.16
Knowledge of Sex Difference	.06
Knowledge of Age Difference	.28**
TOTAL	.13

**Significant at .01 level (critical level = .25).

Reliability for the 120 item scale reported in Table 4 is not available. Data for this form was gathered during Winter term, 1961, and figures for computing reliability are no longer available. Reliability has been computed instead for the present form of the test, a 60 item scale reduced by item analysis from the 120 item scale (Appendix A). The 60 item scale was administered to 138 American students in Industrial Psychology 255, Fall term, 1961. Split-half, odd-even, corrected reliability is .73. This figure supports the conclusion that there are judges who are consistent over the Interests of Psychologists Test.

The lack of significant correlations between the Psychologists Scale and the Knowledge of People Test leads to the conclusion that there is no generality between these stereotypes. A good judge of one is not necessarily a good judge of another. The psychologists stereotype presents a different task than the scales of the Knowledge of People Test. Most people have much more contact with American business men or American women than with psychologists, so we find a lack of knowledge and a completely different judging situation leading to a lack of generality across stereotypes.

Measures of Individual Accuracy

Data for individual accuracy comes from an investigation by Harris (1961). Harris used the Cline (1959) films, developing two tests to measure individual accuracy. The

first has to do with more objective aspects of the person being judged. This is the Observation Scale and the judge is asked observational type questions on the basis of what was seen in the films.

The second scale is the Inferential Scale. It deals with more behaviorally oriented aspects of judging. The judge here must answer questions and make predictions of an inferential nature for the individuals in the filmed interviews.

Harris used six filmed interviews, with an Observation and Inference Scale for each interview. Three were men, three were women. Scores used in this study for comparison are total scores: Total Observation plus Inference, Total Observation, Total Inference, Total Male and Total Female Observation, Total Male and Total Female Inference. Correlations between these Differential Accuracy scores and the Stereotype Scales will be investigated to determine relationships between judgment of the group norm and judgment of the individual.

Measure of Attitude

The attitude scale consisted of a 10 item Likert type scale. Items were drawn from a 20 item Thurstone type scale developed by Terdal (1960). The content of the scale included foreign policy, racial relations, democracy, capitalism, imperialism, and hospitality and friendliness as regards America

and Americans. The 10 items were picked on the basis of mean judgment value and semi-interquartile range, five favorable and five unfavorable to America and/or Americans. Favorable items were scored on a five point scale ranging from strongly agree to strongly disagree. Strongly agree would receive a score of five, strongly disagree a score of one. Unfavorable items were scored the same way except that strongly disagree received a score of five, strongly agree a score of one. So the higher the score received over the test, the more favorable the attitude. A copy of the scale is on the last page of Knowledge of People Test (Appendix A).

All foreign students took the attitude scale, while only 85 American students took the scale. Following are the reliabilities, split-half, odd-even, corrected:

American Students:	N=85	$\bar{r}. = .79$
Foreign Students:	N=91	$\bar{r}. = .64$

Some theoretical questions exist as to the best method of obtaining a reliability coefficient on a Likert Scale (Edwards, 1957). When scoring the papers inconsistencies were apparent and the above reliabilities seemed rather high. For these reasons two other types of reliability were computed. The first of these is a corrected split-half, pro-American versus anti-American items, corrected:

American Students:	N=85	$\bar{r}. = .21$
Foreign Students:	N=91	$\bar{r}. = .17$

The second alternative is a Guttman formula suggested by Anastasi (1954).

American Students:	N=85	$\bar{r} = .25$
Foreign Students:	N=91	$\bar{r} = .16$

The two lower reliabilities furnish what would seem to be a lower bound for the coefficient, the higher bound being uncertain, but probably no higher than that figured by the first method.

Foreign students were also compared by geographic origin on the attitude score following Terdal's (1960) study, except that the breakdown by region involves six geographic locations instead of three.

Europe: (N=13). Includes countries on the continent and England, Sweden, et cetera.

South and Latin America: (N=16). Includes South America, Latin America, and the Caribbean area.

Near East and Africa: (N=16). Includes Africa proper, and the near East, including countries such as Turkey, Lebanon, Iran, et cetera.

Far East: (N=23). Includes India, China, Hong Kong, et cetera.

Japan: (N=13). Includes Japan, Korea, Phillipines, and Okinawa.

Canada: (N=10).

Measures of Experience

The section begins with a description of the subjects used, then breakdowns will be made to describe amount of

contact or experiential reference subjects have and how they will be compared.

Subjects. Two groups of students served as subjects for the research, American and foreign. The American students were members of Industrial Psychology 255, Spring term, 1961. There were 101 males and 9 females for a total sample of 111.

Foreign students were obtained from the foreign student body at large. These students were contacted in the United Nations Lounge, dormitories, married housing, and through acquaintance with students in Psychology 151. There were 86 males and 5 females for a total sample of 91.

Exception to the above are the students concerned with the personality phase of the study. The sample came from students in Industrial Psychology 255, Winter term, 1961, N=75.

Total samples for both Americans and foreign students were utilized only for computation of reliability coefficients. Correlations investigated are based only on male subjects as are comparisons as noted below.

Comparisons. Obviously the most important and clear cut difference in experience is American students versus foreign students. Foreign students have 26 months direct contact, while American students about 21 years. Male subjects only were utilized for comparison of the differences of means as primary interest was in the male judgments. As the males

comprised the bulk of the samples, it was felt this would also provide a "purer" measure. Comparison of males versus females was anticipated in order to provide another check on the experiential variables, but due to the lack of female subjects no significance tests were made.

Table 5 provides a descriptive index of the foreign student sample, which provides some measure of experiential background.

TABLE 5--Description of the Foreign Student Sample.

Index	Total Sample	Males	Females
Months in the United States	26.2	26.9	14.6
Months to remain in the United States	31.6	32.2	19.8
Age	22.5	22.5	21.4

Measures of Similarity

Here will be described the way assumed similarity, actual similarity, and projection are measured.

Actual similarity. All subjects answered the Knowledge of Men Scale twice, once under the heading of Likes and Dislikes (see Appendix A, Knowledge of People Test). Now the subject was to answer items using the criterion of personal preference, rather than making judgments about the Male Stereotype. The score received is the number correct when scored

by the answers of the Knowledge of Men Scale using Strong data as criteria.

Assumed similarity. A derived score obtained by a comparison of the subject's answers on his self rating (Likes and Dislikes) and his rating of others on the Men Scale. Answers in agreement counted as one each.

Projection. These scores were computed by matching agreement of answers on the Likes and Dislikes Scale and the Men Scale which were wrong when compared to correct answers on the Men Scale according to the Strong data.

Correlations between these measures and accuracy and attitude scores will be investigated to determine their effects on the accuracy score and other related variables.

Measures of Personality

The data for the personality analysis was gathered in the Winter term, 1961, by Mullin (1961). Seventy-five students took the Stereotype Accuracy Scale (Zavala, 1960), and a personality instrument developed by Mullin. The personality test was composed of two scales:

EICI Scale. The scale was composed of four subscales. Following is a list with explanation of dimensions measured.

- a. THINKING: Introverted-Extroverted
- b. INTERESTS: Narrow-Broad
- c. SELF-CONFIDENCE: Low-High
- d. SELF-INSIGHT: Low-High

PSHR Scale. The scale was composed of seven subscales.

Following is a list with explanation of dimensions measured.

- a. AMBITION: Unambitious-Ambitious
- b. ORGANIZATION: Unorganized-Organized
- c. EMOTIONAL CONTROL: Uncontrolled-Controlled
- d. GREGARIOUSNESS: Unsociable-Sociable
- e. WARMTH: Cold-Warm
- f. DOMINANCE: Submissive-Dominant
- g. CONFORMITY: Nonconformity-Conformity

High and low stereotype accuracy groups were selected and their personality inventories were item analyzed to select discriminating questions. The personality scores were also correlated with the stereotype accuracy scales to obtain further information on the expected relationships.

RESULTS

Results are broken down into various sections. Summaries of the results are given in the order of the original hypotheses.

Stereotype Accuracy and Individual Accuracy

Correlations are given here between individual accuracy as measured by Harris (1961) and various measurements of stereotype accuracy. Relationships are shown for Observation, Inference, and Total (combination of Observation and Inference) individual accuracy.

Table 6 shows the relationships between the stereotype accuracy scales and individual accuracy scales.

The results shown provide limited support for the proposed relationship between stereotype accuracy and individual accuracy. As can be seen in the table, Women and Psychologists scales show the most promising relationships, so these scales and Total Stereotype only are compared farther; and the relationships between these scales and the Observation and Inference scales are shown in Table 7. This table shows the relationships between Psychologists stereotype and individual accuracy. These correlations lend limited support to the positive proposed relationship. The significant relationships are limited to the male cases though, with none of

the female cases showing a significant relationship. This would possibly be expected, judging males on differential accuracy is more similar to judging psychologists (males) than would judging females.

TABLE 6--Correlations between Stereotype Accuracy and Individual Accuracy.

Stereotype Accuracy Scales	Individual Accuracy Scales				
	Male Cases Obs. + Inference	Female Obs. + Inference	Male, Female Obs. + Inf.	Total Obs.	Total Inf.
Knowledge of Men	-.08	.09	.01	-.02	.03
Knowledge of Women	.26*	.37**	.36**	.31**	.29*
Knowledge of Sex Difference	.04	.20	.14	.18	.06
Knowledge of Age Difference	.02	.05	-.05	-.02	-.01
TOTAL	.11	.21	.18	.15	.15
Interests of Psychologists	.44**	.14	.33**	.38**	.19

*Significant at .05 level (critical level = .24).

**Significant at .01 level (critical level = .31).

TABLE 7--Relationship between Psychologists Stereotype Accuracy and Individual Accuracy on Observation and Inference.

Individual Accuracy Index	Psychologists Stereotype		
	Observation	Inference	Obs. + Inf.
Male cases	.46**	.30*	.44**
Female cases	.19	.05	.14
Male-Female Total	.38**	.19	

*Significant at .05 level (critical level = .24).

**Significant at .01 level (critical level = .31).

Table 8 shows the relationships between the Knowledge of Women Scale and individual accuracy. Again support for the positive relationship is presented, but in light of the above statement, judging women stereotypes is more related to judging individual women than individual men. These findings, in themselves, provide support for the relationship, a person would not use the male stereotype to judge women or vice versa, but an accurate stereotype of women could lead to accuracy in judging the individual woman, and this appears to be what is shown in both Table 7 and 8. A person uses the stereotype which fits the individual.

TABLE 8--Relationship between Women Stereotype and Individual Accuracy.

Individual Accuracy Index	Women Stereotype		
	Observation	Inference	Obs. + Inf.
Male cases	.27*	.17	.26*
Female cases	.27*	.32**	.37*
Male-Female Total	.31**	.29*	

*Significant at .05 level (critical level = .24).

**Significant at .01 level (critical level = .31).

Table 9 shows the relationships between the Knowledge of People Stereotype Test and individual accuracy. This is the total score for the Stereotype Accuracy Test. As noted earlier, the correlations in this case do not support the hypothesis, only one significant figure shows up, but this

could be expected as the Knowledge of Women scale was the only scale of the four different scales that did correlate significantly. Further support for this is that the only significant correlation is with the female cases, which is in line with earlier statements, the Women Scale for stereotypes correlates highest with the female cases of individual accuracy, therefore the highest correlation of the total stereotype should be with the female cases.

TABLE 9--Relationship between Total Stereotype Accuracy and Individual Accuracy

Individual Accuracy Index	Total Stereotype Accuracy		
	Observation	Inference	Obs. + Inf.
Male cases	.19	.00	.11
Female cases	.07	.25*	.21
Male-Female Total	.15	.15	

*Significant at .05 level (critical level = .24).

The results presented are not completely supportive of a positive relationship. The Knowledge of Women scale and the Interests of Psychologists scale both correlated with individual accuracy, but only in a limited fashion, while the other subscale of the Knowledge of People Test did not show any significant correlations.

Stereotype Accuracy and Experience

Two tables are presented for the purpose of establishing the relationship between stereotype accuracy and experience

and/or knowledge of the group. Table 10 shows the relationships between stereotype accuracy scores and age for the American and foreign samples and number of months in the United States for the foreign sample. The American sample's average age was 21.5 years and ranged from 18 to 28. The foreign sample's average age was 22.5 and ranged from 18 to 31. None of the relationships are significant and provide no support for the hypothesis. No score is reported as the foreign sample did not take the Interests of Psychologists scale. From the table it appears age of both samples and length of time in the United States for the foreign students has no relationship with the stereotype accuracy.

TABLE 10--Relationship between Stereotype Accuracy, Age, and Months in United States.

Stereotype Accuracy Scales	American	Foreign	Months in U.S. Average = 26.2
Knowledge of Men	.07	.07	.09
Knowledge of Women	-.06	.03	.05
Knowledge of Sex Difference	-.23	.00	.08
Knowledge of Age Difference	-.15	.04	-.17
TOTAL Stereotype Accuracy	-.10	.06	.00
Interests of Psychologists	.12	No score	No score

Table 11 shows comparisons between means of American and foreign male subjects on the stereotype accuracy scales. For a complete listing of means, standard deviations, and

intercorrelations see Appendix C. All t-tests were made assuming heterogeneity of variance, and degrees of freedom were computed using an approximation of Welch's formula listed by Walker and Lev (1958).

TABLE 11--Means and t-test Values on Stereotype Accuracy.

Stereotype Scale	American Mean	Foreign Mean	Diff.	t-test Value**
Knowledge of Men	38.7	29.6	9.1	10.08
Knowledge of Women	42.2	34.5	7.7	8.91
Knowledge of Sex Difference	23.0	20.4	2.6	5.64
Knowledge of Age Difference	42.6	36.7	5.9	7.6
TOTAL	146.3	121.2	25.1	12.2

**Two tailed tests, all values significant beyond the .01 level.

The results from comparisons of the means strongly supports the hypothesis. In all cases the American students were significantly more accurate in judging the stereotypes. Comparison of mean scores on the projection variable lends further support; it was proposed that with more knowledge to judge with, projection should be less. The American students had a mean value of 9.1 and the foreign students a mean of 13.0, a significant difference at the .01 level, which supports the proposed contention.

Stereotype Accuracy and Attitude

To check the hypothesis about favorableness of attitude, the attitude scores were correlated with the stereotype scales and the projection score. A t-test was not performed on the mean scores on the attitude scale. The American students had a mean of 34.8, the foreign students a mean of 34.6. Quite obviously there is no difference to be found between the means.

Table 12 shows the relationships between the attitude scale and stereotype accuracy. Results lend only limited support for the hypothesis of a positive correlation between favorableness and accuracy. Correlations for the foreign

TABLE 12--Relationship between Attitude and Stereotype Accuracy Scales.

Stereotype Scale	Favorableness of Attitude Toward the U. S.	
	American Students	Foreign Students
Knowledge of Men	.12	.21*
Knowledge of Women	.24*	.19
Knowledge of Sex Difference	.12	.12
Knowledge of Age Difference	-.03	.15
TOTAL	.20*	.24*

*Significant at .05 level (Critical levels: American = .19; Foreign = .21).

students are generally higher which lends further support to the hypothesis as the foreign students are judging less from

knowledge, thus favorableness plays a larger part in their judgments. Supportive of the hypothesis also is the correlation with the projection score; the American students attitude score and projection correlated .20, significant at the .05 level, the foreign students .42, significant at the .01 level. The higher correlation of the foreign student is in line with the above statements, with less knowledge projection plays a larger part in the judgments made.

Stereotype Accuracy and Similarity

Results here will deal with the relationship between stereotype accuracy and similarity; between similarity and favorableness; and between similarity scores and projection.

Table 13 shows the relationships between the Knowledge of Men Test and similarity scores. Knowledge of Men Test only is used as the similarity and projection scores are derived from that scale. The table shows that similarity is highly correlated with the accuracy score, especially so with the foreign students. The foreign students being higher supports further that they are possibly judging less with knowledge and more with response sets or artifacts. All correlations are significant though and support the hypothesis.

Table 14 examines results that bear on the proposed positive relationship between the similarity scores and favorableness or the attitude scores.

TABLE 13--Relationship between Stereotype Accuracy and Similarity.

Test	Actual Similarity		Assumed Similarity	
	American Students	Foreign Students	American Students	Foreign Students
Knowledge of Men	.30**	.52**	.81**	.84**

**Significant at .01 level (critical levels: American = .25; Foreign = .28).

TABLE 14--Relationship between Attitude and Similarity.

Similarity Test	American Students	Foreign Students
Actual Similarity	.09	.10
Assumed Similarity	.28**	.24*

*Significant at .05 level (critical level = .21).

**Significant at .01 level (critical level = .25).

These results fully support the hypothesis; the more favorable the judge's attitude toward a group, the more likely he is to assume that he is similar to the group. Correlations between assumed similarity and attitude are significant, while correlations with actual similarity are not significant, but are in the expected direction from the proposed positive relationship between actual and assumed similarity.

Table 15 shows the relationships among assumed similarity, actual similarity, and projection. The results support the hypothesis, a positive relationship is found between assumed and actual similarity. The negative correlation

between similarity scores and projection was confirmed for the American students, but not the foreign students. In light of previous findings that projection plays a larger part in the judgment of the foreign student this is not too unexpected, but rather further supports the importance of knowledge.

TABLE 15--Relationships among Assumed Similarity, Actual Similarity, and Projection.
(Foreign students figures in parenthesis.)

Variables	Assumed Similarity	Actual Similarity
Assumed Similarity	- -	
Actual Similarity	.69** (.74)**	- -
Projection	-.22* (.00)	-.46** (-.15)

*Significant at .05 level (critical levels: American = .19; Foreign = .21).

**Significant at .01 level (critical levels: American = .25; Foreign = .28).

In addition to correlations, a comparison of means for similarity scores for American and foreign samples was computed as a further check of the hypothesis. All t-tests were made assuming heterogeneity of variance with degrees of freedom computed using an approximation of Welch's formula as listed in Walker and Lev (1958). The results fully support the hypothesis with the Americans scoring significantly higher on assumed and actual similarity and lower on projection.

The American students were more similar, assumed more similarity, therefore projected less. Table 16 shows these comparisons.

TABLE 16--Means and t-test Values for Similarity Scores and Projection.

Variable	American Mean	Foreign Mean	Diff.	t-test Value**
Assumed Similarity	28.7	19.6	9.1	8.62
Actual Similarity	37.8	32.9	4.9	5.9
Projection	9.1	13.0	3.9	2.52

**Two-tailed tests, all values significant beyond the .01 level.

The results then indicate support for the hypothesis, the exceptions being in accord with earlier findings.

Stereotype Accuracy and Personality

To investigate the hypothesis data from Mullin (1961) on stereotype accuracy was correlated with the personality scales. Correlations are between total stereotype accuracy score and the 11 subscales. Table 17 shows these relationships.

By item analysis of the personality scales, 60 items were selected that discriminated high from low stereotype accuracy judges. Items were distributed among each of the 11 subscales. Total stereotype accuracy score was used for

high and low groups. A list of the questions selected with high and low group values is shown in Appendix B.

TABLE 17--Relationship between Stereotype Accuracy and Personality Scales.

Scale	Total Stereotype	Scale	Total Stereotype
Ambition	-.24*	Self-Insight	-.11
Conformity	.22*	Warmth	.10
Self-Confidence	-.21	Organization	.06
Interests	-.16	Thinking	-.04
Dominance	-.14	Emotional Control	.02
Gregariousness	.13		

*Significant at .05 level (critical level = .22).

As the correlations between stereotype accuracy are rather weak and the item analysis of high and low groups provides only a few statements per scale for comparison, discussion will be limited to the traits with complementary results from both correlation and item analysis.

The hypothesized relationships are not confirmed. Self-confidence, lack of inhibition, social extroversion, and lacking in tact are the proposed positively linked traits. Results bearing on these traits indicates that the accurate judge was not self-confident, was not domineering or tactless, but was a social extrovert as determined by gregariousness and warmth variables. None of the scales deals with inhibition directly, but the lack of dominance, self-confidence,

and ambition presents a picture of a person who might be inhibited or somewhat withdrawn. So the results both agree and disagree with the proposed relationships.

Attitude Score and Length of Time to Remain in the United States

No data will be presented here. The correlation between number of months to remain in the United States and attitude score was low and insignificant, .02. The correlation between number of months in the United States and attitude score was also insignificant, but higher, .10. These findings present no evidence for Lysgaard's "U" (1955) curve of adjustment.

Attitude Score and Geographic Origin

Foreign students were divided into six broad geographic locations for comparison purposes. Table 18 shows these breakdowns and the F test value for differences between the locations. Table 18 also shows a breakdown by geographic origin for the Total Stereotype score and the F test value for differences between the locations in stereotype scores.

These results indicate support for the hypothesis, degree of favorableness of attitude is dependent upon the geographic origin of the student. Total score on the Knowledge of People test is also dependent on origin of the student, but the relationship between attitude and accuracy is less clear as noted earlier. A Pearson Product-Moment coefficient of .17 between the variables is positive, but

insignificant, lending little support to the relationship of favorableness affecting the accuracy score.

TABLE 18--Analysis of Foreign Students by Geographic Origin.

Geographic Origin	Mean Attitude Score	F test Value	Mean Stereotype Score	F test Value
Canada (N=10)	37.5		139.4	
Far East (N=23)	35.43		110.78	
Europe (N=13)	34.62	3.69**	120.77	6.0**
Japan and Korea(N=13)	33.92		116.31	
Near East and Africa (N=16)	32.94		124.06	
South and Latin America (N=16)	30.81		128.75	

**Significant at .01 level (critical level = 3.25).

Individual comparisons were made on the attitude scores using the "Q" statistic derived from the Studentized range. Only one comparison reached significant proportions, that between South and Latin America and Canada. A comparison to the findings of Terdal (1961) shows differences, his groups of South America, China, and Africa ranked in that order and the findings here present an order of Far East (China), Africa, and South America. While not agreeing with the rank order found by Terdal, the important thing is that attitude score varies as a result of geographic origin.

DISCUSSION

Discussion is again organized around the specific hypotheses, with one exception. The beginning section deals with reliability and generality of the scales, especially of the foreign students. Then sections will be presented dealing with each of the hypotheses.

Reliability and Intercorrelations of the Scales

Reliability for the scales ran somewhat lower than hoped for. They are not as high as figures reported in other studies. Bronfenbrenner, et al (1958) reports a reliability of .85 in his study. Judgments in this case were for the judge's reference group, as were other studies with reports of high reliability. With the Knowledge of People Test predictions were required for groups other than reference groups and it seems this creates a difference in the accuracy score. For example, male students judged the interests of typical men and women with consistencies of .69 and .28, respectively. So some college men are better than others consistently in judging a group of men, but they are inconsistent in the accuracy with which they can judge women, definitely a non-reference group. The same reasoning would apply to the obtained coefficient of .73 on the Interests of

Psychologists scale, which presents a non-reference group, but one that could fit better with a male stereotype than the female stereotype.

Intercorrelation or the question of generality of ability received little support from the data. Intercorrelations for the American students ranged from $-.01$ to $.29$. Two of the correlations reached significance, but this lends little, if any, support to the existence of a generalized ability. Rather it lends further support to knowledge and experimental referents as determinants of stereotype accuracy.

The concept of generality of stereotype accuracy seems analogous to the situation in leadership theory. Up to 1930 the overwhelming majority of the research done with the leadership variable dealt with discovering WHAT the leader was, looking for the picture of the leadership personality so as to pick "him" out. The situation is quite different now, with the majority of researchers tending toward the situational viewpoint of leadership. Given the right circumstances almost anyone has the potential of being leader. Research with stereotype accuracy started in a similar fashion, searching for ways to measure the generalized ability, whereas now it seems apparent a situational approach would be more meaningful. Given the right judging circumstances almost anyone has the potential of being the most accurate judge.

The question of reliability and generality for foreign students appears to be a different matter. Split-half

reliability reached impressive figures, ranging from .49 to .88, which compares favorably with other research findings reported. At first glance this would imply that foreign students for some reason or other are much more consistent in their accuracy in judging. A very important consideration here would be the fact that the foreign students displayed a much wider range of scores than the American students, and differences such as these will increase reliability. The variance for the foreign students was a little more than four times that of the American students for Total Stereotype Accuracy and the range was 30 points wider, at the lower end of the scale. It appears then that the foreign students display a wider range of ability, with some judges being as good as the American students, but some being, possibly due to lack of knowledge, much poorer judges. Table 19 provides estimates of the foreign students reliabilities with a restricted range such as in the American student sample. The table also shows American coefficients corrected to the wider range of the foreign students. A formula in Guilford (1956) was used.

These corrected figures wash out the large differences and superiority of the reliability figures for the foreign students. It would now appear that the American students are as consistent, if not more so, than the foreign students, when the restricted range is corrected. This actually is in line with the importance of knowledge as a determinant of

stereotype accuracy. The foreign students judged less from knowledge and more from response sets and artifacts, leading to guessing, which is not consistent or reliable. Cronbach (1955) reports that experiential reference or knowledge is the only reliable and valid measure of accuracy, the other determinants adding only error variance.

TABLE 19--Reliabilities Corrected for Range.

Stereotype Scale	Original Amer. <u>r</u>	Corrected Foreign <u>r</u>	Corrected Amer. <u>r</u>	Original Foreign <u>r</u>
Knowledge of Men	.69	.50	.82	.70
Knowledge of Women	.28	.38	.80	.83
Knowledge of Age Difference	.44	.57	.80	.86
Knowledge of Sex Difference	.23	.00*	.70	.49
TOTAL	.60	.56	.89	.88

*The standard error of the foreign sample was larger than the standard deviation of the American sample which leads to a conclusion of no reliability.

Generality of ability across scales for the foreign students presents a different picture. Here we find evidence for a generalized ability, of the six intercorrelations, four were significant at the .01 level. This could lead to the assumption that the foreign students, all judging what could be called non-reference groups, differ consistently in their ability to judge others. This generality could be due to many factors; prior experience, the fact that some may gain more knowledge upon their arrival here because of being more

observant or more interested in Americans, or that the students might have come from their home countries with preconceived stereotypes, which depending on the background and country could be accurate or inaccurate. On the basis of this sample of foreign students we could assume then there is a generalized ability of a weak nature, or maybe it should be called a generalized knowledge of different stereotypes.

Stereotype Accuracy and Individual Accuracy

In the only other study that directly measured this aspect of judging, Bronfenbrenner, et al (1958), a correlation of .05 was reported between stereotype accuracy and individual accuracy. The results of this study present slightly contradictory evidence. The results are not completely supportive of the hypothesized positive relationship, but partially support this and Bronfenbrenner's contention that the abilities are independent.

All significant results between stereotype accuracy and individual accuracy as measured by Observation plus Inference are with the Knowledge of Women scale and Interests of Psychologists test. When stereotype accuracy scales are correlated with Observation and Inference scales, again only Knowledge of Women and Interests of Psychologists show significant relationships. The only exception is total score for Knowledge of People Test which shows one significant relationship.

The Bronfenbrenner study as mentioned was done with reference groups, whereas this study was done with non-reference groups. It is even more significant that the stereotype measures which correlated highest are those with the least referent value, women and psychologists. An interesting factor is the finding that the Knowledge of Women scale correlated highest with the female cases, while the psychologists stereotype correlated highest with the male cases, lending further support to the statement that if the person has an accurate stereotype of the group he can better understand the individuals in the group.

There is also a trend for the highest correlations to be with the Observation Scale, the only exceptions which were significant were with female cases of Inferential Accuracy. Aside from this, however, correlations were higher with Observation, so it appears the observant person is the one who also has the more accurate stereotypes, especially as pertains to non-reference groups. At any rate there is here limited support for the hypothesis that there is a positive relationship between stereotype accuracy and individual accuracy of the observation type response.

Stereotype Accuracy and Experience

Following Cronbach's (1955) and Bronfenbrenner's, et al (1958) suggestion it seems knowledge plays a part in our accuracy of others. Bronfenbrenner investigated this

controlling for response sets and similarity and found that there was indeed a social skill involved which was the major determinant of the accuracy score when judging others. This study did not compute partial correlations as Bronfenbrenner did, but the comparison of American and foreign students seems to indicate that knowledge is possibly a determinant of the accuracy of a stereotype held by an individual.

Relationship between age and stereotype accuracy shows no significant correlation. On the basis of this it could be said age has no importance or bearing on the judgment of others. This would be contradictory to the importance of experiential reference for accuracy in judging. Another, more plausible and logical explanation, would be that the students were too homogeneous, thus a restricted range. The restricted range could lead to a watered down correlation. The American students are all somewhat similar in age and it could be expected they are somewhat similar with respect to their dealings with the stereotypes they were asked to judge.

Length of time in the United States also failed to show any significant relationships. This could also be due to too much of an homogeneous sample. These foreign students have all been here somewhat the same length of time, they have seen and heard somewhat the same thing, so it seems simply being here has no connection with having accurate stereotypes.

The significant indication or verification of the hypothesis then comes from comparisons of the means, all of

which were significantly different at the .01 level. American students were more accurate, appear to have more knowledge from more contact, experience, or identification. American students also projected less as they possessed more knowledge with which to make their judgments. Certainly the American students have had more contact with the groups judged than the foreign students with their limited view of Americans.

The differences that were found, all being significant, present evidence of a sort for validation of the test. It would be expected that the foreign students would be less accurate and they were, so it appears that the test might be measuring what it is supposed to measure.

Stereotype Accuracy and Attitude

Limited support was received for the hypothesized positive relationship between stereotype accuracy and attitude scores or favorableness. More powerful results might have been obtained with a more reliable attitude scale. Significant relationships were found with some of the stereotype scales indicating the better you understand a group, the more favorable you will be toward them. Correlations for the foreign students were generally higher which lends further support for the hypothesis. The foreign students, with less knowledge, judge less from an objective basis, but more from how they feel. The foreign student who understands the

stereotypes presented, is relying more on projection than the American student. The foreign student projects his own values when he likes the group or is favorable.

A surprising development is the mean scores on the attitude scale. The mean for the American students was 34.8, for the foreign students 34.7. In line with previous research it was expected that the American students would score higher on an attitude scale of this type. Possible reasons for the failure to obtain differences could be due to lack of reliability of the attitude scale or lack of internal consistency within the scale. American and foreign students both scored favorably on the attitude scale though, so possibly much of the foreigners criticism of the United States is criticism, not dislike.

Stereotype Accuracy and Similarity

Positive relationships were found among the variables of assumed similarity, actual similarity, and accuracy supporting the hypothesis. Supportive results were also obtained regarding favorableness and assumed similarity and projection.

The more similar a judge is, the more accurate he is. All correlations between actual similarity, assumed similarity, and accuracy were significant at the .01 level for both samples. Mean comparisons show the American students and

foreign students to be significantly different at the .01 level in the expected directions. The Americans were more similar, assumed more similarity, and therefore had less need to project. These are simply logical conclusions which were expected, but the correlations work in the same direction as expected within the American sample thus giving more support to the hypothesis. Projection worked differently for the two samples though. The proposed negative correlation between projection and similarity was confirmed in the American sample, but not in the foreign sample. This is probably due to the fact that the foreign students with their lack of knowledge, relatively, relied more on projection in their judgments.

It is interesting to compare these findings with those of Bronfenbrenner, et al (1958). Their study was different in ways, but the findings regarding similarity and accuracy are comparable. The relationship between assumed similarity and stereotype accuracy presents a large difference, both in the American and foreign student samples. Bronfenbrenner found a correlation here of .33, while correlations of .81 and .84 for American and foreign students, respectively, were obtained in this study. The judging situation in this study as done with less experiential referents, i.e., non-reference groups, permits assumed similarity to play a larger part in the accuracy score. The other comparisons are very comparable or similar, lending support to the hypothesis and to

Bronfenbrenner's contention that the typical judge seems to know he is typical, the atypical judge seems to know he is not typical. So, consistent with Bronfenbrenner's findings it seems that assumed similarity does not operate indiscriminately. In one case similarity is assumed and is correct, or dissimilarity is assumed and is correct. In either case something above assumed similarity is operating to cause the accuracy, probably knowledge. The judge must have knowledge or experiential referents to know he is typical or atypical.

Favorableness and similarity, as stated, were also confirmed with a positive relationship shown. The less knowledge of a group we have, the more liking is assumed to operate to influence assumed similarity. The correlations of .28 and .24 for the American and foreign samples supports the positive relationship proposed. On the basis of these findings it seems probable that favorableness is a determinant of assumed similarity. No significant relationships were found with actual similarity, which would be as expected. These results agree with the findings of Bronfenbrenner and Fiedler (1953).

Stereotype Accuracy and Personality

The results of the relationships between stereotype accuracy and personality scales presents a picture, but a weak and at times conflicting picture. It both agrees and disagrees

with previous research. Four traits were hypothesized as positively related to stereotype accuracy: self-confidence, lack of inhibition, social extroversion, and lacking in tact. These traits are those Bronfenbrenner found related to accuracy. Results in this study were supportive only of the social extrovert trait. The accurate judge was found to lack self-confidence, was not tactless, and while no results directly applied to inhibition it would appear from other traits the judge was inhibited.

As measured by these personality scales the accurate judge also lacks ambition and is a conformist. These were the only two significant correlations obtained. Suggestions were also obtained that the accurate judge has somewhat narrow interests and lacks self-insight. This last trait, self-insight, is in conflict with the major finding of Dymond (1950), who found high self-insight a major determinant or correlate of accuracy, but when accuracy was measured indirectly.

The picture found in this study is somewhat different than that found by Bronfenbrenner. In both studies though, the relationships found were weak, and many merely indications, and not statistical evidence. The difference might be due to the difference in judgments performed, reference groups versus non-reference groups, or that Bronfenbrenner's subjects used an adjective check-list, subjects in this study did not.

An interesting and highly speculative conjecture concerning the many studies that have found psychologists to be

no better as judges than other groups might be made. The personality picture displayed here certainly does not fit what comes to mind as the stereotype of the average psychologist. Here we find a person with narrow interests, lack of ambition, a conformist, with a lack of self-confidence. This does not fit psychologists in general.

Attitude Score and Length of Time to Remain in the United States

As mentioned earlier, no significant relationships were found between accuracy and length of time in the United States. Mere presence in the United States seems to bear no relationship to judgment accuracy. Length of time to remain in the United States also did not correlate negatively with attitude scores. This is in conflict with the study by Lysgaard (1955) that demonstrated a "U" curve of adjustment. The actual correlation was .02, which is indicative of no correlation. More indicative, but statistically insignificant, is the correlation of .10 between time in the United States and the attitude scale. This suggests to a very weak degree, that these foreign students became more favorable with time, but it is impossible to determine more meaningful relationships. This might be due to weaknesses in the attitude scale or to differences in the manner in which the time variable was divided by Lysgaard and in the present study for correlation. The above correlation of .10 could also be indicative of the

latter part of the "U" curve, rather than in conflict with Lysgaard's findings.

Attitude and Geographic Origin

Significant relationships were found between attitude score and geographic origin and between stereotype accuracy score and geographic origin. F test values were significant beyond the .01 level. Individual comparisons on the attitude scores were made, only one being significant, that between the high and low groups, Canada and South and Latin America, respectively.

Possibly the major reason lack of significant results were obtained on the individual comparisons and the lack of correspondence with Terdal's (1961) work is due to the heterogeneity of the groups compared in this study. The group which is denoted as Near East and Africa included seven different countries, each of which could possibly be expected to differ in their attitudes. This could cause each group to cluster about the mean in a sort of pooling effect thus leading to weaker results than those obtained.

A correlation of .17 failed to support a positive relationship between attitude score and total stereotype accuracy on a geographic breakdown. Significant differences were found in the accuracy score when compared by geographic origin, but these differences failed to relate to the differences in the accuracy scores. The limited number of groups (six)

could well be revealing any relationship that might exist. Heterogeneity of the groups or weaknesses of the attitude scale might also contribute to the low correlation obtained.

Implications and Future Research

Many possible avenues of future research are quite evident in the shortcomings of the present study. One of the more important to psychology would be further investigation of the relation between stereotype accuracy and individual accuracy. Knowledge of the relationships therein could well shape the form of training, type of training, importance of reference groups, et cetera.

Better measures of contact or experiential reference are needed for foreign students. The results of the present study point to different relationships for the foreign students. It might be well to know more about the above variables. In line with this a more powerful measure of attitude could be attempted to check the possible existence of Lysgaard's curve and the effect of favorableness on accuracy scores and similarity. Following from this line of thought further breakdowns of foreign students should be made by more exact geographic origin and possibly other dimensions such as major course studied.

Training is another important aspect of stereotype accuracy. More needs to be done in this area. Possibly we

should train in the use of the stereotype, especially with a lack of cues or knowledge of the individual.

Another important variable, lacking in this study, which needs research, is leadership. Many studies have indicated a positive relationship, but the whys and wherefores of these relationships remain to be seen.

Research is also needed to follow up Cronbach's design, such as Zavala (1960) did, but finishing the model and carrying out the analysis. This might shed valuable light on the basis for judgments, the number of dimensions, or show more fully how dependent judgmental accuracy is on the situation or test.

SUMMARY AND CONCLUSIONS

A test of stereotype accuracy was devised from data from E. K. Strong. Four subscales were developed: Knowledge of Men, Women, Age Differences, and Sex Differences. Reliabilities ranged from .23 to .69 for the American sample with comparable coefficients for the foreign student sample. A test measuring stereotype of the average psychologists was also developed, reliability = .73. Little evidence was found for generality of ability, with the foreign students exhibiting a small measure of generality.

Following are the seven hypotheses and conclusions regarding them:

1. Stereotype accuracy is positively related to individual accuracy: Limited support was obtained for this hypothesis, with the significant relationships confined to Interests of Psychologists scale and Knowledge of Women scale.

2. Stereotype accuracy is positively related to experience: The hypothesis that the more knowledge a person has about a group, the more accurate he is in judging the

group, was confirmed within the limitations of this study. Mean comparisons of American and foreign students were all significant at the .01 level.

3. Stereotype accuracy is positively related to favorableness of attitude: Limited support received for the hypothesis. It is expected the correlations were lowered due to a somewhat unreliable attitude scale. Foreign students were more affected by favorableness than American students though and projected more which supports the hypothesis.

4. Stereotype accuracy is positively related to similarity: Results were in support; positive relationships were found among assumed similarity, actual similarity, and accuracy, and a negative relationship between assumed similarity and projection.

5. Stereotype accuracy is positively related to the following traits: self-confidence, lack of inhibition, social extrovert, and lacking of tact. These traits agree with the findings of Bronfenbrenner, et al (1958). Only social extrovert was supported in this study, the other traits presenting negative relationships with stereotype accuracy. The accurate judge was also found to be lacking in ambition and to be a conformist. Results were based on correlations and item analysis, but were weak and often insignificant statistically, so no firm conclusions can be drawn.

6. Length of time to remain in the United States should correlate negatively with attitude scores: This is

an attempted replication of Lysgaard's (1955) "U" curve of adjustment. Results were completely unsupportive.

7. Attitude score is related to geographic origin of foreign students; Significant results were obtained in an attempt to show differences in attitude scores depending on the geographic origin of the foreign student. Differences were also found in the accuracy score when compared by geographic origin, but these differences were not reflected in the differences of the attitude score as the obtained correlation of .17 would indicate.

It is felt that this is an important area of research and much more needs to be done. Shortcomings of the present study were pointed out.

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APPENDIX A

LIKES AND DISLIKES

DIRECTIONS: Three interests are listed opposite each question below. In the first part, you are to pick the one of the three that you like or would like more than the other two. For example, in the first question, if you would like being a "manufacturer" more than being a "floorwalker" or an "undertaker", mark "2" opposite question one on the separate answer sheet.

1. (1) floorwalker (2) manufacturer (3) undertaker
2. (1) pet monkeys (2) geography (3) military drill
3. (1) civil service employee (2) carpenter (3) psychology
4. (1) literature (2) botany (3) shop work
5. (1) bookkeeping (2) geology (3) physiology
6. (1) agriculture (2) typewriting (3) chemistry
7. (1) performing sleight-of-hand tricks (2) educational movies
(3) full-dress affairs
8. (1) bargaining (swapping) (2) taking responsibility (3) drilling
soldiers
9. (1) being pitted against another as in a political or athletic race
(2) meeting and directing people (3) teaching children
10. (1) spendthrifts (2) cripples (3) conservative people
11. (1) people who chew gum (2) people who have made fortunes in
business (3) blind people
12. (1) J. J. Pershing, soldier (2) opportunity to make use of all one's
knowledge and experience (3) secretary of a social club
13. (1) opportunity for promotion (2) chairman, Education committee
(3) freedom in working out one's own methods of doing work
14. (1) head waiter (2) lighthouse tender (3) emphasis on quality of work
15. (1) mental activity (2) taking a chance (3) outside work

DISLIKES

Pick the one of the three that you would dislike more than the other two.

17. (1) factory manager (2) undertaker (3) geometry
18. (1) physician (2) life insurance salesman (3) economics
19. (1) thrifty people (2) history (3) music teacher
20. (1) magazine writer (2) chemist (3) auctioneer
21. (1) school teacher (2) watchmaker (3) governor of a state
22. (1) floorwalker (2) stock broker (3) reporter, general
23. (1) editor (2) railway conductor (3) surgeon
24. (1) author (2) store manager (3) pharmacist
25. (1) college professor (2) civil service employee (3) private
secretary
26. (1) auto salesman (2) interior decorator (3) scientific research
worker
27. (1) printer (2) wholesaler (3) astronomer
28. (1) smokers (2) snakes (3) collecting postage stamps
29. (1) making a radio set (2) pet monkeys (3) "Atlantic Monthly"
30. (1) repairing a clock (2) acting as a yell leader (3) giving first
aid assistance
31. (1) interviewing men for a job (2) opening conversation with a
stranger (3) looking at a collection of rare laces

(over)

32. (1) doing research work (2) climbing along edge of a precipice
(3) looking at shop windows
33. (1) talkative people (2) people who talk very loudly (3) socialists
34. (1) sick people (2) irreligious people (3) side show freaks
35. (1) very old people (2) people who don't believe in evolution
(3) men who use perfume
36. (1) blind people (2) quick tempered people (3) foreigners
37. (1) people who always agree with you (2) sick people
(3) people with gold teeth
38. (1) people easily led (2) people who assume leadership (3) deaf mutes
39. (1) people who get rattled easily (2) people with protruding jaws
(3) people with hooked noses
40. (1) fashionably dressed people (2) nervous people (3) emotional
people
41. (1) Enrice Caruso, singer (2) Chairman, arrangement committee
(3) certainty one's work will be judged by fair standards
42. (1) interest the public in a machine through public addresses
(2) steadiness and permanence of work (3) chairman, program committee

SELF-RATINGS

Pick the one of the three statements that you think is most like you.

43. (1) practically never make excuses (2) get "rattled" easily
(3) follow up subordinates effectively
44. (1) am approachable (2) lose my temper at times (3) usually
ignore the feelings of others
45. (1) feelings rarely hurt (2) am inclined to keep silent (reticent)
in confidential affairs (3) borrow occasionally
46. (1) worry very little (2) win confidence and loyalty (3) when
caught in a mistake usually make excuses
47. (1) frequently make wagers (2) accept just criticism without getting
sore (3) handle complaints without getting irritated
48. (1) tell jokes well (2) discuss my ideal with others (3) best-liked
friends are superior to me in ability
49. (1) feelings easily hurt (2) borrow frequently (for personal use)
(3) usually get other people to do what I want done
50. (1) get "rattled" easily (2) worry considerably about mistakes
(3) can correct others without giving offense
51. (1) win friends easily (2) practically never make excuses
(3) frequently make wagers
52. (1) carry out instructions with little or no feeling (2) plan my work
in detail (3) lose my temper at times
53. (1) am always on time with my work (2) loan money to acquaintances
(3) have mechanical ingenuity (inventiveness)
54. (1) am quite sure of myself (2) practically never tell jokes
(3) remember names, faces, and incidents better than the average person
55. (1) stimulate the ambition of my associates (2) put drive into the
organization (3) best-liked friends are superior to me in ability
56. (1) feelings easily hurt (2) feelings hurt sometimes (3) feelings
rarely hurt
57. (1) tell jokes well (2) seldom tell jokes (3) practically never
tell jokes
58. (1) loan money to acquaintances (2) loan only to certain people
(3) rarely loan money
59. (1) usually ignore the feelings of others (2) consider them sometimes
(3) carefully consider them
60. (1) when caught in a mistake usually make excuses (2) seldom make
excuses (3) practically never make excuses

(over)

KNOWLEDGE OF PEOPLE TEST

This is a test of your knowledge of the likes and dislikes of groups of people. It has four subtests: (1) the likes and dislikes of men; (2) the differences in the likes and dislikes of men and women; (3) the likes and dislikes of women; and (4) the differences in the likes and dislikes of young and old men.

1. KNOWLEDGE OF MEN

A large group of American business and professional men checked whether they would "like" or "dislike" each of many different occupations, amusement activities, and kinds of people. They also answered statements about what kind of persons they thought they were.

Likes of Men

Three interests are listed opposite each question below. Only one of the three was liked by more than half of the men. Mark on the separate answer sheet the one that you think was liked by more than 50% of the men.

EXAMPLE: (1) travel movies (2) cashier in a bank (3) people who borrow things

It was found out that 80% of the business and professional men said they liked "travel movies"; 20%, "cashier"; and 2%, "people who borrow things". Therefore, "travel movies" is the correct answer. You are to try to pick the interest that you think was reported liked by the majority of men.

61. (1) floorwalker (2) manufacturer (3) undertaker
62. (1) pet monkeys (2) geography (3) military drill
63. (1) civil service employee (2) carpenter (3) psychology
64. (1) literature (2) botany (3) shop work
65. (1) bookkeeping (2) geology (3) physiology
66. (1) agriculture (2) typewriting (3) chemistry
67. (1) performing sleight-of-hand tricks (2) educational movies
(3) full-dress affairs
68. (1) bargaining (swapping) (2) taking responsibility (3) drilling
soldiers
69. (1) being pitted against another as in a political or athletic race
(2) meeting and directing people (3) teaching children
70. (1) spendthrifts (2) cripples (3) conservative people
71. (1) people who chew gum (2) people who have made fortunes in business
(3) blind people
72. (1) J. J. Pershing, soldier (2) opportunity to make use of all one's
knowledge and experience (3) secretary of a social club
73. (1) opportunity for promotion (2) chairman, Education committee
(3) freedom in working out one's own methods of doing work
74. (1) head waiter (2) lighthouse tender (3) emphasis on quality of work
75. (1) mental activity (2) taking a chance (3) work for yourself
76. (1) thin men (2) telling a story (3) outside work

(over)

Dislikes of Men

Only one interest in each group below was actively disliked by more than half of the men. Mark the one that you think that over 50% of the men said they disliked.

77. (1) factory manager (2) undertaker (3) geometry
78. (1) physician (2) life insurance salesman (3) economics
79. (1) thrifty people (2) history (3) music teacher
80. (1) magazine writer (2) chemist (3) auctioneer
81. (1) school teacher (2) watchmaker (3) governor of a state
82. (1) floorwalker (2) stock broker (3) reporter, general
83. (1) editor (2) railway conductor (3) surgeon
84. (1) author (2) store manager (3) pharmacist
85. (1) college professor (2) civil service employee (3) private secretary
86. (1) auto salesman (2) interior decorator (3) scientific research worker
87. (1) printer (2) wholesaler (3) astronomer
88. (1) smokers (2) snakes (3) collecting postage stamps
89. (1) making a radio set (2) pet monkeys (3) "Atlantic Monthly"
90. (1) repairing a clock (2) acting as a yell leader (3) giving first aid assistance
91. (1) interviewing men for a job (2) opening conversation with a stranger (3) looking at a collection of rare laces
92. (1) doing research work (2) climbing along edge of a precipice (3) looking at shop windows
93. (1) talkative people (2) people who talk very loudly (3) socialists
94. (1) sick people (2) irreligious people (3) side show freaks
95. (1) very old people (2) people who don't believe in evolution (3) men who use perfume
96. (1) blind people (2) quick tempered people (3) foreigners
97. (1) people who always agree with you (2) sick people (3) people with gold teeth
98. (1) people easily led (2) people who assume leadership (3) deaf mutes
99. (1) people who get rattled (2) people with protruding jaws (3) people with hooked noses
100. (1) fashionably dressed people (2) nervous people (3) emotional people
101. (1) Enrico Caruso, singer (2) chairman, arrangement committee (3) certainty one's work will be judged by fair standards
102. (1) interest the public in a machine through public addresses (2) steadiness and permanence of work (3) chairman, program committee

(over)

Self-Ratings of Men

The men also answered statements about what kind of persons they thought they were. For example, 75% of the men said "yes" when asked whether they could "accept just criticism without getting sore". Only 3%, however, said that they "borrow frequently". Mark the one statement in each group below that you think was answered "yes" by more than half of the men.

- 103. (1) practically never make excuses (2) get "rattled" easily
(3) follow up subordinates effectively
- 104. (1) am approachable (2) lose my temper at times (3) usually ignore
the feelings of others.
- 105. (1) feelings rarely hurt (2) am inclined to keep silent (reticent)
in confidential affairs (3) borrow occasionally
- 106. (1) worry very little (2) win confidence and loyalty (3) when
caught in a mistake usually make excuses
- 107. (1) frequently make wagers (2) accept just criticism without
getting sore (3) handle complaints without getting irritated
- 108. (1) tell jokes well (2) discuss my ideal with others (3) best-
liked friends are superior to me in ability
- 109. (1) feelings easily hurt (2) borrow frequently (for personal use)
(3) usually get other people to do what I want done
- 110. (1) get "rattled" easily (2) worry considerably about mistakes
(3) can correct others without giving offense
- 111. (1) win friends easily (2) practically never make excuses
(3) frequently make wagers
- 112. (1) carry out instructions with little or no feeling (2) plan my
work in detail (3) lose my temper at times
- 113. (1) am always on time with my work (2) loan money to acquaintances
(3) have mechanical ingenuity (inventiveness)
- 114. (1) am quite sure of myself (2) practically never tell jokes
(3) remember names, faces, and incidents better than the average person
- 115. (1) stimulate the ambition of my associates (2) put drive into the
organization (3) best-liked friends are superior to me in ability
- 116. (1) feelings easily hurt (2) feelings hurt sometimes (3) feelings
rarely hurt
- 117. (1) tell jokes well (2) seldom tell jokes (3) practically never
tell jokes
- 118. (1) loan money to acquaintances (2) loan only to certain people
(3) rarely loan money
- 119. (1) usually ignore the feelings of others (2) consider them
sometimes (3) carefully consider them
- 120. (1) when caught in a mistake usually make excuses (2) seldom make
excuses (3) practically never make excuses

(over)

2. KNOWLEDGE OF THE DIFFERENCES BETWEEN MEN AND WOMEN

Mark for each of the interests below whether you think more men or more women said they liked it. Answer "1" if you think more men reported liking it; "2", if you think more women reported liking it.

EXAMPLE: A. mechanical engineer
B. librarian

The correct answer for A is "1" because more men reported ~~a~~ liking for being a mechanical engineer: 34% for men, 13% for women. The correct answer for B is "2" because more women reported a liking for being a librarian: 42% for women, 13% for men.

- 121. musician
- 122. draftsman
- 123. author of a technical book
- 124. athletic director
- 125. magazine writer
- 126. interpreter
- 127. foreign correspondent
- 128. artist
- 129. author of a novel
- 130. detective stories
- 131. operating machinery
- 132. buyer of merchandise
- 133. symphony concerts
- 134. musical comedy
- 135. people who are natural leaders
- 136. people who have made fortunes in business
- 137. organizing a play
- 138. entertaining others
- 139. displaying merchandise in a store
- 140. opening conversation with a stranger
- 141. treasurer of a society
- 142. am quite sure of myself
- 143. giving "first-aid" assistance
- 144. foreigners
- 145. have mechanical inventiveness
- 146. occasionally make bets
- 147. tell jokes well
- 148. ancient languages
- 149. literature
- 150. sociology

(over)

3. KNOWLEDGE OF WOMEN

As in the case of the men, over four thousand women checked whether they would "like" or "dislike" each of many different occupations, amusements, activities, and kinds of people.

Likes of Women

Three interests are listed opposite each question below. Only one of the three was liked by more than half of the women. Mark on the separate answer sheet the one that you think was liked by more than 50% of the women.

EXAMPLE: (1) interior decorator; (2) mechanical engineer; (3) cheer leader

It was found that 65% of the women said they would like being an "interior decorator"; 13%, "mechanical engineer"; and 1%, "cheer leader". Therefore, "interior decorator" is the correct answer. You are to try to pick the interest that you think was reported liked by the majority of women.

- 151. (1) wife (2) office manager (3) music composer
- 152. (1) school principal (2) retailer (3) costume designer
- 153. (1) probations officer (2) dancing teacher (3) vocational counselor
- 154. (1) confectioner (2) buyer of merchandise (3) postmistress
- 155. (1) movie magazines (2) amusement parks (3) romantic stories
- 156. (1) aviatrix (2) golf (3) picnics
- 157. (1) solving mechanical puzzles (2) plays (3) cashier
- 158. (1) "Reader's Digest" (2) conventions (3) poker
- 159. (1) dancing (2) detective stories (3) financial pages
- 160. (1) interviewing clients (2) decorating a room with flowers
(3) opening conversation with a stranger
- 161. (1) organizing a play (2) arguments (3) looking at shop windows
- 162. (1) discussing politics (2) entertaining others (3) buying at an
auction sale
- 163. (1) attending church (2) doing research work (3) making a speech
- 164. (1) negroes (2) emotional people (3) people who are natural leaders
- 165. (1) people with physical disabilities (2) supervising the furnishing
of a house (3) athletic women
- 166. (1) self-conscious people (2) irreligious people (3) optimists
- 167. (1) methodical people (2) thrifty people (3) very old people
- 168. (1) opportunity to understand just how one's superior expect work to
be done (2) opportunity to make use of all one's knowledge and
experience (3) opportunity for promotion
- 169. (1) chairman of a publicity committee (2) permanence of residence
(3) saleswoman
- 170. (1) activities of a conservative nature (2) travel with someone who
will make the necessary preparations for you (3) be married
- 171. (1) people who are always prompt and expect others to be on time also
(2) taking a chance (3) work involving few details
- 172. (1) geology (2) public speaking (3) museums
- 173. (1) chemistry (2) swimming (3) journalism
- 174. (1) be married with small income (2) going to a play (3) order
others
- 175. (1) literature (2) public speaking (3) geology
- 176. (1) psychology (2) chemistry (3) bible study
- 177. (1) peography (2) bookkeeping (3) calculus
- 178. (1) political science (2) physics (3) sociology (over)

Dislikes of Women

Only one interest in each group below was disliked by more than half of the women. Mark on the separate answer sheet the one that you think was disliked by more than 50% of the women.

179. (1) factory worker (2) athletic director (3) physician
180. (1) milliner (2) life insurance salesman (3) judge
181. (1) waitress (2) psychiatrist (3) radio lecturer
182. (1) manufacturer (2) travelling saleswoman (3) illustrator
183. (1) manager, women's style shop (2) naturalist (3) dentist
184. (1) governess (2) stock broker (3) caterer
185. (1) laboratory technician (2) telephone operator (3) social worker
186. (1) public health nurse (2) criminal lawyer (3) opera singer
187. (1) art teacher (2) surgeon (3) bank teller
188. (1) Y.W.C.A. secretary (2) tea room proprietor (3) bookkeeper
189. (1) author of a novel (2) accountant (3) graduate general nurse
190. (1) illustrator (2) typist (3) interpreter
191. (1) statistician (2) secret service woman (3) social worker
192. (1) stage actress (2) mechanical engineer (3) editor
193. (1) movie actress (2) bacteriologist (3) companion to elderly person
194. (1) dean of women (2) proof reader (3) kindergarten teacher
195. (1) "Good Housekeeping" magazine (2) afternoon teas (3) "True Story" magazine
196. (1) manly women (2) negroes (3) methodical people
197. (1) men who are indifferent to you (2) people with physical disabilities (3) people who borrow things
198. (1) men who drink (2) women who smoke (3) people who talk about themselves
199. (1) carelessly dressed people (2) socialists (3) independents in politics
200. (1) absent-minded people (2) fashionably dressed people (3) people who assume leadership
201. (1) writing personal letters (2) looking at a collection of rare lace (3) interest the public in building their own homes through public addresses

(over)

Self-Ratings of Women

The women also answered statements about what kind of persons they thought they were. For example, 90% said "yes" when asked whether they could carry out plans assigned by other people. Only 21%, however, said feelings are easily hurt. Mark the one statement in each group below that you think was answered "yes" by more than half of the women.

202. (1) can discriminate between more or less important matters
(2) remember faces and incidents better than the average person
(3) can correct others without giving offense
203. (1) usually liven up the group on a dull day (2) loan money to acquaintances (3) win confidence and loyalty
204. (1) borrow frequently (2) borrow occasionally (3) practically never borrow
205. (1) rarely loan money (2) win friends easily (3) usually start activities of my group
206. (1) worry considerably about mistakes (2) worry very little
(3) do not worry
207. (1) frequently make bets (2) occasionally make bets (3) practically never make bets
208. (1) feelings easily hurt (2) feelings hurt sometimes (3) feelings rarely hurt
209. (1) have mechanical ingenuity (2) can write a well-organized report (3) able to meet emergencies quickly and effectively
210. (1) tell jokes well (2) smooth out tangles and disagreements between people (3) feelings easily hurt

(over)

4. KNOWLEDGE OF THE DIFFERENCES BETWEEN YOUNG AND MIDDLE-AGED MEN

A typical group of 15-year olds and 55-year olds checked whether they would like each of the following interests. Mark for each of the interests below whether you think more of the 15-year olds or more of the 55-year olds liked it. Mark "1" if you think more of the 15-year olds did; "2", if you think more of the 55-year olds did.

EXAMPLE: A. aviator

B. decorating a room with flowers

The correct answer for A is "1" because more 15-year olds reported liking it: 63% of the young men, 16% of the middle-aged men. The correct answer for B is "2" because more 55-year olds reported liking it: 40% of the middle-aged men, 8% of the 15-year old men.

211. playing baseball
212. travel movies
213. hunting
214. economics
215. fishing
216. ship's officer
217. Henry Ford
218. thrifty people
219. specialty salesman
220. marine engineer
221. auctioneer
222. statistician
223. auto repairman
224. life insurance salesman
225. locomotive engineer
226. electrical engineer
227. mechanical engineer
228. music teacher
229. operating machinery
230. athletic director
231. teaching adults
232. sociology
233. musical comedy
234. educational movies
235. physical training
236. interest the public in a machine
237. politician
238. manual training
239. handling horses
240. people who get rattled easily
241. athletic men
242. explorer
243. Thomas A. Edison
244. chauffeur (as opposed to chef)
245. definite salary (as opposed to commission)
246. saving money
247. interviewing clients
248. people who talk about themselves
249. people who talk loudly
250. preparing advertising about a machine

(over)

- 251. looking at a collection of rare laces
- 252. carelessly dressed people
- 253. pessimists
- 254. show firmness without being easy
- 255. follow up subordinates effectively
- 256. occasionally borrow money for personal use
- 257. remember names and faces better than the average person
- 258. usually start activities of my group
- 259. enter into situation and enthusiastically carry out program
- 260. tell jokes well
- 261. am approachable
- 262. can carry out plans assigned by other people
- 263. when caught in a mistake occasionally make excuses
- 264. win friends easily
- 265. usually liven up the group on a dull day
- 266. get rattled fairly easily
- 267. my advice sought by many
- 268. am quite sure of myself
- 269. usually ignore the feelings of others
- 270. can correct others without giving offense

OPINIONS TOWARD AMERICANS

Following are ten statements about America and Americans. Please read each carefully and score it according to the following scale on your answer sheet:

- 1 STRONGLY AGREE
- 2 AGREE
- 3 UNCERTAIN
- 4 DISAGREE
- 5 STRONGLY DISAGREE

Let your own experiences in America determine your response. Please mark each statement.

- 271. I think democracy as represented in the United States is an excellent system of government.
- 272. American imperialism is a direct cause of world conflict.
- 273. The American foreign policy is one of high goals and trustworthiness.
- 274. Americans are generally warm and friendly.
- 275. America should stop telling other countries about freedom when Negroes in the United States have no freedom.
- 276. Americans treat foreigners disrespectfully.
- 277. American people are the finest in the world.
- 278. Democracy has more bad points than any other type government.
- 279. Democracy and capitalism seems to foster jealousy, hatred, and greed in man.
- 280. America offers unlimited opportunity to all people.

THE SPECIAL INTERESTS OF PSYCHOLOGISTS

DIRECTIONS: How do the interests of psychologists differ from those of other men? To answer the question, several hundred male psychologists and several thousand other business and professional men checked whether they would "like" each of many different occupations, amusements, activities, and kinds of people.

A higher percentage of the psychologists liked some interests. For example, 41 percent of the psychologists said they would like to be the "author of a novel"; only 32 percent of men in general expressed such a liking. A lower percentage of the psychologists liked some interests. For example, only 29 percent of the psychologists said they would like to be a "sales manager" whereas 37 percent of men in general expressed a liking for this occupation.

Mark for each of the interests below whether you think more or less psychologists liked the interest. Mark "1" if you think a higher percentage of psychologists than men in general liked the interest; mark "2" if you think a lower percentage of psychologists liked the interest.

	ANSWER		ANSWER
1. Actor	1	31. Chess	1
2. Artist	1	32. Solving mechanical puzzles	1
3. Astronomer	1	33. Travel movies	2
4. Corporation lawyer	2	34. Fishing	2
5. Manufacturer	2	35. Making a speech	1
6. Athletic director	2	36. Teaching adults	1
7. Chemist	1	37. Taking responsibility	2
8. Cashier in bank	2	38. Doing research work	1
9. Editor	1	39. Writing reports	1
10. Foreign correspondent	1	40. Regular hours of work	2
11. Inventor	1	41. Developing business systems	2
12. Magazine writer	1	42. Saving money	2
13. Office manager	2	43. Conservative people	2
14. Orchestra conductor	1	44. Energetic people	2
15. Physician	1	45. People who are natural leaders	2
16. Poet	1	46. People who make fortunes in business.	2
17. Rancher	2	47. Thrifty people	2
18. Sculptor	1	48. Religious people	2
19. Statistician	1	49. Socialists	2
20. Surgeon	1	50. Independents in politics	2
21. Wholesaler	2	51. People who talk about themselves	2
22. Geometry	1	52. Carelessly dressed people	2
23. Algebra	1	53. Absent-minded people	2
24. Physical training	2	54. Outside work	2
25. Physiology	1	55. Physical activity	2
26. Literature	1	56. Usually drive myself steadily	2
27. Hunting	2	57. Have more than my share of novel ideas	2
28. Symphony concerts	1	58. My feelings are easily hurt	2
29. Sporting pages	2	59. My advice is sought by many	2
30. Golf	2	60. Put drive into the organization.	2

APPENDIX B

Following are the 60 items selected by item analysis from the personality scales. Figures in parentheses refer to the percentage of high and low scores, respectively, on Total Stereotype Accuracy who agreed with the statement.

1. I would rather see a good movie than read a book. (83/54)
2. I like to discuss abstract questions with my friends. (50/83)
3. I always keep my feet very solidly on the ground. (70/37)
4. I would like being an inventor. (45/83)
5. I would like being a magazine writer. (24/62)
6. I would like English composition. (16/45)
7. I like "American Magazine." (45/66)
8. I like handling horses. (41/62)
9. I like interviewing clients. (66/96)
10. I like raising money for a charity. (50/29)
11. I would like being a manufacturer. (66/96)
12. I am occasionally lacking self-confidence. (96/66)
13. I am occasionally discouraged by my own inadequacies. (96/58)
14. I sometimes lack self-confidence when I have to compete against people who are at least as good as I am. (75/41)
15. I sometimes worry over extremely humilitaing experiences. (62/29)
16. I have some feelings of inferiority. (83/58)
17. I have difficulty laughing at serious mistakes that I make. (50/29)
18. People have frequently said I was too modest. (62/16)
19. Some ideas we have about ourselves are best forgotten. (70/41)
20. I often interpret the remarks of others in a personal way. (84/33)
21. When I enter a room, I rather often feel that the eyes of others are upon me. (62/24)
22. I rather often compare myself with other people. (96/66)
23. I see life as a constant series of problems which must be solved. (40.71)
24. I set very difficult goals for myself. (32/61)
25. I would really work hard to find out why children resemble their parents in some ways, yet are different in others. (28/61)
26. I would rather read a best seller than a book of an academic nature. (80/52)
27. I am extremely systematic in caring for my personal property. (64/33)

28. I am guided in all my conduct by firm principles. (76/52)
29. I find it rather hard to keep to a rigid routine. (68/42)
30. I am very insistent on having all my written work extremely neat and well organized. (84/33)
31. I like to keep all my letters and other papers neatly arranged and filed. (96/66)
32. I keep my workplace extremely neat and very orderly. (76/52)
33. If I take a trip, I like to consider it as an adventure rather than to have everything planned in advance. (88/66)
34. I control my emotions in practically all situations. (32/71)
35. I am considered extremely "steady" by my friends rather than "excitable." (88/61)
36. I have almost cried in situations where I did not want to. (68/33)
37. I'm occasionally disorganized if I am called on suddenly to make a few remarks. (76/52)
38. I enjoy it immensely when I am left alone with my own thoughts. (28/61)
39. I hate to eat alone. (68/33)
40. I would dislike intensely any work which would take me into isolation for weeks at a time. (80/57)
41. I always prefer to work with others. (76/52)
42. I always like to be with people rather than alone. (64/42)
43. I frequently enjoy making things more than being with people. (36/66)
44. I am inclined to limit my friends to a few. (32/57)
45. I enjoy eating alone occasionally. (44/66)
46. I am unhappy if I am alone for very long. (64/38)
47. I would rather live alone than have a not too congenial roommate. (80/57)
48. I am as helpful as possible with everyone I meet. (80/42)
49. When a friend of mine does something that bothers me, I tell him about it. (64/42)
50. I generally try to get things done the way I think is right even when it is an inconvenience to others. (44/71)
51. I ignore the personal feelings of other people when it is necessary. (48/71)
52. I generally criticize my acquaintances when I disapprove of their behavior. (28/52)
53. I treat a domineering person in the same way he treats me. (36/57)

54. I have always been very close to my parents. (60/33)
55. I assert myself with energy on almost any occasion. (48/71)
56. If a student in class discussion makes a statement that I think is erroneous, I frequently question it. (24/52)
57. Before I do something I am apt to consider whether my friends will blame me for it. (88/57)
58. I take pains not to incur the disapproval of others. (84/33)
59. The trouble with many people is that they don't take things seriously enough. (80/52)
60. Science should have as much to say about moral values as religion does. (72/38)

APPENDIX C

CORRELATIONS

	1	2	3	4	5	6	7	8	9	10
American Students: Males (N=101)										
1	.....									
2	+144	.....								
3	+303	-068	.....							
4	-030	+083	-009	.....						
5	+091	+190	+296	+223	.....					
6	+038	+240	-052	+015	-025	.....				
7	+254	+152	+718	+363	+660	+370	.....			
8	+688	+041	+810	+076	+315	-064	+629	.....		
9	-461	+033	-317	+103	-025	-084	-228	-217	.....	
10	+093	+020	+119	+115	+240	-031	+199	+267	+200	.....

American Students: Females (N=9)										
1	.....									
2	-075	.....								
3	+299	-603	.....							
4	-155	-314	-066	.....						
5	+559	+221	+362	+066	.....					
6	+305	+454	+143	+028	+776	.....				
7	+470	-070	+703	+077	+872	+767	.....			
8	+500	-377	+922	-119	+505	+311	+779	.....		
9	-519	+589	-415	-315	-489	-137	-472	-324	.....	
10	-157	-510	+198	+237	-258	-670	-248	+060	-145	.....

American Students: Total (N=111)										
1	.....									
2	+141	.....								
3	+298	-108	.....							
4	-033	+064	-013	.....						
5	+102	+167	+287	+210	.....					
6	+062	+284	-004	+010	+059	.....				
7	+259	+132	+716	+328	+672	+442	.....			
8	+676	+032	+817	+065	+303	+008	+638	.....		
9	-435	+108	-304	+078	-104	-047	-241	-192	.....	
10	+078	-030	+122	+119	+192	-115	+138	+240	+154	.....

Variables for the above:

1. Actual Similarity

2. Interests of Psychologists

3. Knowledge of Men

4. Knowledge of Sex Difference

5. Knowledge of Women

6. Knowledge of Age Difference

7. Total Knowledge of People Test

8. Assumed Similarity

9. Projection

10. Attitude

CORRELATIONS

	1	2	3	4	5	6	7	8	9	10	11
Foreign Students: Males (N=86)											
1	....										
2	+085	....									
3	+523	+085	....								
4	+259	+022	+172	....							
5	+287	+030	+464	+344	....						
6	+363	+058	+359	+149	+417	....					
7	+513	+073	+757	+467	+822	+715	....				
8	+741	+196	+842	+186	+384	+326	+652	....			
9	-147	+177	+030	+039	+163	+158	+145	+004	....		
10	+100	+166	+214	+119	+193	+150	+245	+177	+423	....	
11	+013	+139	+070	+093	+070	-163	+015	+051	+163	+101	....

Foreign Students: Females (N=5)											
1	....										
2	-214	....									
3	+415	-517	....								
4	-269	+195	+479	....							
5	+113	+869	-043	+410	....						
6	+282	-702	+707	+428	-429	....					
7	+298	-239	+913	+766	+213	+711	....				
8	+711	-493	+912	+325	-015	+759	+847	....			
9	-817	-000	-421	+279	-341	+111	-243	-542	....		
10	-382	-009	-589	-737	-348	-684	-829	-713	+089	....	
11	+810	-682	+600	-384	-364	+432	+298	+735	-713	-101	....
12	+100	+081	+371	+798	+279	+649	+684	+469	+248	-939	-183

Foreign Students: Total (N=91)											
1	....										
2	+075	....									
3	+516	+072	....								
4	+223	+006	+171	....							
5	+275	+030	+438	+357	....						
6	+353	+037	+360	+173	+412	....					
7	+496	+057	+751	+485	+812	+718	....				
8	+737	+180	+847	+175	+361	+329	+647	....			
9	-156	+179	+025	+030	+153	+150	+134	-001	....		
10	+086	+164	+194	+100	+186	+138	+226	+155	+420	....	
11	+032	+143	+086	+051	+049	-169	+003	+072	+168	+099	....
12	+050	-149	-024	+187	+152	+192	+163	-074	-105	+017	-086

Variables for the above:

1. Actual Similarity

2. Age

3. Knowledge of Men

4. Knowledge of Sex Difference

5. Knowledge of Women

6. Knowledge of Age Difference

7. Total Knowledge of People Test

8. Assumed Similarity

9. Projection

10. Attitude

11. Number of Months in the U.S.

12. No. of Months to remain in U.S.

MEANS AND STANDARD DEVIATIONS

Variables	Males		Females		Total Sample	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
American Students						
Actual Similarity	37.8	4.43	36.9	2.08	37.7	4.3
Int. of Psych.	76.5	7.75	72.3	7.6	76.2	7.82
Knowl. of Men	38.7	5.21	37.0	6.78	38.6	5.38
Knowl. of Sex. D.	22.9	2.32	23.1	0.99	23.0	2.24
Knowl. of Women	42.2	3.59	44.2	4.71	42.3	3.74
Knowl. of Age. D.	42.6	3.58	39.7	5.38	42.4	3.84
Total	146.3	8.4	144.0	13.07	146.1	8.9
Assumed Similarity	28.7	5.83	25.7	5.31	28.5	5.85
Projection	9.1	3.11	6.9	3.51	8.9	3.21
Attitude	34.8	4.77	35.7	4.88	34.8	4.78
Foreign Students						
Actual Similarity	32.9	6.5	32.6	7.71	32.9	6.57
Age	22.5	2.87	21.4	1.36	22.5	2.82
Knowl. of Men	29.6	6.93	28.0	7.13	29.5	6.95
Knowl. of Sex D.	20.4	3.53	23.6	2.87	20.6	3.57
Knowl. of Women	34.6	7.22	38.0	3.22	34.7	7.11
Knowl. of Age D.	36.7	6.46	39.6	3.61	36.8	6.38
Total	121.2	17.47	129.2	1.2	121.7	17.3
Assumed Similarity	19.6	8.19	17.4	8.31	19.5	8.22
Projection	13.0	13.94	10.0	4.0	12.8	13.65
Attitude	34.7	8.68	34.6	3.38	34.7	8.47
Months in U.S.	26.9	18.66	14.6	6.31	26.2	18.41
Months to remain in U.S.	32.2	24.2	19.8	18.92	31.6	24.11

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JAN 24 1963

APR 22 1963

MAY 15 1963

MAY 27 1963

JUN 8 1963

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