THE EFFECT OF HETEROGENEOUS SCHOOL POPULATIONS ON THE
INTERCULTURAL ATTITUDES OF SIXTH-GRADE PUPILS IN TUCSON

by

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. HISTORICAL DEVELOPMENT OF THE CONCEPT</td>
<td>1</td>
</tr>
<tr>
<td>Development</td>
<td>2</td>
</tr>
<tr>
<td>Definition</td>
<td>6</td>
</tr>
<tr>
<td>Stereotypes</td>
<td>11</td>
</tr>
<tr>
<td>Specificity and Generality</td>
<td>19</td>
</tr>
<tr>
<td>Genesis</td>
<td>24</td>
</tr>
<tr>
<td>II. MEASUREMENT</td>
<td>32</td>
</tr>
<tr>
<td>III. AN INTERCULTURAL ATTITUDE INSTRUMENT</td>
<td>44</td>
</tr>
<tr>
<td>Statement of Problem</td>
<td>44</td>
</tr>
<tr>
<td>Pre-Experimental Instrument</td>
<td>47</td>
</tr>
<tr>
<td>Revision</td>
<td>52</td>
</tr>
<tr>
<td>Experimental Instrument</td>
<td>58</td>
</tr>
<tr>
<td>Cooperating Schools</td>
<td>65</td>
</tr>
<tr>
<td>Presentation</td>
<td>65</td>
</tr>
<tr>
<td>Scoring</td>
<td>67</td>
</tr>
<tr>
<td>IV. RESULTS FROM INSTRUMENT</td>
<td>70</td>
</tr>
<tr>
<td>V. SUMMARY</td>
<td>80</td>
</tr>
<tr>
<td>Discussion</td>
<td>80</td>
</tr>
<tr>
<td>Conclusion</td>
<td>86</td>
</tr>
<tr>
<td>Recommendations</td>
<td>87</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>89</td>
</tr>
<tr>
<td>Attitudes and Their Measurement</td>
<td>89</td>
</tr>
<tr>
<td>Instruments</td>
<td>99</td>
</tr>
<tr>
<td>Race and Culture</td>
<td>100</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>102</td>
</tr>
<tr>
<td>Number</td>
<td>Tables</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>I.</td>
<td>ATTITUDE RETURNS ACCORDING TO COMPOSITION OF POPULATION</td>
</tr>
<tr>
<td>II.</td>
<td>ADJUSTMENT FACTOR RETURNS ACCORDING TO COMPOSITION OF POPULATION</td>
</tr>
<tr>
<td>III.</td>
<td>SUPPLEMENTARY MATERIAL RETURNS ACCORDING TO COMPOSITION OF POPULATION</td>
</tr>
<tr>
<td>IV.</td>
<td>FURTHER SUPPLEMENTARY MATERIAL ACCORDING TO COMPOSITION OF POPULATION</td>
</tr>
<tr>
<td>V.</td>
<td>SIGNIFICANT CRITICAL RATIOS BETWEEN HOMOGENEOUS AND HETEROGENEOUS GROUPS</td>
</tr>
<tr>
<td>VI.</td>
<td>COEFFICIENTS OF CORRELATION BETWEEN SIGNIFICANTLY DIFFERENT ADJUSTMENT FACTORS AND &quot;OTHER&quot; ATTITUDE SCORES</td>
</tr>
<tr>
<td>VII.</td>
<td>COEFFICIENTS OF CORRELATION BETWEEN &quot;OTHER&quot; ATTITUDE AND EACH FIELD</td>
</tr>
<tr>
<td>VIII.</td>
<td>COEFFICIENTS OF CORRELATION BETWEEN &quot;OTHER&quot; ATTITUDE AND ATTITUDES</td>
</tr>
<tr>
<td>IX.</td>
<td>BI-SERIAL CORRELATIONS BETWEEN &quot;OTHER&quot; ATTITUDE AND CERTAIN INFORMATION</td>
</tr>
</tbody>
</table>
CHAPTER I

HISTORICAL DEVELOPMENT OF THE CONCEPT OF ATTITUDE

"American Social Psychologists and Sociologists have recently produced a voluminous literature concerning what they call social attitudes. The term is used to cover a multitude of facts of many kinds, including almost every variety of opinion and belief and all the abstract qualities of personality, such as courage, obstinacy, generosity and humility, as well as the units of affective organization which are here called 'sentiments.' I cannot see how progress in social psychology can be made without a more discriminat-
ing terminology."1

This opinion of William McDougall is concurred in by R. Bain and P. M. Symonds.

On the other hand, E. Faris has taken the opposite side in the discussion. He says,

"The question of definition and the incon-
sistency in the use of the word attitude is . . . .
. . . more a matter of lexicography than of science. A word means what men mean by it, and most diction-
aries patiently record all the uses of the words in the language. It is also a matter of common knowledge that other words are used instead of the word 'attitude' to denote the same thing, e.g., tendency, predisposition and habit. To the tyro this is confusing; but if we think denotatively, we cannot go far astray. Even the word 'attitude' could be abandoned and a meaningless symbol substituted without loss. We could speak of the element X which is left as a residue of a former action and predisposes to a future act or type of acts."2

The concept of attitudes, it may be seen, has become a factotum for both psychologists and sociologists. The reason for this is twofold. In the first place, the term is elastic enough to apply either to the disposition of isolated individuals or to broad patterns of culture. Secondly, since the word attitude derives from the Latin aptus and connotes fitness either by a mental state of readiness or by a visible posture, it is recognized as mental attitude in mentalistic psychology and as motor attitude by response psychology. Thus the study of attitudes offers a meeting place for all students of human behavior, regardless of their particular approach. However, this meeting place is a rather large continent which, while offering fertile ground for discussion, presents grave dangers of misunderstanding and suggests a loss of scientific status.

Development

To show the development of these various concepts, it will be interesting to examine the development historically of the study of attitudes. One of the earliest psychologists to employ the term was Herbert Spencer in his First Principles, published in 1865. He wrote,

"Arriving at correct judgments on disputed questions, much depends on the attitude of mind we preserve while listening to, or taking part in the controversy: And for the preservation of a right attitude it is needful that we should
learn how true, and yet how untrue, are the average human beliefs."

In 1868, Alexander Bain wrote,

"The forces of the mind may have got into a set track or attitude, opposing a certain resistance as when some one subject engrosses our attention, so that even during a break in the actual current of the thoughts, other subjects are entertained."

Later, the motor attitude was studied by N. Lange (1888), Munsterberg (1889), Fere (1890), Baldwin (1895), Giddings (1896) and Mead (1924). Fere maintained that a balanced condition of tension in the muscles was a determining condition of selective consciousness. Baldwin proposed motor attitudes as the basis for an understanding of emotional expression. Mead expanded still further the role of motor attitudes in social understanding.

Most of this early experimental work was done in Germany. Lange worked with reaction time, finding that the aufgabe or "task attitude" played a decisive part in his results. Not only in this experiment, but also in investigations of perception, recall, judgment, thought and volition, the central importance of the subject's preparedness became universally recognized. No one term was used for this concept of preparedness: Absicht, "conscious purpose"; zielvorstellung, "idea of the goal"; bezugvorstellung, "idea of the relation between the self

and the object to which the self is responding; richtungsvorstellung, "idea of direction"; determinierende, tendenz, "any disposition which brings in its train the spontaneous appearance of a determined idea"; and the bewusstseinslage, "the posture or lay of consciousness."

As the result of these studies in the Wurzburg school, all psychologists came to accept attitudes, but not all believed them to be irreducible mental elements. In general, the followers of Wundt, believed that attitudes could be accounted for adequately as feelings, particularly as some blend of striving and excitement. Titchner stated gropingly,

"Behind everything lies a cortical set, a nervous bias, perhaps inherited and permanent, perhaps acquired and temporary. This background may not appear in consciousness at all; or it may appear as a vague, conscious attitude (passive imagination), or again as a more or less definite plan, aim, ambition, intention (active imagination). Whether conscious or not, the nervous disposition determines the cause of consciousness."?

The meagerness with which attitudes were represented in consciousness resulted in a tendency to regard them as signs of brain activity or of the unconscious mind. The persistence of attitudes which are totally unconscious was demonstrated by Muller in 1900. The tendency of the subject to slip into some frame of mind peculiar to himself led Koffka, in 1912, to postulate latent attitudes.

5. Murchison, Carl. op. cit., p. 800.
These years of experiment drove attitudes down to the unconscious, and there they might have stayed, if Freud had not resurrected them from obscurity and endowed them with vitality, identifying them with longing, hatred, love, passion, prejudice, "with the onrushing stream of unconscious life."

"Without the painstaking labore of the experimentalists attitudes would not today be an established concept in the field of psychology, but also without the influence of the psychoanalytical theory they would certainly have remained lifeless, and would not have been of much assistance to social psychology which deals of above all else with full blooded phenomena. For the explanation of prejudice, loyalty, credulity, patriotism, and the passions of the mob, no anemic conception of attitudes will suffice."

The studies continued, carrying over to the field of social psychology. Bagehot, Tarde and Baldwin suggested that the mechanism through which culture is carried might be an instinct of imitation or suggestion. Then McDougall developed his theory of instincts. But all experience pointed to the importance of custom and environment in shaping social behavior. The concept of attitude seemed to resolve these differences. McDougall chose the word habit but admitted as its equivalent either disposition or attitude. Thomas and Znaniecki, in their study of the Polish peasant, established the concept of attitude as permanent and central. According to them, attitudes are

"individual mental processes which determine both the actual and potential responses of each person in the social world."7

Definition

There have been innumerable studies down to the present. Some of the most generally accepted definitions of attitude, reflecting various schools of thought, follow:

1. Allport, F. H.: The motor set thus built up by suggestion we may call an attitude.8

2. Allport, G. M.: An attitude connotes a neuro-psychic state of readiness for mental and physical activity.9

3. Bain, R.: An attitude is the relatively stable overt behavior of a person which affects his status. . . . There is an habitual element in attitude, but it is social habit, value habit, status-fixing habit. . . . attitudes should be reserved for the total status-fixing responses of a person. . . . attitudes refer in a general way to types of acquired action--patterns that are definitely concerned with human motivation.10

4. Beckham: An attitude is that mental set that is indicative of feeling.11

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5. Bogardus: An attitude is the tendency to act toward or against some environmental factor which becomes thereby a positive or a negative value. It is less innate than a desire, more clearly defined, more definitely selected by a person, more cognitive.  

6. Cantril, H.: An attitude is a disposition to act which is built up by the integration of numerous specific responses of a similar type, but which exists as a general neural set, and when activated by a specific stimulus results in behavior that is more obviously a function of the disposition than of the activating stimulus.  

7. Koehler: An attitude is some kind of a physiological stress or activity within the organism. From the viewpoint of gestalt psychology a change of attitude involves a definite physiological stress exerted upon a sensory field by processes originating in other parts of the nervous system, and to some degree the organization of the field may yield to it. In gestalt theory the varieties of directed attitudes are not considered as the operation of pre-existing drives or instincts, but rather as the effects of actual situations.  

8. Markey: Attitudes are behavior integrations associated with signs and symbols of probable behavior.

9. Murphy and Murphy: We shall regard attitudes as verbalized or verbalizable tendencies, dispositions, adjustments toward certain acts. They relate not to past nor even primarily present, but, as a rule to the future. . . The attitude is primarily a way of being set toward or against something.16

10. Remmers: An attitude is a more or less emotionalized tendency, organized through experience, to react positively or negatively toward (for or against) a psychological object.17

11. Thomas: The attitudes of a given person at a given moment are the result of his original temperament, the definitions of situations given by society during the course of his life, and his personal definitions of situations derived from his experience and reflexions.18

12. Thurstone: An attitude is the sum total of man's inclinations and feelings, prejudice and bias, preconceived notions, ideas, fears, threats and convictions about any specific topic.19

13. Dobb, L. W.: An attitude is an implicit, drive-producing response, considered socially significant in the

We may now decide what an attitude is. According to R. Stagner attitudes can be defined either in terms of emotional stereotypes or in terms of patterns of behavior.

In the former case, Thurstone says an attitude is a generalized reaction for or against a specific psychological object. In the latter case, Allport says an attitude is a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related. As defined in terms of emotional stereotypes, attitudes can be held on a psychological slide for definitive study under the psychologist's microscope. While offering an acceptable scientific approach, this has its limitations in the study of personality because we are dealing with the complexities of the human spirit. (We shall discuss this at more length under the next topic, *viz.* Stereotypes). As defined in terms of patterns of behavior, we lose the scientific exactness of black and white findings, but we gain a perspective of the richness and complexities of human personality. Allport's definition will lead us to real attitudes, not rationalizations, but the road is a tortuous one.


It is difficult to distinguish between attitudes and traits, style or value. We think of value as the social counterpart of individual attitudes, style as the highest level of integration of traits and traits as generalized attitudes. A further distinction must be made between attitudes and opinions. Thurstone considers an opinion to be the accessible portion, or external expression, of the attitude. Park and Burgess believe that the opinion is at best a distortion of the true attitude, a rationalization, rather than an actual tendency to act.\(^2\)

We must state some definite attributes of attitudes which will help us in our discernment of differences here. Remmers and Gage give us the following exact attributes which fit into stereotypes:

1. Attitudes are emotional in nature.
2. They are directional, being either for or against some psychological object.
3. They take on meaning only when they are considered in relationship to this object, situation or stimulus.
4. They have an effect on behavior.
5. They are acquired or learned.\(^3\)

On the other hand, Park approaches the patterns of behavior concept by suggesting four criteria for an attitude:

\(^2\) Murchison, Carl. op. cit., p. 809
\(^3\) Remmers, H. H. and Gage, N. L. op. cit., p. 87
1. It must have definite orientation in the world of objects (or values), and in this respect differs from simple and conditional reflexes.

2. It must not be an altogether automatic or routine type of conduct, but must display some tension even when latent.

3. It varies in intensity, sometimes being predominant, sometimes relatively ineffective.

4. It is rooted in experience, and therefore is not simply a social instinct.²⁴

   Each cook has her own recipe for chocolate cake. This does not mean that there is no such thing as chocolate cake nor that the quality of chocolate cake cannot be appreciated and improved. These many descriptions of attitudes show the intense and diversified interest in attitudes. They do not indicate that there is no such thing as attitudes nor that they cannot be measured and influenced. As the common ingredient of chocolate cake is chocolate (or cocoa?), the common ground in attitudes is the tendency to action, (or state of readiness?). The ever increasing number of critical and analytical studies of attitudes may succeed in bringing them into focus and making them more definite.

   **Stereotypes**

   We have mentioned that Thurstone's definition of

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²⁴ Murchison, Carl. *op. cit.*, p. 803
attitude as, "a generalized reaction for or against a specific psychological object," is in terms of emotional stereotypes. What is a stereotype?

Allport defines it thus:

"Whenever a pre-existing attitude is so strong and inflexible that it seriously distorts perception and judgment, rendering them inappropriate to the demands of the objective situation, we have a stereotype." 29

Katz and Braly write:

"A stereotype is a fixed impression which conforms very little to the facts it pretends to represent, and results from our defining first and observing second." 26

Schoenfeld gives us four criteria for a stereotype: 27

1. They are held by one or a number of persons.
2. They refer to a class or type of person or thing.
3. They imply falsification, or at least lack of evidence to support the belief involved.
4. They are not necessarily pejorative but may be flattering.

From one point of view, stereotypes are useful. Walter Lippman was the first to designate their functions:

1. They are intellectual labor savers, since they permit us to avoid large amounts of careful thinking by lumping

into one response all the more appropriate and specific responses objectively demanded by a situation.

2. They are a rationalization of one's attitudes towards one's groups and of one's various beliefs and prejudices. 28

Allport points out that they are of great value in explanation of social phenomena,

"They explain why a skillful propagandist chooses solidified emotional attitudes to play upon. ...why human beings persevere in ancient ruts of thought and action. ...why 'facts' are of relatively little importance in shaping public opinion, why the dead hand of the past is permitted to fashion the social policies of the present day. ...why the banal remarks of a famous man or woman are widely circulated and reverently quoted, and why the clever epigrams and shrewder pronouncements of an unknown sage are ignored or discounted. They help one to understand the characteristic conservatism and the 'cultural lag' in society." 29

They serve in prestige stereotypes, as a strong moulder of public opinion and private attitudes, as advertisers of commercial products know well.

As Stagner points out, though, the study of stereotypes does not facilitate our learning anything about specific responses which are integrated into general attitudes or dispositions to react.

Lund 30 asserts that there is an agreement between, not truth and belief, but desire and belief. It is not

30. Ibid., p. 815.
knowledge which determines the strength of a conviction, but rather the desirability of the conviction from the point of view of the individual holding it. Stereotypes frequently hide or distort attitudes, rather than clarify them, or make them manifest. This is clearly shown by the following studies.

In 1926, Rice made the first real contribution to the study of stereotypes. He demonstrated by the use of photographs, the existence of visual stereotypes concerning vocational and racial types and the effect of these stereotypes upon judgments concerning the intelligence and craftiness of the men whose pictures were employed.

In 1928, Zillig demonstrated the influence of likes and dislikes upon observation and report. When a class was asked to report the names of children who made mistakes during a physical exercise, the faultless but unpopular students received all the blame.

In the same year, Thurstone asked, "Which of these two nationalities would you prefer to associate with?" By comparative judgment method, he studied the reactions of university students toward twenty-one national groups. With but few local variations, the social distance with which different racial groups are regarded is the same from coast to coast. Most prefer Americans, next largest number the English and the fewest prefer the Turks.
In 1931, Sargent discovered that the more intensely emotional an attitude, the less flexible is the meaning or definition of the object of that attitude.\textsuperscript{31}

In 1931, Katz and Allport studied certain antipathies of a large group of college students. There was an almost universal unwillingness to admit to fraternities or rooming houses such groups as Negroes, Turks, Hindus, Chinese, etc. The force of the symbol, in all cases, evoked avertive attitudes. The prejudice toward unpopular group labels seemed to be practically universal.

In 1933, Katz and Braly\textsuperscript{32} attributed the uniformity of racial attitudes largely to the acceptance of ready-made attitudes, stereotypes.

They studied a hundred Princeton undergraduates. Using a check list of adjectives, they determined the percentage who thought of certain qualities as attributes of each race. The degree of acquaintance with a racial group did not enhance the agreement concerning its outstanding characteristics. The qualities of Americans, who surely were the best known, were less agreed upon than the qualities of Jews or Italians. They found that familiarity may help dissipate private prejudice without a corresponding effect upon public prejudice. However, familiarity may augment private prejudice under certain conditions. The definiteness

\textsuperscript{31} Murphy, G. and L. B. and Newcomb, T. M. \textit{op. cit.}, p. 681.
\textsuperscript{32} Katz, Daniel, and Braly, Kenneth. \textit{op. cit.}, p. 28:280-290.
of a stereotype picture of a race has little relation to the prejudice exhibited against the race. The greatest prejudice was against the Negro and the Turk, but there was little agreement on the qualities of these people—they were not distinctly or definitely stereotyped. Prejudice seemed largely a matter of public attitude toward a race name or symbol.

In 1935, Sherif\(^3\) remarked that everybody knows that in perceiving or responding to any stimulus, besides the external factors, internal factors play an important part. He studied the influence of these differential affective relationships in students at Radcliffe and Harvard. First he obtained the rank order preference of his subjects for sixteen English and American authors. After an interval of sixteen weeks, he submitted sixteen literary passages, all from Stevenson, but each passage ascribed to one of the authors included in the first list. In no case did any subject suspect the deception. The correlation between the two rank orders was \(+0.46\). Work attributed to a favorite author was considered good and work attributed to an uncongenial author was considered bad. Since the passages were, in fact, from a single author, and since the same results were secured whatever author's name was appended to the passage, it seemed clear that the correlation

obtained could be only a measure of prejudice. It was a study in prestige-suggestion. Stereotypes play a considerable part in people's judgments. The study of Radcliffe and Harvard students was corroborated by a similar study of students' reactions to twelve Turkish authors, at Gazi Terbize Institute, Ankara, Turkey.

In 1942, Schoenfeld reported a thorough study of stereotypes. In Turkey, it was found that a stereotype.

He chose Edwards' four dimensions or aspects as a basis for his study. Edwards asserts that stereotypes have:

1. Uniformity. The extent to which an individual's response is in accord with the responses of others.

2. Direction. The favorableness of unfavorableness of response.

3. Intensity. The degree of this unfavorableness or favorableness.

4. Quality. The content of the response.

Schoenfeld divided his study into two groups, those concerning nationality stereotypes and those concerning personal name stereotypes, obtaining different results in the two divisions. For nationality stereotypes, he found that there was no relationship between uniformity and direction, nor between uniformity and intensity; but there was a functional relationship between uniformity and familiarity (Extreme familiarity may go with either extreme

34. Schoenfeld, Nathan. op. cit., 38:5-57.
of uniformity). For personal name stereotypes, there was remarkable uniformity. There was more uniformity, related to direction, the greater in the negative direction. Quality was also related to direction.

In Stagner's study of Fascism, he reported that a vast majority of the population disliked the stereotyped term, Fascism, although they accepted a large number of policies which identify Fascism. He also found that a stereotyped idea may have meanings to the people who hold them which are quite different from the meaning as given in a dictionary.

The studies are an indication of the realization of the importance of clarifying stereotypes. Frequently when studying attitudes we find that we have grasped at an attitude and have caught a stereotype. Our subjects' responses have been to stereotypes or labels rather than to meanings which are constant to all, and for all.

As Bain35 has pointed out, when verbal stereotypes are highly developed, they may remain intact, even after overt adjustment attitudes have changed. They do not duplicate life situations. Attitude studies should be based upon actual adjustment behavior and correlation of verbal and overt behavior.

Specificity and Generality

There are two clearly opposed points of view regarding the breadth and range of attitudes. Some writers maintain that attitudes are specific, that they represent tendencies to make particular responses in particular situations. From this point of view, "attitudes are as numerous as the objects to which a person responds." 36

Other writers consider attitudes as capable of spreading until they represent extensified and broadly generalized dispositions. The issue which is involved in this lively controversy is of the greatest practical and theoretical importance, for upon its solution depends not only the proper choice of methods for investigating attitudes, but likewise the theory of mental organization, of the structure of personality itself.

In the older experimental psychology it was customary to regard attitudes as temporary motor or mental sets, prepared at one time and applied to one and only one act of adjustment. Tradition favors the view that attitudes are specific, momentary integrations. The more recent argument rests on experiments by Hartshorne, May and associates. Among the problems studied was the tendency of children to cheat. 37 Since the children had such different scores in

36. Bogardus, E. S., op. cit., p. 54.
different tempting situations, the authors were led to conclude that moral attitudes must be limited by the particular situation in which they are called forth. Essentially the same findings were made in the conduct studies such as helpfulness, persistence and inhibitions. As a result of this study, it was advised that children be trained in specific moral habits rather than by precept or general principle.

The conclusions of this exhaustive investigation have been criticised extensively in recent years. Among other criticisms, it is pointed out that the Inquiry did indeed find greater evidence of consistency as the ages of children increased, and it is believed today that a high degree of generality must not be expected in young children since attitudes become more integrated with age and experience. In general, the theory of specificity rests ultimately upon an arbitrary interpretation of equivocal results. If an attitude be defined only as a tendency to make a particular response in a particular situation it is clear that the number of attitudes will be as numerous as the totality of stimuli to which the individual has responded, in his lifetime. Each separate connection would be a separate attitude, and there would be no consecutiveness in conduct or organization in personality.

The doctrine of generality maintains that attitudes are not merely constant dispositions to repeat precisely
the same act in the same way when the same stimulus recurs in an old or a new context.

"They are variable in the behavior they produce, and stable only in their significance. If they were predispositions to specific and definite acts the difficulty would be less, but attitudes are tendencies towards modes of action and do not have any one-to-one correspondence to specific responses to stimulations."38

In modern psychology it has become difficult to picture an attitude as residing in specified neural grooves, capable of activation only in an invariable way through stimuli that are always the same. It is now recognized that stimuli are never twice the same, and that the neural process is one of dynamic interplay rather than of mechanical rigidity.

This position is taken not just through speculation. In an experimental study of the attitudes of white people toward the Negro, Likert39 found that whatever questions were asked, these subjects tended to display a constant amount of favor or disfavor toward the rights of the Negro. Every attempt to measure an attitude with a many itemed scale implies, of course, that the investigator believes that the attitude in question is general. Whenever high internal consistency is obtained for such a scale the inescapable conclusion is that the separate items of which the scale is composed represent merely so many aspects of

a single coherent attitude. Still more striking evidence comes from the intercorrelation of independent scales. Many such have been established. Likert demonstrated that his own test for internationalism and the Thurstone-Droba anti-war scale correlate +.67. Pintner has found that measures of attitude favorable to the Church by the Thurstone-Chave scale correlate +.79 with the religious interest as measured by the Studies of Values. Such facts do not fit the doctrine of specificity.

There can be no doubt that general attitudes exist. They are discovered by tests, by experiments, and in every day life. On the other hand, the task-attitude, or aufgabe, and the underdeveloped moral dispositions of children are examples of specific attitudes. Likert believes,

"The stronger the generic set toward one extreme or the other extreme of an attitude continuum, the more it influences the specific reactions. When the generic set is not strong than the specific items themselves largely determine the reactions."

The implications are far reaching. If a criminal possesses a generalized anti-social attitude, it may be safely predicted that under any circumstances he will be a menace if at large. On the other hand, a criminal without a generalized anti-social attitude is a creature of circumstances and is potentially a less dangerous character. In either case, re-education of these delinquents in terms of

40. Likert, R. op. cit., p. 25.
specific habits is not enough. What is essential is the building of dependable social attitudes of the general order which will dominate behavior in the face of varied temptations.

The question of specificity of attitude hinges somewhat upon how narrowly we define the term. If one distinguishes between the attitudes toward the prohibition of wines and beers and of beverages of higher alcoholic content, he may scarcely expect to find a high degree of specificity among attitudes. The needed caution is simply that no attitudes, as measured, are genuine entities in the sense that there is anything absolute about them. For practical purposes, any set of verbal responses which is statistically reliable may be considered an entity and given an appropriate name. Any measured attitude, no matter how reliable, might be conceivably broken down into two or more different attitudes with slightly different labels. A single label implies nothing concerning single-ness of attitude. Relationships among attitudes depend, to an unknown extent, upon the degree to which statements are worded in general terms.

According to Remmers, the general or specific content may be a function of age and amount of time the subject has been under the influence of socially organized sets of attitude patterns. The factor of generality depends upon:

41. Remmers, H. H. and Gage, N. L. op. cit., p. 94.
1. The narrowness of the attitude considered.

2. The degree to which the individual has absorbed society.

3. The degree to which the attitude objects are organized.

Genesis of Attitudes

The origins of attitudes are generally agreed to fall into four groups. They are acquired by integration, the accretion of experience.

"It is a favorite doctrine of mental hygiene that wholesome attitudes are those which are the product of all experience that is relevant to a certain issue, without repressions or dissociations to mar their inclusiveness."[42]

Vetter and Green in a study of members of the American Association for the Advancement of Atheism, found that the majority had acquired its anti-religious attitudes through this process of integration, a gradual accumulation of influences in reading history and science. Davis,[43] in his study of the genesis of revolutionary attitudes among communistic Russian leaders, found that many had acquired these attitudes by an accumulation of experiences of persecution; an integration of specific reactions to form a generalized pattern of behavior and ideas.

Attitudes are acquired by trauma, a single shocking

[43] Stagner, Ross. op. cit., p. 70.
experience. Probably everyone can trace certain of his fears, dislikes and prejudices to dramatic incidents of childhood. These emotional experiences may be buried deep in our subconsciousness, but they are nonetheless dynamic. Although the traumatic experiences of childhood seem to be especially important, there is all through life a susceptibility to the influence of emotional shock. Even in old age, radical changes of attitudes through circumstances of dramatic moment are not unknown.

A third genesis of attitudes is differentiation. From a feeling of discontent and unrest, there may arise religious uncertainty. From the general state of dissatisfaction, there may be segregated a specific attitude of radicalism toward a specific psychological object.

The last, but by no means least, mode of the acquisition of attitudes is adoption or imitation. Through the imitation of parents, teachers or playmates, attitudes are sometimes adopted ready-made. Lasker, in his study of children's attitudes toward race, found that the outstanding source of racial prejudice was the assumption of the attitudes of others.

These four origins can be expressed in terms of the influences of our environment upon us. It may be conceded that the infant has two primordial, non-specific attitudes, approaching and avoiding.
The first of these influences is the effect of the parents. Newcomb and Svehla\textsuperscript{44} confirmed this powerful source of suggestion of attitudes. Murphy\textsuperscript{45} asserts that home and family are the major determiners of attitudes. Yet the question arises why siblings often exhibit such different attitude patterns. Breslaw\textsuperscript{46} showed, through analysis of case histories, the inter-play of family and other environmental factors in the development of such generalized attitudes as conservatism and radicalism.

There have been studies made of the effect of being an only child, the youngest child, the oldest child, and a child of a broken home, on attitudes. But much more should be done in this field.

Secondly, there is the effect of institutional groups on the formation of attitudes. Here, however, we wonder which came first, the chicken or the egg. J. F. Brown believes institutional influences are the true determiners of attitudes. He states that attitudes are merely the reflexions of a person's membership pattern; social, political, and economic. In a study of attitude toward war by church membership and political affiliation, Droba came to the same conclusion. Dr. Buck's study of differences in stereotypes over a period of ten years, between 1923-33, resulted in findings that indicated a change in social;

\textsuperscript{44} Stagner, Ross. \textit{Psychology of Personality}, p. 168.
\textsuperscript{45} Murphy, G. and L. B. and Newcomb, T. M. \textit{op. cit.}, p. 914.
\textsuperscript{46} Stagner, Ross. \textit{op. cit.}, p. 69.
cultural, and economic surroundings produced a change in stereotype.

Then there is the effect of the educational system on attitudes. The attitudes of teachers affect the attitudes of pupils. Harper studied the attitudes of teachers and found that in 1922 they were decidedly conservative. He made a similar study in 1934 and found them to be more liberal. Pierce studied the attitudes expressed in textbooks and found a strong prejudice toward nationalism.

Remmers made a careful study of the effects of teaching on attitudes. He found that teaching material, taking up only fifteen minutes daily, may produce significant changes in a child's attitudes toward various social problems and that these persist over a year's time. He used such attitude objects as farm policies, the Negro, social insurance, labor unions, and capital punishment. Information produced marked shifts in the expected direction. Then there was a tendency to regress to previous attitudes. After some wavering, the attitude was stabilized at a point somewhere between the original position and the extreme one. Attitudes of high school students have not been the object of very extensive research, partly because it is questionable whether they have yet developed integrated attitude on many important questions. Grice made one such study and found there was more prejudice toward the Negro in high school than in college.

A comparison of high school and college shows that the value of educational training is a liberalizing influence.

Education does seem to influence attitudes, but the exact nature and direction probably depends upon the specific type of training which is given.

Harper discusses this educational objective of forming attitudes.

"The more important things in the learning process and its results are seldom the kinds of things that may be easily made evident on an examination paper. The more important things seem to lie in the field of habits and attitudes in their various functional bearings. It is in this connection that it is important to note that how one learns, his method of learning, becomes a part of himself, a phase of what he has learned. While the child is learning to read, he may, at the same time, be learning not to read, i.e., he may, because of accompanying dissatisfaction, be developing such a lasting attitude of disgust and hate toward reading that he will return to it only under compulsion." 48

It has been noticed that there is a low relationship of grades and information test scores to social attitudes. Bingham 49 found that students reveal to a great extent the social attitudes of the society of which they are a part. Likert has said that the cause of a central tendency in attitudes is that the factors are aspects of the cultural pattern rather than due to innate differences.

But Kulp and Davidson, in their study of a homogenous group in a suburban Philadelphia high school, ask why some persons develop a central tendency toward assimilating the conservative elements of culture while others do the same with the liberal elements. Cultural patterns are not all liberal or all conservative in quality. There is a time factor involved here. The historical events of group experience may provide one persons with a run of pressure toward liberalism, another toward conservatism. The attitudes of an undergraduate would not be the same as those of the same person who had become a successful business man later. Another factor is the selectivity exercised by persons under the control of a personal goal. As the personal goal becomes organized, the elements of culture as contrasted through time are selected by the personality with reference to their utility in achieving the goal. Whatever consistency exists in the central tendency is partly a reflexion of the dominant quality, liberal or conservative, of the personal goal.

We have the further effects of movies, radio and newspapers on the formation of attitudes. Peterson and Thurstone studied the effects of the movies on attitudes and established a statistical proof of their significance.

There is also the effect, already discussed above, of prestige groups. We may think of it here as a generalized aspect of suggestion from parents, carried over to teachers, thence carried on to government officials and big business.

Hyman's\textsuperscript{51} study revealed that status is a variable in the determining of attitudes. Radicalism was found to correspond with the degree of satisfaction with the subject's economic status.

Murphy\textsuperscript{52} points out that attitudes are deep lain in the fundamental needs of life as moulded by the groups pattern. They are influenced by the subject's background, religious, racial, national, socio-economic and geographical, not to mention that subtler factor, his own personality. And above all, there is another factor, the interrelation of all previously mentioned factors, for the whole is more than a summation of its parts. Each of these factors can interact in an infinitude of combinations and permutations.

Allport believes that most of the incomparably important attitudes not only toward politics, but toward the home, religion, sex, social welfare, vocation, marriage and personal duty are formed in adolescence and for the most part endure throughout life.

\textsuperscript{51} Hyman, H. H. The Psychology of Status, 269:5-94.
\textsuperscript{52} Murphy, G. and L. B. and Newcomb, T. M. op. cit., p. 922.
In Butler's study of overseas and home duty soldiers, he found that if there had been a change of attitude, due to overseas service, the primacy of early training soon reasserted itself when the subject returned to the normal, social complex. Barring unusual experiences of conversion or crisis, attitudes are likely to be confirmed and enriched rather than altered or replaced.

Attitudes have been divided into public and private categories and into common and individual categories. Private and individual attitudes are of such a nature as to be difficult to measure or even detect. Up to the present time, they have been investigated through clinical interviews, psycho-analysis, case histories, autobiographies, graphology, ratings and the experimentalists' techniques of pulse rate, galvanic skin reflexes, reaction time and intensity of motor time. These necessitate working with individuals or small groups. There have been attempts to correlate the results with the results of methods for measuring common and public attitudes, and it may be that these techniques will be found to be of use in measuring common and public attitudes also.

The measurement of common and public attitudes, at the present time, utilizes the study of overt action such as membership in attitude revealing organizations, and the study of opinions, considered as verbalized attitudes, the latter being the most generally used. There have been criticisms of using verbal responses as indicative of attitudes. It is true that attitudes are not always reflected in opinions. But as Murphy points out,
"Actions are frequently designed to distort or conceal true attitude as fully as verbal behavior. . .All behavior is subject to modification in the process of execution from considerations of courtesy, expediency or other special pressures."

It seems that measuring attitudes can be accomplished as successfully by studying verbal responses as by any other method yet conceived, so long as the method can be found statistically sound.

The first psychological methods were developed primarily for the purpose of measuring discriminatory powers with special regards to simple sensory stimuli such as the length of lines and the deepness of color. In these a statistical technique was refined. Cattell was the first to extend psychological methods to stimuli other than simple sensory values. He measured the estimate of the degree of eminence of scientific men. Wells measured literary merit. Thorndike measured estimated excellence of handwriting.

Today questionnaires are frequently used to investigate attitudes. These measure the range and distribution of public opinion, but they do not indicate the intensity of the opinion of any given individual. Katz and Allport made such a census of 4,248 students at Syracuse University, and turned their results into percentages yielding interesting findings. Disorganization in one set of attitudes is

likely to be accompanied by disorganization in another. Individualists in one situation are individualists in another, and institutionalists in one situation are institutionalists in others.

The concept of attitudes involves the notion of two extremes between which individuals vary—extremes of favoring or opposing something. That attitudes should be measured by some sort of scale, therefore, is a most logical consequence. A second approach to common and public attitude investigation is the a priori scale whose scoring is arbitrarily set by the author. The forms are different. Sometimes it is a series of questions with alternative answers to be checked, each alternative having been weighted for significance toward the studied attitude. Sometimes the subject places in rank and order his preferences of several given statements, each statement being weighted as are the questions. An example of the question type of a priori scale is that of Bogardus, to measure social distance. In this test, the subject is asked the degree of intimacy he would willingly sanction between himself and members of various races. There are seven choices, the distance between each of which is not necessarily comparable. Another difficulty arises in the assumption that each higher degree of intimacy necessarily implies all those that are lower, which is not always the case.
"The most significant event in the history of the measurement of attitudes was the application of psycho-physical methods by Thrustone." Within the past few years a large number of such scales have been devised. The scoring values for all of these scales are determined by combining the efforts of many judges who have arranged all the statements included in each scale according to their discriminable differences. There are various methods by which the discriminable differences may be determined. The commonest is the method of equal appearing intervals. Thurstone used this technique.

1. Specify the attitude variable to be measured.

2. Collect a wide variety of opinions relating to it, from newspapers, books or from individuals.

3. Assemble on cards approximately one hundred such typical opinions.

4. Require at least 200-300 judges to sort these cards into eleven piles, each pile representing equi-distant degrees of the attitude according to each judge's estimation.

5. Calculate the scale value for each by computing the median of the scale values assigned to it by the judges and the dispersion of the judgments around the median.

6. Retain such statements as have small dispersions (large dispersions indicate ambiguity), and are, on the

whole, equally spaced. Give approximately equal representation to each of the intervals secured. Clarity and brevity of wording may furnish additional bases for selection.

7. In applying the scale, the subject checks every statement with which he agrees, and his score is the mean scale value for all the statements he has endorsed.

Remmers carried this method to its logical conclusion and composed a general scale of opinion for measuring attitude toward any institution. Stereotypes toward any group or practice can be studied by this method. Likert built a scale without using Thurstone's laborious methods of judging and established the reliability of using a priori arbitrary scale values. The agreement between the two methods is +.90.

Stagner believes the Remmers type is well adapted for measuring the strength of stereotypes, where there are emotional responses, such as favorableness or unfavorableness toward birth control, communism, pacifism, church, war, and many other psychological objects. It measures only the degree of acceptance or rejection of a symbol. In his own test, fascistic opinions were collected from speeches of Mussolini and Hitler, and given to judges for selection to make a consistent pattern. They composed a series of statements for which there seemed to be a logical justification for measuring attitude toward Fascism. The name itself
was not mentioned. This scale measured people's attitude toward the practice of Fascism rather than the stereotyped idea of Fascism. It seems reasonable to believe a more honest report will be given if the subject is unhindered by knowledge of the nature of the study.

One of the most interesting of recent techniques is Hammond's indirect method. To determine the effect of attitude, he constructed a multiple choice test which appears to be an information test.

"In constructing an item, the principal requirement was to eliminate reality, the truth of the matter, as a factor and thus force the respondent into a choice of errors, and still make the item sound like an information item.

1. By putting the answers equidistant from the truth in opposite directions.

2. By using questions where the truth is indeterminable and putting the answers to opposite extremes."3

The results of this choice of errors will indicate the distortion of perception and the selective recall of the previous perceptual experience, two definite dynamics of attitude.

Many other tests touching attitudes have been developed. The most used are:

1. Allport's Ascendance—Submission Reaction Study.

2. Allport and Vernon's Study of Values.

3. Bernreuter's Personality Inventory.
4. Downey Will—Temperament.
5. Pressey's Interest—Attitude Test.
6. Pressey's X-0 Test.
7. Remmer's Scales.
8. Strong Vocational Interest Blank.
9. Thurstone and his associates (Chave, Droba, et. al.)—scales.

There are inherent limitations in all methods of testing. Measurement deals best with common attitudes and there are relatively few attitudes that are common enough to be profitably scaled. In forcing attitudes into a scale form, violence is necessarily done to the unique structure of man's mind. Attitude scales should be regarded only as the roughest approximations of the way in which attitudes actually exist in the mental life of individuals. Each person possesses many contradictory attitudes, and for this reason his mental set at the moment of submitting to a scale may tell only a part of the story. Furthermore attitudes often change, and an investigation made under one set of conditions may not for long present a true picture of the attitudes of a person or group.

Rationalization and deception inevitably occur, especially when the attitudes studied pertain to the moral life or social status of the subject. So great is the tendency to protect one's self that even anonymity is not a
guarantee. Lack of insight, ignorance, suspicion, fear, a neurotic sense of guilt, undue enthusiasm or even knowledge of the investigator's purpose may invalidate an inquiry.

Watson believes that we are just as near to the measurement of character as to that of educational growth. He feels,

"...cause to give thanks that no Stanford-Binet has arisen in this field to cut short creative endeavor and lead us to thinking that standardized practice is equivalent to genuine understanding."

The adequacy of any psychological measuring technique may be estimated by determining its reliability and its validity.

The reliability of a scale may be determined by the test-retest, alternate forms, split half and rational equivalence methods, to determine its internal consistency. Practically every published scale has established its reliability to the author's satisfaction before it is released. It is found that reliability increases as subjects become older. The integration of attitudes accounts for this. Subjects themselves are becoming more consistent as they mature.

The validity is more difficult to determine. If we had a definite way of proving what a person's real attitude is, we could validate the scale without much difficulty. But

since we are confined to a statement of what a person claims his attitude to be, we are really only determining the reliability of the scale by different methods. One escape from this difficulty is to compare the attitude score with case studies and autobiographies.

Stouffer compared Thurstone's psychophysical scale results concerning attitudes toward Prohibition with those from case histories and found the correlation to be $+.86$.

Another way to determine validity is to examine the relation between scale results to overt commitments of various kinds, such as membership in revealing organizations. The measurement technique should differentiate between groups who have taken a definite position on the matter in question.

Porter found that members of peace societies were more pacifistic from scale results, and Rogers found that members of the R.O.T.C. were more militaristic than the average student, by scale studies. Cantril established a clear relationship between the findings of the "Study of Values" and conduct. The results were successful in contrasting various occupational groups. These facts helped to validate the scales used.

Still another way to validate a measurement is to use the same technique before and after some experience which is known to be effective in modifying the studied attitude. This method has been used in the case of movies, pep meetings, school studies, etc.
Several scales of widespread use have been validated by comparing their results with other studies. A rather unique validation was the discovery by Cantril, Rand and Allport of a positive correlation between graphology and the "Study of Values." The aesthetic value has a striking correlation. The economic and theoretical values were less, but still significant. The political and religious values were no more than chance, the political results having been found less reliable than the other values in the test, anyway.

It seems reasonable to conclude, therefore, that although the precise determination of a coefficient of validity is often impossible, opinion scales for measuring attitudes do have considerable validity in practice.

The main difficulty is that the individuals may not be willing to be frank and honest about their attitudes. This can best be met by a high degree of rapport between the investigator and the subjects, and by disguising the attitude scale so that the subjects will not realize they have anything to hide.

We have traced the development of the concept of attitudes; we have delineated them in their present usage; we have studied their origins and the influences affecting them; we have examined the methods now used in measuring them. Is all this "much ado about nothing"?
Attitudes are important enough to deserve the individual interest of our best minds. They are the stuff of which war or peace, contentment or discontent, success or failure, civilization or chaos is made. Bingham writes,

"The educational system must so operate in the shaping of an effective citizenry, the social attitudes held by the products of this system are of importance. . . . One of the functions of education in the United States is to promote intelligent and kindly approaches to solutions of major social problems of this country. Intelligence and information must be made to function more effectively if wise solutions are to be made of the problems of American life."\(^5\)

Remmers writes,

"To the extent that these attitude patterns function in the lives of individuals in society without creating undue stress and strain, they constitute characteristics of a society which is stable with respect to its aims and purposes. Education must be fundamentally concerned with whether it is producing types of attitude patterns that are desirable as the integrating forces in society."\(^6\)

The importance of attitudes is recognized by all people interested in human beings, their personality and their society.

"Without guiding attitudes the individual is confused and baffled. Some kind of preparation is essential before he can make a satisfactory observation, pass suitable judgment, or make any but the most primitive type of reflex

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response. Attitudes determine for each individual what he will see and hear, what he will think, and what he will do. . . They draw lines about and segregate an otherwise chaotic environment; they are our methods for finding our way about in an ambiguous universe."

Bringing this discussion into local perspective, what could be worthy effort in research in Tucson? It seems evident that the local scene offers a fertile field for the study of intercultural attitudes. Statistical studies, as well as case histories of Indian, Mexican, and Anglo-children in homogeneous school populations and in mixed groups could throw much light on social distance, attitudes and the forces affecting attitudes.

CHAPTER III

AN INTERCULTURAL ATTITUDE INSTRUMENT

Statement of Problem

The present study began as a quest to ascertain the effect of a heterogeneous school population on the intercultural attitudes of sixth grade school children in Tucson. The word heterogeneous is used in reference to culture; a school population composed of more than one culture group. An intercultural attitude is the mental and neural state of readiness, organized through experience, exerting an influence upon the individual's response to all objects and situations arising from the existence of many cultures within our civilization. Benedict defines culture as,

"... the sociological term for learned behavior, behavior which in man is not given at birth, which is not determined by his germ cells as in the behavior of wasps or the social ants, but must be learned anew from grown people by each new generation." ¹

Winston teaches that it,

"... may be considered as the totality of material and non-material traits, together with their associated behavior patterns, plus the language uses which a society possesses." ²

He points out that,

"To a greater or less extent, every cultural

element is inextricably, except for purposes of a simple analysis, interconnected with other cultural elements and with the general cultural milieu itself."

While it is appreciated that a cultural element cannot be extracted from its milieu as a distinct entity, yet, for purposes of the study, the element of language has been chosen as the basis of comparison.

The culture pattern of Tucson under study is dominantly Anglo, with minority groups mainly of Mexicans and secondarily of other ethnic groups. Tucson is situated in the area which was formerly part of the country of Mexico. The area became a part of the United States by the Gadsden Purchase. Its history began with the American Indian, and included the Conquistadores, bringing the best Spanish culture. Successive migrations of Mexicans brought inferior types. In comparatively recent times, Anglo's have replaced the Spanish as the dominant group. What was this Spanish background?

"The last census (in Mexico) in which the racial groups in the population were distinguished was taken in 1910. Then the enumeration gave 19 per cent white, 43 per cent Mestizo (Spanish-Indian), 38 per cent Indian."4

After the Gadsden Purchase, the Mexican population in the vicinity of Tucson was small, "consisting of people who had more Spanish blood than the typical Mexicans of the south."5 Paschal in 1925, found that, "approximately

5. Ibid., p. 207.
85 per cent of the germ plasm of the Mexicans in Tucson is white germ plasm," and that "something like 60 per cent of the public school enrollment is Mexican." The Anglo-Americans who came west became the dominant group through political and economic pressure. By dominant is meant a qualitative group. This is,

"...one which has power, prestige, authority and privileges, and uses these advantages to control social situations for its own interests exclusively. Conversely, a minority group is one which lacks power and privilege and therefore suffers political, social, and economic discrimination."8

Pre-Experimental Instrument

The first step was to select a suitable technique for finding and interpreting attitudes. Expediency dictated a pencil and paper method, although the value of continued personal studies—biographies, interviews, observations, and anecdotal reports—was appreciated. The problem thus resolved itself into choosing a suitable instrument to measure intercultural attitudes.

The following instruments were examined:

1. A Scale for Measuring Attitude toward Races and Nationalities.
3. An Inventory of Personal Opinions.

7. Ibid., p. 55.
4. Attitude—Interest Analysis Test.
5. Attitude Questionnaire.
6. Culture Conflict Index.
7. Human Relations Inventory.
8. Interest—Attitude Tests.
9. Minnesota Inventories of Social Attitudes.
10. Ohio Social Acceptance Scale.
11. Opinion Ballot
12. Scale of Civic Beliefs; Wrightstone.
13. Social Attitudes Test.
14. Sociogram Questionnaire.
15. Some roots of Prejudice.
16. The Wishing Well.

Correspondence was carried on with ten prominent psychologists, who offered invaluable help. Professor Hadley Cantril of Princeton University suggested the value of constructing a pertinent test of our own. Professor Ross Stagner of Dartmouth College concurred in the opinion that we did not need any special validation as long as we confined our comparisons within our own sub-groups and used uniform scoring for these groups. Dr. Victor Pitkin of the Bureau of Intercultural Education emphasized the many factors involved in a child's psychological economy.

The idea of developing a scale was rejected, since a scale proclaims its purpose; and knowledge of the purpose seems to invalidate the returns. The subject is aware
of what is expected of him and tries to fit his reactions
to the expectations.

"The ideal measuring instrument is one in
which the purpose of the test is completely
disguised from the subject and one which calls
for an emotionally-charged response, identical,
as far as possible, with the free form in which
such feelings find expression under normal
every day conditions."9

With the statements indicating attitudes and overt
action both toward Anglo-Americans and Mexican-Americans
and toward other cultures within the city, were put
statements which might reveal the causes of these attitudes:
relations with peers, teachers, parents, and neighbors,
experiences with death and sickness, economic status,
victimization, goal and philosophy.

The twelve examined tests furnished the basis for our
instrument. Other statements were collected from local
newspapers, radio broadcasts, and conversations. Each of
the members of two General Science classes at Roskruge
Junior High was asked to collect five favorable and five
unfavorable statements, concerning both Mexican-Americans
and Anglo-Americans. It was suggested that these opinions
could be heard in the class-room, lunch room, playground,
athletic field, club, neighborhood, church or home. The
responding group was composed of sixty-two per cent

9. Smith, R. B. "The Development of an Inventory for the
Measurement of Inferiority Feelings at High School
Level," Archives of Psychology, No. 144, (1932.)
Mexican background and of thirty-eight per cent Anglo background.

In preparation for these statements, the class had spent a week in discussing the nature of science, the scientific method and the scientific attitudes. Whenever possible, these were applied to human relations and race, nationality and culture were examined.

In view of the preponderance of Mexican background in the composition of the classes and that each person contributed the same number of statements, it would be expected that there would be more views favorable to the Mexican-Americans than toward other Americans. This was not the case. There were thirty-two distinct opinions unfavorable to Mexicans and only twenty opinions favorable to the Mexicans.

What is the explanation of this? The hypothesis that the responding Mexicans were more fair-minded than their classmates or that the others were more prejudiced could not be upheld by the returns. It would seem that the Mexican-Americans have an inferiority complex and are not very self-assured or self-satisfied. They seem to have adopted some of the popular prejudices against their own people. Despite the discussion of race, nationality and culture, such phrases as, "Mexicans and whites" and "Mexicans and Americans," appeared in several returns. This is corroborated by Gordon W. Allport and Bernard M. Kramer.
"What seems to happen is that the aggression or hostility, which is built up as a result of being the object of persecution and discrimination, is actually directed toward certain members of one's own group, perhaps because of the fear of the reprisals that would follow if the resentment were directed against the frustrating object."¹⁰

Altogether, there were one hundred and twenty-seven pertinent statements, concerning Anglo and Mexican-Americans, collected from the classes. Two hundred statements were assembled from the various sources to comprise the trial instrument. The criteria for writing attitude statements suggested by Wang were followed.¹¹ Approximately one-half of the statements were phrased in the second person, in order to arouse a personal, emotional response. In consultation with two sixth grade teachers, the vocabulary was adjusted to the sixth grade level. Ninety-six statements were affirmative or positive in content, ninety-two were negative or pejorative in content, six were comparative, two were neutral and four dealt with the subject's philosophy.

The preliminary page included places for school, name, age, sex, religion, father's and mother's occupation and education, whether living with both parents or not, the permanency of residence, movie attendance, comic book and radio preference, hobby and travel, besides some simple

¹⁰ Allport, Gordon W. and Kramer, Bernard M. Roots of Prejudice, p. 29.
instructions, the definition of the word "Anglo-American" as "an American of northern European ancestry," and the assurance of anonymity.

After each statement were three columns headed Yes, ?, and No. A more refined scale might have been desired, to show more degrees of prejudice and preference, to seek the intensity of reaction. But it was decided that three choices offered enough complications for a sixth grade child. Three types of responses furnish a basis of preference, disaffection and prejudice, and at the same time remain clear and simple. The positive statements were weighted 0 for a yes response, 1 for a ? response, and 2 for a no response, on the theory that a definite yes indicated a definite lack of prejudice, and that a ? response showed less prejudice than a no. The second half was written so that the weights were reversed. The higher the score, the more the prejudice.

The trial instrument was administered to a class of thirty-four sixth grade students in Roskruge Elementary School. The class was composed of twenty-one Anglo Americans and thirteen Mexican-Americans. The administrator had excellent rapport with the group, and the teacher was most cooperative. There was every reason to believe that the results indicated the children's genuine attitude in so far as these can be obtained by paper and pencil means.
During the administration of the test, the children were encouraged to ask questions if any problems arose in their minds. This informal contact gave the administrator an insight into the subjects' points of view. Also, it suggested that the tests should be marked individually, with the particular subject in mind. For instance, two sisters had never attended a movie because of prejudicial views produced by their religious faith. It would create a false impression to interpret their negative returns on such statements as, "You would like to go to a movie with an Anglo-American," as prejudice against Anglo-Americans. For this reason, no scoring stencil was used. The tests were treated subjectively, throughout, and only the final scores, total and sub-groups, were treated objectively.

Revision

The results were tabulated. A new instrument was devised from the experience of the pre-experimental one. Since the need was not for a standardized test but rather for a pertinent, subjective tool, there was no scientific attempt to verify validity or reliability. However, some crude methods of analysis were used in order to explore the utility of the tool.

The responses of the ten most prejudiced individuals were compared with those of the ten least prejudiced. The statements which showed the greatest discrimination between
the two groups were retained. Exceptions were made necessary in order to include all the categories and to maintain a balance among them. Two samples will suffice to demonstrate the method of discrimination:

### Item #148. Mexican Americans are Lazy

<table>
<thead>
<tr>
<th></th>
<th>10 Most Prejudiced</th>
<th>10 Least Prejudiced</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Pejorative Weight</td>
<td>Frequency</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>?</td>
<td>5</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Yes</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

### Item #18. You would enjoy eating lunch at school with a Mexican American

<table>
<thead>
<tr>
<th></th>
<th>10 Most Prejudiced</th>
<th>10 Least Prejudiced</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Complimentary Weight</td>
<td>Frequency</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
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<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Yes</td>
<td>6</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

Item #18's score difference is small, but it was retained, because a fair proportion of overt action statements was considered important to the test.

It was found that the range of the scores on overt
action statements is consistently smaller than that of the scores on general attitude statements. The least prejudiced are not quite as favorable when they are confronted with an actual situation in which they might be involved in their own experience. The most prejudiced are not quite as unfavorable when their attitudes are translated into a life situation involving people whom they know.

Rundquist and Sletto states, "Internal consistency implies essentially the use of the total score as the validating criterion for an item." Since there was no standardization contemplated, statistical methods were not employed. Another crude method of analysis was used in order to ascertain, approximately, the appropriateness of the tool in measuring attitudes in which this study was interested. One example of this crude reliability indication is given:

There are ten statements which are intended to indicate attitude toward Mexican-Americans. Each statement's total score should be approximately 1/10 or 10 percent of the total Mexican score, if the statement measures what it is supposed to measure.

Item #128. Mexican-Americans are more dishonest than other people

<table>
<thead>
<tr>
<th>Total Mexican score</th>
<th>108</th>
</tr>
</thead>
<tbody>
<tr>
<td>#128 score</td>
<td>-6</td>
</tr>
<tr>
<td>#128 per cent</td>
<td>5.6</td>
</tr>
</tbody>
</table>

This statement was dropped.

The revision's front page retained the place for the name. There is disagreement as to the advisability of this. Those opposed to using the name assert that a subject will not answer truthfully if he must sign his name. Those in favor of a subject signing his name believe the subject will give more responsible and dependable answers if he signs his name. Since there is disagreement, also, as to whether pencil and paper tests indicate true attitudes, it was decided to supplement the instrument with personal studies; and for this reason the name space was retained.

The data on comic books, radio programs and travel were dropped, as no relatedness seemed to be indicated in the analysis of the trial test. At the suggestion of Mr. Getty of the Anthropology Department of the University of Arizona, the definition of "Anglo American" was changed to, "a white American whose family language at home is English."

There is a difference of opinion as to the advisability of including both acceptable and unacceptable items. Rundquist and Sletto\textsuperscript{13} believe that to use both types is to minimize the effects of suggestion. Smith says,

"Form H (unacceptable or negative) appeared to introduce the subject into a much more highly charged emotional atmosphere than Form P (acceptable or positive) thus fostering unreliability and evasion."

\textsuperscript{13} Rundquist, E. A. and Sletto, R. F. \textit{op. cit.}, p. 16.
\textsuperscript{14} Smith, R. B. \textit{op. cit.}, p. 52.
There seems to be a further argument against unacceptable items when studying a sixth grade level. Since attitudes are somewhat crystallized with age, it may well be that unacceptable items may engender undesirable attitudes not otherwise within a child's experience. The revision reduced the number of unacceptable items to twenty-five, most of which were in categories of a negative nature: victimization, death, sickness.

Using local place names is advocated in order to bring generalities down to the child's own experience. Yet this is difficult to do. Volberding, in his study of eleven year olds, found that,

"The majority of the children had a living space bounded by their school, their church, the pool, and the business area."  

When schools in the study are situated at opposite ends of the city, the children's living space is not identical. What is familiar to one group is unknown to another. Local place names were kept to a minimum.

An analysis was made of the vocabulary. Originally, the vocabulary was supposed to be that of the sixth grade. When the three schools, in which the experiment was to be conducted, were decided upon, it was found that the grade level (obtained by the Metropolitan Achievement Test) of members of the study, went down as low as 3.9 (the grade

level is divided into tenths, 3 indicating the beginning of the third grade and 3.9 indicating the end of the third grade). The Metropolitan Achievement Test was administered in early November. The Attitude Test was to be administered in April. It seemed safe to adjust the vocabulary to the fourth grade level.

All words, retained, appear in, "A Reading Vocabulary for the Primary grades, Revised and Enlarged," 16 except the following:

Anglo .... mayor F4
athletics F4 members F3
attention F4 Negroes KU
Chinese T5 parents F2
citizen F4 partners KU
depended F4 student F4
educated F4 success F3
gangs F3 team KU
groups F3 tough F2
honest F3 Tucson (local place name)
Jews T4 vote F3

Legend 17 T—Thorndike
F—Buckingham
KU—Kindergarten Union (six years or younger)
Numbers—indicate grade level when learned.

The revision to be used in the experiment contained sixty-seven statements whose selection was determined by the points brought out in the foregoing discussion.

16. Gates, A. I. A Reading Vocabulary of the Primary Grades, Revised and Enlarged, (1935.)
Experimental Instrument

School __________________________
Name ___________________________
Age _____________________________
Sex _____________________________
Religion __________________________
Do you attend Sunday School or Church regularly ______
occasionally_____ seldom_____
Father's occupation_________________
Mother's occupation________________
Is your father a high school graduate_____ a college
graduate_____
Is your mother a high school graduate_____ a college
graduate_____
Are you living with both your parents_____  
How long have you lived in the house where you are now
living_____
How often do you go to the movies_________________________
Do you have a hobby_____ What is it______________________

***********************
Instructions

Your help is asked in this study to find what children
in Tucson think about various topics. No teacher or
student will know what you have written. Answer honestly
so that we can feel we really have your true opinions.
On the following pages are a group of statements. If you believe the statement is true, put a check in the Yes column.

If you have no definite opinion, but a check in the '?' column.

If you believe a statement is false, put a check in the No column.

Check every statement.

Work quickly. Do not spend too much time on any one statement.

If something is not clear to you, raise your hand to ask the person in charge.

Anglo American is used to indicate a white American whose family language at home is English.
Put a check in one column for each statement. Yes ? No

1. Most children are friendly to you . . .
2. You would welcome a Chinese on your team.
3. You like to do things other children do .
4. Most Anglo Americans are hard working people . . . .
5. People who live on the east side of town are nice, . . . .
6. You like most of the children in your class . . . .
7. You would enjoy having Anglo Americans in your class . . . .
8. You would like to work for Jews . . .
9. You like most of your teachers . . .
10. You are liked by most of your teachers .
11. You would like to go to a movie with an Anglo American . . . .
12. You would join a club which had many Mexican American members . . . .
13. You generally talk over your troubles with your parents . . .
14. The Jew is as good a citizen as any other person . . . .
15. You are proud of your father . . .
16. You would enjoy eating lunch at school with a Mexican American . . .
17. You would enjoy having Negroes in your class . . . .
18. The people who live near you are nice to you . . . .
Put a check in one column for each statement. Yes ? No

<table>
<thead>
<tr>
<th>Statement</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>19. Your family has enough money to buy most of the things you want</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. You would like to take an Anglo American home to play with you.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. You would be glad to have a Jewish family live next door to you</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. You have as much spending money as most children in your class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. American Indians can be depended upon as being honest.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. You learn things more quickly than other boys and girls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. It would be nice to have a very dear Mexican American friend</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. Your father likes his work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. You would be glad to have a Mexican American family live next door to you</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. You would join a club which had many Anglo American members</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. You know what you would like to be when you grow up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. You wish you were a better student</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. You would welcome a Negro on your team</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32. It would be fun to have an American Indian for your partner at a party</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33. You wish you were better in athletics and games</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34. Some of our best citizens are Negroes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35. Some of our best citizens are Jews</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36. Jews make good friends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37. You might vote for a Mexican American for mayor of Tucson</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Put a check in one column for each statement.

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
<th>Yes ?</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>It is all right to do something wrong if you do not get caught.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Some of our best citizens are Mexican Americans.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Mexican Americans can be depended upon as being honest.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Most Anglo Americans are unable to learn very much.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>Money is the best sign of success.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Your neighbors around home are unfriendly to you.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Negroes are lazy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>Chinese have tough gangs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>Someone in your home has died.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>Because of illness in your family you cannot do the things other children do.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>American Indians are lazy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>Someone in your family is sick.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>Your health keeps you from doing the things other children do.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>American Indians are unable to learn very much.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>Anglo Americans are too &quot;stuck up.&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>Your father is out of work.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>Anglo Americans are lazy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>Your teachers are unfair to you.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>Sometimes you are blamed for things other people do.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>Mexican Americans have tough gangs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Put a check in one column for each statement.  Yes ? No

58. Negroes are dirty. ........  __________
59. No one pays any attention to you ....  __________
60. People are always picking on you ....  __________
61. Mexican Americans are lazy ........  __________
62. Anglo Americans are dirty ........  __________
63. Rich people are unfriendly to you ....  __________
64. Jews are dirty ..................  __________
65. Your school mates are unfriendly to you. __________
66. Your father is unhappy in his work ....  __________
67. Most Mexican Americans are unable to learn very much.  __________
Total Returns:  

N = 83

Statements concerning Anglo Attitude: Numbers 4, 5, 7, 11, 20, 28, 41, 52, 54, 62.

Statements concerning Mexican Attitude: Numbers 12, 16, 25, 27, 37, 39, 40, 57, 61, 67.

Statements concerning Negro Attitude: Numbers 17, 31, 34, 44, 58.

Statements concerning Jewish Attitude: Numbers 8, 14, 21, 35, 36, 64.

Statements concerning Indian Attitude: Numbers 23, 32, 48, 51.

Statements concerning Chinese Attitude: Numbers 2, 45.

Statements concerning Peers: Numbers 1, 3, 6, 24, 65.

Statements concerning Teachers: Numbers 9, 10, 55.

Statements concerning Parents: Numbers 13, 15.

Statements concerning Neighbors: Numbers 18, 43.

Statements concerning Economics: Numbers 19, 22, 26, 53, 66.

Statements concerning Victimization: Numbers 56, 59, 60, 63.

Statements concerning Sickness: Numbers 47, 49, 50.

Statement concerning Death: Number 46.

Statements concerning Philosophy: Numbers 38, 42.

Statements concerning Goal: Numbers 29, 30, 33.
Cooperating Schools: The three schools which cooperated in the experiment were Sam Hughes, Carrillo and Mission View. The class at Sam Hughes was composed of thirty-two Anglo Americans. The class at Carrillo was comprised of twenty-three Mexican Americans and two Chinese Americans. The class at Mission View included eleven Anglo Americans and fifteen of Mexican culture, two of whom were Indians.

Presentation: First, the instrument was presented to the Sam Hughes class (referred to, in the ensuing discussion, as H). The Administrator had failed to establish proper rapport with the teacher. The teacher had not been informed even that the test was to be given. This proved to be a very unfortunate mistake. Invariably, sixth grade children enjoyed cooperating in this experiment. The children at H were no exception. By including twenty different categories in the statements, the real purpose of the instrument was sufficiently veiled so that the children were unaware of the specific interest. Their questions on each category were intelligent, animated and unsophisticated. The results of their spontaneous reactions will be discussed later. At the present time, it is sufficient to point out that the H scores showed less prejudice than either of the other two classes. However, there were repercussions from H parents who received garbled reports of the test and its objectives from the uninformed and understandably apprehensive teacher. The
Administrator could have wished to meet with these parents, to ascertain, scientifically, their attitudes and objections. Since this meeting proved impossible, the course of action followed was to make certain that no such misunderstanding would develop in the future. Mainly, this entailed the scrupulous establishment of good understanding and mutual sympathy between Administrator and teacher. A second consideration was reopened. If names were not signed, there would be less cause of apprehension on the part of the subjects' parents, as well as on that of the subjects. Since it was desired to continue the case studies, it was decided to add the names by use of a seating chart, without the knowledge of the subjects. To the writer, this procedure seems fundamentally dishonest. Nevertheless, it was used at Carrillo and Mission View. The deception did not seem to affect the Administrator's rapport with the children. An enjoyable experience ensued at Carrillo (C) and at Mission View, referred to as V in the future.

However, the change in procedure did render comparisons among the groups a little less acceptable. It may be that the smaller degree of prejudice found from the H scores was a function of the fact that the H subjects signed their tests, while the two more prejudiced groups did not sign their names and may have been more honest. The findings of Damrin would minimize this possibility: "Comparisons of the means of the signed and unsigned test groups showed negligible
differences in all areas of adjustment measured by the Bell test." Rather, her study indicates that unsigned responses are less reliable: "These mean differences are found to be inconsistent in both size and direction." In every category, the sigmas were larger for the unsigned group, although this was the same group of girls, and the interval between signed and unsigned responses was only one week.

Scoring: Professor Ross Stagner had questioned the method of scoring in the pre-experimental test. He chose, as an example, a statement that was subsequently dropped, "X's tend to improve any groups." A No response does not prove prejudice. A Yes response indicates a positive bias. Such statements did not meet the discriminatory requirements of retention in the experimental test. But the criticism on any item, seemed valid. The scoring was changed so that a Yes response was weighted 1, a ? response 0 and a No response -1, on the theory that a Yes response indicates a positive bias, a No connotes a negative bias, and a ? shows a lack of bias. Theoretically, then a positive score accompanies bias for a group, a negative score accompanies bias against a group and a 0 shows complete disaffection. Since items included both verbalized attitudes and overt action statements, it was understandable that a subject did not put all

19. Ibid., p. 225.
checks in one column, even though the summation of his responses placed him in that category. Different responses were evoked by varying situations, so that a score was the result of item to item cancellation as much as of an arithmetic summation.

This presented the question as to whether the summation of individual item scores produced an accurate overall picture of the field being studied. It might be that O responses were a function of intelligence (a O being checked when the item was not understood) rather than a function of the field. The class with the lowest grade level average was chosen for a cursory survey of this problem. The coefficient of correlation between zero scores and grade level was +.10. For the twenty-five subjects in this cursory study this r is not significant. The further question of the additive effect of O scores in the total had to be studied. The correlation between total attitude score and the number of O scores was −.50. This indicates that the greater the preference in the field, the fewer O scores were used, and the greater the prejudice in the field, the more O scores were used.

Factually, there are comparatively few negative scores. The low positive scores are, on further examination, actually indications of prejudice against a group. The higher the score the less the prejudice against the group until the Mean is passed, when the increasing score indicates preference for the group. This is an arbitrary conclusion subject to
further revision, but based upon careful subjective study of the returns, as well as on the coefficient of correlation of 0 scores and total attitude score.
CHAPTER IV

RESULTS FROM INSTRUMENT

The total returns of the instrument broken down into cultural attitudes and grouped for homogeneous and heterogeneous school populations are:

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Range</th>
<th>Homogeneous (57)</th>
<th>Heterogeneous (26)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Sigma</td>
<td>Mean</td>
</tr>
<tr>
<td>Cultural</td>
<td>-36 to +36</td>
<td>17.88</td>
<td>9.05</td>
</tr>
<tr>
<td>&quot;Other&quot;1</td>
<td>-10 to +10</td>
<td>4.22</td>
<td>2.68</td>
</tr>
<tr>
<td>&quot;Own&quot;2</td>
<td>-10 to +10</td>
<td>6.25</td>
<td>2.42</td>
</tr>
<tr>
<td>Anglo</td>
<td>-10 to +10</td>
<td>5.66</td>
<td>3.02</td>
</tr>
<tr>
<td>Mexican</td>
<td>-10 to +10</td>
<td>4.78</td>
<td>2.44</td>
</tr>
<tr>
<td>Negro</td>
<td>-5 to +5</td>
<td>2.82</td>
<td>2.04</td>
</tr>
<tr>
<td>Jewish</td>
<td>-6 to +6</td>
<td>2.43</td>
<td>3.14</td>
</tr>
<tr>
<td>Indian</td>
<td>-4 to +4</td>
<td>1.76</td>
<td>1.62</td>
</tr>
<tr>
<td>Chinese</td>
<td>-2 to +2</td>
<td>1.13</td>
<td>1.14</td>
</tr>
</tbody>
</table>

1. "Other" attitude means attitude toward the opposing cultural group; Anglo for Mexican Americans, Mexican for Anglo Americans.
2. "Own" attitude means attitude toward one's own cultural group; Mexican for Mexican Americans, Anglo for Anglo Americans.
The total returns of the instrument broken down into adjustment factors and grouped for homogeneous and heterogeneous school populations are:

**TABLE II**

**ADJUSTMENT FACTOR RETURNS ACCORDING TO COMPOSITION OF POPULATION**

<table>
<thead>
<tr>
<th>Adjustment Factor</th>
<th>Range</th>
<th>Homogeneous</th>
<th>Heterogeneous</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>Sigma</td>
</tr>
<tr>
<td>Peers</td>
<td>-5 to +5</td>
<td>3.12</td>
<td>1.39</td>
</tr>
<tr>
<td>Economics</td>
<td>-4 to +4</td>
<td>2.39</td>
<td>2.70</td>
</tr>
<tr>
<td>Parents</td>
<td>-2 to +2</td>
<td>1.58</td>
<td>1.28</td>
</tr>
<tr>
<td>Teachers</td>
<td>-3 to +3</td>
<td>1.84</td>
<td>1.06</td>
</tr>
<tr>
<td>Neighbors</td>
<td>-2 to +2</td>
<td>1.47</td>
<td>0.94</td>
</tr>
<tr>
<td>Victimization</td>
<td>-4 to +4</td>
<td>0.92</td>
<td>1.98</td>
</tr>
<tr>
<td>Sickness</td>
<td>-3 to +3</td>
<td>1.68</td>
<td>1.68</td>
</tr>
<tr>
<td>Death</td>
<td>-1 to +1</td>
<td>0.25</td>
<td>0.94</td>
</tr>
<tr>
<td>Philosophy</td>
<td>-2 to +2</td>
<td>1.16</td>
<td>0.96</td>
</tr>
<tr>
<td>Goal</td>
<td>-3 to +3</td>
<td>1.80</td>
<td>1.10</td>
</tr>
</tbody>
</table>

The total returns from the supplementary material sheet and grouped for heterogeneous and homogeneous school populations are:
TABLE III

SUPPLEMENTARY MATERIAL RETURNS ACCORDING TO COMPOSITION OF POPULATION

<table>
<thead>
<tr>
<th>Subject</th>
<th>Range</th>
<th>Homogeneous</th>
<th>Heterogeneous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time in Present Home</td>
<td>.01 to 14 yrs.</td>
<td>5.1 yr.</td>
<td>4.7 yrs.</td>
</tr>
<tr>
<td>Chronological Age</td>
<td>10.00 to 16 yrs.</td>
<td>11.9 yr.</td>
<td>12.5 yrs.</td>
</tr>
<tr>
<td>Grade Level</td>
<td>3.9 to 10.1</td>
<td>6.68</td>
<td>5.73</td>
</tr>
<tr>
<td>Movie Attendance(^1)</td>
<td>0.0 to 6</td>
<td>3.48</td>
<td>3.58</td>
</tr>
<tr>
<td>Mother's Education(^2)</td>
<td>0.0 to 4</td>
<td>1.6</td>
<td>0.4</td>
</tr>
<tr>
<td>Father's Education(^2)</td>
<td>0.0 to 5</td>
<td>1.8</td>
<td>0.3</td>
</tr>
<tr>
<td>Father's Occupation(^3)</td>
<td>0.0 to 3</td>
<td>1.27</td>
<td>0.61</td>
</tr>
</tbody>
</table>

1. 0—never, 1—several times a year, 2—monthly, 3—twice a month, 4—weekly, 5—twice a week, 6—oftener than twice a week.
2. 0—grammar school or less, 1—high school attendance, 2—high school graduate, 3—college attendance, 4—college graduate, 5—post graduate.
3. 0—unemployed, 1—laborer, 2—merchant, 3—professional.

TABLE IV

FURTHER SUPPLEMENTARY MATERIAL ACCORDING TO COMPOSITION OF POPULATION

<table>
<thead>
<tr>
<th>Subject</th>
<th>Homogeneous</th>
<th>Heterogeneous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living with both parents</td>
<td>73%</td>
<td>73%</td>
</tr>
<tr>
<td>Hobby</td>
<td>68%</td>
<td>50%</td>
</tr>
<tr>
<td>Mothers who work</td>
<td>23%</td>
<td>46%</td>
</tr>
<tr>
<td>Regular Church attendance</td>
<td>66%</td>
<td>77%</td>
</tr>
</tbody>
</table>

In each case, the homogeneous group seems more liberal and better adjusted. Only in the case of personal goal does the heterogeneous group have a higher score. Are these differences significant? Computing the critical ratios between the means of the homogeneous and heterogeneous
sixth grade populations, we find the following are significant at the .01 and .02 level, and can be assumed to indicate real, directional differences:

**TABLE V**

**SIGNIFICANT CRITICAL RATIOS BETWEEN HOMOGENEOUS AND HETEROGENEOUS GROUPS**

<table>
<thead>
<tr>
<th>Field</th>
<th>.01 Level</th>
<th>Critical Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jewish Attitude</td>
<td>4.75</td>
<td></td>
</tr>
<tr>
<td>Negro Attitude</td>
<td>4.10</td>
<td></td>
</tr>
<tr>
<td>Total Cultural Attitude</td>
<td>3.29</td>
<td></td>
</tr>
<tr>
<td>&quot;Other&quot; Attitude</td>
<td>2.34</td>
<td></td>
</tr>
<tr>
<td>Economics</td>
<td>3.34</td>
<td></td>
</tr>
<tr>
<td>Death</td>
<td>2.73</td>
<td></td>
</tr>
<tr>
<td>Parents</td>
<td>2.55</td>
<td></td>
</tr>
<tr>
<td>Peers</td>
<td>2.38</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>.02 Level</th>
<th>Critical Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese Attitude</td>
<td>2.12</td>
<td></td>
</tr>
<tr>
<td>Anglo Attitude</td>
<td>2.05</td>
<td></td>
</tr>
<tr>
<td>Indian Attitude</td>
<td>2.05</td>
<td></td>
</tr>
<tr>
<td>Sickness</td>
<td>2.23</td>
<td></td>
</tr>
</tbody>
</table>

This means that the odds are 99:1 that the homogeneous group is really more liberal than the heterogeneous group in attitude toward Jews, Negroes and "Other" culture, and in total attitude, and are really better adjusted in economics, experience of death and relations with parents and peers. Also, in only two times out of one hundred would the homogeneous group be better than the heterogeneous group, by chance, in attitude toward Chinese, Anglo and Indian and

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in experience with sickness.

There seems to be no real directional difference between the two groups in relation with teachers and neighbors, in feelings of victimization, in personal goal nor in philosophy.

The question arises as to whether these attitudes and adjustment factors have any inter-relationship, that together they should appear in significant differences in the heterogeneous and homogeneous school populations. The "Other" attitude field was chosen for analysis. It is to be remembered that "Other" attitude is used to connote Anglo attitude of Mexican Americans and Mexican attitude of Anglo Americans. This is the crux, although by no means the only attitude, in our original problem. The coefficient of correlation was determined between each of the significantly different adjustment factors and the "Other" attitude scores, with the following results:

<table>
<thead>
<tr>
<th>Adjustment Factor</th>
<th>r</th>
<th>Total(83)</th>
<th>Homogeneous(57)</th>
<th>Heterogeneous(26)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Peers</td>
<td>$r_{12}$</td>
<td>.44</td>
<td>.25</td>
<td>.64</td>
</tr>
<tr>
<td>3. Parents</td>
<td>$r_{13}$</td>
<td>.25</td>
<td>.09</td>
<td>.22</td>
</tr>
<tr>
<td>4. Economic status</td>
<td>$r_{14}$</td>
<td>.17</td>
<td>.09</td>
<td>.51</td>
</tr>
<tr>
<td>5. Sickness</td>
<td>$r_{15}$</td>
<td>.10</td>
<td>.21</td>
<td>-.26</td>
</tr>
<tr>
<td>6. Death</td>
<td>$r_{16}$</td>
<td>.08</td>
<td>.18</td>
<td>-.11</td>
</tr>
</tbody>
</table>
In the total, for n-2 degrees of freedom (83-2 equals 81), an $r$ must be .217 to be significant at the .05 level or .283 to be significant at the .01 level. In the homogeneous group, there are no significant correlations.

In the heterogeneous group, for 26-2 degrees of freedom, an $r$ must be .388 to be significant at the .05 level or .496 to be significant at the .01 level. Thus, there is a significant relationship between "Other" attitude scores and adjustment with peers in the total group, and between "Other" attitude scores and adjustment with peers and economic status in the heterogeneous group.

A further question is: Since there are significant differences between the homogeneous and heterogeneous school populations, and since adjustment factors which are different in the two groups correlate significantly with the "Other" attitude scores, what would the "Other" attitude be if these adjustment factors were held constant? It seems logical to assume that relations with peers is a function of the type of school population. The problem, then, resolves itself into this: Were there no difference between the two populations in economic status, what would be the relationship between the "Other" attitude and adjustment with peers? The partial and multiple correlations yield the following:

1. $r_{12.3} = .43^3$. This is .03 lower than $r_{12}$ and indicates that the relationship between the "Other" attitude and adjustment with peers is slightly reduced when economic status is held constant.

2. $R_{1.23} = .43^4$. This tells us to what extent "Other" attitude is determined by the combined action of adjustment with peers and economic status. It is the greatest possible amount of these factors which can be ascertained by the present instrument. For eighty-three subjects and three variables, an $R$ must be at least .33 to be significant at .01 level. Since our $R$ is well above this, we can feel confident (99 times out of 100) that our results are real and not a chance association.

3. $z_1 = .44z_2 + .01z_3$. This is the multiple regression equation in terms of standard scores (all means equal: .00 and all sigma's equal 1.00), allowing for differences in test units as well as differences in variability, two important considerations in the present study. $z_1$ is "Other" attitude, $z_2$ is peers, and $z_3$ is economic status. From this, we can determine the relative weight with which each independent variable contributes to the criterion, independently of the other. Thus, apart from any other factor or the interplay of other factors, relation with peers contributes .44 to "Other" attitude and

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4. Ibid., p. 425.
5. Ibid., p. 428.
6. Ibid., p. 422.
economic status contributes just .01.

The fact that practically all the overt action statements covering "Other" attitude were placed within sixth grade children's experience and thus involved more experiences with their peers than other contacts, might explain the preponderance of peer's influence in the multiple regression equation.

As a further study, correlations of "Other" attitude with each field, whether significantly different in the two groups or not, were found.

### TABLE VII

**COEFFICIENTS OF CORRELATION BETWEEN "OTHER" ATTITUDE AND EACH FIELD**

<table>
<thead>
<tr>
<th>Field</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peers</td>
<td>.44</td>
</tr>
<tr>
<td>Parents</td>
<td>.25</td>
</tr>
<tr>
<td>Teachers</td>
<td>.22</td>
</tr>
<tr>
<td>Economics</td>
<td>.17</td>
</tr>
<tr>
<td>Movie Attendance</td>
<td>.14</td>
</tr>
<tr>
<td>Philosophy</td>
<td>.12</td>
</tr>
<tr>
<td>Neighbors</td>
<td>-.10</td>
</tr>
<tr>
<td>Grade Level</td>
<td>.09</td>
</tr>
<tr>
<td>Father's Education</td>
<td>.09</td>
</tr>
<tr>
<td>Mother's Education</td>
<td>.08</td>
</tr>
<tr>
<td>Death</td>
<td>.08</td>
</tr>
<tr>
<td>Years in Present Home</td>
<td>.06</td>
</tr>
<tr>
<td>Chronological Age</td>
<td>.04</td>
</tr>
<tr>
<td>Father's Occupation</td>
<td>.02</td>
</tr>
<tr>
<td>Victimization</td>
<td>-.02</td>
</tr>
</tbody>
</table>

The seven highest coefficients were chosen for further analysis. The partial and multiple correlations yield the following:
1. \( r_{12.345678} = .35 \). This is .09 less than \( r_{12} \), which indicates that the six factors, held constant, do have an appreciable influence on "Other" attitude. If all of our 83 children had the same adjustment with parents, teachers, and neighbors, the same economic status, and the same philosophy; and attended the same number of movies, peer adjustment's influence on "Other" attitude would be 20 per cent less effective.

2. \( R_{1.2345678} = .55 \). This tells us to what extent "Other" attitude is determined by the combined action of adjustment with peers, parents, teachers, and neighbors, economic status, movie attendance, and philosophy. For eighty-three subjects and eight variables, an \( R \) must be at least .431 to be significant. Since our \( R \) is well above this amount, we can feel confident that our results are real and not a chance association. It has become .12 more accurate with our addition of other variables.

3. \[ z_1 = .36z_2 + .21z_3 + .08z_4 + .01z_5 - .16z_6 - .10z_7 + .18z_8 \] where \( z \) is "Other" attitude; \( z_2 \) is peers; \( z_3 \), parents; \( z_4 \), teachers; \( z_5 \), economics; \( z_6 \), movie attendance; \( z_7 \), philosophy, and \( z_8 \) is neighbors.

All these coefficients are significant except the one between "Other" and "Own" attitudes. In studying the individual returns, it is evident that the subjects fall into four distinct constellations. Using means as the division,
TABLE VIII

COEFFICIENTS OF CORRELATION BETWEEN "OTHER" ATTITUDE AND ATTITUDES

<table>
<thead>
<tr>
<th>Attitude</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>.81</td>
</tr>
<tr>
<td>Negro</td>
<td>.65</td>
</tr>
<tr>
<td>Jewish</td>
<td>.62</td>
</tr>
<tr>
<td>Indian</td>
<td>.55</td>
</tr>
<tr>
<td>Chinese</td>
<td>.35</td>
</tr>
<tr>
<td>&quot;Own&quot;</td>
<td>.03</td>
</tr>
</tbody>
</table>

There are those who have less of "Other" prejudice plus less of "Own," those who have less of "Other" plus more of "Own" (the smallest group), those who have more of "Other" accompanied by less of "Own," and those who have more of "Other" and more of "Own." The corrected contingency coefficient for this grouping is .53 which is significant at the .01 level.\(^7\)

TABLE IX

BI-SERIAL CORRELATIONS BETWEEN "OTHER" ATTITUDE AND CERTAIN INFORMATION

<table>
<thead>
<tr>
<th>Information</th>
<th>r(_{bis})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regularity of Church Attendance</td>
<td>.19</td>
</tr>
<tr>
<td>Mothers Who Work</td>
<td>.06</td>
</tr>
<tr>
<td>Not Living with Both Parents</td>
<td>.05</td>
</tr>
</tbody>
</table>
| Hobby                            | .02        

\(^7\), Garrett, H. E. *op. cit.*, p. 360.
CHAPTER V

SUMMARY

Discussion

What is the effect of heterogeneous school populations on the intercultural attitudes of sixth grade school children in Tucson? Table V shows that there is a real difference in intercultural attitudes, not caused by chance, between the homogeneous and heterogeneous groups. Table I shows that the difference is in favor of the homogeneous groups. The heterogeneous population is more prejudiced.

Can we say that this difference is the effect of heterogeneity? Table VI shows that there is a very much closer relationship between "Other" attitude and adjustment with peers in the heterogeneous group (.64) than in the homogeneous one (.25). The homogeneous groups are not confronted with the daily adjustment to another culture. Their attitude toward another culture does not depend as much on peer adjustment, since peer adjustment, in their case, involves "Own" culture and not "Other" culture. Heterogeneity is a cause of prejudice.

Heterogeneity is not the cause of prejudice. When adjustment with parents, teachers and neighbors, economic status, philosophy and movie attendance are partialled out,
the relation between peer adjustment and "Other" attitude is lowered 20 per cent. This indicates that these other factors are also effective in influencing "Other Attitude." Economic status, in particular, seems to influence "Other" attitudes of the heterogeneous groups (0.51) more than of the homogeneous one (0.09). This seems logical: the child with a feeling of economic insecurity looks around for a scapegoat, and, in the heterogeneous group, finds it in the "Other" culture.

The whole problem of cause and effect precludes any arbitrary conclusions. Does the child have less prejudice because he has better peer adjustments, or does he have better peer adjustments because he has less prejudice? Either choice seems justifiable.

In the case of the homogeneous groups, some poor peer adjustments accompany higher "Other" attitude scores, presumably because the "underdog," in the homogeneous group, reaches out in sympathy to the "Other," less known, culture.

Further considerations preclude arbitrary conclusions. Although statistics aid us in an overall picture and in general trends, there is no one-to-one relationship between attitude and anything. Children with the same attitude score may have very different adjustment scores, and children with practically equal adjustment scores have different attitude scores. "One and the same phenomena may have different kinds of 'causes,' and one and the
same 'cause' may lead to a diversity of phenomena, depending on other conditions."¹

When we come to the level of overt behavior, even the same attitude scores will accompany differing responses. Hartley explains this in terms of salience, the relation of attitude to the system of values of the individual.

"One individual may have little prejudice but act on the basis of this prejudice whenever anything really vital comes his way. The trait stands at a critical point in the structure of his outlook. Another individual may show ten times as much prejudice, may indeed express almost a menacing hostility to groups with whom he comes in contact, and yet may have structured his life around certain other community values in such a way as to act consistently with restraint."²

Dobb³ clarifies these complications by treating attitudes, psychologically, as any other thing to be learned. For a thorough analysis of an attitude he recommends study of the (1) goal responses—the response pattern which the attitude anticipates and mediates, and which determines its reinforcement or extinction; (2) perception—the drive orienting the individual to pay attention to the stimulus pattern evoking the attitude; (3) afferent habit strength—the strength of the bond between the attitude and the evoking stimulus patterns, including gradients of generalization and discrimination; (4) efferent

¹ Frankel-Brunswick, E. Motivation and Behavior, p. 127.
² Hartley, E. Problems in Prejudice, p. ix.
habit strength--the strength of the bond between the attitude and the evoked response, including overt ones; (5) drive strength of the stimulus produced by the attitude; (6) the interaction of other attitudes, drives and cues, and (7) social significance--the evaluation in the individual's social milieu of the attitude and its direction.

Our present study would indicate that heterogeneous school populations offer a serious problem to teachers and the school administration in counteracting the influence of the social milieu and in offering constructive compensations to improve the goal response and the afferent and efferent habit strength. We have noted, previously, that there are few negative "Other" attitude scores. The distribution of these few negative scores points to the critical spots. Only 3.5 per cent of the homogeneous group have negative scores while 19.2 per cent of the heterogeneous group have negative scores. This means that the heterogeneous group contains not just less preference for "Other" culture, but definitely more prejudice toward it. As Hartley has pointed out, "It is an expression of purely negative reality, like a vitamin deficiency...there is a system of barriers." The normal human interchange of ideas or feelings, for which a heterogeneous group appears ideal, is entirely lacking when adjustment factors are poor.

Baruch says, "Most frequently, prejudice goes back to hatred that has been engendered by frustration and defeat." The school must provide satisfying fulfillment for each of the children and some measure of success—in all schools, to be sure; but in heterogeneous groups particularly; so that frustration and defeat will not crystallize into prejudice.

Furthermore, if we accept Zawadski's "convergence theory," which augments the "scapegoat theory" by insisting that some part of prejudice is caused by undesirable characteristics of the "Other" group, the school has the added responsibility of overcoming, by education, the undesirable characteristics of each cultural group; so that the characteristics of the external stimulus to prejudice, as well as those of the internal reaction, will be ameliorated.

The frame of reference influences the relative strength of the numerous variables which affect attitude. In general, however, it appears that peer adjustment is the strongest influence; then, in order, is parents, neighbors, teachers and economics. It is interesting to note that the Beta coefficients for movie attendance and philosophy are negative. It seems believable that movies are an escape

mechanism, and this would account for the movie-attendance-frequency's relation to prejudice—a child who does not adjust to his peers escapes to the make believe land of motion pictures; a child who is the self victim of prejudice finds relief in the stories of other worlds. The negative coefficient of philosophy offers some interesting speculation. The child who believes money is the best sign of success and who feels it is all right to do something wrong, if one is not caught, has no ideals to be shattered. He expects nothing of idealism. He, unconsciously, believes in a man of clay, does not expect too much of mankind in general, cannot be disillusioned; accepts "Other" culture without question. The idealist, on the other hand, if or when disillusioned, may use "Other" culture as a scapegoat for his disillusionment: "Anglos are dishonest"—"Mexicans are dishonest."

The fact that there are fairly high coefficients of correlation between "Other" attitude and other cultural attitudes points to generality of attitude. Generally, the score of "Other" attitude compared positively with scores in other cultural attitude fields whether the other culture groups were known or not. Negroes attended none of the three schools, yet the Negro attitude yielded the highest single correlation with "Other" attitude. The Jews, Indians, and Chinese were each represented in only one school, yet these attitude scores correlate significantly with "Other"
attitude scores in all three of the schools.

There seems to be four constellations of "Other" and "Own" pairs of attitude. The best adjusted group shows preference for both "Other" and "Own"; the poorest adjusted group shows prejudice toward "Other" and "Own." The most normal group shows prejudice toward "Other" and preference for "Own." The most atypical group shows preference for "Other" and prejudice for "Own." In this last group falls 3.8 per cent of the heterogeneous group and 7 per cent of the homogeneous group. These children need personal guidance more than any others.

The only further comment to be made is on the relationship shown by the bi-serial r for Regularity of Church Attendance (.19). Dividing the subjects into Jews, Roman Catholics and Protestants, it was found that the Jews were more liberal than either of the other two; but since there were only three Jewish subjects, this study was not extended. However, regularity of attendance, regardless of membership, shows an influence on liberal attitude.

Conclusions

The results of this study cannot be taken as final or definitive. The small number of subjects—eighty-three—and the fact that the instrument is not standardized make our conclusions tentative and merely indicative of trends in the school populations under study.
In general, we may assume that our homogeneous groups have more liberal intercultural attitudes and are better adjusted than our heterogeneous group.

We may assume that intercultural attitude is a function of adjustment, especially of peer adjustment, but also of parent, teacher, and peer neighbor adjustment and economic status, philosophy, and movie attendance.

We may assume that these variables affect "Other" attitude in varying degrees, depending on the frame of reference of the individual, particularly his social milieu which includes the school population of which he is a member.

We may assume that prejudice, disaffection or preference is a general attitude set, manifesting itself toward any outside group, frequently transferring itself from a known outside group to unknown ones.

Recommendations

This study is in no way conclusive. The most obvious need in further research is along the line of finding correlations between attitude and those factors which seem to engender and affect attitude, in particular frames of reference. The varying coefficients obtained for homogeneous and heterogeneous groups indicate that one and the same factor does not work similarly in different groups. The coefficient of correlation between "Other" attitude
and economic status for H is only .13; for G, .26; while for V, it is .51. The V coefficient is the only significant one. This same variation of relatedness is evident in most of the factors, operating in different frames. A study covering all the schools in Tucson would do much to resolve this confusion.
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