

HEIGHT PERCEPTION: A FUNCTION
OF SOCIAL DISTANCE

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ABSTRACT

One hundred and nine students from the introductory psychology course at the University of Manitoba were randomly selected from a pool of 772 such students, all of whom had completed a Bogardus Social Distance Scale. The scale used ethnic groups from the Winnipeg area. The 109 students represented high, medium and low social distance scorers. All students were shown a series of 19 slides, six of which depicted individuals representative of low, medium and high status ethnic groups as determined by the social distance scale. Three of the slide subjects were height equated, these being an American, a Canadian Indian, and a Hutterite. These were representative of low, medium and high social distance respectively. It was found that the American was always perceived tallest, the Indian next in height and the Hutterite shortest, when each slide was identified by means of a verbal label naming ethnic group membership. This sequence corresponded to the social distance scale: the American had the lowest social distance, the Hutterite the highest. For a control group of 17 students, in which no verbal labels were used, no significant difference was found between the Hutterite and American. The Indian was, however, per-

ceived as significantly shorter than both the American and Hutterite.

When estimated heights for each slide were compared between high and low scorers on the social distance scale, no significant differences were found. When subject's F scores were obtained and substituted for social distance scores, no significant differences were found between high and low F scorers.

INTRODUCTION

There has been conflicting evidence concerning the effects of motivational and value factors on judgment of size. Bruner and Goodman (1947) investigated the importance of value systems in size perception. Two groups of children were used as subjects, one from a poor environment and the other from a rich one. Estimates of coin size were obtained by adjusting a circular spot of light on a screen until its area appeared equal to the size of a coin. Several coins were used as stimulus objects, with cardboard discs of the same sizes as controls. Every coin was overestimated in size to a greater degree by the poor children than by the rich children. Poor children who were not given a coin to match but were asked to imagine one and to match its size from memory also exhibited overestimation of size but to a lesser degree. Bruner and Goodman referred to this tendency to overestimate the size of valued objects as perceptual accentuation. Ashley, Harper and Runyon (1951) successfully replicated the work of Bruner and Goodman (1947) using hypnosis to suggest to the subject that he was either rich or poor.

Carter and Schooler (1949) also used both poor and rich children to estimate coin size in order to examine perceptual accentuation. The children were told to adjust a spot of light so that it appeared equal to the size of each of a number of different coins. Then each subject was presented aluminum discs, and later, cardboard discs similar in size to the various coins. Subjects were asked to decide whether the disc was larger or smaller than a particular coin. Both rich and poor children's judgments were essentially the same although the poor children were more likely to overestimate coin size when the judgment was made from memory. It was also found when judgments from memory were used that both rich and poor children overestimated the size of large coins and underestimated the size of small ones. Carter and Schooler concluded from this that needs and values may be more relevant when the stimulus objects are not present, that is, that lack of structure might facilitate value effects.

Additional evidence in support of the perceptual accentuation notion was obtained by Dukes and Bevan (1952a). They used a number of rectangular cards, identical in size but differing in value, to gamble with their subjects. Cards were drawn at random from a bag, and at each draw, the subject won or lost an amount of money proportional to the positive or negative number printed on the card.

After a subject returned a card to the bag, he was asked to match its size with one of a series of blank "reference" cards which were placed in front of him. The results indicated that cards representing higher values were matched with larger "reference" cards than were cards with lesser values.

Bruner and Postman (1948) used a series of discs with positive, negative, and neutral symbols (a dollar sign, swastika, and square with diagonals respectively) to test perceptual accentuation. The subjects had to adjust the size of a variable circular patch of light until it was subjectively equal to that of a given disc. Two experimental groups were used, one making size judgments of neutral and positive discs and the other judging the size of neutral and negative discs. The dollar discs were judged largest, the swastika discs were judged next in size, and the neutral discs were judged smallest. The authors concluded that value, whether positive or negative, leads to perceptual accentuation.

Dukes and Bevan (1952b) employed two matched classes of weights in an effort to determine if the notion of perceptual accentuation could be extended to include estimations of weight as well as size. The weights consisted of nine jars containing a variety of colored candies, considered positive in value, and nine jars filled with a mixture of sand and sawdust, considered to be of relatively neutral

value. The weights in each series ranged from 176 to 224 grams; each weight being separated from the next one by six grams. For each weight in the positively-valued series, there was an exactly equal weight in the neutral series. Thirty children, aged 6-10 years, made comparisons between the positively-valued and neutral-valued jars. It was found that valued-stimulus objects appeared heavier than neutral-stimulus objects when both objects had the same actual weight.

Beams (1954) studied affectivity as a factor in the apparent size of pictured food objects. Five Kodachrome pictures of desserts were used as stimuli. Sixty subjects, all of whom had one strong preference and one strong dislike for any two of the food objects, were shown an actual food object and told to adjust its Kodachrome image by moving a sliding screen until it appeared to him to be the size of the real object. The average adjustment image of the liked object was found to be considerably larger than was that for the disliked object. Beams concluded that the liked desserts appeared larger to the subjects than their actual size and that the disliked desserts appeared smaller than their actual size.

Bruner and Rodrigues (1953) examined the possibility that values effect perceptual judgments. Ten-year-old subjects were randomly divided into a value group in which the buying power of money was

discussed, and an accuracy group in which the accuracy of size judgments of objects in general was discussed. All subjects were then divided equally into coin, metal, and paper groups. Subjects in the coin group were presented a penny, a nickel and a quarter and told that their task was to adjust the size of a light patch to the size of the various coins. Subjects in the metal group judged correspondingly sized nickel-colored metal discs, and subjects in the paper group judged gray cardboard discs. It was found that the accuracy oriented group tended to overestimate both coins and discs more than did the value oriented group. It was also found that overestimation for a quarter compared to overestimation of a penny or nickel was significantly greater than the overestimation of a quarter-sized disc in relation to the overestimation of a penny or nickel-sized disc. On the basis of this observation, Bruner and Rodrigues concluded that the actual value of objects affects their phenomenal appearance. These findings lend only partial support to the notion that values effect perceptual judgments as it would be expected that accuracy set would have less effect on overestimation of coins than would value set.

Smith, Parker, and Robinson (1951) failed to demonstrate that values or motivation effect perceptual judgments. In this investigation, rewards were promised to the subjects who reported correct-

ly the greatest number of dots forming clusters which were flashed successively on a screen. In the control condition, rewards went to those subjects who made correct reports on the number of dots in the greatest number of clusters. During the experiment, no information about the accuracy of their estimates was available to the subjects. The experimental group showed overestimation at the beginning of the experiment, but after several trials, the performance of both groups converged.

Although there has been conflicting evidence concerning the roles of motivation and values regarding object perception, the evidence involving person perception is more positive in lending support to the perceptual accentuation hypothesis.

Applying a different approach to the problem of value in perception, Solly and Haigh (1958) gave children the task of drawing pictures of Santa Claus at various intervals before and after Christmas. The closer the interval was before Christmas, the larger and more elaborate the drawing became. Following Christmas, there was a vast decrease in size and detail. The results were consistent with the notion that motivation influences perceptual accentuation.

In an investigation of value and perceptual distortion of size, Dannenmaier and Thumin (1964) studied height estimation us-

ing living persons. Previous research had involved only conceptual persons or physical objects. The authors wanted to determine whether perceptual judgments of height would be influenced by the authority of the person being evaluated. Forty-six nursing students were asked to estimate the heights of four people whom they had been in contact with for several months. The people estimated were: the assistant director, an instructor, the class president and a fellow student. Perceptual distortion was measured by comparing the differences between actual height and estimated height for the stimulus individuals. The results indicated that the tendency to overestimate height was directly related to status.

Wilson (1968) did a further investigation into the relationship between status and height estimation. He divided a number of undergraduate students into five equal groups and asked each to estimate the height of a man presented to them. For each group, the man presented was ascribed a different status: a student from Cambridge; a demonstrator in psychology from Cambridge; a lecturer from Cambridge; senior lecturer from Cambridge; and a professor from Cambridge. The subjects were also asked to estimate the height of the course director whose status was constant across all groups. The results indicated that the height of the man presented increased with increasing academic status, while the estimated height of the

course director remained virtually constant across all groups. Wilson concluded that estimation of height is partially a function of ascribed status.

In a perceptual experiment involving prejudice, Marchionne and Marcuse (1955) selected two groups of subjects, one high on the ethnocentrism scale, and one low on the ethnocentrism scale. Half the subjects who were high on ethnocentrism and half the subjects who were low on ethnocentrism were shown a slide depicting a black man with a knife attacking a white man. The other half of each group was shown a slide depicting a white man with a knife attacking a black man. All subjects were then tested for recall regarding the slide they had seen. Differences in reporting were found between high ethnocentric and low ethnocentric groups. High ethnocentric subjects were significantly better in recalling the black man with the knife attacking the white man than they were in recalling the white man with the knife attacking the black man. They were also the most likely to incorrectly identify the attacker after seeing the slide which depicted the white man with the knife attacking the black man.

Research into perceptual accentuation, along with the findings of Marchionne and Marcuse, suggests that there are many factors other than objective elements affecting perceptual judgments.

Since status has been shown to have an effect on an individual's perceived height, it is possible that status-related ethnic membership might cause similar perceptual distortion.

Since a person's religious or racial background partially determines his status, and status has been shown to effect height perception, it is possible that racial or religious identity may effect a person's perceived height. It would be expected that the "lower" a person's racial status, the shorter he would appear.

The present study was designed to investigate both the effects of status-related ethnic membership and the effects of prejudice of the observer on height perception. It was hypothesized first that an individual's perceived height would be directly related to his group's position on the social distance scale, that is, that individuals representative of groups further down on the social distance scale would be perceived as shorter than those individuals representative of groups higher up on the scale. And second, it was hypothesized that the more prejudiced a person was, the greater would be his tendency to perceive individuals of low ethnic status in a diminutive manner, that is, highly prejudiced individuals would perceive an individual of low ethnic status as shorter than would persons who are less prejudiced.

METHOD

SUBJECTS

The subjects were 126 students from the introductory psychology course at the University of Manitoba. Of these subjects, 17 were used as a control group, the remaining 109 being selected from a pool of 772 students who had completed the Bogardus Social Distance Scale. This particular scale used ethnic groups from the Winnipeg area (Table I). The Social Distance Scale was administered at the beginning of the term to large groups of Introductory Psychology students. Subject testing began approximately two months later. The subjects' social distance scores were divided into three categories, one category composed of the upper quartile, one the lower quartile, and one the two central quartiles.

Forty-five subjects were assigned to each of these three categories. However, as a result of subjects not showing up for the second part of the experiment, a discrepancy occurred between the number of subjects assigned to each category and the number actually tested. Of the 109 subjects actually tested, 38 were low scorers, 37 were middle scorers and 34 were high scorers.

The control subjects were selected after the experimental subjects had been tested and did not take the social distance scale.

MATERIALS

The materials employed in this study consisted of a 35 mm Kodak

projector, a screen, and 19-35 mm slides. Of the 19 slides, 6 pictured individuals of varying ethnic status. The choice of the ethnic labels for the slide individuals used was based on the results of the social distance scale previously administered. These results indicated to what extent each group was rejected in relation to every other group. Table I gives the mean rejection score of each of the 19 groups involved. Using the mean social distance scores as indicators of a group's susceptibility to prejudice and rejection, slides were made of the most rejected groups: The Doukhobors and Hutterites; moderately rejected groups, Indians and Metis; and the least rejected groups, Americans and Swedes. It was decided to use the American and Swede as representative of the low rejection group, as their scores were the two closest of the three lowest rejection groups (Table I). The slides of the American, Swede, Hutterite and Doukhobor were represented by Caucasians and were in actuality not from the ethnic groups they were chosen to represent. The Indian and Metis were both represented by Indians as they have similar racial characteristics. Each slide individual was dressed in a style noticeably different than any other. The slides of the Hutterite, Indian and American were closely equated in height. When presented to the subjects, the images of the slides were just over four feet and varied by only a fraction of an inch. The image

of the American was the shortest of the three slides and the Indian the tallest. The other three slides were not height equated. The thirteen neutral slides consisted of animals and other assorted objects. Every image was presented on a white background to eliminate external cues to height.

PROCEDURE

The subjects were divided into three groups, low social distance scorers (1.0-1.3), middle social distance scorers (1.4-2.0), and high social distance scorers (2.1-7.0). Scores between 1.0-1.3 constituted the lower quartile of all subjects tested and scores over 2.1 constituted the upper quartile.

Subjects were tested in groups ranging from 2 to 11 in size. The six critical slides were presented intermixed with the thirteen neutral slides, in a counterbalanced fashion. Each slide was identified by E prior to presentation, the critical slides being identified in terms of ethnic group membership. Each slide was presented for 10 seconds.

The images appeared on a screen nine and one half feet from the subjects. All subjects were told that the experiment was concerned with how an individual perceives an object when it is observed out of its environmental context. Subjects were asked to estimate the height of all objects and people to the nearest half inch.

TABLE I

Mean Social Distance Scores of
the 19 Groups Investigated

Group	Mean Social Distance Score
English	1.13
Americans	1.17
Swedish	1.19
French-Canadians	1.33
Ukrainians	1.42
Germans	1.44
Greeks	1.54
Poles	1.58
Spanish	1.60
Czecho-Slovaks	1.65
Jews	1.81
Russians	1.86
Negroes	1.89
Mexicans	1.90
Chinese	2.02
Indians	2.28
Metis	2.28
Hutterites	2.78
Doukhobors	3.24

Subjects were told to use their own judgment in making height estimations. Following the presentation of the slides, subjects filled out a modified, balanced F scale (Altemeyer, 1969).

The slide presentation procedure for the control group, who did not take the social distance scale, was identical to that of the experimental group except that each critical slide was presented to control subjects as being a man with no mention of ethnic group membership.

RESULTS

The first hypothesis that members of groups further down on the social distance scale will be perceived as shorter than individuals representative of groups higher upon the scale was tested using the three height-equated slides. An analysis of variance, (Table II), showed that when all experimental subjects were tested, differences in estimated height between ethnic groups were highly significant, $p < .001$. Estimated heights for each ethnic group, (Table III), were compared by the use of t tests and showed that for the experimental subjects, the estimated height of the American was significantly taller than that of the Indian, ($t=12.14$, $p < .001$), and the Hutterite, ($t=14.75$, $p < .001$). The estimated height of the Indian was significantly taller than that of the Hutterite, ($t=2.71$, $p < .01$).

The second hypothesis, that persons with high social distance scores would perceive highly rejected persons as shorter than would persons with low social distance scores, was not supported (Table II). The difference between groups in perceiving the same stimulus individuals was not significant. Although not statistically significant, the differences were in the expected direction.

TABLE II

Analysis of Variance of Height Judgments of the Three
Equated Slides for All Experimental Subjects

Source	df	Mean Square	F
Social Distance Groups	2	4.40	.73
Error	111	6.54	
Slides	2	595.45	98.49*
Interact A x B	4	.82	.13
Error	222	6.04	
Total	341		

* $p < .001$

TABLE III

Mean Estimated Heights of the Three Critical Slides
for All Experimental Subjects

Variable	Estimated Height
American	72.67 inches
Indian	69.12 inches
Hutterite	68.24 inches

Levels of significance were determined by t-tests, two-tailed

* $p < .01$

** $p < .001$

As a further means of testing the second hypothesis, it was predicted that persons with high F scores would perceive highly rejected individuals as shorter than would persons with low F scores. To test this, subjects with scores of 3.31 and over on the F scale were placed in the high F group; subjects with scores of 2.76 and lower in the low F group, these subjects making up the upper and lower quartiles respectively. There were 23 subjects in the upper quartile and 23 in the lower. An analysis of variance (Table IV) compared the upper and lower F quartiles on the three height equated slides. F-group effects failed to reach significance.

In order to determine the effects produced by the slides without the use of verbal labels, an analysis of variance was used to analyze the estimated heights of the American, Indian, and Hutterite slides for the control group. Table V shows that these differences were significant. As can be seen in Table VI, the slide of the American was judged tallest, the Hutterite was judged next in height, and the Indian shortest. T-tests were used to further examine the data. It was found that the American was judged significantly taller than the Indian, ($t=4.66$, $p<.001$), but not significantly taller than the Hutterite. The Hutterite was judged significantly taller than the Indian, ($t=4.82$, $p<.001$). The hypothesis predicted that an individual's height would be directly related

TABLE IV

Analysis of Variance of Height Judgments for the
Three Equated Slides and High and Low F Groups

Source	df	Mean Square	F
F Groups	1	1.53	.23
Error	44	6.67	
Slides	2	211.72	43.50*
Interact A x B	2	1.21	
Error	88	4.89	.25
Total	137		

*p < .001

TABLE V

Analysis of Variance of Height Judgments for the
Control Group on the Three Equated Slides

Source	df	Mean Square	F
Slides (A)	2	144.17	25.25*
Error	48	5.75	
Total	50		

*p < .01

TABLE VI

Mean Estimated Heights of the American,
Indian and Hutterite by the Control Group

Slide	Estimated Height
American	71.44 inches
Indian	65.94 inches
Hutterite	70.35 inches

Levels of significance were determined by t-tests, two tailed
*p < .001

TABLE VII

Mean Estimated Heights of the Three Critical Slides for
All Experimental Subjects and the Control Group

Variable	Experimental Subjects	Control Subjects
American	72.67* inches	71.44* inches
Indian	69.12*** inches	65.94*** inches
Hutterite	68.24** inches	70.35** inches

Levels of significance were determined by t-tests, two tailed

*p < .05

***p < .01

***p < .001

to his ethnic status. Since the Hutterite slide was not perceived as the shortest of the three slides by the control group, the findings for the experimental group were strengthened.

A comparison was made by the use of t -tests between the 109 experimental subjects and the 17 control subjects on each of the equated critical slides (Table VII). The slide of the American was judged significantly taller by the experimental subjects than by the control subjects, ($t=2.40$, $p<.05$). The Indian was also perceived by the experimental subjects as significantly taller, ($t=4.33$, $p<.001$). The Hutterite was, however, judged as significantly taller by the control group, ($t=2.84$, $p<.01$).

DISCUSSION

The first hypothesis received strong support as status related ethnic membership appeared to effect estimations of height. Estimations were in the expected direction; the American was perceived tallest, the Indian next in height and the Hutterite shortest when each slide was identified in terms of ethnic group membership. This was the same sequence of social distance shown by the social distance scale, the Hutterite having the greatest social distance. Ethnic group status appeared to influence estimations of height when individuals from high, medium and low groups on the social distance scale were used as stimuli. These findings are consistent with those of Dannenmaier and Thumin (1964) and Wilson (1968) who found that status of an individual, whether vocational or academic, appears to influence the estimation of his height.

The second hypothesis, that high social distance scorers and high F scorers would perceive "low" status persons as shorter than would low social distance and low F scorers remained unsupported. No significant differences were found. The social distance and F

scales may have been unable to effectively discriminate between those who were highly prejudiced and those who were less prejudiced. This may have been due to a lack of sensitivity of the two scales.

The findings for the control group indicated that the Hutterite, when presented as a "man", was taller than when presented as a Hutterite. This would indicate that identification of the slide as a Hutterite was sufficient to cause the slide individual to be perceived in a diminutive manner. The findings for the American were just the opposite; labeling the slide as American caused an increase in estimated height. The Indian was perceived as significantly shorter by the control group than by the experimental group, perhaps because of the obvious racial characteristics depicted in the slide. In the experimental condition, the context of another ethnic group with greater social distance may have affected the taller experimental Indian. In the control condition, none of the other slides were visibly noticeable as being from a "low" status group; this may have accentuated ethnic status effects.

The differences in height between the control and experimental observations can be attributed to the verbal labels assigned to the pictures. With everything except labeling held constant, the estimated height of each slide individual changed when ethnic verbal labels were eliminated. Without verbal labels, the Indian slide was the only slide perceived to be significantly different in height than any other. This may have been due to the obvious racial char-

acteristics of the Indian which distinguished it from the other two Caucasian slides. The label was one factor which presumably called forth status-related prejudices.

One confounding factor which may have affected height estimations resulting in changed height estimations was the subjects' belief regarding a particular group's actual height. If a subject had a stereotyped belief that all Hutterites were actually short, this may have caused him to judge the slide individual labeled Hutterite as short without any prejudice involved. This same factor may have affected all three height equated slides. The American could have represented any number of ethnic groups to a subject, and this could affect his judgment. The Indian may have been identified with one of many Canadian tribes, some of which are shorter than others. Thus, nonprejudiced stereotypes, in regards to height, may have had some confounding effect on height estimations.

The findings of this study suggest that clear structure may not be sufficient to prevent subjective distortion when ethnic status is involved. The implications of these findings are even greater when observations of a less structured nature are considered. It would be expected that stereotypes and observations in regard to character would be more susceptible to negative accentuation. The findings of Dammmaier and Thumin (1964) and Wilson (1968) indicate

that height and status are related. A person who is not considered "tall" is thus considered low in status. Status is a major factor in determining how a person is accepted and treated by others. The findings of this study, which indicates Indians and Hutterites are judged as short on a comparative basis, may indicate prejudice against equal acceptance.

The use of height estimations may be useful as a disguised technique for determining prejudice. The findings of Marchionne and Marcuse (1955), that prejudice of the observer affects recall, could tend to support this notion. This is indicated by the significant difference in perceptual recall found between high and low scorers on the ethnocentrism scale. Further research into height estimations would be necessary, however, before a definitive test could be devised to measure prejudice. Research using one critical slide under several ethnic labels might be one means of verification. If a difference was found between highly prejudiced and unprejudiced subjects, this would strengthen the notion that height estimations are an indication of prejudice. Another means of investigation would be to assign different religious labels to slide individuals in an effort to determine the status of various religions. It would be expected that a slide individual assigned with an unpopular religion would be judged shorter than an individual with a more widely accepted religion. Other variations could involve different occupations and

social positions being assigned to individuals in an effort to determine their status.

REFERENCES

- Adorno, T. W., Frenkel-Brunswik, Else, Levinson, D. J., Sanford, R. N. The authoritarian personality. New York: Harper, 1950.
- Altemeyer, R. A. Balancing the F Scale. Paper presented at a meeting of the American Psychological Association, Washington, D. C., August 31, 1969.
- Ashley, W. R., Harper, R. S., and Runyon, D. L. The perceived size of coins in normal and hypnotically induced economic states. American Journal of Psychology, 1951, 64, 564-572.
- Beams, H. L. Affectivity as a factor in the apparent size of pictured objects. Journal of Experimental Psychology, 1954, 45, 197-200.
- Bruner, J. S. & Goodman, C. C. Value and need as organizing factors in perception. Journal of Abnormal and Social Psychology, 1947, 42, 33-44.
- Bruner, J. S., & Postman, L. Symbolic value as an organizing factor in perception. Journal of Social Psychology, 1948, 27, 203-208.
- Bruner, J. S., & Rodrigues, J. S. Some determinents of apparent size. Journal of Abnormal and Social Psychology, 1953, 48, 17-24.
- Carter, L. F., & Schooler, K. Value, need and other factors in perception. Psychological Review, 1949, 56, 200-207.
- Dannenmaier, W. D. & Thumin, F. J. Authority status as a factor in perceptual distortion of size. Journal of Social Psychology, 1964, 63, 361-365.
- Dukes, W. F., & Bevan, W. Size estimation and monetary value: a correlation. Journal of Psychology, 1952 (a), 34, 43-53.

- _____. Accentuation and response variability in the perception of personally relevant objects. Journal of Personality, 1952 (b), 20, 457-465.
- Marchionne, A. M. & Marcuse, F. L. Sensitization and prejudice. Journal of Abnormal and Social Psychology, 1955, 51, (37, 637-640).
- Newcomb, T. & Hartley, E. Readings in Social Psychology. New York: Holt, 1947.
- Smith, K. R., Parker, G. B., & Robinson, G. A. An exploratory investigation of autistic perception. Journal of Abnormal and Social Psychology, 1951, 46, 324-326.
- Solley, C. M. & Haigh, C. How children perceive Santa Claus. Menninger Quarterly, 1958, 12 (No. 4), 23-24.
- Tajfel, H. Value and judgment of magnitude. Psychological Review, 1957, 64, 192-204.
- Wilson, P. R. Perceptual distortion of height as a function of ascribed academic status. Journal of Social Psychology, 1968, 74, 77-102.

APPENDIX A

According to my first feeling reactions I would willingly admit members of each race (as a class, and not the best I have known, nor the worst members) to one or more of the classifications under which I have placed a cross (X).

	7	6	5	4	3	2	1	
	1	2	3	4	5	6	7	Would exclude from my country
								As visitors only to my country
								To citizenship in my country
								To employment in my occupation in my country
								To my street as neighbors
								To my club as personal chums
								To close kinship by marriage

Russians

Americans

Chinese

Czecho-Slovaks

French-Canadians

Germans

Metis

Indians

Ukrainians

Negroes

Poles

Jews

Hutterites

Mexicans

Doukhobors

Spanish

Greeks

English

Swedish

1. Your father's race
2. Your mother's race

APPENDEX B

In this experiment, you are asked to indicate your reaction to each of the opinion statements that follow, according to the following scale:

Check the box marked +3 if you strongly agree with the statement.
 " " " " +2 if you moderately agree with the statement.
 " " " " +1 if you slightly agree with the statement.

Check the box marked -1 if you slightly disagree with the statement.
 " " " " -2 if you moderately disagree with the statement.
 " " " " -3 if you strongly disagree with the statement.

Please read each statement carefully before you check the box that indicates your reaction. Also, one of the conditions in this experiment is that once you have finished answering the items on a page, you cannot go back to look at it. You will see that some of the items are similar to one another, and I want you to answer the items independently of one another. So, simply read each item, decide how you feel about it, mark your reaction, and go on to the next.

You should be able to finish the whole questionnaire in 45 minutes or less. Please work carefully. Are there any questions?

	+3	+2	+1	-1	-2	-3
1. Obedience and respect for authority are certainly not the most important things children should learn.						
2. No weakness or difficulty can hold us back if we have enough will power.						
3. Science has its place, but there are many important things that can never possibly be understood by the human mind.						
4. Human nature being what it is, there will always be war and conflict.						
5. A person should not necessarily put complete faith in some supernatural power whose decisions he obeys without question.						
6. When a person has a problem or worry, it is best for him not to think about it, but to keep busy with more cheerful things.						
7. A person who has bad manners, habits and breeding is undoubtedly still entitled to the respect of decent people.						
8. Strict discipline, rugged determination, and the will to work and fight for family and country are not the things youth needs most.						

9. Some people are born with an urge to jump from high places.
10. Even though people of all sorts mix together nowadays, you should not spend a great deal of time worrying about catching an infection or disease from others.
11. One should not react against every insult to his honor.
12. It is tragic that young people lose their rebellious ideas as they grow older and surrender to the established ways.
13. It is best to use some prewar authorities in Germany to keep order and prevent chaos.
14. What this country needs most, more than leaders in whom the people can put their faith, are proper laws and political programs.
15. Sex crimes, such as rape and attacks on children, should not be punished by imprisonment; people who do these things are mentally ill, and should be treated with kindness and understanding.
16. People cannot be divided into two simple classes like "the weak" and "the strong".
17. A person is not to be condemned just because he does not feel a great love, gratitude and respect for his parents.
18. Some day it will probably be shown that astrology can explain a lot of things.
19. Nowadays more and more people are prying into matters that should remain personal and private.
20. Wars and social troubles may someday be ended by an earthquake or flood that will destroy the whole world.
21. Few of our social problems would be solved even if we could somehow get rid of the immoral, crooked and feeble minded people.
22. The wild sex life of the old Greeks and Romans was tame compared to some of the goings-on in this country, even in places where people might least expect it.

[illegible]

