The Attitudes of College Students Toward the Physically Handicapped: A Study in Social Distance

Joseph Ellis
Western Kentucky University

Follow this and additional works at: https://digitalcommons.wku.edu/theses

Part of the Inequality and Stratification Commons, and the Social Psychology and Interaction Commons

Recommended Citation
https://digitalcommons.wku.edu/theses/2293

This Thesis is brought to you for free and open access by TopSCHOLAR®. It has been accepted for inclusion in Masters Theses & Specialist Projects by an authorized administrator of TopSCHOLAR®. For more information, please contact topscholar@wku.edu.
Ellis,

Joseph J.

1971
THE ATTITUDES OF COLLEGE STUDENTS TOWARD
THE PHYSICALLY HANDICAPPED: A STUDY
IN SOCIAL DISTANCE

A Thesis
Presented to
the Faculty of the Department of Sociology
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
Joseph J. Ellis
August 30, 1971
THE ATTITUDES OF COLLEGE STUDENTS TOWARD
THE PHYSICALLY HANDICAPPED: A STUDY
IN SOCIAL DISTANCE

APPROVED 8/22/71:

William E. Snizak
Director of Thesis

Thomas P. Dunn

Clifford C. Bryant

J. S. Sandefur
Dean of the Graduate School
ACKNOWLEDGEMENTS

To the members of my committee--Dr. William E. Snizek, Dr. Thomas P. Dunn, Dr. Clifton D. Bryant, and Mr. Craig H. Taylor--I would like to express my deepest gratitude for not only their help but also their patience with what, I am sure, seemed a never ending chore. I owe a special thanks to my chairman, Dr. William Snizek; were it not for his guidance, his perseverance, and his vigorous encouragement, the task might still be incomplete.

Also, I want to thank Dr. Louis Beck and Dr. Fuad Paali for their advice, their consideration, and their support throughout the entire project.

Finally, I would like to acknowledge Dr. Clifton D. Bryant for his very very special help in every aspect of my graduate life. Whatever worth this thesis might have is directly attributable to his encouragement, his direction, and his enthusiasm.
## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acknowledgements</td>
<td>iii</td>
</tr>
<tr>
<td>List of Tables</td>
<td>vii</td>
</tr>
<tr>
<td><strong>Chapter I: The Problem</strong></td>
<td>1</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>3</td>
</tr>
<tr>
<td><strong>Chapter II: Review of the Literature</strong></td>
<td>4</td>
</tr>
<tr>
<td>Introduction</td>
<td>4</td>
</tr>
<tr>
<td>Social Distance—The Dependent Variable</td>
<td>4</td>
</tr>
<tr>
<td>Contact—The Independent Variable</td>
<td>7</td>
</tr>
<tr>
<td>The Relationship of Contact and Social Distance</td>
<td>10</td>
</tr>
<tr>
<td>The Relationship of Contact to Social Distance for Selected Handicaps</td>
<td>11</td>
</tr>
<tr>
<td>The Relationship of Contact to Social Distance for Selected Control Variables</td>
<td>12</td>
</tr>
<tr>
<td>Research Hypothesis</td>
<td>13</td>
</tr>
<tr>
<td>Summary</td>
<td>14</td>
</tr>
<tr>
<td><strong>Chapter III: Operationalization of the Study</strong></td>
<td>16</td>
</tr>
<tr>
<td>Introduction</td>
<td>16</td>
</tr>
<tr>
<td>Test Population</td>
<td>16</td>
</tr>
<tr>
<td>Types of Handicaps Studied</td>
<td>17</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Dependent Variable--Social Distance</td>
<td>18</td>
</tr>
<tr>
<td>Independent Variable--Contact</td>
<td>19</td>
</tr>
<tr>
<td>Control Variable</td>
<td>21</td>
</tr>
<tr>
<td>Chapter IV: Analysis of the Data</td>
<td>23</td>
</tr>
<tr>
<td>Introduction</td>
<td>23</td>
</tr>
<tr>
<td>Section One:</td>
<td></td>
</tr>
<tr>
<td>Dependent Variable--Social Distance</td>
<td>23</td>
</tr>
<tr>
<td>Independent Variable--Contact</td>
<td>26</td>
</tr>
<tr>
<td>Summary</td>
<td>32</td>
</tr>
<tr>
<td>Section Two:</td>
<td></td>
</tr>
<tr>
<td>Social Distance and Contact</td>
<td>35</td>
</tr>
<tr>
<td>Control Variable--Sex</td>
<td>41</td>
</tr>
<tr>
<td>Social Distance vs. Independent Variables--Controlled for Sex</td>
<td>47</td>
</tr>
<tr>
<td>Summary</td>
<td>50</td>
</tr>
<tr>
<td>Chapter V: Summary and Conclusions</td>
<td>53</td>
</tr>
<tr>
<td>Introduction</td>
<td>53</td>
</tr>
<tr>
<td>Section One:</td>
<td></td>
</tr>
<tr>
<td>The Pattern of Social Distance for Selected Handicaps</td>
<td>58</td>
</tr>
<tr>
<td>The Relationship Between Contact and Social Distance</td>
<td>59</td>
</tr>
<tr>
<td>The Relationship Between Contact and Social Distance When Controlled for Sex</td>
<td>60</td>
</tr>
<tr>
<td>Section Two:</td>
<td></td>
</tr>
<tr>
<td>Weaknesses of the Present Study and Suggestions for Future Research</td>
<td>64</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Percentage of Persons Expressing a Willingness to Marry Persons Exhibiting Each of Seven Handicaps</td>
<td>27</td>
</tr>
<tr>
<td>2. The Frequencies of Occurrence of Contact With Each of Seven Handicaps</td>
<td>28</td>
</tr>
<tr>
<td>3. The Type of Relationship Indicated by Persons Reporting Contact With Any of Seven Handicaps</td>
<td>31</td>
</tr>
<tr>
<td>4. The Duration of Contact Expressed by Persons Reporting Contact With Any of Seven Handicaps</td>
<td>33</td>
</tr>
<tr>
<td>5. The Relationship Between Contact and Social Distance</td>
<td>36</td>
</tr>
<tr>
<td>6. The Relationship Between Type of Relationship and Each of Seven Handicaps</td>
<td>38</td>
</tr>
<tr>
<td>7. The Relationship Between Duration of Contact and Each of Seven Handicaps</td>
<td>40</td>
</tr>
<tr>
<td>8. The Relationship Between Sex and Social Distance for Each of Seven Handicaps</td>
<td>43</td>
</tr>
<tr>
<td>9. The Relationship Between Sex and the Independent Variables for Obesity/Emaciation</td>
<td>45</td>
</tr>
<tr>
<td>10. The Relationship Between Occurrence of Contact and Social Distance for Obesity/Emaciation When Controlled for Sex</td>
<td>47</td>
</tr>
<tr>
<td>11. The Relationship Between Type of Relationship and Social Distance for Obesity/Emaciation When Controlled for Sex</td>
<td>48</td>
</tr>
<tr>
<td>12. The Relationship Between Duration of Contact and Social Distance for Obesity/Emaciation When Controlled for Sex</td>
<td>50</td>
</tr>
</tbody>
</table>
Table

| A. The Relationship Between Sex and the Occurrence of Contact for Each of Seven Handicaps | 68 |
| B. The Relationship Between Sex and Type of Relationship for Each of Seven Handicaps | 69 |
| C. The Relationship Between Sex and Duration of Contact for Each of Seven Handicaps | 70 |
CHAPTER I

THE PROBLEM

Introduction

The problem of rehabilitation of the physically handicapped in the United States is one of massive proportions. A 1968 survey conducted by the Department of Transportation estimates the number of physically disabled persons in the United States to be approximately 30 million.1

Albeit the number of handicapped individuals is large, the question of rehabilitation is not a simple one. It involves several very complex but irredeemably intertwined solutions, not the least of which is the re-education of the majority of physically normal people for whom physical handicaps are negatively stigmatized.2 In this


2Irving Goffman, Stigma: Notes on the Management of Spoiled Identity (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1963). Among the ancient Greeks the term "stigma" referred to "... bodily signs designed to expose something unusual and bad about the moral status of the signifier" (p. 1). In short, the signifier was considered blemished.
regard Lee Meyerson, one of the more persistent investigators in the area of physical rehabilitation, has noted the following:

The problem of adjustments to physical disability is as much or more a problem of the non-handicapped majority as it is of the disabled majority.3

Historically, variations in physique have served as an important basis for social differentiation. Correspondingly, various personality traits have been ascribed to these physically deviant individuals. It is not uncommon for villains in literature to be portrayed as hunchbacked and ugly; just as often, distorted facial features, dwarfism, and deformity are associated with cunning or evil. An example of particular interest would be Stevenson's The Strange Case of Dr. Jekyll and Mr. Hyde, which concerns a meek but physically normal doctor whose physical, as well as psychical character, was changed to be more representative of evil.4 Another example can be found in

For Coffman, the term refers to a deeply discrediting attribute which "... constitutes a special discrepancy between virtual and actual social identity" (p. 3). It is important to note that the stigmatized individual usually adheres to the same stigmatizing set of beliefs as the non-stigmatized individual (p. 7).


Adjustment to Physical Handicap and Illness: A Survey of the Social Psychology of Physique and Disability in which 6,909 jokes are analyzed. The fact that 4.1% of the jokes deal with deviancy is not itself startling; what is of interest, however, is that of these jokes an excess of 80% are deprecative.\(^5\) In short, such allusions as to the inferiority of physically deviant individuals are not atypical; rather, they are quite common in fiction, drama, and humor.

**Statement of the Problem**

As noted above, physical deviance serves as a basis of social differentiation; and where this differentiation takes on a negative character, the concept of social distance can be useful in measuring the attitudes of physically normal persons in their acceptance or rejection of those who are physically deviant.

This study intends to examine the normals' contacts (in their various forms) with disabled persons and the relationship of these contacts to the social distance established between persons who are physically normal and those who are physically deviant.

---

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The present chapter is concerned with literature related to the variables under investigation in this study. Literature pertinent to both the independent and dependent variables is examined first. Next, literature concerned with the relationship between the variables is discussed. Finally, literature concerned with the influence of the control variable upon the relationship is reviewed.

Social Distance--The Dependent Variable

Social distance, as defined by Emory S. Bogardus in 1925, refers to the "... degrees and grades of understanding and feeling that persons experience regarding each other."¹ In short, social distance, for the purposes of this study will refer to the levels of acceptance individuals have of others.

It is important to note, however, that although a few researchers examining physical deviancy utilize the

term "social distance," no literature is available in which the Bogardus-type social distance scale has been used to measure social distance between the physically normal and the physically handicapped. Nevertheless, there are numerous studies which deal with various aspects of social differentiation. As the focuses of these studies are generally related to social distance, an examination of them is germane to this study. Therefore, all available literature in which physical deviancy is examined as a basis of social differentiation is reviewed.

As noted in Chapter I, physical deviance acts as a basis of social differentiation in several ways. Not only is the deviant differentiated on the basis of physical deviancy alone, but the deviant is forced to suffer from the devaluative connotations that the handicap carries for the normal. As Chevigny and Braveman, Scott, Whiteman and Lukoff all note, there is usually some imputation of


inferiority attached to handicapped persons. This finding is consistent with the findings of Mussen in his article, "Cripple Stereotypes and Attitudes Toward Cripples."\(^5\) In an overview of the article written by Mussen and supportive articles contributed by Mussen and Barker,\(^6\) and Ray,\(^7\) Barker et al.\(^8\) indicate that in the studies surveyed in which no contact between normals and cripples occurred, cripples were believed by normals to be more conscientious, more intelligent, and more religious. Yet at the same time, these crippled individuals were described as being less happy, less attractive, more inferior, and more self-pitiful than physically normal persons. These authors suggest that the physically normal persons, knowing of the handicapped persons' inferiority in areas of physical achievement, project achievement to the handicapped persons in non-physically oriented areas. This success in non-physical realms is viewed by physically normal persons as compensatory achievement. Likewise, it is suggested that physically normal persons believe that physically

\(^5\)P. H. Mussen, "Cripple-Stereotypes and Attitudes Toward Cripples" (M.A. thesis, Stanford University, 1943).


\(^7\)Margaret Ray, "The Effect of Cripples' Appearance on Personality Judgements" (M.A. thesis, Stanford University, 1946).

\(^8\)Barker, et al., Adjustment to Physical Handicap and Illness: A Survey of the Social Psychology of Physique and Disability.
deviant persons are less happy and more self-piteous due
to the handicapped persons' awareness of their own physical
inadequacy.\textsuperscript{9} In addition, Barker, Wright, Meyerson, and
Conick suggest that while the verbally expressed attitudes
toward the physically deviant may be mildly favorable, the
underlying non-verbalized attitudes may be quite hostile.\textsuperscript{10}

**Contact--The Independent Variable**

In the literature on physical deviance and rehabili-
tation, there is some disagreement regarding the part that
ccontact, however assessed, plays in effecting a change in
the stereotypical behavior of normals toward physically
handicapped persons. In agreement with Richardson, Hastorf,
Goodman, and Dornbusch,\textsuperscript{11} one of the leading investiga-
tors in the area, Robert Kleck,\textsuperscript{12} (alone and in cooperation with
Ono and Hastorf\textsuperscript{13}) has repeatedly noted that those subjects
who have had the least contact with handicapped persons are

\textsuperscript{9}Ibid., pp. 69-71.

\textsuperscript{10}Ibid., pp. 67-77.

\textsuperscript{11}Stephen Richardson, Albert Hastorf, Norman Goodman,
and Sanford Dornbusch, "Cultural Uniformity in Reaction to
Physical Disabilities," *American Sociological Review*, XXVI
(April, 1961), 241-247.

\textsuperscript{12}Robert Kleck, "Physical Stigma and Task Oriented

\textsuperscript{13}Robert Kleck, Hiroshi Ono, and Albert Hastorf, "The
Effects of Physical Deviance upon Face-to-Face Interaction,"  
the ones most uncomfortable in the presence of handicapped persons. In fact, Kleck, Ono, and Hastorf indicate that physically normal persons, when in the presence of disabled persons, terminate interaction more quickly, demonstrate less verbal variability, and express opinions less representative of their actual beliefs.14

Irving Goffman, in his book Stigma, indicates that when contact occurs between physically normal and physically deviant persons, the presence of the handicapped persons may effect "anxious unanchored interaction" which leaves the normals uncertain as to what constitutes appropriate behavior. Goffman suggests that physically normal persons maintain a devaluative attitude toward handicaps. It is apparent, therefore, that physically normal persons subject to "anxious unanchored interaction" would be unlikely to alter in a positive direction their attitudes toward a physically handicapped person.

Another investigator, J. Granoksky,15 insists that short periods of contact with physically deviant persons

14 Ibid., 433.

do not significantly alter the behavioral attitudes of physically normal persons. There is no evidence to indicate that short periods of contact either improve or worsen the normals' opinion of handicapped persons.

The findings of both Goffman and Granoksky would seem to indicate that social contact does not consequentially change the devaluative stereotypes the physically normals have of the physically deviants. However, many investigators' findings lie in direct contrast to those of investigators who found that contact either does not affect or negatively affects the attitudes of normals toward physical deviants. For example, Jaffee and Holzberg and Gewirtz report that an increase in contact with disabled persons produces a corresponding increase in favorable attitudes toward these disabled individuals. These findings are in concordance with the findings of Kleck, and Kleck, Ono, and Hastorf, who also reported a proportionate increase in favorable attitudes with increased contact.

---

16 Ibid.
19 Kleck, et al., "The Effects of Physical Deviance upon Face-to-Face Interaction."
The Relationship of Contact and Social Distance

The available literature that is concerned with the effects of normal-deviant contact upon social distance is, at best, somewhat limited. This writer knows of no studies having been done on the relationship of contact and social distance in which a Bogardus-type social distance scale was utilized. However, several investigators have examined the effects contact has upon both attitudes and stereotypical patterns of behavior when physical deviancy is used as a basis of social differentiation. Shaler,\(^{20}\) and Genskow and Maglione\(^{21}\) have found that as familiarity grows, the physically normal person's devaluative attitudes toward handicaps diminish. Logically, even though these investigators did not use a Bogardus-type scale, for purposes of this study the implication can be made that as the physically normal persons' devaluative stereotypical attitudes diminish, social distance decreases accordingly. Kleck, alone and with Ono and Hastorf,\(^{22}\) discovered that with an increase in contact the physically normal persons'...
stereotypical patterns of behavior toward the deviant are reduced.

Some investigators, however, do not agree that contact affects attitudes or devaluative stereotypic behavior positively. In fact, Goffman insists that as normals' familiarity with physical deviants increases, there arises an accompanying increase in the devaluation attached to the handicap by the normal. Robert Kleck directly tested Goffman's contentions of the uncertainty of interaction and the resulting increase in devaluative attitudes. Although Kleck noted the simulated handicap produced an initial avoidance response, there was some indication that with increased contact the physical normal was less likely to avoid proximate interaction.

In summary, it would appear that the literature bearing upon the relationship of contact to social distance is fragmented and inconclusive.

The Relationship of Contact to Social Distance for Selected Handicaps

While there has been a great deal of work done on attitudes toward the mentally handicapped, little has been done to compare handicaps other than the work done by

23 Robert Kleck, "Physical Stigma and Task Oriented Interactions."
Whiteman and Lukoff, who separated blindness from the other physical handicaps. In short, blindness was found to be more severe than other physical handicaps; but with a corresponding increase in the perception of the severity of blindness, there was an increase in the perceived severity of other physical handicaps. Interestingly enough, allusions to blindness were more severely evaluated by respondents than allusions to blind "people." To date, few researchers have chosen to investigate the effect of contact on the attitudes that physical normals hold in regard to a variety of physical handicaps. For the purposes of this study the available research of this type is of little value.

The Relationship of Contact to Social Distance

For selected control variables, there are very few studies which systematically introduce control variables to explain the phenomena they intend to investigate. Richardson, Hastorf, Goodman, and Dornbusch found

---


that neither sex, race, urban-rural differences, nor socio-economic status affected social distance perceptions on the part of physically normal persons. In their article, "Attitudes Toward Blindness in Two College Groups," Whiteman and Lukoff found that neither age, sex, level of information, or contact with blind people accounted for devalua-
tive attitudes toward blindness exhibited by their sample.

Research Hypothesis

The literature with reference to physical deviance is inconsistent in its suggestions that contact may or may not affect social distance between physically normal persons and physically deviant persons. It is the contention of this thesis that as contact between normals and physically deviant individuals increases, less social distance is established by the physically normal persons between themselves and physically deviant persons. Stated in null form, the hypothesis is as follows:

No relationship exists between type or extensiveness of contact with physical deviants (handicapped persons) and social distance between physical normals and physical deviants, as perceived by physical normals.

Since contact is measured in three ways—occurrence of contact, type of contact, and extensiveness of contact—

three separate and distinct sub-hypotheses (stated in null form) will be utilized for each of the three types of contacts:

1. No relationship exists between the occurrence of contact with physical deviants (handicapped persons) and social distance between physical normals and physical deviants, as perceived by physical normals.

2. No relationship exists between type of contact with physical deviants (handicapped persons) and social distance between physical normals and physical deviants, as perceived by physical normals.

3. No relationship exists between duration of contact with physical deviants (handicapped persons) and social distance between physical normals and physical deviants, as perceived by physical normals.

Summary

The purpose of this chapter has been to relate the current pertinent literature concerned with physical deviancy to the problem under investigation. The literature was analyzed in its relationship to the independent, dependent, and control variables. There has been a great deal of research done on the effect of contact upon attitudes. However, it is interesting to note that there has been little research done on the relationship of contact to social distance per se. In addition, there has been virtually no research of a comparative nature focused upon the differing devaluations associated with
selected handicaps. Therefore, it appears reasonable to conclude that the literature concerned with the relationship of contact and social distance is inconsistent and inconclusive.

Having reviewed the literature dealing with physical deviance, we now turn to Chapter III, which examines the items used in operationalizing the variables in this study.
CHAPTER III

OPERATIONALIZATION OF THE STUDY

Introduction

This chapter presents a description of the test population and a discussion of the instruments employed for the testing of the hypothesis.

Test Population

The test population for the present study consisted of students enrolled in the 1970 summer session at Western Kentucky University at Bowling Green, Kentucky. Exactly 300 in number, the test population was comprised of approximately the same number of males and females; in addition, the students were, for the most part evenly distributed as to class standing. During the school week of July 27–July 31, questionnaires were administered by a group of four male graduate students, all of whom were physically normal. Each questionnaire required approximately 15 to 20 minutes for completion. The questionnaires were administered during class periods in selected classes representing a variety of course topics within the liberal arts curriculum.
Types of Handicaps Studied

The terms "disabled" and "handicapped" refer, in the narrative sense to any "variation in physique upon which, ordinarily, we place a highly negative value." However, for the purposes of this research, "handicap" refers only to deficiencies of the following types:

1. Loss of an arm
2. Loss of a leg
3. Deafness
4. Speech impediments (stammers, stutters, lisps)
5. Noticeable facial disfigurement (i.e., large scars, birthmarks, etc. cannot be concealed by the use of cosmetics)
6. Extreme obesity or extreme emaciation (i.e., abnormal fatness or thinness caused by nutritional deficiencies or by disease)
7. Blindness

As most handicaps can be meaningfully classified as handicaps of movement, communication, or appearance, these particular handicaps were chosen in an effort to include disabilities that are primarily representative of either locomotive, communicative, or cosmetic deficiencies so that a compounding of the stigma that might be attached to each by physically normal persons could (as much as possible) be avoided. Blindness is the only exception in that it is a compound handicap which encompasses both locomotive and communicative aspects and in some cases

---

demands cosmetic consideration as well. However, since it is one of the more common serious handicaps and since the literature suggests that it is as much or more highly stigmatized than the more visible physical handicaps, it is included. No attempt is made to differentiate between handicaps that are congenital (organic) defects and handicaps that are the products of accidents (functional).

Respondents who are themselves handicapped were discarded from the study population on both theoretical and methodological grounds. There were not enough handicapped respondents to justify separate examination of handicapped individuals. The purpose of this study is not to study the deviant; rather, its purpose is to examine the cognitive behavior on the part of the normal.

**Dependent Variable—Social Distance**

The sole dependent variable in the study is the social distance manifested by the physically normal person between himself and persons possessing selected physical handicaps. The instrument used to measure social distance was a seven item modified Bogardus social distance scale. Each of the seven items was asked once for each of the seven handicaps outlined, producing forty-nine questions. In the questionnaire the question sequence was randomized in an effort to somewhat disguise the problem under investigation and to diminish the possibilities of a response set.
The following items were used to measure social distance:

A. Would you marry someone who . . . ?
B. Would you accept as a close personal friend someone who . . . ?
C. Would you accept as a roommate someone who . . . ?
D. Would you mind if someone who . . . lived in your dormitory?
E. Would you mind if someone who . . . worked in the same occupation as you?
F. I would avoid as much as possible someone who . . .
G. I would avoid completely someone who . . .

The respondents were limited to a yes-no response for each of the questions.

Standard Cuttman techniques were employed in analyzing the above data. The results of these procedures are discussed in Chapter IV.

**Independent Variable—Contact**

The basic independent variable in this research is the contact that respondents have had with persons who have handicaps of the types outlined above. Each of the questions measuring contact were administered once for each of the seven handicaps, in order to obtain as complete a "contact history" as possible for each handicap.

The independent variables are as follows:

1. The occurrence of contact with a particular handicap type
2. The type of relationship the respondent has (or had) with the handicapped person
3. The duration of the contact
Occurrence of Contact

A single question was used to determine the occurrence of contact with each of the seven handicaps under study:

Do you personally know or have you ever personally known anyone who has (had) any of the handicaps listed across the top of the chart? [Note: see chart] If so, please write "yes" in the appropriate box(es).

Individuals responding positively to question one on the occurrence of contact for any given handicap were instructed to answer two additional questions, which determined the type of relationship the normal has with the handicapped person and the length of time the normal has known the handicapped individual.

Type of Relationship

A second question was asked to determine the type of relationship the respondent has (had) with the handicapped individual(s) he knows (has known).

Please specify your relationship to that person. [If you have known or know more than one person with a particular handicap, answer this question using the person with whom you share(d) the closest relationship.]

______A. Close Friend
______B. Distant relative
______C. Casual acquaintance
______D. Immediate family (parent, child, spouse, brother, sister)

Relationships reported as immediate family, close friend,
or distant relative were classified as affective relationships. Responses indicating the type of relationship as casual acquaintance were classified as non-affective relationships.

Duration of Contact

A third question was used in determining the length of time the respondent has known the handicapped individual.

How long have you known this person? [As above, if you have known or know more than one person with a particular handicap, answer the question using the person with whom you share(d) the closest relationship.]

A. Brief encounter
B. 1 month to 5 months
C. 6 months to 11 months
D. 1 year to less than 3 years
E. 3 years to 5 years
F. Over 5 years

On the basis of responses to the question on the duration of contacts, duration was dichotomized, yielding contacts classified as less than five years and contacts classified as five years or more.

Control Variable

One control variable was utilized in further analysis of the problem: sex of the respondent. Prior to evoking a control variable on a relationship, the control variable is run against both the independent and dependent variables to ascertain if there are relationships. Introduction of
a third variable (the control variable) may refine the
cross-tabulation, may explain the results of the cross-
tabulation by either confirming it as true or revealing the original interpretation as spurious, or may fail to refine the results but reveal an independent effect. 2

---

CHAPTER IV

ANALYSIS OF THE DATA

Introduction

This chapter is divided into two sections. The first examines the overall frequency distribution of responses found to exist in connection with the dependent and independent variables under study. The second section centers upon an investigation of the actual relationships between the dependent and the independent variables, both alone and in the presence of a control variable.

Section One

Dependent Variable--Social Distance

The dependent variable in this study is the social distance a physically normal person establishes between himself and persons possessing the handicaps selected for study. Initially social distance was to be measured by seven seven-item scales, one for each of seven handicaps. The construction of these scales was patterned after the Bogardus social distance scale.¹

¹In the investigation of attitudes, the object is to find the point in an ordered series of statements at which the respondent changes his response pattern to disapproval (or approval, depending upon the wording of the statements).
The intermediate items in the scale, supposedly existing at approximately equal intervals, may or may not be equi-distant from each other depending upon the statement selection of the investigator. In this study the intermediate items, situated between the polarities of marriage (extremely low social distance) and complete avoidance (extremely high social distance), were designed to more accurately gauge the social distance manifested by the non-handicapped individual. Even though statement selection emulated the logic of the social distance scale utilized by Emory S. Bogardus in his classic study in 1925, the frequency of responses to the questions demonstrated that in reality the intermediate items did not exist equi-distantly. The extent to which the responses were skewed in the direction of low social distance on six of the items is demonstrative of the fact that these intermediate items were not fulfilling their purpose. In short, the

Such a pattern constitutes a perfect response type. Any given respondent must rank as high or higher than the second individual on every item in the scale. See Martin Fishbein, *Readings in Attitude Theory and Measurement* (New York: John Wiley & Sons, Inc., 1967).

2 Emory S. Bogardus, "Measuring Social Distances."

3 The interesting form and pattern of the responses will be examined in greater detail in Chapter V.
items did not scale.

The frequency of responses showed that the span between the various degrees of intimacy were not commensurate. In fact, of the seven items in all seven scales only the respondent's willingness to marry a person with one of the particular handicaps appeared to discriminate satisfactorily. On the basis of the data gathered in this study, the marriage relationship psychologically would seem to be of vastly greater import than friendship or neighborly relationships. Therefore, the respondent's willingness to marry a person exhibiting a particular handicap will be used as a measure of social distance due to the unfeasibility of employing Guttman procedure in connection with any of the seven handicap situations.

Willingness to marry an individual with a particular handicap indicates considerable variability in response distribution ranging from a low of 40.3% acceptance for handicaps involving the loss of a leg to 69.3% acceptance

\[\text{For each of the relationships other than marriage the respondents exhibited an extremely high degree of acceptance (low social distance) for each of seven handicaps. For example, in regard to the relationship of close personal friendship with a handicapped person (an item that theoretically should produce the second highest social distance of the seven), it was found that the mean percentage of respondents willing to accept as a close friend a person with any one of the seven handicaps was 93.4\%. By contrast, the mean percentage of those willing to marry a person with any one of the seven handicaps was only 47.9\%.}\]
for speech impairments (see Table 1). Thus, each handicap will be treated separately rather than simply treating "handicaps" as a unitary concept.

**Independent Variable—Contact**

**Occurrence of Contact**

The basic independent variable in this study is contact that the physically normal respondent had with persons possessing any of the seven handicaps outlined in Chapter III. Table 2 is a simple frequency distribution which illustrates the number of respondents having had contact with persons having any of the seven handicaps. The incidence of contact ranges from a low of 37.0%, for blindness, to a high of 87.7%, for speech impairments. Interestingly enough, blindness is usually considered one of the more common of the severe handicaps. A recent governmental publication lists visual impairment as the seventh most frequent cause of activity limitation for all ages. Persons who are visually impaired represent no less than 6% of all disabled persons, including those with heart disorders, cancer, and arthritis.\(^5\)

Unexpectedly, both categories involving the loss of an arm or a leg exceed the occurrence of contact with

---

Table 1. The Percentage of Persons Expressing A Willingness to Marry Persons Exhibiting Each of the Seven Handicaps

<table>
<thead>
<tr>
<th></th>
<th>Arm (%)</th>
<th>Speech (%)</th>
<th>Deaf (%)</th>
<th>Face (%)</th>
<th>Leg (%)</th>
<th>Blind (%)</th>
<th>Obese (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would</td>
<td>44.3 (133)</td>
<td>69.3 (208)</td>
<td>45.3 (136)</td>
<td>54.3 (163)</td>
<td>40.3 (121)</td>
<td>40.7 (122)</td>
<td>41.0 (123)</td>
</tr>
<tr>
<td>Would not</td>
<td>55.7 (167)</td>
<td>30.7 (92)</td>
<td>54.7 (164)</td>
<td>45.3 (136)</td>
<td>59.7 (179)</td>
<td>59.3 (178)</td>
<td>59.0 (177)</td>
</tr>
</tbody>
</table>
Table 2. The Frequencies of Occurrence of Contact with Each of Seven Handicaps

<table>
<thead>
<tr>
<th></th>
<th>Arm (N)</th>
<th>Speech (N)</th>
<th>Deaf (N)</th>
<th>Face (N)</th>
<th>Leg (N)</th>
<th>Blind (N)</th>
<th>Obese (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact</td>
<td>51.0 (153)</td>
<td>87.7 (263)</td>
<td>46.3 (139)</td>
<td>56.0 (168)</td>
<td>40.3 (121)</td>
<td>37.0 (111)</td>
<td>79.7 (239)</td>
</tr>
<tr>
<td>No Contact</td>
<td>49.0 (147)</td>
<td>12.3 (37)</td>
<td>53.7 (161)</td>
<td>44.0 (132)</td>
<td>59.7 (179)</td>
<td>63.0 (189)</td>
<td>20.3 (61)</td>
</tr>
</tbody>
</table>
blindness. Available research on physical disabilities suggests that handicaps involving the actual loss of a limb are more infrequent than any of the other five handicaps. As yet the research directly associated with the loss of a limb is rather scant. For the present study population the extremely high incidence of contact with persons who have lost a limb may to some extent be associated with the large numbers of disabled college-aged Vietnamese War veterans returning to school under the G.I. Bill.

**Type of Relationship**

Respondents who had had contact with a particular type of handicap were asked to identify the type of relationship as immediate family, close friend, distant relative, or casual acquaintance. For the purposes of analysis their responses were dichotomized into affective and non-affective relationships. Relationships described as immediate family, close friend, or distant relative were considered affective in nature. Relationships reported as casual acquaintance were classified as non-affective.

Table 3 describes the relationships for those respondents who had contact with disabled persons. Of the seven handicaps only contacts with the vocally impaired, the deaf, and the extremely obese or emaciated were shown to be predominately affective. Of those respondents having had
contact with a person who had lost an arm, 63.4% described that relationship as non-affective. Relationships involving the loss of a leg were mostly non-affective also. As vocal impairments, deafness, and obesity are relatively common handicaps, it is interesting to note their association with affective relationships. Handicaps involving the loss of an arm or a leg, generally considered more serious handicaps and definitely more visible handicaps, remained non-affective. It must be remembered though that handicaps involving a loss of an arm or a leg severely restrict earning ability of a potential mate. Therefore, there would be little incentive for the physically normal person to pursue a relationship with a person handicapped in this manner.

The figures in Table 3, however, in no way reflect the total number of people each respondent knew with any given handicap since they were instructed to answer the questions on type of relationship using only the person with whom they shared the closest relationship.

**Duration of Contact**

Responses recording the duration of contact with the disabled were divided for purposes of analysis into contacts of five years duration or more and contacts of less than five years. The responses listed in Table 4 are consistent with the responses in Table 3 except for the handicaps
Table 3. The Type of Relationship Indicated by Persons Reporting Contact with Any of Seven Handicaps

<table>
<thead>
<tr>
<th></th>
<th>Arm (% N)</th>
<th>Speech (% N)</th>
<th>Deaf (% N)</th>
<th>Face (% N)</th>
<th>Leg (% N)</th>
<th>Blind (% N)</th>
<th>Obese (% N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective</td>
<td>36.6 (56)</td>
<td>63.1 (166)</td>
<td>56.1 (73)</td>
<td>43.8 (74)</td>
<td>43.5 (57)</td>
<td>42.8 (48)</td>
<td>72.8 (174)</td>
</tr>
<tr>
<td>Non-Affective</td>
<td>63.4 (97)</td>
<td>36.9 (97)</td>
<td>43.9 (61)</td>
<td>56.2 (95)</td>
<td>56.5 (64)</td>
<td>57.2 (64)</td>
<td>27.2 (65)</td>
</tr>
</tbody>
</table>
involving speech inadequacies, loss of a leg, and obesity/emaciation. That is, logic dictates that affective relationships should exhibit the greatest duration, especially familial relationships. The seemingly paradoxical relationship manifested by speech disabilities and obesity/emaciation, which demonstrate affective relationships over a short period of time are probably a consequence of the study sample. Many close friend relationships made in college must necessarily have existed less than five years. Conversely, in regard to relationships involving the loss of a leg, although 43.5% described the relationship as affective, for 54.5% of the sample surveyed the duration of contact was more than five years. These figures would seem to indicate a number of casual relationships that have existed intermittently over a long period of time.

Summary

Section One has examined the frequency of responses associated with the dependent and the independent variables and has explained the modifications that were made after collection of data to facilitate analysis. Based upon the non-discriminatory nature of certain items, the use of Guttman scaling procedure was found to be unfeasible. In view of this fact, it was decided that a respondent's willingness to marry a person with any particular handicap be used to measure social distance.
Table 4. The Duration of Contact Expressed by Persons Reporting Contact with Any of Seven Handicaps

<table>
<thead>
<tr>
<th></th>
<th>Arm (N)</th>
<th>Speech (N)</th>
<th>Deaf (N)</th>
<th>Face (N)</th>
<th>Leg (N)</th>
<th>Blind (N)</th>
<th>Obese (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 5 years</td>
<td>33.6 (51)</td>
<td>43.3 (113)</td>
<td>54.7 (75)</td>
<td>36.7 (61)</td>
<td>54.5 (66)</td>
<td>47.3 (52)</td>
<td>54.4 (129)</td>
</tr>
<tr>
<td>Less than 5 years</td>
<td>66.4 (101)</td>
<td>56.7 (148)</td>
<td>45.3 (62)</td>
<td>63.3 (105)</td>
<td>45.5 (55)</td>
<td>52.7 (58)</td>
<td>45.6 (108)</td>
</tr>
</tbody>
</table>
In addition, the occurrence of contact, the type of relationship, and the duration of contact for each of the seven handicaps was investigated. An examination of occurrence of contact revealed that blindness—generally considered one of the more common physical disabilities—was the least frequently encountered handicap of any of the seven handicaps studied. Type of relationship was dichotomized into affective and non-affective relationships. Relationships with persons exhibiting deafness, speech impairments, and obesity/emaciation were predominantly affective in nature. Relationships involving the loss of a limb were mostly non-affective.
Section Two

Social Distance and Contact

Occurrence of Contact

Presented in Table 5 is data concerning the relationship between social distance and contact for each of the seven handicaps. As previously mentioned in Chapter III, it is the contention of this study that contact between physically normal and physically deviant individuals decreases the social distance established by normal persons between themselves and the physically deviant. The data recorded in Table 5 clearly indicates a trend in the expected direction. Indeed, for each of the seven handicaps, willingness to marry (the measure for low social distance) is greater when there has been contact. Social distance is lower with contact in the case of every handicap studied. For example, of individuals having had contact with blind persons, 48.6% expressed a willingness to marry, while only 37.8% of the individuals having had no contact would marry.

In terms of statistical significance, however, contact is shown to be related to social distance with respect to only two handicaps. For only two handicaps can the null

---

6In all 2x2 tables (contingency tables) the Yates Correction factor for continuity was used.
Table 5. The Relationship Between Contact and Social Distance

<table>
<thead>
<tr>
<th></th>
<th>Arm (N)</th>
<th>Speech (N)</th>
<th>Deaf (N)</th>
<th>Face (N)</th>
<th>Leg (N)</th>
<th>Blind (N)</th>
<th>Obese (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contact</strong></td>
<td>48.6 (71)</td>
<td>69.7 (177)</td>
<td>64.8 (74)</td>
<td>60.3 (97)</td>
<td>45.3 (53)</td>
<td>44.3 (47)</td>
<td>42.4 (98)</td>
</tr>
<tr>
<td><strong>No Contact</strong></td>
<td>40.0 (58)</td>
<td>62.2 (23)</td>
<td>36.5 (57)</td>
<td>48.0 (62)</td>
<td>36.8 (64)</td>
<td>37.8 (70)</td>
<td>33.3 (20)</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 1.86 \]

\[ df = 1 \]

\[ \phi^2 = .01 \]

* \( p < .05 \)
** \( p < .01 \)
hypothesis specifically concerned with the occurrence of contact and social distance be rejected. The relationship between contact and social distance for deafness and facial disfigurement are significant, the levels of rejection being the .01 and .05 levels, respectively. The measures of association for these two handicaps are .03 and .01, respectively.

Type of Relationship

Table 6 depicts the relationship between social distance and the type of contact for each of the seven handicaps. As in Table 5, with each of the handicaps there is a trend in the anticipated direction. The figures disclose that relationships which are affective in character tend to be accompanied by low social distance. In the case of disabilities involving the loss of an arm or a leg, social distance is minimally less for the affective category. The number of individuals willing to marry persons with these two handicaps is greater by only 3.6% and 5.6%, respectively. For blindness, the percentage is only slightly higher.

Despite the pattern of lower expressed social distance for persons having had affective relationships with anyone exhibiting a particular handicap, the figures for only one disability are statistically significant. The null hypothesis concerned with the relationship between type of relationship and social distance can only be rejected for speech impairments. The association between type of
Table 6. The Relationship Between Type of Relationship and Each of Seven Handicaps

<table>
<thead>
<tr>
<th></th>
<th>Arm (N)</th>
<th>Speech (N)</th>
<th>Deaf (N)</th>
<th>Face (N)</th>
<th>Leg (N)</th>
<th>Blind (N)</th>
<th>Obese (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective</td>
<td>50.9 (27)</td>
<td>75.5 (120)</td>
<td>60.0 (45)</td>
<td>66.7 (46)</td>
<td>48.2 (27)</td>
<td>48.9 (22)</td>
<td>45.2 (75)</td>
</tr>
<tr>
<td>Non-Affective</td>
<td>47.3 (44)</td>
<td>60.0 (57)</td>
<td>48.3 (29)</td>
<td>54.8 (51)</td>
<td>42.6 (26)</td>
<td>40.3 (25)</td>
<td>35.3 (23)</td>
</tr>
</tbody>
</table>

\[
\text{chi square} = \frac{(O - E)^2}{E} = .06
\]
\[
df = 1
\]
\[
\phi = \frac{\text{observed - expected}}{\sqrt{\text{expected}}} = .00
\]

**p .01

** **p .01
relationship and social distance is significant for speech impairments at the .05 level with a chi square equaling 6.03. The measure of association is .02.

**Duration of Contact**

The overall effect that length of contact has in relation to social distance is examined in Table 7. Like both the occurrence of contact and the type of relationship, an investigation of duration of contact as related to social distance reveals a general pattern in the expected direction. For four of the seven handicaps studied—loss of an arm, loss of a leg, deafness, and facial disfigurement—low social distance appears to be associated with contacts of long duration. Only in the case of facial disfigurement does the relation between duration of contact and social distance attain statistical significance (at the .01 level with a chi square of 7.62). The measure of association for this disability is .05. Thus, only in the case of facial disfigurement can the null hypothesis concerned with duration of contact and social distance be rejected.

**An Overview**

The relationship of contact and social distance has been explored in three dimensions: the occurrence of contact, the type of relationship, and the duration of contact. In regard to the relationship of occurrence of contact and social distance, there existed a distinct trend toward less
Table 7. The Relationship Between Duration of Contact and Each of Seven Handicaps

<table>
<thead>
<tr>
<th></th>
<th>Arm (N)</th>
<th>Speech (N)</th>
<th>Deaf (N)</th>
<th>Face (N)</th>
<th>Leg (N)</th>
<th>Blind (N)</th>
<th>Obese (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long (over 5 yrs.)</td>
<td>50.0 (25)</td>
<td>67.0 (71)</td>
<td>57.5 (42)</td>
<td>74.6 (44)</td>
<td>47.0 (31)</td>
<td>42.0 (21)</td>
<td>42.4 (53)</td>
</tr>
<tr>
<td>Short (less than 5 yrs.)</td>
<td>57.4 (45)</td>
<td>71.2 (104)</td>
<td>51.7 (31)</td>
<td>51.0 (51)</td>
<td>43.1 (22)</td>
<td>47.3 (26)</td>
<td>42.3 (44)</td>
</tr>
<tr>
<td>chi square =</td>
<td>.02</td>
<td>.74</td>
<td>.25</td>
<td>7.62**</td>
<td>.05</td>
<td>.54</td>
<td>.01</td>
</tr>
<tr>
<td>df = 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>phi square =</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
<td>.05</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
</tr>
</tbody>
</table>

** p < .01
social distance for those who had had contact. However, the relationship between occurrence of contact and social distance was statistically significant only for the handicaps of deafness and facial disfigurement.

A similar pattern was apparent in the relationship between type of relationship and social distance. For every handicap the affective relationships were also the relationships in which the least social distance was expressed; but the relationship was significant only for the handicap of speech impairment.

A general pattern is obvious in the relationship between duration of contact and social distance—long duration of contact usually being associated with low social distance. The relationship between duration of contact and social distance was statistically significant for facial disfigurement alone.

Control Variable—Sex

Prior to evoking sex as a control variable on the relationship between contact and social distance, it is first necessary to examine the relationship of this variable to both contact and social distance independently. This procedure is essential in order to ascertain the effect of the control variable when it simultaneously enters the original relationship between dependent and independent
variables. The introduction of the additional factor may explain, refine, or fail to refine the relationship of dependent and independent variables. This process is indispensable in gauging the relative importance of the various factors affecting any given relationship.

Social Distance and Sex

Table 3 examines the relationship between social distance and sex. A particular pattern is immediately apparent in the response distribution for males and females. In the case of every handicap females demonstrate less social distance than males. The percentage differences among males and females expressing low social distance range from 2.6% for deafness to 22.1% for obesity/emaciation, with the mean percentage difference being 7.54%. It is particularly interesting to note the tremendous difference between male and female acceptance of obesity/emaciation when viewed in light of the other handicaps. For example, only 30.1% of the males were willing to marry someone obese or emaciated. This was the lowest level of acceptance among males for any of the seven handicaps studied. By contrast, 52.2% of the females expressed low social distance for obesity/emaciation,

---

7 Zeisel, *Say It With Figures*, pp. 118-121.
8 Ibid., p. 121.
Table 8. The Relationship Between Sex and Social Distance for Each of Seven Handicaps

<table>
<thead>
<tr>
<th></th>
<th>Arm (N)</th>
<th>Speech (N)</th>
<th>Deaf (N)</th>
<th>Face (N)</th>
<th>Leg (N)</th>
<th>Blind (N)</th>
<th>Obese (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Females</strong></td>
<td>47.1 (65)</td>
<td>70.3 (97)</td>
<td>46.4 (64)</td>
<td>58.7 (81)</td>
<td>43.5 (60)</td>
<td>43.5 (60)</td>
<td>52.2 (72)</td>
</tr>
<tr>
<td><strong>Males</strong></td>
<td>41.8 (64)</td>
<td>67.3 (103)</td>
<td>43.8 (67)</td>
<td>51.3 (78)</td>
<td>37.3 (57)</td>
<td>37.3 (57)</td>
<td>30.1 (46)</td>
</tr>
<tr>
<td>chi square</td>
<td>.62</td>
<td>.18</td>
<td>.11</td>
<td>1.31</td>
<td>.92</td>
<td>.92</td>
<td>13.81**</td>
</tr>
<tr>
<td>df = 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>phi square</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
<td>.05</td>
</tr>
</tbody>
</table>

**p < .01**

**p < .01**
thus ranking this handicap third from the highest in terms of level of acceptance. Among females the lowest level of acceptance recorded was for blindness and loss of a leg. The handicap with the highest level of acceptance was the same for both sexes—speech impairments.

However, the relationship between sex and social distance proved to be statistically significant in regard to obesity/emaciation alone; it is significant at the .01 level with a chi square of 13.81. The measure of association for this handicap is .05. Therefore, only in the case of obesity/emaciation will sex be employed as a control variable in further assessing the precise nature of the relationship between occurrence of contact and social distance. It remains to be seen whether sex in the instance of obesity/emaciation will function to refine or explain. The nature of the model will be forthcoming only after studying the relation of sex and contact for obesity.

Occurrence of Contact and Sex

Review of the following table (Table 9) shows no particular pattern to the relationship between sex and the occurrence of contact. Additionally, it is apparent that the relationship between sex and the occurrence of contact for obesity is, in fact, not significant (chi square = .0002). The relationship between occurrence of contact and sex is statistically significant for facial disfigurement at the
Table 9. The Relationships Between Sex and the Independent Variables for Obesity/Emaciation

<table>
<thead>
<tr>
<th></th>
<th>Percentage of Individuals Having Had Contact with the Obese</th>
<th>Percentage of Individuals Expressing Affective Relationships with the Obese</th>
<th>Percentage of Individuals Expressing Length of Contact Exceeding Five Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% (N)</td>
<td>% (N)</td>
<td>% (N)</td>
</tr>
<tr>
<td>Females</td>
<td>79.7 (110)</td>
<td>70.4 (69)</td>
<td>58.7 (64)</td>
</tr>
<tr>
<td>Males</td>
<td>79.1 (121)</td>
<td>70.3 (85)</td>
<td>50.8 (61)</td>
</tr>
<tr>
<td>chi square =</td>
<td>.00002</td>
<td>.02</td>
<td>1.13</td>
</tr>
<tr>
<td>df = 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>phi square =</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
</tr>
</tbody>
</table>


.01 level with a chi square of 7.16. The measure of association for this handicap is .03 (see Table A in the appendix). As noted in Table 8, the highest degree of acceptance of the seven handicaps was accorded to speech impairments. Interestingly enough, as Table A illustrates, the incidence of contact with speech impairments is the highest of all seven handicaps for both males and females. The relationship is not statistically significant, however.

**Type of Relationship and Sex**

The association between type of relationship and sex for the handicap obesity/emaciation is also reviewed in Table 9. No significant relationship exists. Table B in the appendix reveals that no significant relationship exists for any of the six remaining handicaps studied.

**Duration of Contact and Sex**

In the relationship between duration of contact and sex (see Table C in the appendix), only for handicaps of speech and blindness was the relationship statistically significant. Both reached the .05 level, the phi coefficient for these two handicaps being .02 and .04 respectively. Table 9 in the text reveals that the relationship between duration of contact and sex for obesity/emaciation is not significant.

As the control variable sex was not related to any of the three independent variables—occurrence of contact,
type of relationship, and duration of contact—one must conclude that one is operating within a refinement model.

It now becomes necessary to introduce sex as a control variable simultaneously with social distance and each of the three independent variables.

Social Distance versus Independent Variables—Controlled for Sex

Occurrence of Contact

Table 10 brings to light several interesting points when compared to Table 5 (page 36 of the text).

Table 10. The Relationship Between Occurrence of Contact and Social Distance for Obesity/Emaciation When Controlled for Sex

<table>
<thead>
<tr>
<th>Individuals Expressing a Willingness to Marry Persons Obese or Emaciated</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( % ) (N)</td>
<td>( % ) (N)</td>
</tr>
<tr>
<td>Contact</td>
<td>33.1 (40)</td>
<td>52.7 (58)</td>
</tr>
<tr>
<td>No Contact</td>
<td>18.8 (6)</td>
<td>50.0 (14)</td>
</tr>
</tbody>
</table>

chi square = 1.83 \( \text{df} = 1 \)

phi square = 0.02 \( \text{df} = 1 \)

Table 5 reveals that a greater percentage of individuals who had contact with obese or emaciated persons exhibited low social distance in contrast to those who had no contact.
There is a 9.1% difference in acceptance between no contact respondents and contact respondents (42.4% - 33.9%). Table 10 indicates that contact differentiates best among males as opposed to females when related to willingness to marry (33.1% - 18.8% vs. 52.7% - 50.0%). However, the relationship between occurrence of contact and social distance when controlled for sex was statistically significant for neither sex.

Type of Relationship

Table 11 examines the relationship between type of relationship and social distance when controlled for sex.

Table 11. The Relationship Between Type of Relationship and Social Distance for Obesity/Emaciation When Controlled for Sex

<table>
<thead>
<tr>
<th>Individuals Expressing a Willingness to Marry Persons Obese or Emaciated</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective</td>
<td>30.6 (26)</td>
<td>60.5 (49)</td>
</tr>
<tr>
<td>Non-Affective</td>
<td>38.9 (14)</td>
<td>31.0 (9)</td>
</tr>
</tbody>
</table>

\[ \text{chi square} = 1.21 \]
\[ df = 1 \]
\[ \text{phi square} = .01 \]

\[ \text{chi square} = 6.30^* \]
\[ df = 1 \]
\[ \text{phi square} = .07 \]

\[ ^* p < .05 \]
In the original relationship outlined in Table 6 (page 38 of the text) there was a 9.9% difference between the affective and non-affective groups, the affective group displaying less social distance (45.1% - 35.3%). Interestingly, Table 11 exposes an 8.3% difference in social distance for males, but in this case the affective type of relationship is linked with greater social distance. More interesting still is the fact that among females, affective relationships are linked with low social distance, the difference between the affective and non-affective classifications being 29.5% (60.5% - 31.0%). Apparently type of relationship relates differently to social distance depending upon the sex of the respondent. While the relationship between type of relationship and social distance was not statistically significant for males, the same relationship was significant for females with a chi square of 6.30 and a measure of association of .07.

**Duration of Contact**

The relationship between duration of contact and social distance for obesity when controlled for sex is illustrated in Table 12.
Table 12. The Relationship Between Duration of Contact and Social Distance for Obesity When Controlled for Sex

<table>
<thead>
<tr>
<th></th>
<th>Male (%)</th>
<th>Female (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Duration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5 yrs. or more)</td>
<td>29.5 (18)</td>
<td>54.7 (35)</td>
</tr>
<tr>
<td>Short Duration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Less than 5 yrs.)</td>
<td>35.6 (21)</td>
<td>51.1 (23)</td>
</tr>
<tr>
<td>chi square =</td>
<td>.82</td>
<td>.03</td>
</tr>
<tr>
<td>df = 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>phi square =</td>
<td>.00</td>
<td>.00</td>
</tr>
</tbody>
</table>

In review, Table 7 (page 40 of the text) recorded that individuals who had had contact of long duration displayed less social distance than those respondents who had experienced short duration contacts, but the difference between the groups was only 0.1%. As with Table 11, the pattern assumes an unexpected direction. While long duration contacts were associated with low social distance for females, long duration contacts were associated with high social distance for males (54.7% - 51.1% for females vs. 29.5% - 35.6% for males).

Summary

Section Two has examined the relationship between social distance and contact and the effects of the control

variable sex upon that relationship. All three dimensions of contact were explored: occurrence of contact, type of relationship, and duration of contact.

Initially the relationships of the three independent variables to the dependent variable, social distance, were investigated. Based on the patterns that emerged from the relationships between the dependent and the independent variables, low social distance was associated with the occurrence of contact, affective relationships, and contacts of long duration.

Thereafter, the relationships between the control variable sex and the independent and dependent variables were explored. The relationship between the control variable and social distance was found to be statistically significant for the handicap obesity/emaciation. The relationships between sex and each of the independent variables were then investigated, and in none of the three cases was there a statistically significant relationship. Sex, therefore, served to refine the relationship between the dependent and independent variables. The simultaneous introduction of the control variable into the relationship between social distance and the independent variables for obesity/emaciation was then possible.

In the relationship between occurrence of contact and social distance, a greater percentage of both males and females who had had contact expressed low social distance
when compared with those who had not had contact. In addition, a greater percentage of females than males expressed low social distance in both contact and no contact groups. The relationship was statistically significant for neither males nor females.

Affective relationships were found to be linked to low social distance for females; but unexpectedly, affective relationships were found to be linked to high social distance for males. The relationship between type of relationship and social distance for obesity/emaciation was statistically significant for females with a chi square of 6.3.

Similar to the above relationship, contacts of long duration were associated with low social distance for females and high social distance for males. For neither sex was the relationship between duration of contact and social distance statistically significant.
CHAPTER V
SUMMARY AND CONCLUSIONS

Introduction

This chapter is divided into two sections. The first reviews the focus and findings of this study and examines the relationship between these findings and the available literature concerning the physically handicapped and social distance. The second section discusses weaknesses of the present study and, in light of these weaknesses, makes suggestions for future research.

Section One

Undoubtedly, physical deviance has always served as a basis of social differentiation, and for a large majority of individuals in America today physical disabilities are negatively stigmatized. Much of the problem, then, of the rehabilitation of the physically deviant lies with the re-education of the physically normal. Thus, it was the intention of this study to examine the attitudes that physically normal individuals hold in regard to persons possessing selected handicaps. More specifically, this study examined the normal's contacts (in their various forms) with disabled persons and the relationship of these
contacts to the amount of social distance established between the person who is physically normal and those who are physically deviant.

The literature on the subject is at best inconclusive. While there has been a great deal of research done on the effects of contact on attitudes, there has been less research done on the relationship of contact to social distance. Also, the research dealing with comparisons of attitudes toward different handicaps is minimal. Much of the literature concerned with physical deviance is strikingly inconsistent in regard to the effect contact between normals and deviants has upon social distance. Robert Kleck, alone and with others,\(^1\) appeared to be one of the more consistent researchers in the area. He has noted repeatedly that contact does serve to reduce social distance. Another researcher\(^2\) insists that contact does not affect social distance, while still another\(^3\) contends that contact may increase social distance. It is obvious,

\(^1\)Robert Kleck, "Physical Stigma and Task Oriented Interaction." Also see Kleck, et al., "The Effects of Physical Deviance upon Face-to-Face Interaction."


\(^3\)Irving Goffman, Stigma: Notes on the Management of Spoiled Identity.
then, that no general consensus has been reached regarding the relationship between contact and social distance.

The instrument chosen to investigate the problem under study was a questionnaire. The questionnaire consisted of two sections: one aimed at discovering the amount of contact the normal respondent had had with each of seven handicaps; the other utilized seven seven-item Bogardus-like scales to measure social distance.

The contact a respondent had had with a physically deviant individual was measured by three items: the occurrence of contact, the type of contact relationship, and the duration of contact. The items in the scale used to measure social distance did not discriminate satisfactorily. Thus, the physically normal person's willingness to marry a person with a particular handicap was used as a measure of social distance. A single control variable, sex of the respondent, was utilized.

As mentioned in Chapter II, it was the contention of this writer that as contact between the physically normal and the physically handicapped increases, less social distance is established by the physically normal person between himself and the physically deviant person. Stated in null form,

No relationship exists between social distance and type or extensiveness of contact with physical deviants, as perceived by physical normals.
Additionally, three sub-hypotheses stated in null form and concerned with each specific area of contact were developed in order to more accurately assess the role contact plays in relation to social distance:

1. No relationship exists between the occurrence of contact with physical deviants (handicapped persons) and social distance between physical normals and physical deviants, as perceived by physical normals.

2. No relationship exists between type of contact with physical deviants and social distance between physical normals and physical deviants, as perceived by physical normals.

3. No relationship exists between duration of contact with physical deviants and social distance between physical normals and physical deviants, as perceived by physical normals.

Null hypothesis number one, concerned with the relationship between occurrence of contact and social distance, could only be rejected for two handicaps—deafness and facial disfigurement. The levels of rejection were .01 and .05 respectively.

Null hypothesis number two, concerned with the relationship between type of relationship and social distance, could only be rejected for one handicap. The level of rejection was .05 for speech impairments.

Null hypothesis number three, which is concerned with the relationship between duration of contact and social distance, could only be rejected for a single handicap—
Having investigated the direct relationship between the dependent and independent variables, attention was then directed toward the independent-dependent relationship when controlled for sex. For only one handicap was the relationship between sex and social distance statistically significant: obesity/emaciation.

The independent-control relationship was then examined. In no case was sex significantly related to any of the three independent variables. It was concluded, therefore, that the control variable served only to refine the relationship between contact and social distance. The control variable was then simultaneously introduced into the independent-dependent relationship. The examination of the relationship between contact with obese or emaciated persons and social distance when controlled for sex produced only one statistically significant relationship. The relationship between type of contact and social distance was found to be significant for obesity/emaciation when the respondents were females. With this one exception the null hypotheses could not be rejected when the original relationship was subjected to the influence of the control variable, sex. Although it was not always possible to reject the null hypotheses, however, several patterns which merit investigation were in evidence.
The Pattern of Social Distance for Selected Handicaps

Although it appears that the literature concerned with the relationship of contact and social distance is fragmented and inconclusive, when compared with the data engendered by this study several interesting similarities are revealed. For example, Table 1 in Chapter IV lists loss of a leg, blindness, and obesity/emaciation as the three handicaps manifesting the highest degree of social distance. This finding is consistent with the few studies which have attempted to gauge the degree of stigma attached to various handicaps. Whiteman and Lukoff, in a comparison of blindness with other handicaps, found blindness to be more highly devalued by their respondents than other handicaps. It is important to note, however, that Whiteman and Lukoff failed to specify any particular "physical handicap" with which blindness was to be compared. The respondents were simply required to react to "being blind" or "being physically handicapped."

In two studies Richardson, Goodman, Hastorf, and Dorntbusch investigated reactions to physical disabilities among various populations. Obesity was invariably listed

---


5 Ibid.
as the least desirable handicap of the five handicaps studied. In another article by Maddox, Bach, and Liederman obesity and being crippled were the most highly devaluated of all handicaps presented.

The Relationship Between Contact and Social Distance

As Tables 5, 6, and 7 illustrate, a general pattern seems to exist which indicates lower social distance among those who had experienced contact of various types with handicapped individuals. The pattern seems to be consistent with the findings of Kleck, Kleck, Or, and Hastorf, Shaler, Genskow and Maglione, Jaffee, and Holzberg


7 George L. Maddox, Kurt W. Bach, and Veronica R. Liederman, "Overweight as Social Deviance and Disability," The Journal of Health and Social Behavior, XIV (May, 1963), 292.


10 Shaler, The Neighborhood.

11 Genskow and Maglione, "Familiarity, Dogmatism and Reported Student Attitudes Toward the Disabled," p. 332.

12 Gaier, et al., "Contact as a Variable in the Perception of Disability," p. 117.
and Gewitz, among others. Such findings are in direct
opposition to the findings of Goffman and Granoksky who contend that contact would either not affect or would
increase the social distance manifested between the physically normal and the physically handicapped.

The Relationship Between Contact and Social Distance
When Controlled for Sex

Following the procedure outlined in Chapter IV, sex
was related to both independent and dependent variables
separately prior to the imposition of the control variable
on the original relationship. The instrumentation of this
technique brings to light several very interesting points
in regard to the effect of sex. As noted elsewhere in this
chapter, the original relationship illustrates a general
pattern of low social distance among persons who have had
contact with persons possessing certain handicaps. The
literature, however, seems to indicate that sex has no
effect upon either contact, social distance, or the relation-
ship between the two. Indeed, Richardson, Hastorf,
Goodman, and Dornbusch found that neither sex, race, rural-
urban differences, or socio-economic-status affected social

12 Holzberg and Gewitz, "A Method of Altering Attitudes
Toward Mental Illness," pp. 56-61.

14 Irving Goffman, Stigma: Notes on the Management of
Spoiled Identity.

15 Gaier, et al., "Contact as a Variable in the
Perception of Disability," p. 117.
distance. In a study by Whiteman and Lukoff neither age, sex, or contact was found to account for differences in social distance. In this study, however, upon the simultaneous introduction of sex into the original relationship between contact and social distance, a distinct difference was found for the handicap obesity/emaciation.

As Table 11 and 12 in Chapter IV indicate, contrary to this writer's expectations, affective relationships and relationships of long duration were associated with high social distance among males. Among females, affective relationships and contacts of long duration were associated with low social distance as expected. This interesting difference between males and females cannot be explained within the scope of the literature presently available. The relationship between the independent variables and social distance when controlled for sex was statistically significant in only one instance: the relationship between type of contact relationship and social distance for females for the handicap obesity. The pattern of male preoccupation with this cosmetic handicap would at first appear to be unusual.


18 Following the procedure in Chapter IV, since the relationship between sex and social distance was significant for obesity only, further examination of the inter-relationship between the variables was made in regard to obesity only.
This finding is consistent, however, with conclusions of Richardson, et al. As previously noted, their study found obesity to be the most highly stigmatized of the handicaps they studied. The study, though, asked respondents to evaluate the severity of handicaps for members of their own sex—not the sex of their potential mate as was the case in this study. They found that girls emphasized social handicaps while boys emphasized functional handicaps. Although this appears at first to be contradictory to the findings of this study, it is, in fact, complimentary when one remembers that the female emphasizes the social handicap of obesity for herself. She is to be the object of male attention and, if obese, she would not be competitive for this attention. This finding is also consistent with the statistics in Table 8 which demonstrate that for males obesity in a potential mate is very highly devaluated. Only 30.1% of all males expressed a willingness to marry a girl who was obese. Richardson, et al. also reported that boys tended to emphasize functional handicaps for themselves. In this study the females emphasized functional handicaps in their potential mates. For example, the two most highly devaluated handicaps were blindness and loss of a leg. Either of these handicaps would constitute severe impediments to the ability of their potential mates to earn a living.

The discovery of the interesting relationship between
the data contained in Table 3 of Chapter IV and the article by Richardson, et al. may to some extent explain the unexpected occurrence of high social distance among males for obesity in both affective relationships and relationships of long duration. Apparently individuals' attractiveness (both social and functional) to potential mates serves as a common denominator for the evaluation of the severity of any given handicap. Had one been examining a functional handicap in Tables 11 and 12 of Chapter IV, one may have found the trend reversed. That is, females may have expressed high social distance to functional handicaps much as males did to the cosmetic handicap obesity in affective relationships of long duration. The findings of this study and the findings of Richardson, et al. would seem to support this assertion as a distinct possibility. Obviously more research in the area of cosmetic and functional handicaps is needed.
Section Two

Weaknesses of the Present Study and Suggestion for Future Research

The first and most obvious weakness of the present study lies in the inability of the Bogardus-type scale items to satisfactorily measure the social distance manifested between the physically normal and the physically handicapped. Respondents' willingness to marry was the only one of seven items to discriminate satisfactorily. It was, therefore, used as the measure of social distance. The Bogardus social distance scale can be a useful tool in measuring social distance between physically normal and physically deviant individuals; but for it to do so, scale items must be carefully developed in order to ascertain that which distinguishes the physically normal and the physically handicapped. Items must be developed to determine, for example, if it is the long term dependence, physical contact, sexual contact, or social embarrassment of marriage to which the physically normal person is reacting negatively when asked if he would marry a handicapped individual.

Another oversight of this study resides in the failure to inquire as to the number of contacts one has had with each of the seven handicaps under study. It was not asked how many contacts one had had. It was simply asked if contact had occurred. The question must be asked, do seven contacts with one handicap produce lower social distance
than one contact with each of seven handicaps?

In relation to the categorization of the handicaps, respondents were asked to respond to obesity and emaciation unitarily. These handicaps possibly should not have been linked, since some individuals view each quite differently. When asked for comments, a large number of respondents intimated that they considered obesity to be a more severe handicap than emaciation.

While not necessarily a weakness of this study, this writer believes it could be beneficial for future research to avoid the obvious semantic ambiguity attached to cosmetic handicaps. The argument can and has been made that whatever a person defined as obese, for example, is obese (at least in terms of his behavior patterns associated with the particular handicap). It would be more advantageous in terms of future research to utilize pictures or drawings to graphically illustrate the handicap in question in order to prohibit the imagination of the respondent from romanticizing the handicap.19 Also, an additional control would be available to the researcher in that with visual aid he would be able to vary the severity of the handicap. By the same token, in order to keep the respondent from disassociating the handicap from the handicapped person, graphic

19The physically normals' willingness to "beautify" or "glamorize" is a recurrent theme in the literature. As some investigators have argued, this phenomena may be a mandatory social amenity; but nonetheless, it is a methodological pitfall that should be avoided.
illustrations, as one researcher has suggested, would automatically solve the problem by depicting a person possessing a particular handicap.
<table>
<thead>
<tr>
<th></th>
<th>Arm (N)</th>
<th>Speech (N)</th>
<th>Deaf (N)</th>
<th>Face (N)</th>
<th>Leg (N)</th>
<th>Blind (N)</th>
<th>Obese (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>47.8 (66)</td>
<td>87.7 (121)</td>
<td>47.8 (66)</td>
<td>47.8 (66)</td>
<td>45.6 (63)</td>
<td>34.8 (48)</td>
<td>79.7 (110)</td>
</tr>
<tr>
<td>Males</td>
<td>52.3 (80)</td>
<td>86.9 (133)</td>
<td>45.1 (69)</td>
<td>62.8 (96)</td>
<td>35.3 (64)</td>
<td>37.9 (58)</td>
<td>79.1 (121)</td>
</tr>
</tbody>
</table>

chi square = .77 .0003 .12 7.16** 2.82 .46 .0002

df = 1

phi square = .00 .00 .00 .03 .01 .00 .00

** p < .01
Table B. The Relationship Between Sex and Type of Relationship for Each of Seven Handicaps

<table>
<thead>
<tr>
<th></th>
<th>Arm (N)</th>
<th>Speech (N)</th>
<th>Deaf (N)</th>
<th>Face (N)</th>
<th>Leg (N)</th>
<th>Blind (N)</th>
<th>Obese (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>31.8 (21)</td>
<td>59.5 (72)</td>
<td>57.6 (38)</td>
<td>37.3 (25)</td>
<td>48.4 (30)</td>
<td>44.9 (22)</td>
<td>70.4 (69)</td>
</tr>
<tr>
<td>Males</td>
<td>40.0 (32)</td>
<td>65.4 (87)</td>
<td>53.6 (37)</td>
<td>46.9 (45)</td>
<td>48.2 (26)</td>
<td>39.7 (23)</td>
<td>70.3 (83)</td>
</tr>
</tbody>
</table>

chi square = 1.43

df = 1

phi square = .01
Table C. The Relationship Between Sex and Duration of Contact for Each of Seven Handicaps

<table>
<thead>
<tr>
<th></th>
<th>Arm (N)</th>
<th>Speech (N)</th>
<th>Deaf (N)</th>
<th>Face (N)</th>
<th>Leg (N)</th>
<th>Blind (N)</th>
<th>Obese (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>39.4 (26)</td>
<td>35.0 (42)</td>
<td>60.0 (39)</td>
<td>41.5 (27)</td>
<td>55.6 (35)</td>
<td>37.5 (18)</td>
<td>58.7 (64)</td>
</tr>
<tr>
<td>Males</td>
<td>30.4 (24)</td>
<td>48.5 (64)</td>
<td>50.0 (34)</td>
<td>33.7 (32)</td>
<td>57.4 (31)</td>
<td>56.1 (32)</td>
<td>50.8 (61)</td>
</tr>
</tbody>
</table>

\[
\text{chi square} = .93 \quad 5.26^* \\
\text{df} = 1 \\
\text{phi square} = .01 \\
\]

* p < .05
SELECTED BIBLIOGRAPHY
SELECTED BIBLIOGRAPHY

Books


Kleck, Robert; Ono, Hiroshi; and Hastorf, Albert. "The Effects of Physical Deviance upon Face-to-Face Interactions." Human Relations, XIX (November, 1966), 425-436.


Richardson, Stephen; Hastorf, Albert; Goodman, Norman; and Dornbusch, Sanford. "Cultural Uniformity in Reaction to Physical Disabilities." American Sociological Review, XXVI (April, 1961), 221-247.


Papers, Theses, and Dissertations


Part I

Part I of this questionnaire seeks to gather some very general background information. The questions are brief, many simply requiring a check mark (X). Please read each question carefully before answering.

1. Sex (check one)
   - Female
   - Male

2. Term standing (check one)
   - Freshman
   - Sophomore
   - Junior
   - Senior
   - Other (please specify) ____________________________

3. What is your religious affiliation? (check one)
   - None
   - Catholic
   - Jewish
   - Protestant (e.g., Baptist, Methodist, Presbyterian, etc.)
   - Other (please specify) ____________________________

4. How regularly do you attend religious services? (check one)
   - Always
   - Sometimes
   - Seldom
   - Never

5. Which of the following categories given below best describes your father's educational background to the best of your knowledge? (check one)
   - Graduate professional training
   - Standard college or university graduation
   - Partial college training
   - High school graduation
   - Partial high school
   - Junior high school
   - Less than seven years of school

6. What is your father's occupation? (please be as specific as possible) ____________________________
Part II

Part II seeks to gather some information on college students' attitudes toward physical handicaps. The questions are brief, each requiring only a single check mark (X). Give your first feeling or reaction to each situation presented. Once again, please read each question carefully before answering.

1. Would you accept as a roommate someone whose arm either has been amputated or is totally paralyzed?
   - Yes
   - No

2. Would you marry someone who has a speech impairment (stammer, stutter, or lisp)?
   - Yes
   - No

3. Would you mind if someone who is deaf worked in the same occupation as you?
   - Yes
   - No

4. Would you accept as a close personal friend someone whose face has unconcealable scars or birthmarks?
   - Yes
   - No

5. I would avoid as much as possible someone whose leg either has been amputated or is totally paralyzed.
   - Yes
   - No

6. Would you mind if someone extremely obese or extremely skinny lived in your dormitory?
   - Yes
   - No

7. Would you marry someone who is blind?
   - Yes
   - No

8. Would you accept as a close personal friend someone whose arm either has been amputated or is totally paralyzed?
   - Yes
   - No

9. I would avoid completely someone who has a speech impairment (stammer, stutter, or lisp).
   - Yes
   - No
10. Would you mind if someone who is deaf lived in the same dormitory as you?
   - Yes
   - No

11. Would you accept as a roommate someone whose face has unconcealable scars or birthmarks?
   - Yes
   - No

12. Would you mind if someone whose leg either has been amputated or is totally paralyzed worked in the same occupation as you?
   - Yes
   - No

13. Would you marry someone who is extremely obese or extremely skinny?
   - Yes
   - No

14. I would avoid completely someone who is blind.
   - Yes
   - No

15. Would you mind if someone whose arm either has been amputated or is totally paralyzed lived in your dormitory?
   - Yes
   - No

16. Would you accept as a close personal friend someone with a speech impairment (stammer, stutter, lisp)?
   - Yes
   - No

17. I would avoid as much as possible someone who is deaf.
   - Yes
   - No

18. Would you mind if someone with unconcealable facial scars or birthmarks lived in your dormitory?
   - Yes
   - No

19. Would you accept as a roommate someone whose leg either has been amputated or is totally paralyzed?
   - Yes
   - No

20. Would you mind if someone extremely obese or extremely skinny worked in the same occupation as you?
   - Yes
   - No
21. I would avoid as much as possible someone who is blind.
   Yes
   No

22. Would you mind if someone whose arm either has been amputated or is totally paralyzed worked in the same occupation as you?
   Yes
   No

23. Would you accept as a roommate someone who has a speech impairment (stammer, stutter, or lisp)?
   Yes
   No

24. Would you marry someone who is deaf?
   Yes
   No

25. I would avoid completely someone with unconcealable facial scars or birthmarks.
   Yes
   No

26. Would you accept as a close personal friend someone whose leg either has been amputated or is totally paralyzed?
   Yes
   No

27. Would you accept as a roommate someone who is extremely obese or extremely skinny?
   Yes
   No

28. Would you mind if someone who is blind lived in your dormitory?
   Yes
   No

29. Would you marry someone whose arm either has been amputated or is totally paralyzed?
   Yes
   No

30. Would you mind if someone with a speech impairment (stammer, stutter, or lisp) worked in the same occupation as you?
   Yes
   No

31. I would avoid completely someone who is deaf.
   Yes
   No

32. Would you marry someone whose face has unconcealable scars or birthmarks?
   Yes
   No
33. Would you mind if someone whose leg either has been amputated or is totally paralyzed lived in your dormitory?
   ____ Yes
   ____ No

34. I would avoid as much as possible someone who is extremely obese or extremely skinny.
   ____ Yes
   ____ No

35. Would you mind if someone who is blind worked in the same occupation as you?
   ____ Yes
   ____ No

36. I would avoid completely someone whose arm either has been amputated or is totally paralyzed.
   ____ Yes
   ____ No

37. Would you mind if someone with a speech impairment (stammer, stutter, or lisp) lived in the same dormitory as you?
   ____ Yes
   ____ No

38. I would avoid as much as possible someone with unconcealable facial scars or birthmarks.
   ____ Yes
   ____ No

39. Would you accept as a roommate someone who is deaf?
   ____ Yes
   ____ No

40. Would you marry someone whose leg either has been amputated or is totally paralyzed?
   ____ Yes
   ____ No

41. Would you accept as a close personal friend someone who is extremely obese or skinny?
   ____ Yes
   ____ No

42. Would you accept as a roommate someone who is blind?
   ____ Yes
   ____ No

43. I would avoid as much as possible someone whose arm either has been amputated or is totally paralyzed.
   ____ Yes
   ____ No
44. Would you accept as a close personal friend someone who is deaf?
   Yes
   No

45. I would avoid as much as possible someone who has a speech impairment (stammer, stutter, or lisp).
   Yes
   No

46. Would you mind if someone with unconcealable facial scars or birthmarks worked in the same occupation as you?
   Yes
   No

47. I would avoid completely someone whose leg either has been amputated or is totally paralyzed.
   Yes
   No

48. Would you accept as a close personal friend someone who is blind?
   Yes
   No

49. I would avoid completely someone who is extremely obese or extremely skinny.
   Yes
   No
Presented below across the top of the chart is a list of seven (7) handicaps. Reading down the left side of the chart are a number of questions concerning each of these handicaps. Taking each of these handicaps one at a time, answer each of the three questions with respect to each handicap.

<table>
<thead>
<tr>
<th>Loss of Arm</th>
<th>Speech Impairment</th>
<th>Deafness</th>
<th>Facial Disfigurement</th>
<th>Loss of Leg</th>
<th>Blindness</th>
<th>Extreme obesity or skininess</th>
</tr>
</thead>
</table>

1. Do you now, or have you ever personally known anyone who has (had) any of the handicaps listed across the top of the chart? If so, please write "yes" in the appropriate box(es).

2. For the box(es) in which "yes" appears, please specify your relationship to that person. (If you know more than one person with a particular handicap, answer the question using the person with whom you share the closest relationship.) Use check marks (%).
   - A. Close Friend
   - B. Distant Relative
   - C. Casual Acquaintance
   - D. Immediate Family (parent, child, spouse, brother, sister)

3. How long have you known this person? (As above, if you know more than one person with a particular handicap, answer the question using the person you have known the longest.) Use check marks.
   - A. Brief encounter
   - B. 1 month to 6 months
   - C. 6 months to 11 months
   - D. 1 year to less than 3 years
   - E. 3 years to 5 years
   - F. Over 5 years
4. Do you have a physical handicap(s) of any kind?
   Yes
   No

   If yes, please specify what type(s).

   _______________________________

   Thank you

   ---COMMENTS---