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The disengagement process and psychological functioning among older people.

Joseph J. Fleishman

University of Massachusetts Amherst

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THE DISENGAGEMENT PROCESS
AND PSYCHOLOGICAL FUNCTIONING
AMONG OLDER PEOPLE

FLEISHMAN
The Disengagement Process and Psychological Functioning Among Older People

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B. S. The City College of New York

Thesis submitted to the Graduate Faculty in partial fulfillment of the requirements for the degree of Master of Science
University of Massachusetts, Amherst

Advisor: M. Pudoff

September 1963
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Introduction

The study of rigidity has evoked a multitude of independent definitions. Werner (1940) defined rigidity in a functional sense as "sluggishness in the variation of response." Rokeach (1948) viewed rigidity as the inability to change one's set when the objective conditions demand it, and Buss (1952), as resistance to shifting from old to new discriminations. Discrimination between two types of rigidity was made by Cattel and Tiner (1949). The first was called "process rigidity" or the tendency for a former response to continue although a new stimulus has been substituted for the old one; the second, "structural rigidity" or the resistance of a habit or a personality trait to forces which might be expected to change it.

Rigidity as used by Lewin (1935, 1936) was one of a series of interrelated constructs formulated in his "topological psychology." Lewin regarded the person as structured and differentiated into various psychical regions and systems. Rigidity is a material property; that is, a factor which determines the state of the region and is conceived of as a property of the region itself (1936). Lewin (1936) also defines rigidity in reference to the boundaries of systems. Thus, in the glossary of his text on topological psychology (1936), Lewin wrote, "Rigidity: Boundaries (barriers, walls) are the more rigid the greater the forces necessary to overcome them."

Freud (1943) observed that there were persons who tended to adhere to overly strict and apparently unalterable standards
of behavior (e.g., tidiness and punctuality). These persons dealt with the world in terms of spontaneous and straightforward means. According to Freud, such persons are utilizing the defense mechanisms of reaction formation and sublimation in order to protect themselves against conflict producing anal-erotic impulses. He formulated a concept of an "anal personality" that revolved about this pattern of rigid behavior.

Goldstein (1943) conceives of rigidity as occurring when the organism is unable to come to terms with its environment in an "adequate way." More specifically, he characterizes rigidity as performance that is inadequate for the present task; that is, an individual manifesting rigidity does not shift from one performance to another as required by the task to be fulfilled. Though Goldstein viewed rigidity as being primarily a symptom of organic brain damage, it was also central to his thesis that normal individuals too may exhibit rigidity under conditions beyond their capacities.

Rigidity, according to Goldstein (1943), is intimately related to the behavior that Goldstein and Scheerer (1941) have labeled the abstract and concrete attitudes. Behavioral rigidity is a direct consequence of an impairment of the abstract attitude, an impairment that impels the individual to behave concretely.

Goldstein & Scheerer's (1941) study of brain damaged patients led them to distinguish between two types of
personalities. One type is characterized by the abstract attitude while the other is characterized by the concrete attitude. The authors describe the abstract and concrete attitudes as capacity levels of the total personality and not merely acquired mental sets or habits of an individual or special isolable aptitudes, such as memory, attention, etc. They state that one can assume an abstract or concrete attitude toward an inner experience or toward the outer world. In assuming either attitude, the individual as a whole gears himself toward a corresponding direction of activity which is called abstract or concrete behavior.

The abstract attitude implies conscious activity in the sense of reasoning, awareness, and a self account of one's actions. The individual transcends the immediately given situation and is influenced in his action by "a category, a class, or a general meaning" which includes the particular object before him (Goldstein & Scheerer, 1941, p. 4). The abstract attitude is described as the basis for a number of conscious and volitional behaviors. Among these behaviors are: assuming a mental set willfully and consciously; holding in mind simultaneously various aspects of a situation; grasping the essentials of a given whole while being able to break it into parts; and shifting reflectively from one aspect of a situation to another (Goldstein & Scheerer, 1941).

The concrete attitude is characterized by the converse of the foregoing. It does not involve conscious activity in
the sense of reasoning, awareness, or a self account of one's doing. The concrete attitude confines one to the immediate apprehension of the given thing, situation, idea, thought or feeling in its specific uniqueness. It also leads one to respond unreflectively to the immediate claims of the situation, object, or idea.

Goldstein & Scheerer (1941) point out that the greater difficulty connected with the abstract approach is not simply one of greater complexity, measured by the number of separate subservient functions involved. It demands rather the behavior of the new emergent quality, generically different from the concrete.

Studies Leading to the Present Experiment

Fleishman & Barmack (1960) conducted a cross sectional study in which they investigated the relationship between aging and one dimension of the abstract attitude. Using college students (ages 17-25) and aged subjects (ages 68-84), the Ss were shown three motion picture films and were asked to press a buzzer each time they saw an abrupt or discontinuous shift in the camera, i.e., a sequence change. Because of Goldstein & Scheerer's (1941) statement that it takes conscious effort to shift one's attention from one aspect of a situation to another, the number of sequence changes that were discerned by each S was accepted and operationally defined as an indicator of one dimension of the abstract attitude, namely the ability to shift set.
One major conclusion that resulted from the above study was that the aged group noted significantly fewer sequence changes than the college group and therefore, demonstrated less ability to shift sets that did the college group. This agrees with many studies that show mental and physical efficiencies decline with age. Weiss (1959) has shown that the general course of sensory changes with aging is one of decline. Braun (1950) summarized some of the relationships between perception and aging. He noted a negative linear relation between age and visual acuity. In corneal sensitivity, vibratory sensitivity and pain sensitivity there is an increase in thresholds with age. Also, the elderly Ss were less able to maintain their normal body temperature when exposed to cold.

Other experimental studies within the area of perception and aging are consistent with the general notion that performance declines with age. Basowitz & Korchin (1959) report that elderly people are generally less able to discriminate or recognize ambiguous stimuli and concealed and masked figures. Feifel (1957) tested the hypothesis that older people (mean age - 67 years), as compared to younger people (mean age - 24 years), would underestimate objective time. Although both groups underestimated all intervals, the degree of underestimation in the older group was significantly greater. Wapner, Werner, and Comalli (1960) found with Ss from 6-30 years old that the Muller-Lyer illusion effect increases from 6-44 years, and decreases at older age. Simon (1960) presents data showing that older Ss (ages 59-65) required an average of 45% longer
time to adjust dials than did a younger group of Ss (ages 18-34). Talland (1959), Anastasi (1958), Freeman (1960), King & Campos (1960) and innumerable other studies report the same characteristic slower perceptual functioning among the elderly. Similar deteriorating performances are also shown with psychomotor (Welford, 1959), learning (Kay, 1959), memory (Kounin, 1941), and intelligence (Wechsler, 1958) tasks.

In all of these cross sectional studies little emphasis is placed on individual differences among the aged and the exceptions to the rule. Anastasi (1958) notes similar oversights within the cross sectional studies measuring intelligence, and stresses the necessity of examining the degree of overlapping between the performances of the younger and older groups. Upon doing this Anastasi (1958) found that "the brightest persons in the oldest group performed conspicuously better than the dullest in the younger groups." (Anastasi, 1958, p. 241). In examining the Fleishman & Barmack (1963) data for individual differences and overlapping of scores, strikingly similar findings were found with their perceptual task which indicates the ability to shift sets. Though the mean score of the college group was significantly better than the mean score of the older group, as predicted, the individual differences within the aged group were significantly greater than the individual differences within the college group. Even more noteworthy is the fact that approximately 25% of the aged performed at the mean level of the college students.
Purpose of the Present Study

The present study sought to understand why some aged Ss performed at the mean level of the college students while others in comparison seem impaired in their level of functioning. The focus of this investigation revolves about the following assumptions: 1) that as the individual ages, his relationship to his social environment changes; and 2) changes in performance on the perceptual task may be associated with this differing degree of relatedness to his social milieu. These assumptions, part of the disengagement theory of aging, emphasize the dynamic relationship between the aging individual and society as compared to most theories of aging which are founded on the premise that getting older is a gradually deteriorating physiological process which is linked to chronological age.

The Disengagement Process: Its Development and Content

Henry & Cumming (1961) state that the disengagement theory is the first and only systematic behavioral theory of aging. It consists of a number of postulates and corollaries that were obtained from repeated cross sectional and longitudinal observations. The investigators used the same interview procedure with two groups of Ss, ages 45-66 and 70-90, on five occasions at approximately six month intervals. From their data a series of relationships between the individual and society were formulated which Henry & Cumming called the disengagement process.

The disengagement process describes the changes that occur within the individual and between the individual and
society as the individual ages. It includes statements and methods of measuring the self perception of the respondents, their orientation toward other people in the world, and the nature of the network of social relationships surrounding them.

Some of the major points of the theory as they can be applied to this study, follow:

I A mutual severing of ties between the individual and society occurs as the individual gets older; an objective measure of the severing of the ties is the social lifespace measure.¹

II The disengagement process will differ for men and women of American society because their roles differ.

III Retirement from work, and the abandonment of marriage and the family for women, results in a dramatically reduced social lifespace. This dramatically reduced social lifespace will result in a loss of morale and constriction in perceived life-space unless different appropriate roles are substituted; morale and perceived lifespace are measures of personality functioning that gauge the individual's reaction to disengagement.²

IV The main source of disengagement for men usually is retirement and consequently they face three problems:

1) They lose membership in a peer group.

2) Instrumental tasks through which they relate themselves to society are lacking.

3) Status identity is lost.

V Solutions to all these problems eventually occur from ego

¹ The questions used to measure social lifespace are in Appendix A.
² The questions used to measure morale and perceived lifespace are in Appendix A.
changes leading to preoccupations with inner states and to the narcissism of the very old (very old is empirically defined by Henry & Cumming as over 80) but interim solutions are also possible:

1) Loss of the peer group can temporarily be solved by family or recreational groups.
2) Retirement can be handled by temporary short-term, or part time re-engagement with the occupational world and by other associations that have instrumental aspects.
3) Compensation for the loss of status identity can be provided by Passive Mastery, a state that is characterized by gentleness, softness and a lack of assertive energy.

VI The main source of disengagement for women is widowhood and they too face three major problems:
1) They lose a highly cathected spouse.
2) They lose the status derived from their husband's occupation.
3) They shift from obligatory to voluntary relationships.

VII As with men, permanent solution to the problems of disengagement is obtained with the ego changes that occur in the very old; but interim solutions are possible:
1) Widowhood can be solved by remarriage or possibly by redistributing cathectis among a group of kin.
2) Loss of status due to their husband's death is usually solved automatically since widows are usually given enough consideration in American society to compensate for this loss.
3) The shifting to voluntary relationships is also
solved for women because the higher death rate among men (until the age of 80) leaves an available peer group of widows; after bereavement has passed, membership in such a group allows a kind of non-obligatory, horizontal, peer relationship compatible with the process of disengagement.

Predictions

The following hypotheses, based on the disengagement theory of aging, will be tested:
1) The less reduced the social lifespace is the greater will be the ability to shift sets.
2) The greater the morale of the person the greater will be the ability to shift sets.
3) The more constricted the perceived lifespace of the individual is the lower will be the ability to shift sets.

Rationale for Using Additional Measures for Predicting Differences Among the Aged

Because of the recency of the disengagement theory, and consequently, the shortage of relevant methodological and empirical studies, it was decided to obtain measures of additional social-psychological and personality attributes that have been mentioned in the literature and which might be related to the focus of this study, namely, that the ability to shift sets on a perceptual task may be related to socio-psychological variables. Variables were included such as previous educational level, social class as determined from occupational status, and frequency of participation in such activities as church groups and leisure time groups. The relevant studies in which
these variables were used successfully by other investigators and a summary of their findings are presented in Table 1.

Additional hypotheses were formulated, based on these measures, which are stated as follows:

1) The more formal education an individual has the greater will be his ability to shift sets.

2) The higher one's social class the greater the ability to shift sets.

3) Consistent with the disengagement theory, a higher incidence of church-going, activity, and leisure time groups and the greater number of items read, reflecting a greater degree of engagement with society, should be associated with a greater ability to shift sets.

4) Because conforming to society is an index of the degree of contact a person has with society it would be expected that the more conformity and less alienation the greater the ability to shift sets.

5) The less authoritarian the person is the greater the ability to shift sets.

6) It was also expected that scales measuring similar phenomena (e.g., social livespace and number of groups) or predicted to correlate positively with the ability to shift sets, would correlate positively with each other.
<table>
<thead>
<tr>
<th>Scale Former Study Used In</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>Education correlated .78 with judged social class. A number of conclusions were indicated by the authors: the greater the education the greater the likelihood of upper class membership; the lower the amount of education the greater the likelihood of lower class membership.</td>
</tr>
<tr>
<td>Hollingshead &amp; Redlich (1958)</td>
<td></td>
</tr>
<tr>
<td>Anastasi (1958)</td>
<td>The author cited use of similar education scales in studies of intelligence. A typical survey mentioned shows a .73 correlation between intelligence tests (Army Alpha or AGCT) and highest grade reached in school. (See p. 6 of Introduction.)</td>
</tr>
<tr>
<td>Occupation</td>
<td>Occupation correlated .88 with judged social class and .78 with education. Generalizations made concerning education and social class are applicable here.</td>
</tr>
<tr>
<td>Hollingshead &amp; Redlich (1958)</td>
<td></td>
</tr>
<tr>
<td>Frequency of Church Attendance Cumming &amp; Henry (1961)</td>
<td>This item was originally intended to be part of the social lifespacemeasure but was omitted because it did not necessarily imply interacton. Furthermore, it was noted by the authors, if interaction takes place in such a context with any regularity, the people interacted with are usually listed as friends or neighbors. When church attendance was used seperately from social lifespacemeasure it was found that the percentage attending church frequently decreased in extreme old age (over 80).</td>
</tr>
<tr>
<td>Barron (1961)</td>
<td>Cross sectional data on religious attendance were obtained from respondents who ranged in age from 30 - 65. There were no significant differences in the distributions of attendance levels at religious services between the various age strata. The modal or typical pattern of attendance for all was occasional, with attendance avoidance ranking second, and frequent attendance the least popular pattern.</td>
</tr>
<tr>
<td>Scale Former Study Used In</td>
<td>Findings</td>
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<tr>
<td>----------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Number of Groups With Which</td>
<td>This scale was also originally intended to be a part of the social lifespase measure but was omitted for the same reason that church attendance was omitted.</td>
</tr>
<tr>
<td>Cuming &amp; Henry (1961)</td>
<td>The study reported showed the following preferences in group associations among Ss whose ages ranged from 30 - 65. Ranking from most popular to least popular insofar as percentage of respondents who reported membership are: 1) lodges; 2) church groups; 3) unions; 4) social groups (not fraternal); 5) patriotic groups; 6) civic groups; and 7) professional groups.</td>
</tr>
<tr>
<td>Barron (1961)</td>
<td>Of the 248 respondents (median age was 70) who indicated what their activities were, 206 reported they talked with friends more frequently than anything else. This was followed, in order, by working in the garden, reading, going to town to shop, taking rides in the country, watching television, playing cards, hunting and fishing, taking walks alone, talking with friends on the telephone, and lastly, attendance at movies. The range of activities reported by individual respondents was from none to all eleven activities.</td>
</tr>
<tr>
<td>Number of Leisure Activities</td>
<td></td>
</tr>
<tr>
<td>Barron (1961)</td>
<td>Ss' ages were from 60-85. Of the 1,206 who responded (2/3 Protestant, 7/10 Roman Catholic and almost 1/20 Jewish) 1,041 indicated they read newspapers, 61 read magazines, 299 read books other than the Bible, and 206 read the Bible.</td>
</tr>
<tr>
<td>Number of Items Read</td>
<td></td>
</tr>
<tr>
<td>Barron (1961)</td>
<td></td>
</tr>
<tr>
<td>Perception of Change in Leisure Activities</td>
<td>Median age of the sample was 70. In general, the findings indicated a trend toward the curtailment of activities among the respondents after the age of 50. Activities involving family associations (seeing children and relatives) were especially affected over the years, closely followed by such activities as club and organizational affiliation and hunting and fishing. Passive activities such as reading, tend to increase with age.</td>
</tr>
<tr>
<td>Scale</td>
<td>Former Study Found In</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>Conformity Versus Alienation</td>
<td>Cumming &amp; Henry (1961)</td>
</tr>
<tr>
<td>F Scale</td>
<td>Cumming &amp; Henry (1961)</td>
</tr>
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Method

I. Subjects

Three groups of Ss were used in the study, a sample drawn from persons living in the community, a small institutionalized sample and a control group of college students.

A. Community Sample

The persons resident within the community were contacted through senior citizen clubs in Worcester, Springfield, and Northampton, Massachusetts. (See Appendix B, Table A.) Seventy-six individuals (16 men, 60 women) who fulfilled the following criteria qualified as Ss:

a) being between 60-88 years of age;
b) could understand the instructions given for responding to the questionnaire and the perceptual task;
c) were free of blindness, deafness, and paralysis, as well as arthritic crippling, heart or other conditions that would interfere with their performing the required task. Judgement concerning each individual's health was based on information obtained from his questionnaire and were made before any of the experimental variables were tabulated.

B. Institutionalized Sample

Nineteen Ss (8 males, 11 females) were obtained from two homes for the aged (see Appendix B, Table A); their ages

3Understanding the instructions for the perceptual task was defined as noting twenty or more sequence changes correctly.

4Ss who filled out the questionnaire and participated in the film but noted less than twenty sequence changes correctly were counted in the sample used in computing intercorrelations between the different sub-scales in the questionnaire. One hundred and one individuals (22 men, 79 women) qualified for this.
ranged from 71-92. The few Ss were selected by the directors of the homes for the aged because they were cooperative and satisfied the limiting criteria used for the community sample.

C. Control Sample

Twenty-eight students (15 males, 13 females) enrolled in an introductory psychology course served as control Ss. Their ages ranged from 18-22. All satisfied the criteria for inclusion in the study except the age requirement. (The participation of these Ss provided a normative sample for the perceptual task.)

II. Materials

A. Questionnaire

Questionnaires consisting of 80 items were used; items 26-80 were the same for both men and women. (See Appendix A for a copy of the questionnaire for men and women.) These items were designed to measure social, personality, and demographic variables.5

B. Films

A practice film, Planters of Colonial Virginia, ten minutes long, was used to familiarize the Ss with the perceptual task. The experimental film, The Story That Couldn't Be Printed, eleven minutes long, was also used in the Fleishman & Barmack (1960) study. It had one hundred forty-six sequence changes and this number served as the Ss' maximum score for the perceptual task. A RCA sixteen mm projector and screen were used to show the films.

5 Raw data from questionnaire items that were not analyzed in the present study can be obtained from the author.
C. Recorder

Responses were automatically recorded by the portable Esterline Angus twenty pen recorder. Each S pressed a telegraph key, which was connected to the recorder, to indicate a sequence change. Presses were recorded as deflections on the recorder's rotating drum, which was set at its slowest speed, 12 inches per minute.

D. Arrangement of the Experimental Room

Rooms and chairs were provided by the participating clubs. Telegraph keys on the S's chairs were numbered from one to twenty and were connected to the twenty pen recorder which was positioned in the rear of the room next to the projector. The screen was placed in the front of the room.

III. Procedure

A. The Questionnaire Measures

During the first part of the experimental procedure the E and the club leaders (or directors at the home for the aged) or both administered the questionnaire.6 Ss were asked to fill out as many items as they could. Their names were not required; instead, they were asked to write the number of their telegraph key on the questionnaire booklet (thus making it possible to identify each S's scores). A formal set of instructions on the front of the questionnaire booklet were read to all Ss. (See Instructions in Appendix A.)

6In many cases questionnaires were given to club leaders weeks in advance. Questionnaires were then filled out prior to showing the films. Identification was achieved by the club leader placing the S's initials on their booklets. Booklets were returned to the Ss at the time of the experiment so they could record their telegraph key numbers.
B. The Film Measure

The following instructions were given prior to showing the practice film:

Please listen carefully to what I have to say. You will be given a task that distinguishes between older people who perform well on a job and older people who do not perform well. You will be shown two films. Now in the first film, each time you see a change in sequence in the film or a sudden shifting of the camera from one scene to another, press the telegraph key that is on your seat. It is important that you press the key only when you see the sequence changes and as soon as you see the sequences changes. It is also important that you hold the key for only an instant, releasing it immediately after you have pressed down to note a sequence change. The first film will be for practice to see whether you understand the instructions. Do you have any questions?

After showing the practice film and prior to showing the experimental film the remaining instructions were given:

Are there any questions about what you are to do? (Pause.) Please do as you were told before. Remember, each time you see a change of sequence in the film or a sudden shifting of the camera from one scene to another, press the telegraph key that is on your seat. Again, remember to release the key immediately after noting a sequence change and to press the key only when you see the sequence changes and as soon as you see the sequence changes.

Except for the elimination of the word "older" control Ss were given the same instructions.

IV. Coding of the Data

The questionnaire was scored by hand. Thirteen measures from the questionnaire were analyzed: Morale, perceived life-space, social life-space, education, occupation, age, frequency of attending church, number of groups has membership in, number of leisure activities, number of items reads, change in number of leisure activities, conformity versus alienation and a
modified P scale. (See Table 5 for the means, standard deviations and ranges for the thirteen scales.)

a) Morale (questionnaire items 54, 56, 57 and 59): The subject received a score of 1, each time he indicated that he was satisfied with his present situation.

b) Perceived lifespace (questionnaire items 39-43): Each time an S indicated that he felt he had participated in the particular activity more when he was 45 than at present he was given a score of 2. Each time he felt that he was participating at the same level as when he was 45, he obtained a score of 3. When the S felt he was more active now than at 45 years of age, he was given a score of 4.

c) Social lifespace (questionnaire items 25-29 and 31-34): A weight of 1 was assigned each time a relative, friend, or neighbor was seen during a month. Thus, if a relative were seen every day, a score of 30 was given; if 3 friends were seen 3 times a week (12 times a month) a total of 36 was assigned; etc. Each member of the household was automatically designated a score of 30 (this assumed daily interaction). 7

A weight of 20 was given for each time a fellow worker was stated. (This assumes daily interaction of approximately 20 times per month, one for each working day.) A weight of 4 was assigned for each person seen for certain specific purposes. For example, if a bus driver and storekeeper were seen fairly regularly, 8 was given as a score. (The weighted score

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7See Henry & Cumming (1961) for a detailed description of the derivation and construction of the social lifespace, morale, and perceived lifespace scales.
is based on the assumption that when reading this question (see item 31 of questionnaire) the respondents think in terms of the number of specific people seen per week. There is empirical evidence for this assumption.)

The social life space measure was obtained by summing these six elements of the scale. Because the distribution obtained was markedly Poisson in nature a transformation formula used by Henry & Cumming (1961) was utilized so that a more normalized continuous social life space distribution would result. The formula is $\sqrt[n]{A} + \sqrt{n+1}$ where $A$ is the raw sum of each $S'$s six items.

d) Education scale (questionnaire item 7, male form and item 11, female form): This scale was scored as follows:

<table>
<thead>
<tr>
<th>Score</th>
<th>Education Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Graduate professional training</td>
</tr>
<tr>
<td>2</td>
<td>Standard college or university graduation</td>
</tr>
<tr>
<td>3</td>
<td>Partial college training</td>
</tr>
<tr>
<td>4</td>
<td>High school graduation</td>
</tr>
<tr>
<td>5</td>
<td>Partial high school</td>
</tr>
<tr>
<td>6</td>
<td>Junior high school</td>
</tr>
<tr>
<td>7</td>
<td>Less than seven years of school</td>
</tr>
</tbody>
</table>

Each of these scores were multiplied by a factor of 5.

e) Occupation scale (questionnaire item 8, male form and item 6, female form): This scale was scored as follows:

<table>
<thead>
<tr>
<th>Score</th>
<th>Occupation Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Executives and proprietors of large concerns and major professionals</td>
</tr>
<tr>
<td>2</td>
<td>Managers and proprietors of medium-sized businesses and lesser professionals</td>
</tr>
</tbody>
</table>
Administrative personnel of large concerns, owners of small independent business, and semi-professionals ... 3
Owners of little businesses, clerical and sales workers and technicians .................. 4
Skilled workers ........................................ 5
Semi-skilled workers .................................. 6
Unskilled workers ...................................... 7
Each of these scores were then weighted by 9 to give the S's total occupation score.
f) Age is the first item in both forms of the questionnaire.
g) Frequency of attending church (questionnaire item 35):
Each time the person goes to church per month is scored 1.
If the person goes every day a score of 28 is given.
h) Number of groups has membership in (questionnaire item 36):
A score of 1 was given for each group of which the S is a member.
i) Number of leisure activities (questionnaire item 37): A score of 0 is given if the S never participates in a particular leisure activity, 1 if he sometimes participates and 2 if he frequently participates.
j) Number of items read (questionnaire item 38): A score of 1 is given for each item that was listed as read.
k) Change in leisure activities (questionnaire items 45-53):
If S perceived his participation in an activity as being greater than his participation at 45 he received a 4; if the same, a score of 3; and if less, a score of 2.
l) Conformity versus alienation (questionnaire items 63-69):
A score of 3 was given if the S showed any dissatisfaction with
his present situation. If he was perfectly satisfied scores of 1 were given.

m) F scale (questionnaire items 70-75): When $S$ "strongly agreed" or "agreed" with any one of the F scale items he was given a score of 1. If he "disagreed" or "strongly disagreed" scores of 0 were given.

V. Scoring of Perceptual Measures

$S$'s records were aligned with the criterion record which was derived from two sets of E's responses. If a pen marking denoting sequence change fell within plus or minus 2 seconds from the sequence change marking on the criterion record, the $S$ was given a score of 1. The total of these scores was the $S$'s total sequence change score.

VI Reliability

A. Interview and Questionnaire

Eight females and 2 males were interviewed one week prior to being administered the questionnaire. A Pearson product-moment reliability coefficient of .83 was obtained between questionnaire and interview.

B. Scoring of Films

A .95 Pearson product-moment reliability coefficient was obtained for the E's scoring of the same ten records after a two day interval.
Results and Discussion

This investigation was concerned with exploring whether psychological functioning as reflected in a task of perceptual shifting is associated with the degree of relatedness that older people have with society. Taking the three measures put forward by the theory of disengagement, social lifespace, morale, and perceived lifespace, Pearson product-moment, curvilinear correlations and simple randomized analyses of variance were computed using as the dependent measure, the scores derived from the perceptual shifting task (see Tables 2 and 3). The Pearson product-moment correlation between social lifespace and sequence changes was significant \[(r = .26; p < .05)\]. When the relationship of sequence change score to education \[(r = -.23; p < .05)\] and to occupational level \[(r = -.26; p < .05)\] were partialled out separately, the correlation between social lifespace and sequence changes remained the same. But when the effects of both variables are partialled out simultaneously, this correlation falls short of significance (corrected \[r = .19\]), clearly suggesting that performance on both the social lifespace and sequence measure seemed to be related to the S's previous educational and occupational attainments. (The correlation for these latter two variables was .35.) A simple randomized analysis of variance confirmed the significant relationship

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8 Different number of Ss appear for each correlation because Ss omitted answering parts of the questionnaire.

9 Note that both the education and occupation scales designated scores in reverse order; i.e., low scores meant high education and high occupation status.
### Table 2

Intercorrelations Between Sequence Change Scores and Questionnaire Measures for Community Sample (the Number of Subjects Used in Each Computation is Indicated in Parentheses)

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of social lifespace and sequence changes ($F=16.54; p<.001$) but level of education and occupational status were not controlled and hence the significance of the findings is questionable (see Table 3).

The Pearson $r$ for morale and sequence changes ($-.20$) suggested a relationship opposite to that expected from the disengagement theory. However, curvilinear correlation ($\eta$) indicated that the relationship of the two variables was non-linear ($F$ for nonlinearity: $5.9; p<.05$) (see Table 3). In understanding this result it is important to note that the morale scale consisted of four items. Cumming & Henry (1961) point out the four items used in the scale were not chosen because of any apparent relationship they had with the concept of morale. They were chosen because they correlated with the judgments of morale that were made by the interviewers. The paucity of items is a limiting factor of the scale. Further, the content of the questions composing the scale makes it seem pollyanish for any aged person to state that he is completely satisfied with his present situation, and hence obtain the highest possible score for morale. Figure 1 seems to confirm this impression. The function has an inverted-V shape and the data suggest that "moderate morale" (a score of 1), insofar as psychological functioning on the perceptual shifting task is concerned, may constitute an optimum level of morale.

Perceived lifespace did not correlate significantly with the score obtained on the perceptual shifting task. This scale was designed to measure a highly abstract construct, namely the
Figure 1 - Curvilinear Relation Between Morale and Sequence Change Score.
amount of constriction an older person experiences when he compares his past and present levels of relatedness with society. Due to the subtle nature of this measure, the questionnaire technique may not have been as sensitive as an interview would have been.

Findings with other scales in the questionnaire lend some tentative support to the hypothesis that degree of relatedness to society will be associated with more efficient psychological functioning. Significant curvilinear relations between the sequence change score and the number of groups, number of leisure activities, and number of items read were found (see Figures 2, 3, and 4 and Table 3). Figure 2 shows an ogival relation between the number of groups a person has membership in and sequence changes (F for nonlinearity=1.96; p near .05) suggesting a positive relationship between the two measures. Figure 3 indicates a U shaped function between number of leisure activities and sequence changes (F=1.95; p near .05); Figure 4 shows the same U shaped relation between number of items read and sequence changes (F 10.5; p<.001). These results indicate that better performances on the perceptual shifting task are found at the extreme of these two distributions. Frequency of church attendance and number of leisure activities lend consistent results to the hypotheses that the degree of social relatedness is associated with psychological functioning; these two variables correlate .36 (p<.01) and .26 (p<.05) respectively with social lifespace. It should be noted as further support for the hypotheses, that age was
Figure 2 - Curvilinear Relation Between Number of Groups with which Subjects Hold Membership In and Sequence Change Score
Figure 3 - Curvilinear Relation Between Number of Leisure Activities and Sequence Change Score
Figure 4. - Curvilinear Relation Between Number of Items Read and Sequence Change Score
not significantly related to the ability to shift sets as would be predicted by many theories of aging since they are partially founded on this premise. (See p. 7 of Introduction.)

Institutionalized Sample

Table 4 lists the Pearson product-moment r's and the number of Ss used for each correlation between the perceptual shifting task and scales of the questionnaire. Because of the institutional setting, the small size of the sample, the inflated measures of certain scales such as social lifespaces, and because the Ss were highly selected, conclusions regarding their performance or a comparison with the sample resident in the community is not warranted.

However, a number of observations can be made about the sample itself. With the exception of 2 reversals in signs of the correlations as found in the conformity versus alienation and P scales, all the remaining predictions with sequence change score were in the same direction as the community sample.

Control Group

The control group performed significantly better than the community group on the perceptual task but there was a large degree of overlap between the two populations. Table 5 shows the means and standard deviations for the control, community, and institutionalized samples. Figure 5 shows the degree of overlap between the performances of the two groups on the perceptual task. A tally of the performances of the Ss resident in the community showed that approximately 17% of them performed as well as or better than the college students. A
Table 4

Correlations Between Sequence Changes and Questionnaire Measures for Institutionalized Sample (the Number of Subjects Used In Each Computation is Indicated in Parentheses)

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Mean is 66.7, Community College Students (Mean is 122.2, Standard Deviation is 49.9).

Figure 5 - Degree of Overlap of Sequence Change Scores Between College and Community Samples
Chi Square analysis indicated that this was not significantly different than the 25% overlap obtained in the previous study by Fleishman & Barmack (1960).

These results are replications of the previous findings and, therefore, offer further evidence that the overlapping performances between older and younger populations are not artifacts.

Analyses of the control group questionnaires show that the differences between the social class of the control and community samples were not significant. Education, however, was significantly greater for the college Ss.
Conclusions

Because education and occupation cannot be partialled out from the significant eta correlations between sequence changes and morale, number of groups, number of leisure activities and number of items read, the indicated support these results have for the hypotheses is not tenable. While the results of this study are suggestive of a relationship between efficiency of psychological functioning on a perceptual shifting task and the degree of interpersonal relatedness, one cannot consider the results conclusive. A new study would have to control more adequately for education and occupation and find a substantially higher relation between social lifespan and the perceptual measure than the corrected r of .19 obtained here. A way of dealing with these contaminating factors would be to use a factorial design and select Ss to fulfill the requirements of such a design. In addition, the contaminating effects of previous education and occupational history suggest that the perceptual measure may have been too demanding for the Ss. Different tasks that do not demand as prompt a response or as subtle a discrimination might be more useful than the perceptual task used in this study.

A larger more representative institutionalized sample would also be necessary if conclusions regarding their performances are to be made. A further study might arrange to obtain Ss from some of the larger homes for the aged where trained workers would help in selecting the Ss. The degree of overlap between the control and community groups is strikingly similar to the results obtained in the
previous study by Fleishman & Barmack (1960). This lends support to the assumption that the populations used in that (Fleishman & Barmack, 1960) and the present studies are the same.

However, the tentative conclusion can be stated that in order to understand the psychological implications of the aging process, emphasis should be placed on the dynamic relationship between the aging individual and society. This is contrary to the usual assumptions of most theories of aging, which are founded on the premise that getting older is a physiological phenomenon and that the progressively poorer mean performance level for aged populations reflects these physiological events. Rather, the tentative results of this study suggest that variation in efficient psychological functioning among the aged may be an interaction of a number of events, one most significant being the degree of social relatedness.
Summary

The present study investigated whether the ability to shift sets, one dimension of the abstract attitude, is associated with the degree of social relatedness that older people have with society. Three groups of Ss were used, a sample drawn from persons living in the community (ages 60-88), a small institutionalized sample (ages 71-92) and a control of college Ss (ages 18-22). Ss were administered a questionnaire whose items were designed to measure social, personality and demographic variables. Thirteen scales, reflecting degree of relatedness with society, were derived from the questionnaire. Ss were then shown a film and instructed to press a key each time they saw a change in camera sequence in the film. Responses were recorded automatically for sequence changes.

Product-moment r's, eta correlations and analyses of variance were computed between sequence changes and social lifespan, morale and perceived lifespan, measures suggested by the disengagement theory of aging and the remaining scales of social activity that were suggested in the literature as being indicative of interpersonal relatedness (see Table 1). While the data seems to indicate that there is a relationship between sequence change scores and the degree of social relatedness, the results cannot be considered conclusive. While social lifespan remains significantly correlated with sequence changes after partialling educational and occupational levels out separately, it falls below significance when they are both held constant (corrected r = .19). In addition, the findings
remain tenuous because education and occupation cannot be
partialled out from the significant eta correlations between
sequence changes and morale, number of groups, number of lei-
sure activities, and number of items read which do offer sup-
port for the hypothesis of the study. A conclusive statement
cannot be made from these findings without controlling for
these contaminating factors. But the trend of the findings
does suggest a relationship between efficiency of psychological
functioning on a perceptual shifting task and the degree of
interpersonal relatedness.

A more refined design for the study would use a factorial
design, implementing the necessary controls in advance, i.e.,
by selecting Ss according to desired criteria. Also, a
battery of perceptual tasks would be administered instead of
the single measure in this study.
References


Appendices A and B
Appendix A
Sample Questionnaires for Men, Women and Control Group
Instructions

The Psychology Department of the University of Massachusetts is greatly interested in learning how older people get along in the world. In order to obtain this information we at the University need your cooperation and understanding. While we would prefer to interview each of you individually, time makes it impossible to do so. Instead we would like you to answer the following questions about yourself, as truthfully as you can. You do not have to put your name down and you can take as much time as you like. We would like to thank you, in advance, for participating and giving us your time.

In most cases, answering a question will consist of just making a check mark in what you consider to be the most appropriate space. It is very important to read the questions carefully and to answer them as honestly and accurately as possible. If there are any problems about what is being asked or how to answer the questions, please call them to my attention so that I can clarify what is meant.

Please answer as many questions as you can. If you find a question difficult, go on to the next one.
Questionnaire for Men

Date: ______________________

Name of the organization you are participating with: ______________________

The number that was on the telegraph key that you used? __________

1. Your age? ______

2. Your religion? ________________

3. Please check your present marital status:
   ______ married; ______ separated; ______ divorced; ______ widower; ______ divorced and remarried; ______ widower and remarried; ______ other (please explain:)

4. In what type of house do you live? Your own home? ______
   Do you live in a rented house (2 family house or less)? ______
   Do you live in an apartment? ______

5. What social class do you consider that you belong to: (check one)
   ______ Upper Class
   ______ Lower Class
   ______ Middle Class
   ______ Working Class

6. What does or did your wife do for an occupation? ______________________
   How many years did she do this work? ______________________

7. Check the schools you completed:
   ______ elementary school; ______ junior high school; ______ high school;
   ______ college; ______ graduate school; ______ professional school;
   ______ other (specify any other formal education completed:)

8. Looking back at your work history, what do you consider your major vocation?
   What kind of work did you do for the longest period of time? __________

Question 10 should be answered by men who are not retired.

10a. Have you made plans for anything you would like to do after you stop working? __________________________

10b. Has your company or employer tried to do anything to help you prepare for retirement, aside from pensions? __________________________

10c. What will bring about retirement for you? ___ voluntarily; ___ mandatory; ___ other (please explain:) __________________________

10d. Do you expect to continue working, for a say about the next 5 years? ___ yes; ___ no; ___ undecided.

Question 11 should be answered by men who are retired.

11a. Before you stopped working, did you make plans for anything you would like to do after you stopped working? __________________________

11b. Did your company or employer try to do anything to help you prepare for retirement, aside from pensions? __________________________

11c. What brought about retirement for you? ___ voluntarily; ___ mandatory; ___ other (please explain:) __________________________

11d. Do you like retirement? ___ yes; ___ no; ___ undecided. For what reasons? __________________________

The rest of the questions should be answered by all men.

12. Check your present sources of income. ___ social security; ___ money from your children; ___ your salary and or your wife's salary; ___ stocks and bonds; ___ other (please explain?) __________________________

13. What is the class group that you were a member of for the longest period of time? __________________________

14. What was the income group or category that you were in when you were at your prime? __________________________
16. Is your present income enough to meet your living expenses? ___ yes; ___ no.

17. How would you rate your health at present? (check one)
   ___ good; ___ fair; ___ bad

18. Could you mention any major physical health problems you have now?

19. How often are you troubled by physical aches and pains? (check one)
   ___ often; ___ sometimes; ___ never

20. How often are you troubled by nervousness? (check one)
   ___ often; ___ sometimes; ___ never

21. How often are you troubled by headaches? (check one)
   ___ often; ___ sometimes; ___ never

22. How frequently are you troubled by forgetfulness? (check one)
   ___ often; ___ sometimes; ___ never

23. How often do you suffer from not being able to sleep? (check one)
   ___ often; ___ sometimes; ___ never

24. How often do you suffer from an upset stomach? (check one)
   ___ often; ___ sometimes; ___ never
25. How many people live with you at home? ........................................

26. Who are the relatives you feel closest to? ........................................

27. How often do you get together with these relatives: (check once for each relative you just mentioned. The number of checks should equal the number of relatives.

   (every day)     (about once a month)
   (every other day) (about once every 2 months)
   (3 times a week)  (a few times a year)
   (at least once a week) (about once a year)
   (a few times a month) (almost never – haven’t seen in years)

28. How many people do you know who you consider close friends—that is, people you can confide in and talk over personal matters with? Give a number even if only an approximate one. ..............

29. About how often do you get together with each of the friends you feel closest to. (Check once for each person you consider a close friend. The number of checks should equal the number of close friends.)

   (every day)     (about once a month)
   (every other day) (about once every 2 months)
   (3 times a week)  (a few times a year)
   (at least once a week) (about once a year)
   (a few times a month) (almost never – haven’t seen in years)

30. What are the occupations of your closest friends? ......................

31. Now, about the people you see for certain specific purposes—like the storekeepers, bus drivers, waiters, salespeople, and so on. About how many of these do you see fairly regularly, would you say. Give a number if only an approximate one. .................
32. Who are the neighbors you like best.

33. How often do you get together with these neighbors? (check once for each person you consider a neighbor that you like best. The number of checks should equal the number of neighbors you like best)
   (every day)
   (every other day)
   (3 times a week)
   (at least once a week)
   (a few times a month)

   (about once a month)
   (about once every 2 months)
   (a few times a year)
   (about once a year)
   (almost never - haven't seen in years)

34. In the course of a day, about how many people do you see and talk to?

35. How often do you attend church (temple)?
   (every day)
   (every other day)
   (3 times a week)
   (at least once a week)
   (a few times a month)

   (about once a month)
   (about once every 2 months)
   (a few times a year)
   (about once a year)
   (almost never - haven't been in years)

36. Do you belong to any committees, auxiliaries, lodges, unions, card or church clubs or anything like that? yes; no.
   If yes, please list these:

37. We would like to know if you engage in any of these leisure time activities? Check the ones which you sometimes, never; or often participate in. (one check for each activity)

   1) talk with friends
      Not At all Sometimes Often
      
   2) work in the garden
      
      

3) read

4) go to town to shop

5) go riding in the country

6) watch television

7) play cards

8) hunt or fish

9) take walks alone

10) talk with friends on the telephone

11) attend movies

38. What is it that you usually read? ___ newspapers; ___ magazines; ___ Bible; ___ novels; ___ other (please specify:)

39. Did you see more of your close relatives when you were 45, or do you see more of them now? (check one)
   ___ more now
   ___ about the same
   ___ more then

40. Did you have more close friends whom you saw regularly when you were 45, or more now? (check one)
   ___ more now
   ___ about the same
   ___ more then

41. Would you say you are more or less of a churchgoer now than when you were 45? (check one)
   ___ more now
   ___ about the same or never went
   ___ more then
42. Would you say you are more or less active in clubs and organizations now, or were you more active when you were 45? (check one)
   ___ more now
   ___ about the same or never went
   ___ more then

43. How about when you were 45? What was a typical week like for you then in terms of the people you saw and talked with? (check one)
   ___ more now
   ___ same
   ___ more then

44. Is your health better now than when you were 45? (check one)
   ___ better now
   ___ same
   ___ better then

45. Do you work more in the garden now than you did at 45? (check one)
   ___ more now
   ___ same
   ___ more then

46. Do you read more now than you did at 45? (check one)
   ___ more now
   ___ same
   ___ more then

47. Do you go to town to shop more now than you did at 45? (check one)
   ___ more now
   ___ same
   ___ more then
48. Do you take rides to the country more now than you did at 45? (check one)
   ___ more now
   ___ sane
   ___ more then

49. Do you play cards more now than you did at 45? (check one)
   ___ more now
   ___ sane
   ___ more then

50. Do you hunt or fish more now than you did at 45? (check one)
   ___ more now
   ___ sane
   ___ more then

51. Do you take walks alone more now than you did at 45? (check one)
   ___ more now
   ___ sane
   ___ more then

52. Do you talk with friends on the telephone more now than you did at 45? (check one)
   ___ more now
   ___ sane
   ___ more then

53. Do you attend more movies now than you did at 45? (check one)
   ___ more now
   ___ sane
   ___ more then

54. If you could choose the age you would prefer to be right now, which one would you choose? _______________________

55. How do you feel about getting older?
   ___ worry about it; ___ don't mind at all; ___ like the idea
56. Where in Worcester would you most like to live?  

57. Of all the things you do on a weekend, which are the least interesting to you?  

58. What activities give you the most satisfaction in life?  

59. Do you wish you could see more of your relatives, of your neighbors, of your friends?  

60. Do you believe in life after death?  
   ___ no; ___ not sure; ___ yes, I'm sure of it  

61. Would you say you are a religious person, or doesn't religion mean very much to you? (check one)  
   ___ I'd say I'm a religious person  
   ___ Undecided  
   ___ Religion doesn't mean very much to me  

62. When you are troubled about life and its meanings, what do you most often do? (check one)  
   ___ Pray to God for help  
   ___ Talk it over with a minister, priest, or rabbi  
   ___ something other than the above two. (If you have checked this answer, please state what you do)  

63. How much do you regret the chances that you missed during your life to do a better job of living? (check one)  
   ___ I regret them a great deal; ___ I regret them somewhat; ___ I don't regret them  

64. How much unhappiness would you say you find in life today? (check one)  
   ___ a great deal of unhappiness; ___ some unhappiness; ___ no unhappiness
65. How satisfied would you say you are with your way of life today? (check one)
   __ very satisfied; __ somewhat satisfied; __ not satisfied

66. Those days a person doesn't really know when he can count on. How do you feel about this? (check one) __ I agree with this statement; __ I think it is somewhat true; __ I don't agree with this statement

67. In spite of what some people say, the lot of the average man is getting worse, not better. How do you feel about this? (check one) __ I agree with this statement; __ I think it is somewhat true; __ I don't agree with this statement

68. It's hardly fair to bring children into the world the way things look for the future. What are your feelings about this statement? (check one) __ I agree with this statement; __ I agree with this statement, somewhat; __ I disagree with this statement

69. How often do you feel there is just no point in living? (check one) __ very often; __ often; __ sometimes; __ never

How do you feel about the following statement? (check the space before each question, which expresses your opinion best.)

70. The most important thing to teach children is absolute obedience to their parents.
   __ strongly agree
   __ agree
   __ disagree
   __ strongly disagree

71. There are two kinds of people in the world: the weak and the strong.
   __ strongly agree
   __ agree
   __ disagree
   __ strongly disagree
72. Any good leader should be strict with people under him in order to gain their respect.
   ___ strongly agree
   ___ agree
   ___ disagree
   ___ strongly disagree

73. No decent man can respect a woman who has had sexual relations before marriage.
   ___ strongly agree
   ___ agree
   ___ disagree
   ___ strongly disagree

74. Prison is too good for sex criminals. They should be publicly whipped or worse.
   ___ strongly agree
   ___ agree
   ___ disagree
   ___ strongly disagree

75. Familiarity breeds contempt.
   ___ strongly agree
   ___ agree
   ___ disagree
   ___ strongly disagree

76. Some companies insist on a man retiring when he reaches the age of 65. How do you feel about this policy?
   ___ strongly agree
   ___ agree
   ___ disagree
   ___ strongly disagree
77. Older people demand more consideration than they have a right to expect.

__ strongly agree
__ agree
__ disagree
__ strongly disagree

As far as retirement is concerned, how do you feel about the following two items?

78. At what age do you think a person should retire? _______________________

79. Who do you think should make the decision as to when a person should retire? _______________________

80. Would you please describe your general health and any recent (last 6 months) illnesses you have had. Please be as inclusive and specific as you can. ____________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Instructions

The Psychology Department of the University of Massachusetts is greatly interested in learning how older people get along in the world. In order to obtain this information we at the University need your cooperation and understanding. While we would prefer to interview each of you individually, time makes it impossible to do so. Instead we would like you to answer the following questions about yourself, as truthfully as you can. You do not have to put your name down and you can take as much time as you like. We would like to thank you, in advance, for participating and giving us your time.

In most cases, answering a question will consist of just making a check mark in what you consider to be the most appropriate space. It is very important to read the questions carefully and to answer them as honestly and accurately as possible. If there are any problems about what is being asked or how to answer the questions, please call them to my attention so that I can clarify what is meant.

Please answer as many questions as you can. If you find a question difficult, go on to the next one.
Questionnaire for Women

Date: __________

Name of the organization you are participating with: __________

The number that was on the telegraph key that you used: __________

1. Your age? __________

2. Your religion? __________

3. Please check your marital status: __ never married; __ married; __ separated; __ divorced; __ widow; __ divorced and remarried; __ widow and remarried; __ other (please explain:)

   Do you live in a rented house (2 family house or less)? ______
   Do you live in an apartment? ______

5. What social class do you consider that you belong to? (check one)
   ___ Upper Class
   ___ Lower Class
   ___ Middle Class
   ___ Working Class

6. Looking back at your husband's work history, what do you consider his major vocation?

7. What kind of work did he do for the longest period of time? __________

8. Is your husband retired now? __ yes; __ no.

9. Looking over your work history, what do you consider your main occupation? __________. For how long have you done this type of work? __________.

10. Are you working now? __ yes; __ no.
     What do you do? __________
     For how long have you been doing this? __________

11. Check the schools that your husband completed:
elementary school; ___ junior high school; ___ high school; ___ college; ___ graduate school; ___ professional school; ___ other (specify any other formal education completed:)

11. Check the schools you completed:
   ___ elementary school; ___ junior high school; ___ high school; ___ college; ___ graduate school; ___ professional school; ___ other (specify any other formal education completed:)

12. Check your present sources of income:
   ___ social security; ___ money from your children; ___ your and salary/or your husband's salary; ___ stocks and bonds; ___ other (please explain:)

13. What is the class group that you were a member of for the longest period of time?

14. What was the income category that your/that (your family) were in, when you were at your prime?
16. Is your present income enough to meet your living expenses?
   — yes; — no.
17. How would you rate your health at present? (check one)
   — good; — fair; — bad
18. Could you mention any major physical health problems you have now?
19. How often are you troubled by physical aches and pains?
   (check one)
   — often; — sometimes; — never
20. How often are you troubled by nervousness? (check one)
   — often; — sometimes; — never
21. How often are you troubled by headaches? (check one)
   — often; — sometimes; — never
22. How frequently are you troubled by forgetfulness? (check one)
   — often; — sometimes; — never
23. How often do you suffer from not being able to sleep? (check one)
   — often; — sometimes; — never
24. How often do you suffer from an upset stomach? (check one)
   — often; — sometimes; — never
25. How many people live with you at home?  

26. Who are the relatives you feel closest to?  

27. How often do you get together with these relatives? (check once for each relative you just mentioned. The number of checks should equal the number of relatives. 

- (every day)  
- (every other day)  
- (3 times a week)  
- (at least once a week)  
- (a few times a month)  
- (about once a month)  
- (about once every 2 months)  
- (a few times a year)  
- (about once a year)  
- (almost never - haven't seen in years)  

28. How many people do you know who you consider close friends - that is, people you can confide in and talk over personal matters with? Give a number even if only an approximate one.  

29. About how often do you get together with each of the friends you feel closest to. (Check once for each person you consider a close friend. The number of checks should equal the number of close friends.) 

- (every day)  
- (every other day)  
- (3 times a week)  
- (at least once a week)  
- (a few times a month)  
- (about once a month)  
- (about once every 2 months)  
- (a few times a year)  
- (about once a year)  
- (almost never - haven't seen in years)  

30. What are the occupations of your closest friends?  

31. Now, about the people you see for certain specific purposes - like the storekeepers, bus drivers, waiters, salespeople, and so on. About how many of these do you see fairly regularly, would you say. Give a number if only an approximate one.  

32. Who are the neighbors you like best.

33. How often do you get together with these neighbors? (check once for each person you consider a neighbor that you like best. The number of checks should equal the number of neighbors you like best)

- (every day) ______ (about once a month)
- (every other day) ______ (about once every 2 months)
- (3 times a week) ______ (a few times a year)
- (at least once a week) ______ (about once a year)
- (a few times a month) ______ (almost never - haven't seen in years)

34. In the course of a day, about how many people do you see and talk to? __________________________

35. How often do you attend church (temple)?

- (every day) ______ (about once a month)
- (every other day) ______ (about once every 2 months)
- (3 times a week) ______ (a few times a year)
- (at least once a week) ______ (about once a year)
- (a few times a month) ______ (almost never - haven't been in years)

36. Do you belong to any committees, auxiliaries, lodges, unions, card or church clubs or anything like that? ______ yes; ______ no.

If yes, please list these: ________________________________________________________________

37. We would like to know if you engage in any of these leisure time activities? Check the ones which you sometimes, never, or often participate in. (one check for each activity)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Not at all</th>
<th>Sometimes</th>
<th>Often</th>
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</thead>
<tbody>
<tr>
<td>1) talk with friends</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) work in the garden</td>
<td></td>
<td></td>
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</table>
38. What is it that you usually read? ___ newspapers; ___ magazines; ___ Bible; ___ novels; ___ other (please specify: )

39. Did you see more of your close relatives when you were 45, or do you see more of them now? (check one)
   ___ more now
   ___ about the same
   ___ more then

40. Did you have more close friends whom you saw regularly when you were 45, or more now? (check one)
   ___ more now
   ___ about the same
   ___ more then

41. Would you say you are more or less of a churchgoer now than when you were 45? (check one)
   ___ more now
   ___ about the same or never went
   ___ more then
42. Would you say you are more or less active in clubs and organizations now, or were you more active when you were 45? (check one)

- more now
- about the same or never went
- more then

43. How about when you were 45? What was a typical week like for you then in terms of the people you saw and talked with? (check one)

- more now
- same
- more then

44. Is your health better now than when you were 45? (check one)

- better now
- same
- better then

45. Do you work more in the garden now than you did at 45? (check one)

- more now
- same
- more then

46. Do you read more now than you did at 45? (check one)

- more now
- same
- more then

47. Do you go to town to shop more now than you did at 45? (check one)

- more now
- same
- more then
48. Do you take rides to the country more now than you did at 45? (check one)
   ___ more now
   ___ same
   ___ more then

49. Do you play cards more now than you did at 45? (check one)
   ___ more now
   ___ same
   ___ more then

50. Do you hunt or fish more now than you did at 45? (check one)
   ___ more now
   ___ same
   ___ more then

51. Do you take walks alone more now than you did at 45? (check one)
   ___ more now
   ___ same
   ___ more then

52. Do you talk with friends on the telephone more now than you did at 45? (check one)
   ___ more now
   ___ same
   ___ more then

53. Do you attend more movies now than you did at 45? (check one)
   ___ more now
   ___ same
   ___ more then

54. If you could choose the age you would prefer to be right now, which one would you choose?

55. How do you feel about getting older?
   ___ worry about it; ___ don't mind at all; ___ like the idea
56. Where in Worcester would you most like to live?

57. Of all the things you do on a weekend, which are the least interesting to you?

58. What activities give you the most satisfaction in life?

59. Do you wish you could see more of your relatives, of your neighbors, of your friends?

60. Do you believe in life after death?
   __ no; __ not sure; __ yes, I'm sure of it

61. Would you say you are a religious person, or doesn't religion mean very much to you? (check one)
   __ I'd say I'm a religious person
   __ Undecided
   __ Religion doesn't mean very much to me

62. When you are troubled about life and its meanings, what do you most often do? (check one)
   __ Pray to God for help
   __ Talk it over with a minister, priest, or rabbi
   __ something other than the above two. (If you have checked this answer, please state what you do)

63. How much do you regret the chances that you missed during your life to do a better job of living? (check one) __ I regret them a great deal; __ I regret them somewhat; __ I don't regret them

64. How much unhappiness would you say you find in life today? (check one) __ a great deal of unhappiness; __ some unhappiness; __ no unhappiness
65. How satisfied would you say you are with your way of life today? (check one) 

___ very satisfied; ___ somewhat satisfied; ___ not satisfied

66. These days a person doesn’t really know whom he can count on. How do you feel about this? (check one) ___ I agree with this statement; ___ I think it is somewhat true; ___ I don’t agree with this statement

67. In spite of what some people say, the lot of the average man is getting worse, not better. How do you feel about this? (check one) ___ I agree with this statement; ___ I think it is somewhat true; ___ I don’t agree with this statement

68. It’s hardly fair to bring children into the world the way things look for the future. What are your feelings about this statement? (check one) ___ I agree with this statement; ___ I agree with this statement, somewhat; ___ I disagree with this statement

69. How often do you feel there is just no point in living? (check one) ___ very often; ___ often; ___ sometimes; ___ never

How do you feel about the following statement? (check the space before each question, which expresses your opinion best.)

70. The most important thing to teach children is absolute obedience to their parents.

___ strongly agree
___ agree
___ disagree
___ strongly disagree

71. There are two kinds of people in the world: the weak and the strong.

___ strongly agree
___ agree
___ disagree
___ strongly disagree
72. Any good leader should be strict with people under him in order to gain their respect.

- strongly agree
- agree
- disagree
- strongly disagree

73. No decent man can respect a woman who has had sexual relations before marriage.

- strongly agree
- agree
- disagree
- strongly disagree

74. Prison is too good for sex criminals. They should be publicly whipped or worse.

- strongly agree
- agree
- disagree
- strongly disagree

75. Familiarity breeds contempt.

- strongly agree
- agree
- disagree
- strongly disagree

76. Some companies insist on a man retiring when he reaches the age of 65. How do you feel about this policy?

- strongly agree
- agree
- disagree
- strongly disagree
77. Older people demand more consideration than they have a right to expect.

___ strongly agree
___ agree
___ disagree
___ strongly disagree

As far as retirement is concerned, how do you feel about the following two items?

78. At what age do you think a person should retire? __________

79. Who do you think should make the decision as to when a person should retire? __________

80. Would you please describe your general health and any recent (last 6 months) illnesses you have had. Please be as inclusive and specific as you can.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Name:
Age:
Yr. in College:
Where are you from:
# on telegraph key:
Marital status:
Do you have any exams this week? __________
What do you consider your class group?
   a. upper class ______
   b. middle ______
   c. lower ______
   d. working ______
Your father's vocation: ___________________________
Your religion: _________________________________
How much schooling did your father complete? _______________________
In what type of house do you live? ___________________________
Have you made plans to do anything after you graduate? _______
   What? _________________________________
Are your parents alive and living together? _______
1. Tell me what you think the purpose of the experiment was,

2. What was the last film about?

3. Did you have trouble concentrating on what you were supposed to do?
### Appendix B

**Table A**

Listing According to Date Experiment Was Conducted, Name, Location, and Amount of Subjects Contributed, of the Clubs and Homes for the Aged that Participated in the Experiment

<table>
<thead>
<tr>
<th>Name of the Club or Home</th>
<th>Location</th>
<th>Date of Experiment</th>
<th>Number of Ss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Happy Hours</td>
<td>Worcester</td>
<td>12 March 63</td>
<td>7</td>
</tr>
<tr>
<td>Lincoln Square</td>
<td>Worcester</td>
<td>25 March 63</td>
<td>12</td>
</tr>
<tr>
<td>Salvation Army</td>
<td>Worcester</td>
<td>27 March 63</td>
<td>5</td>
</tr>
<tr>
<td>Chestnut St. Fellowship</td>
<td>Worcester</td>
<td>28 March 63</td>
<td>5</td>
</tr>
<tr>
<td>Golden Agers of Northampton</td>
<td>Northampton</td>
<td>10 April 63</td>
<td>10</td>
</tr>
<tr>
<td>Golden Agers of Northampton</td>
<td></td>
<td>24 April 63</td>
<td>4</td>
</tr>
<tr>
<td>Golden Agers of Amherst</td>
<td>Amherst</td>
<td>23 April 63</td>
<td>3</td>
</tr>
<tr>
<td>Golden Agers of Springfield</td>
<td>Springfield</td>
<td>30 April 63</td>
<td>7</td>
</tr>
<tr>
<td>Golden Agers of Sixteen Acres</td>
<td>Springfield</td>
<td>2 May 63</td>
<td>15</td>
</tr>
<tr>
<td>Golden Agers of Winchester Square</td>
<td>Springfield</td>
<td>6 May 63</td>
<td>8</td>
</tr>
<tr>
<td>St. Francis' Home</td>
<td>Worcester</td>
<td>22 February 63</td>
<td>11</td>
</tr>
<tr>
<td>Springfield Jewish Home for the Aged</td>
<td>Springfield</td>
<td>16 May 63</td>
<td>8</td>
</tr>
</tbody>
</table>
Acknowledgements

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