A study among 284 retired men, aged 63 to 99, in three southern Wisconsin communities examined whether aging entails disengagement from social relationships. The correlation between aging and disengagement was analyzed in terms of social class (education, former occupation, present income) for residents of rural, urban, and suburban areas. Except in two cases (persons with nine to 12 years of schooling, and farmers), the hypothesized relationship was confirmed. However, it was not very strong empirically—an indication that variables other than age may be more germane to disengagement among people 65 or older. A theoretical approach to aging is needed which draws on role theory and emphasizes age related transitions in social positions, instead of chronological age as such. (Two tables and 22 footnotes are included.) (LY)
THE PROCESS OF GROWING OLD: A TEST
OF THE DISENGAGEMENT HYPOTHESIS*

Population Note No. 10

by

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September, 1968

*This study was partly financed by a grant from the Administration on Aging, Department of Health, Education, and Welfare, Washington, D. C.
One of the central features of the demographic revolution of this century has been the changing age composition of Western countries, which has brought greatly increased proportions of the population into the older age categories. Since the turn of this century, the proportion of persons aged 65 and older in the U.S. has more than doubled—from 4.1 per cent in 1900 to 9.4 per cent in 1966. During the last quarter of a century, there has been a growing research interest in the social and social-psychological characteristics of older populations. In sharp contrast to the growing body of research findings, there has been a relative paucity of theoretical development on the aging process which could serve to codify diverse research findings and generate new hypotheses.

The one major exception to this lack of theoretical development is the theory propounded by Elaine Cumming and William Henry, known as the "disengagement theory of aging." The disengagement theory has had a profound impact on researchers interested in the aging process and has served as the locus of theoretical discussion of aging since it's appearance in 1960. The purpose of this presentation is to empirically test one of the central postulates of the disengagement theory and delineate what we feel to be necessary theoretical modifications.

The Disengagement Theory

The central tenet of the disengagement theory is that the process of growing old is a process of disengagement. Disengagement is defined as:

"...an inevitable process in which many of the relationships between a person and other members of society are severed, and those remaining are altered in quality."
This definition of disengagement leads directly to the first and central postulate of the theory:

"Postulate 1: Although individuals differ, the expectation of death is universal and decrement of ability is probable. Therefore, a mutual severing of ties will take place between a person and others in his society."

From the definition of disengagement and Postulate 1, the following empirical hypothesis may be generated:

Hypothesis 1: The rate of interaction and the variety of interaction will lessen with age.

In other words, the rate and variety of interaction, as an empirical measure of disengagement from social relationships, should decline as the individual increases in chronological age. It may reasonably be said that the structure of the whole disengagement theory depends upon the truth or falsity of this core proposition. This is the hypothesis that we will explore in this paper.

Weaknesses in the Original Study

There are several sound reasons for attempting to replicate the Cumming and Henry findings and for retesting their central postulate. First of all, their theory was generated from their data and therefore their theory is best considered as a body of hypotheses for future research. Secondly, although their principal hypothesis is structured for a longitudinal research design, they tested it cross-sectionally. That is, they compared the interaction rates of individuals in different age groups at one point in time rather than tracing the decline in interaction of the same individuals over time. The intrinsic difficulty with this approach is that it is impossible to partial out those differences in interaction rates that are attributable to variables associated with generational differences and which do not reflect actual declines in interaction for the same individuals as they age.
In addition, there were definite biases in their sample of respondents. The results reported were based on a study of 211 persons drawn partly from a study of healthy adults between the ages of 50 and 70, and partly from a special study of old people between the ages of 70 and 90. Respondents whose chronic health disorders were serious enough to "render them unable to perform in their usual capacity at work or in the home were discarded." Moreover, the "lowest and highest layers" of the class structure were eliminated. Finally, the persons aged 70 to 90 in the study were not randomly selected so that inferences to "their universe" could not legitimately be made. Given the continuing importance of the disengagement theory for research on aging, and given the weaknesses in the original study mentioned above, it seems worthwhile to retest the disengagement hypothesis on a new study population employing somewhat more germane methodological techniques.

A Role Theory Approach to the Aging Process

Our theoretical approach to the aging process does not significantly differ from that of Cumming and Henry although it tends to be more firmly grounded in role theory. Since our measure of disengagement is derived from our theoretical orientation, it is worthwhile to briefly discuss our approach now.

In conceptualizing the aging process, we draw on role theory, in particular, Merton's concepts of social position, role, role-set, position-set, and position-sequence. A social position may be defined as a quantity of acts that are repeated in time by some members of a specified collective, e.g., worker and foreman. Role may be defined as a quantity of acts of the occupants of one position in an interaction, e.g., father-son. Role-set may be defined as the complement of role-relationships which persons have by virtue of occupying a particular
social position and position-set is the complement of positions occupied by the same individual.14

From this perspective, the aging process may be viewed as the patterned flow of individuals through a series of positions, roles, role-sets, and position-sets. We can envision a two-dimensional graph, one axis of which denotes age; the other, number of positions and role-relationships in the position-set. The height and shape of the plotted curves would vary by society and possibly social class. The relative smoothness of the curve would denote rate and magnitude of change in the position-set concomitant with an age-related transition in social position. Such age-related positional transitions would include, for example, young adolescent-student, student-worker, bachelor-spouse, worker-retiree. According to the disengagement theory, we would expect that the shape of the curve (assuming age is the x axis) would be in the form of an inverted u-curve. For men, retirement generally marks the point where the age-position curve plunges downward. That is, retirement generally entails loss of positions and declines in role-relationships in the position-set of members of industrialized societies. Similarly, young adolescent-student, and student-worker generally denote points at which the age-position curve accelerates upward.

Data and Methods

The data are from interviews in 1967 with 284 retired men in three communities in southern Wisconsin.15 The respondents were obtained through two procedures. First, an area probability sample, coupled with a screening interview, was used to locate retired men in the largest community studied (170,000 population). Second, a random sample was drawn from a complete enumeration of retired males in the two smaller communities studied (8,000 and 3,000 population). We have argued that a cross-sectional
research design is inadequate to accurately test the disengagement hypothesis. A longitudinal panel design encompassing a 30 year time period is the ideal research design to test this hypothesis. Unfortunately, as is usually the case, time and cost restrictions ruled this out. Instead, we employed an approximation--recall questions in a cross-sectional format.

In order to measure disengagement, an index of 10 social positions running from parent to church participant was devised. The respondent was asked to specify which of those positions he occupied during the five years prior to his retirement, and this was considered to be a very rough approximation of his pre-retirement position-set. The respondent was then asked to specify for each social position whether his pre-retirement level of activity or interaction had increased, decreased, or remained the same. If we had been employing a panel design, we would have ascertained the actual number of acts in each position per week or month for each time period of the study and then constructed discrepancy scores. However, since we were employing recall questions, we chose the much cruder but more reliable measure of simple increased, decreased, or continuous activity in role-relationships.

In order to construct the disengagement measure, we then simply counted the total number of social positions the respondent occupied prior to retiring. We then counted the number of positions in which interaction in role-relationships had declined. Finally, we divided the number of positions in which interaction in role-relationships had declined by the total number of positions in the position-set. This gave us the score for the disengagement index. This measure designates the percentage of the positions in the position-set which have undergone decline in interaction since retirement and is comparable across
all individuals. Had we selected the simpler measure, number of positions in which interaction had declined, we would not have been able to compare the degree of disengagement across individuals. This is because a person who undergoes one position decline out of a total of three positions occupied has undergone proportionally the same amount of disengagement as the individual who undergoes two position declines out of six—yet their scores would differ in terms of number of positions in which interaction had declined. The mean of the disengagement index is 36.62 with a standard deviation of 18.39. Therefore, the average respondent in our sample had experienced declines in interaction and activity in roughly one-third of the positions in his pre-retirement position-set.

Finally, respondents were asked to designate their current age. The respondents ranged in age from 63 to 99, with a mean of 75.50 and a standard deviation of 7.56 years.

Findings

Aging and Disengagement

If the disengagement theory is correct, we would hypothesize that:

the greater the individual's chronological age, the greater his disengagement score.

This is indeed the case (Table 1). The mean disengagement score ranges from 26.88 for those respondents between the ages of 64 and 69 to 44.32 for the respondents who are 80 years of age and older. The product-moment correlation coefficient between age and the disengagement index is .245 and is significant at the .001 level. We should note that although the association is in the predicted direction and is significant, it is not particularly strong. Only seven per cent of the variance ($r^2$) in the disengagement index is "explained" by the chronological age of the respondents. Since the Cumming and Henry study employed no measures...
TABLE 1
AGE BY THE DISENGAGEMENT INDEX

<table>
<thead>
<tr>
<th>Present Age</th>
<th>Disengagement Index</th>
<th>Mean</th>
<th>Number of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-69</td>
<td></td>
<td>26.88</td>
<td>74</td>
</tr>
<tr>
<td>70-74</td>
<td></td>
<td>36.36</td>
<td>70</td>
</tr>
<tr>
<td>75-79</td>
<td></td>
<td>39.10</td>
<td>65</td>
</tr>
<tr>
<td>80 and older</td>
<td></td>
<td>44.32</td>
<td>73</td>
</tr>
<tr>
<td>Total sample</td>
<td></td>
<td>36.62</td>
<td>282</td>
</tr>
</tbody>
</table>

Pearson product-moment correlation = .245*
Probability less than .001.**

*The product-moment correlation was run with raw scores. We rejected the use of non-parametric measures of association because our measures are interval, not ordinal.
**Since direction was predicted, a one-tailed test of significance was employed.

of strength of association, we haven't the means of comparing the strength of relationship found in their study and ours. However, the moderate size of the correlation makes it appear that aging in itself is not a major explanation of the disengagement from social relationships among that segment of the male population aged 65 and older.

Aging and Disengagement With Selected Variables Controlled

Another important weakness of the Cumming and Nerry study was their failure to control on certain variables when discussing the relationship between aging and disengagement. Of particular importance are variables reflecting dimensions of social class. Since the older a respondent is, the lower his educational and income levels are likely to be, it could be that disengagement is actually a reflection of social class differences among generations rather than aging itself. In order to explore this
possibility, we examined the relationship between aging and disengagement within the social class dimensions of pre-retirement occupation, level of education, and present monthly income (Table 2).

The first panel of Table 2 portrays the relationship between aging and disengagement in the rural, suburban and urban communities in our study. The relationship is in the predicted direction and is statistically significant within all three communities. Since the samples in each community were taken independently of one another, this constitutes three independent tests of the hypothesis in separate communities on a rural-urban continuum and heightens our confidence in the reliability of our findings.

Next, we examined the relationship between aging and disengagement within the dimensions of social class—occupation, education, and present income. In only one instance does the relationship fail to attain the predicted direction—for the subset of the sample with educational levels between 9 and 12 years. In two cases, the relationship fails to achieve statistical significance—for farmers and again for those with 9 to 12 years of education. Although we can't explain the lack of relationship among the high school educated, it is nonetheless clear that our findings give remarkably consistent support for the disengagement hypothesis.

**Conclusions**

We have explored the disengagement hypothesis that the process of growing old is one of disengagement from social relationships. Our findings have given consistent support to that hypothesis both for our sample as a whole and also within different communities and social classes. However, we also found that the relationship between chronological age and disengagement is not very strong empirically. Thus, it seems likely that there are variables other than age which are more central to the
TABLE 2
AGE BY DISENGAGEMENT INDEX
WITH SELECTED VARIABLES CONTROLLED

<table>
<thead>
<tr>
<th>Control Variable</th>
<th>Pearson Product-moment correlation coefficient of age and the disen-</th>
<th>Probability*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>.229 (73)</td>
<td>.05</td>
</tr>
<tr>
<td>Suburb</td>
<td>.457 (76)</td>
<td>.001</td>
</tr>
<tr>
<td>Urban</td>
<td>.311 (132)</td>
<td>.001</td>
</tr>
</tbody>
</table>

| Occupation***    |                                                               |              |
| Upper white collar | .342 (62)                                                   | .01          |
| Lower white collar | .355 (32)                                                   | .05          |
| Upper blue collar  | .404 (77)                                                     | .001         |
| Lower blue collar  | .326 (80)                                                     | .001         |
| Farm              | .205 (31)                                                     | N.S.         |

| Education        |                                                               |              |
| 0-7 years        | .341 (77)                                                     | .001         |
| 8 years          | .392 (95)                                                     | .001         |
| 9-12 years       | -.045 (54)                                                    | N.S.         |
| 13 or more years | .276 (54)                                                     | .05          |

| Present Income (Monthly) |                                                               |              |
| $000-199            | .175 (88)                                                     | .05          |
| $200-299            | .263 (64)                                                     | .05          |
| $300-499            | .347 (67)                                                     | .001         |
| $500 or more        | .272 (42)                                                     | .05          |

*Direction was predicted so a one-tailed test of significance was employed.
**The number of cases varies slightly due to missing data.
***Upper white collar is professional, technical, managers, owners and proprietors. Lower white collar is clerical and sales. Upper blue collar is craftsmen and foremen. Lower blue collar is operatives, private household, and service.
explanation of disengagement among the population aged 65 and older.

In concluding, we would like to argue for an approach to the aging process that draws on role theory and focuses less on chronological age and more on the variables involved in age-related transitions in social positions. For example, retirement is a central positional transition that may give impetus to rapid disengagement among the older population. However, disengagement varies among individuals and there are other variable properties of the retirement transition which are likely to militate against disengagement and actually stimulate increased interaction in a variety of institutional subsystems. This same principle holds for the other major positional transition in later life, that of widowhood. If we define the aging process as the patterned flow of individuals through a series of social positions, roles, role-sets, and position-sets and if we focus on the relationships between formal properties of transitions in social positions, then we can study the dynamics of the aging process and meaningfully compare positional transitions at all stages of the life cycle.
Footnotes


3Talcott Parsons has described the Cumming and Henry effort as "...the most serious attempt so far to put forward a general theoretical interpretation of the social and psychological nature of the aging process in American society." in: E. Cumming and W. Henry, op. cit., p. v.

4In its present form, the formal statement of the disengagement postulates and corrolaries is only partially testable due to ambiguity of terminology and circularity of logic. However, it is not our purpose here to criticize the lack of testability of parts of the theory, but rather to empirically examine one of the statements which is empirically testable.

7Ibid.

8This is the exact form in which the hypothesis was stated by E. Cumming, et al., Sociometry, op. cit.

9Although the Kansas City respondents were drawn from a panel study, the data from which the theory is generated is cross-sectional. C.F.: E. Cumming and W. Henry, op. cit., chapter four.


12Although Merton uses the term status rather than social position and status-set rather than position-set, we prefer the more neutral term social position, which does not carry misleading honorific connotations. C.F.: R. K. Merton, Social Theory and Social Structure, Glencoe: The Free Press, 1957, chapter nine.


The ten positions employed in the index were: parent, sibling, other relative beside sibling, friend, church goer, organizational member, leisure time user (e.g., hobbies, etc.), community member (a decline was scored if the respondent moved since retiring), spouse, worker (all of our respondents had retired; however, if a respondent was still working part time, it was scored as no change, if the respondent was not working at all, it was scored as a decline). Obviously, we have not trapped all of the possible social positions in the pre-retirement position-sets of our respondents. Hopefully, we have captured those in which our respondents were likely to spend a majority of their time. We can only hope that our attempt will spur more sophisticated efforts in the future.

The Cumming and Henry study contained both men and women. Since we are only studying men, our findings are only a test of the disengagement hypothesis on an older male population.

It should be noted that we asked our respondents to recall their interaction and activity in social positions during the five years before they retired and not at a specific age (say age 60). Because people retire at different ages, it might be argued that our original point of reference is not comparable across the individuals in our sample and therefore we are not really testing the influence of age on disengagement, i.e., respondents who retired later in life have already begun their disengagement prior to our recall period. However, Cumming and Henry note that disengagement usually does not really begin for males until they retire. In addition, over 75 per cent of our sample retired between the ages of 64 and 69. Finally, to the extent that some of the individuals who retired late in life had already begun to disengage prior to our period of recall, this will serve to lower the correlation between age and the disengagement index and serves as a conservative test of the hypothesis.

As an example of how the disengagement index works: consider a hypothetical individual who prior to retiring interacts in role-relationships associated with six social positions: worker, husband, father, organizational member, brother, and church goer. At the present time, he has experienced decreased interaction in three of the six positions: worker, organizational member, and father. His disengagement score is .50.

This is a point that has been brought out in public opinion studies that have attempted to explain the high percentage of non-response among the aged by using the disengagement concept. C.F.: Kenneth J. Gergen and Kurt W. Back, "Communication in the Interview and the Disengaged Respondent," Public Opinion Quarterly, Vol. 30, Fall, 1966, pp. 385-398; and Norval Glenn, "Aging, Disengagement, and Opinionation," forthcoming in Public Opinion Quarterly.

The correlation between aging and what might be termed re-engagement (the ratio of number of positions in which interaction has increased to total number of positions) is only -.104 and is not significant. However, there is a good deal of variance in this variable; the mean is 16.55 and the standard deviation is 12.56. This points to the fact that individuals do increase their level of interaction in some institutional subsystems in later life and the importance of this "re-engagement" needs to be thoroughly studied.
An example of formal properties surrounding transitions in social positions would be: if we took our measure of disengagement as a function of time (how much interaction decline took place how quickly after retirement?) then we would be close to Merton's concept—discontinuity in position-sequence. Merton has argued that processes of anticipatory socialization lower discontinuities in position-sequence and facilitate adaptation to transitions in social position. The importance of formal properties of position transitions is that they allow us to formulate theoretical propositions (e.g., the greater the anticipatory socialization, the lower the discontinuity in position-sequence) which apply to transitions in social position at all stages of the life cycle. This allows for more general and more powerful theoretical statements. C.F.: R. K. Merton, op. cit., pp. 384-385.