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Impact of Age-Segregated Public Housing upon Self-Actualization and Other Personal-Adjustment Variables Among the Aged: A Ten Month Follow-Up

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IMPACT OF AGE-SEGREGATED PUBLIC HOUSING UPON
SELF-ACTUALIZATION AND OTHER PERSONAL-
ADJUSTMENT VARIABLES AMONG THE AGED:
A TEN-MONTH FOLLOW-UP

by

Gerald R. Rak

A Dissertation Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy

August

1977

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VITA

The author, Gerald Raymond Rak, is the son of Roman Paul Rak and Theresa (Piorkowski) Rak. He was born January 19, 1950, in Chicago, Illinois.

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CHAPTER I

INTRODUCTION

There is an unmistakable trend toward separate housing for the elderly as evidenced by the finding that only 25% of the elderly are currently living in the same household with their adult children (Shanas, 1977). One answer to this change in living patterns is age-segregated housing. The increasing construction of low-rent, public housing for the elderly, however, is largely dependent upon a given community's acceptance of such projects and the availability of needed funding. One approach to encourage community and political support is to conduct research which demonstrates the beneficial impact of such programs. Existing studies of the impact of age-segregated housing have focused upon some aspect of personal satisfaction following relocation (Brand & Smith, 1974; Carp, 1968, 1975; Fried, 1963; Lawton & Cohen, 1974), and, in general, healthy elderly respondents seem to report greater satisfaction.

Answers vary as to why greater satisfaction is reported following relocation. Some suggest that better housing is the answer (Carp, 1968; Hamovitch, 1968), but it has been shown that quality of housing in itself has slight significance (Rosow, 1967). Shanas (1977) agrees that housing adequacy is secondary to the social contacts potentially available in age-segregated housing. Whether the move is voluntary or involuntary also seems to make a difference (Kasal, 1972; Kral, Grad, & Berenson, 1968), as suggested by higher mortality rates among elderly

individuals forced to relocate (Aldrich & Mendkoff, 1963). When the move is involuntary, Palmore and Maddox (1977) hypothesize that the aged may fall victim to the detrimental effects experienced by any segregated minority. The often assumed relationship between increased activity and satisfaction has also received support in two longitudinal housing studies (Carp, 1968; Lawton & Cohen, 1974).

Although the specific beneficial factors within age-segregated housing may be unclear (Carp, 1976), its contribution to individual satisfaction seems well-established. The time has come to examine the effects of specific social and physical environmental factors upon the elderly's functioning employing a broad range of choice and change variables (Lawton & Rajic, 1972). We need more than self-reported satisfaction to justify further construction of age-segregated housing for our older citizens. We need to know whether the elderly who move into such housing increase their adaptive capacities and level of adjustment.

Lawton and Nahemow (1973) have cautioned that such a move may force the elderly to adjust by abandoning more positive and healthy values. McRae (1975) more strongly warns against housing which provides so many services and tightly-knit social networks that a resident is isolated from any outside opportunities for involvement. A more benign attitude is voiced by Shanas (1977) who merely acknowledges increased dependence with respect to some aspects of living upon entrance into age-segregated housing. No matter which view is adopted, an examination of the impact of housing upon more enduring personality-adjustment characteristics is in order.

What evidence exists for greater adaptiveness accompanying residency in age-segregated housing for the elderly? Until now, only two studies have employed a before-and-after design to assess the impact of housing upon the psychological functioning of the elderly. Carp (1968) interviewed successful and unsuccessful applicants to Victoria Plaza, a specially designed housing project, before occupancy and again one year later. This housing site offered a relatively more stimulating environment to its residents in comparison with their community counterparts. Results of the one-year follow-up study indicated that residents of Victoria Plaza scored consistently higher on measures of satisfaction with housing, activity, and other indices of "good adjustment" than did the unsuccessful applicants. A recent nine-year follow-up study has supported continued, if not higher, adjustment among the residents (Carp, 1975).

The generality of Carp's findings was later investigated by Lawton and Cohen (1974) in their longitudinal study of five new housing sites and three community areas. Their results approximately paralleled those of Carp, but Lawton and Cohen carefully noted that positive evaluations are to be expected given the need to make one's attitudes consonant with the action of entering age-segregated housing. Evidence of longstanding satisfaction may indirectly indicate the maintenance or increase of good adjustment, but the cognitive dissonance hypothesis still remains a plausible explanation of such results.

It must be noted that the above mentioned longitudinal studies employed adjustment measures based upon the individual's satisfaction with various aspects of housing. The examination of more objective

personality-adjustment variables seems necessary to assess the impact of housing upon the individual's general adaptiveness. Longitudinal studies of this nature have not as yet been undertaken.

There is a similar lack of studies regarding the impact of housing upon the cognitive functioning of the elderly. Cross-sectional studies usually discover age-decrements which are then assigned to organic deterioration. Longitudinal studies on the other hand have indicated that certain cognitive abilities increase with new experiences well into old age. The only study which placed cognitive changes within the context of housing, however, offered evidence that significant positive gains in the elderly's adaptive capacities can occur after entrance into housing for the aged (Weinstock & Bennett, 1971). Three groups of people, including applicants on the waiting-lists of two homes for the aged, newcomers, and oldtime residents of the same institutions were compared on three tests of cognitive functioning. Cognitive abilities would seem both less likely to be affected by environmental factors and relatively immune to positively-biased response sets than self-reported psychological characteristics.

Their results, however, indicated that newcomers and oldtime residents were engaged to a greater degree in socialization activities which require new learning experiences. Greater stimulation via the socialization process was found to be significantly associated with higher levels of cognitive functioning. The newcomers who presumably were required to learn quickly the rules and social norms of their new residence scored significantly higher than oldtimers on the cognitive tests. A subsequent follow-up study showed that only the former

waiting-list group who were now newcomers showed gains on all cognitive measures. Newcomers maintained their previous high level of functioning, while oldtimers obtained increasingly lower scores. As might be expected, the impact of housing, as interpreted in terms of socialization activity, was most evident within the first year of rehousing.

Evidence of significant positive cognitive changes among the elderly within one year of rehousing was taken as support for Weinstein and Bennett's "disuse theory" of cognitive functioning. According to this theory, dormant capacities become rejuvenated with increased demands for their use. More recently, Busse (1977) has applied the principles of cybernetic theory to elaborate upon an "atrophy-of-disuse" theory to describe the aging process.

Lawton and Nahemow (1973) proposed a similar process in terms of Helson's concept of adaptation level. If the demands placed upon an individual are not too severe, the person will attempt to adapt to them. A higher level of functioning may be reached and a level of competence is attained wherein the person will then feel comfortable. From this point, some latitude in both a positive and negative direction is allowed. As one's environment becomes less complex or familiar, adaptive mechanisms slow down and competencies slowly begin to decrease. An extraordinary example of how seemingly irretrievable capacities can be gradually rebuilt is the study by de Vries (1968) which demonstrated that after a carefully planned program of physical exercise for men 70 years of age, within one year these men achieved physical statuses equivalent to men three decades younger.

The proposed research is designed to determine the salutary effects of age-segregated housing, presumably providing a relatively more stimulating environment, upon the psychological functioning of the elderly. In order to adequately assess this question two studies were conducted. The first, a cross-sectional study, allowed a look at the difference between groups at three stages in their residency in public housing (Rak, 1977). The second study, a 10-month follow-up study provided a longitudinal view and a chance to correct for initial group differences. This latter study is the focus of this paper.

It is theorized that the planned opportunities for activity and the demands characteristic of age-segregated housing specifically designed for independent living provide exercise for declining adaptive capacities. The public housing sites sampled in this study were known to have very busy daily schedules offering a wide variety of activities. The subject's activity level, both past and present, was selected for investigation because of the large number of research studies linking activity to different aspects of adjustment. Also, the use of more objective and theoretically-sound measures of self-actualization and time perspective were employed to assess the impact of housing. It is believed that ample evidence for the elderly's satisfaction with age-segregated housing already exists. A more important question is whether such living arrangements lead to experiences which enhance the broader functional psychological capacities of the aged.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

Impact of Housing

Within public housing, the afore-mentioned longitudinal studies by Carp (1968, 1975) and by Lawton and Cohen (1974) represent the best research to date. Both found significant increases in activity and satisfaction among public housing residents. Carp (1968) in her study of successful versus unsuccessful applicants to Victoria Plaza reported significant changes between these two groups on almost every dependent variable ($p < .05$ or better), with the residents reporting greater satisfaction with their housing.

Despite the supportive results of a nine-year follow-up study of the original sample (Carp, 1975), criticisms of the original study can be repeated. The later results are just as open to explanation by the cognitive dissonance hypothesis as the earlier results. Also, in relation to this study, the question of whether the individual improves his adjustive capacities while in public housing is unanswered. The major emphasis of the satisfaction measures employed by Carp is whether the individual accepts what the housing site has to offer. There is little evidence that the individual enhanced his ability to cope in new situations.

The use of respondents from only one housing project and the much publicized nature of the Victoria Plaza project led Lawton and Cohen (1974) to test the generality of Carp's findings. In addition

they were interested in ascertaining selective factors predisposing the aged to desire planned housing. Respondents were chosen from five new housing sites and three community areas. They were interviewed just prior to occupancy and again one year later. One year after rehousing, 433 housing residents were compared to 148 community members in terms of change on nine indices obtained through factor-analysis from the original 334 items employed in the initial interview. Residents scored significantly higher in morale, satisfaction with housing, external activity involvement, satisfaction with present situation, and present rating of individual well-being.

Lawton and Cohen carefully noted that positive evaluations by the residents of such housing are to be expected, especially within the first year of rehousing. McRae (1975) has also noted the tendency of the elderly to accept their environment "as is" and their failure to critically evaluate the losses incurred or the potential improvements permissible in public housing. With these thoughts in mind, the relatively minimal change in any one factor following rehousing (e.g., the largest factor accounted for only 7% of the variance in well-being) leaves the impact of housing somewhat doubtful, although statistically significant. The use of factors derived from the initial interview data obtained from their population also leaves the question of the generalizability of their findings unanswered.

The results of these longitudinal studies, however, indicate positive effects for age-segregated housing with individuals who voluntarily relocate into settings where independent living is maintained. Negative effects of relocation have usually been found within

institutionalized settings (Lieberman, 1961) or within populations which consist of many members who are unable to function independently because of physical handicaps (Brand & Smith, 1974).

Competency Within Housing

Theoretical and empirical data can be cited to support the general hypothesis that people who voluntarily move into public housing sites that offer social and activity programs specially designed for the elderly will become more active, and consequently enhance their social and personal competencies.

According to the "minimal goals" principle of adaptation level theory (Lawton & Nahemow, 1973), stimulating programs tailored to the needs of the elderly should be attractive for two reasons. First, these programs provide potential sources of satisfaction. Second, the demands of increased activity, although stronger than the demands in the general community, are within the upper limits of the elderly resident's competencies. With increased participation, the diverse competencies necessary in handling more activities become better developed.

In two studies of applicants for public housing an upward shift in adaptation level seemed to occur. Those people selected for residence were judged to be more open to social activities, generally more intelligent and alert, and rated higher in terms of social acceptability than unsuccessful applicants (Carp, 1968; Jackson, Note 1). This discrepancy in sociability became even greater after the move into public housing. The additional differential selection process which

occurred within public housing may be partially understood in terms of the congruity hypothesis proposed by Lawton and Nahemow (1973). This hypothesis suggests that public housing which promotes independent living and voluntary participation programs probably attracts individuals who are basically more highly competent and desirous of extending their capabilities. Conversely, people of low competence are more apt to choose housing which offers many services over and above those normally found within public housing (Lawton, 1969).

Relationship Between Present Activity Level and Adjustment

Before hypothesizing that increased activity has beneficial effects upon the psychological functioning of the aged, a brief review of research relating present activity level to adjustment among the elderly is necessary. The study of Havighurst, Neugarten, and Tobin (1968) is the most elaborate investigation of the relationships among social and psychological adjustment, affect, satisfaction, and activity. Their respondents were aged 54 to 94. Two of the social engagement measures were (a) The Interaction Index, which assessed both frequency and intensity of daily social interaction, and (b) Present Role Activity, a summation of scores for the extent and intensity with which each of 11 roles is performed currently. The Life Satisfaction Ratings were obtained from the judgments of trained interviewers.

The authors found a correlation of .46 between the Life Satisfaction Ratings and Present Role Activity. They suggested that the magnitude of correlation was attenuated by virtue of the construction

of the Life Satisfaction Rating instrument. Of the five components contributing to the Life Satisfaction Rating, two components actually appraised the respondent's attitude toward his entire life, rather than the immediate present. Additional studies have also showed similar positive correlations between present activity and adjustment (Maddox, 1963, 1968; Palmore, 1968).

The proposed study differs from the above research in several ways. First, the Life Satisfaction Rating had no definite theoretical underpinnings. This device is related more to the individual's affective state, whereas the proposed study is interested in adjustment level. Second, judges' ratings based upon interview data may be overly influenced by amount of activity, rather than the quality of activity. The raters and the activity checklists employed may have neglected the possibility of solitary activity or refusal to participate in certain groups as signs of good adjustment. The proposed study allowed fairly equal weight to individual and group activities.

Earlier, Jeffers and Nichols (1961) in a study of the relationship between physical functional capacities of the aged and the person's activities and attitudes found greater satisfaction accompanying greater activity ($r = .54$, $p < .001$). An activity inventory consisting of 20 questions dealing with a broad range of participation opportunities was presented along with an attitude inventory concerning the respondent's satisfaction with his present level of activity. The latter was taken as an indicator of favorableness toward the self.

The proposed study employed a broader range of activities so as not to penalize individual-oriented activities. In addition, the main

adjustment measures did not overlap with activity level measures as did Jeffers and Nichols' attitude inventory. Again, the proposed study was designed to assess the role of or relation of activity upon the elderly's adaptive capacities, not merely upon satisfaction level.

Finally, the Lipman and Smith (1968) study of typical and atypical patterns of engagement found that high morale was characteristic of engaged persons regardless of age, sex, income, and health. Three of the four engagement measures directly assessed present activity level. As in the studies already mentioned and those to be discussed, their study did not employ a well-researched adjustment measure. The morale scale was brief and emphasized the immediate affect of the individual.

The preceding paragraphs have shown evidence that adjustment, whether it has been understood in terms of morale or life satisfaction, is generally positively related to higher levels of activity among the aged. The proposed study, therefore, was designed to test the hypothesis that higher levels of activity are reflected in greater adjustment as measured by the instruments chosen.

Relationship Between Perceived Activity Change and Adjustment

Possibly more important to a person's feeling of satisfaction or competency is the perception of change in his activity level. The effect of perceived activity changes was first investigated by Phillips (1961) among a group of 257 noninstitutionalized elderly persons aged 60 and older. The relationship between role change, age, and adjustment was analyzed. Three of four role-change measures were found to

be significantly correlated with level of adjustment ($p < .05$), with greater adjustment found among people who had fewer changes in their roles. Role change was defined in terms of (a) chronological age, (b) perception of change in treatment by others because of age, (c) changes in "getting around" since age 50, and (d) a similar rating of change in getting around by an associate. Chronological age was the only nonsignificant measure, although related in the expected direction. Level of adjustment was determined from responses to two morale measures, a rigidity scale, and a scale of fantasy behaviors.

The proposed study is designed to improve upon the following weaknesses of Phillips' study. First, his adjustment level measures were both brief and phrased in a manner which seems best suited to elicit old-age stereotypes, rather than actual level of psychological functioning. Second, role-change measures were dependent in large part upon the respondent's ability to recall his activities and to cooperate in being exacting in his responses. The present combination of more objective activity and adjustment measures may offer a partial answer to the relatively low magnitude of correlations between role change and adjustment found by Phillips.

A previously mentioned study by Lipman and Smith (1968) included a measure of perceived activity differential. Four indices were employed to separate the elderly into high and low engagers. These indices were (a) role count, (b) social participation, (c) social life space, and (d) perceived life space. The last measure consisted of each person's evaluation of the change in interaction level between the past and present. The authors did not report specific relationships

between each engagement index and morale, but did report a significant positive relationship between morale and engagement level in general. Since the authors made no mention of any inconsistency among their indices, it is assumed that the elderly's morale decreased as perceived life space became increasingly smaller.

The morale scale employed by Lipman and Smith was a modified version of an earlier and larger scale. Their version appears highly transparent and, consequently, open to numerous response sets. Their scale seems to encourage responding in terms of old-age stereotypes. Again, main measures of adjustment for the proposed study were selected to obviate this difficulty.

As one part of their study, Havighurst et al. (1968) likewise found that change in activity level past the age of 60 was almost always toward reduced activity. Change in activity level correlated $-.60$ with a measure of affect and $-.27$ with the Life Satisfaction Ratings. Decrease in activity was found to be associated with greater negative affect and a low level of life satisfaction.

In relation to the proposed study, newcomers and oldtime residents of senior public housing who have greater opportunity for substitute activities should show the least change in overall activity when compared with waiting-list members living in the community. The smallest decreases in activity level across a 10-year period are hypothesized to be associated with higher levels of self-actualization and time perspective.

Psychological Adjustment Measures

Self-actualization. The assessment of adjustment in the aged is an especially difficult task because of the tendency of most researchers to equate adjustment with either greater activity and group involvement or, as disengagement theorists suggest for the elderly, with gradual withdrawal from outside activities. To bridge these extremes, the concept of self-actualization was employed to evaluate the adjustment of the elderly respondents in this study. The self-actualized person according to Maslow's (1968) theory of self-actualization is inner-directed.

The inner-directed person selects his activities upon the basis of his own wants, likes, and dislikes--a positive approach to life. Riesman theorized that the values which guide the behavior of the inner-directed man are those which were of affective significance in one's early life, but which because of various environmental assaults were not followed (Riesman, Glazer, & Denney, 1950). Concessions will be made to increasing physical limitations as one grows older, but overall activity level need not diminish. According to self-actualization theory, the self-actualizer becomes more attuned to his own principles and motives in selecting activities, rather than abiding by peer pressure or cultural stereotypes.

Overall decrease in activity, when substitute activities are limited should have deleterious effects, producing a less self-actualized person. Because basic needs are not satisfied through various channels, the person becomes insecure and doubt-ridden. He loses contact with his own real desires and needs, becoming more outer-directed in hopes of finding alternate sources of gratification. The

beliefs and values of friends and strangers take on increasing importance until the person becomes a follower, rather than a self-motivator. It seems safe to say that even today the elderly are pressured by our society to reduce their involvement and quietly enjoy retirement.

The proposed study utilized Shostrom's (1964) Personal Orientation Inventory (POI) to assess the level of self-actualization among the aged. This 150-item forced-choice instrument was originally constructed to measure value changes occurring across psychotherapy sessions. The value choices represented, however, were phrased in more general social and personal terms to allow assessment of change in many life situations.

The Personal Orientation Inventory offers several advantages in the study of change in adjustment level among the elderly. First, although a relatively brief device (average administration time is 30 minutes), the inventory assesses two major components of self-actualization, Inner Support and Time Competence, along with 10 sub-dimensions. The two major scales are defined by the Educational and Industrial Testing Service (Shostrom, 1964) as follows:

1. Inner Support (I): the extent to which people are guided by internalized principles and motivations.
2. Time Competence (Tc): the extent to which the person lives primarily in the present instead of primarily in the past, with guilts, regrets, and resentments, and/or in the future, with idealized goals, plans, expectations, and fears [p. 4].

Second, the scoring is empirically derived from studies of self-actualizers versus nonself-actualizers and, consequently, the assumptions of greater activity being intrinsically related to greater adjustment are not as pervasive as in other scales of morale or

disengagement. Third, the items are relatively non-threatening. The value choices deal with everyday interactions and decisions and offer alternative responses of approximately equal social desirability. Fourth, the inventory has been used with groups having less than a high school education.

Although the Personal Orientation Inventory has potential utility in many different areas, the major research on its validity has occurred with sensitivity group training and a variety of psychotherapeutic experiences (Shostrom, 1966). Significant value changes have been determined within groups after as little as a 30-hour weekend marathon (Guinan & Foulds, 1970) and after a two-month program of transcendental meditation with college students (Seeman, Nidich, & Banta, 1972). A review by Knapp (1975) indicates that the inventory has been used across a wide age range, but no one study has used exclusively elderly persons or reported separate findings for their elderly respondents.

This writer suggests that rehousing places the elderly person in as many, if not more, value conflicts as one experiences in a typical encounter group. A number of social, financial, and practical considerations have to be met in order to handle a move into age-segregated housing. Thus, if the Personal Orientation Inventory has been able to assess significant change over relatively brief periods of time among members of encounter groups, then this instrument should be able to assess change as a result of a more encompassing change in one's life situation.

Time perspective. The concept of time competence mentioned as

one dimension of self-actualization implies a specific attitude toward the past, present, and future and their interrelationships. The self-actualizer lives fully in the here and now, having experienced gratifying movement in the past and expecting generally successful growth in the future. Each part of his life is experienced as a successful stage built upon different capacities and abilities. Another way of phrasing this idea is to say that the self-actualizer experiences relative success in the goals he has set and hopefulness for the future.

A similar evaluation of the past, present, and future has been discussed in terms of two components of personal time perspective, retrotension and protension. Bortner and Hultsch (1972) suggest that the comparison of the past with the present be taken as a measure of progress toward one's goals. This component of time perspective is labeled retrotension. The comparison of the future to the present is taken as an index of hopefulness and is labeled protension. Retrotension and protension are operationalized by means of an 11-point self-anchoring scale upon which the respondent rates the past, present, and future in comparison with the best and worst possible life that he can imagine for himself.

Bortner and Hultsch theorized that the negative evaluation placed upon old age in our society would affect specific age-related changes in time perspective. This was confirmed as the elderly, in contrast to younger groups, tended to evaluate the past, present, and future in order of decreasing favorability. Just as has been suggested with the concept of self-actualization, the authors acknowledged that age per se was not found to wholly determine the individual's time perspective.

In the words of the authors, "objective, impersonal conditions do much to shape our time perspectives" (p. 103).

The proposed study investigated activity level as a potentially important, objective factor in both the individual's level of self-actualization and current time perspective. Previous research has consistently shown high positive correlations between level of activity and a wide assortment of adjustment measures. It is also suggested that the highly self-actualized persons score higher than the less self-actualized persons on both retrotension and protension components of time perspective on the basis that the true self-actualizer strikes some balance between a feeling of past successes, present accomplishments, and future hopefulness. Bortner and Hultsch's research indicated that the variables most predictive of retrotension scores were (a) life satisfaction, (b) age, (c) being worried and afraid, and (d) subjects' judgments of the state of the country. Protension scores were found highly associated with life satisfaction.

Anxiety. In most cases, applicants to senior housing have waited long periods of time for the opportunity to move into low-rent housing. Weinstock and Bennett (1971) cautioned that the waiting-list members may feel more anxious because of fears that their performance on tests might prevent them from entering housing and because of general anxieties surrounding any move.

Although Weinstock and Bennett found no significant correlations between anxiety and cognitive measures, their waiting-list group did score higher on the anxiety measure. The latter difference was not significant, but it suggested the need to check for such influences

in studies involving waiting-list members and residents of public housing. For this reason the state anxiety measure contained in Zuckerman's (1960) Affect Adjective Checklist was administered to each respondent.

Affective state. The majority of studies of old age have employed brief measures of morale and found positive correlations with activity. As an adjunct to the more comprehensive measure of self-actualization, a scale of positive affect was used to check for consistency with previous studies and as a more crude estimate of the impact of housing.

Acceptance of age-segregated housing. Sherman (1975) has developed an attitude scale which assesses one's favorability toward age-segregated housing. She found that the longer a person stayed in public housing for the elderly, the more favorable they became toward such an arrangement. This is no great surprise, but the inclusion of such a scale is necessary to determine whether a particular housing program is perceived as detrimental by its residents.

CHAPTER III

DESIGN OF THE RESEARCH

Three Stages in Housing

The impact of age-segregated housing was assessed by examining the level of activity and psychological adjustment of three groups of elderly respondents varying as to place and length of residence in relation to public housing. By selecting waiting-list members who had just signed their lease to enter public housing, newcomers to the same residences, and oldtime residents, it was assumed that three groups differing as to the number and familiarity with various activities would be formed. A cross-sectional study of the correlations between activity and adjustment measures along with group comparisons on these same measures was then conducted and has been reported previously (Rak, 1977).

A follow-up study was conducted 10 months later. At that time waiting-list members had attained newcomer status, previous newcomers were relative oldtimers, and the oldtimers were even more accustomed to age-segregated housing. By examining the changes in activity and adjustment across time, initial group differences can be corrected for and the impact of housing should be further understood.

Summary and Hypotheses

The proposed study investigated the relationships between activity levels (past and present) and two measures of adjustment, self-

actualization and time perspective. It was assumed that public housing would offer a relatively more stimulating environment to people than usually found in the surrounding community. The specific hypotheses tested were:

- 1a. Ten months after entry into public housing, former waiting-list members score significantly higher on the number and intensity of activities participated in at the present than at time of admission into public housing.
- 1b. Ten months after entry into public housing, former waiting-list members report significantly smaller decreases in activity from the past to the present as compared with similar reports at time of admission into public housing.
2. Waiting-list members show significantly better adjustment on measures of self-actualization, retrotension, and protension 10 months after entry into public housing than at time of admission.
3. Ratings of present activity are significantly related to better adjustment on measures of self-actualization, retrotension, and protension across all groups.
4. Changes in activity level from the past to the present are positively related to higher levels of adjustment on measures of self-actualization, retrotension, and protension across all groups.
5. Feeling of progress, as measured by retrotension, is significantly positively associated with level of self-actualization across all groups.

6. Degree of hopefulness, as measured by protension, is significantly positively associated with level of self-actualization across all groups.

No specific changes over time were predicted for either the newcomer or oldtimer groups, although it was expected that they would maintain their former levels of activity and adjustment.

CHAPTER IV

METHOD

Subjects

In the initial stage of this longitudinal study, 76 elderly persons ranging from 60 to 89 years of age were interviewed. Three groups of people differing as to place and length of residence in relation to five low-rent, public housing sites for senior citizens were selected. The waiting-list group consisted of the first 22 people spoken with at the leasing center for public housing who agreed to be interviewed within one week of entering their new residence. They were approached immediately after signing their leases.

The newcomer and oldtimer groups consisted of 24 and 30 individuals, respectively. Newcomers were defined as residents of the housing sites who had lived a minimum of 4 months and a maximum of 13 months in public housing. These two groups were obtained in two ways. The investigator first visited each housing site during a regularly scheduled activity. He briefly described the nature of his study to the assembled group. People who wished to volunteer were asked to sign up at that time. The majority of volunteers, however, were obtained through the use of a one-page flyer (see Appendix A) deposited in each tenant's mailbox. This flyer provided a similar description of the study and an information blank which could be returned to the director of each building and passed on to the investigator.

Respondents were randomly selected from the lists of volunteers

obtained, with the exception that among the oldtimers, people over the age of 80 were sampled after the list of younger volunteers was exhausted. This was done to achieve groups of approximately equal age, considering that the waiting-list and newcomer group members would tend to be slightly younger than the average oldtimer. When contacted for the interview, 12 oldtimers, 7 newcomers, and 8 waiting-list volunteers declined, citing various personal reasons preventing their participation. Among the three groups, six people were also eliminated because they did not attain the intelligence standard of 85 IQ points set by the investigator prior to the interviews. Substitute group members were randomly sampled to replace these volunteers.

All prospective participants were assured of anonymity and informed that their responses would in no way affect their status in public housing. They were also promised the free opportunity to win a \$10 gift certificate for a nearby grocery store as a token for their participation at the end of the study. The only other promise made was that the investigator would return to discuss group results upon completion of his study.

At least one-third of each group consisted of male members, with the exception of the oldtimers who were one short of this desired goal. The mean age for each group was (a) waiting-list, 72.8 years, (b) newcomers, 71.5 years, and (c) oldtimers, 75.8 years. The mean educational level for these same groups was 8.3, 10.3, and 8.4 years completed, respectively. This may be an underestimate of the actual educational level of the groups because of the difficulty in translating foreign education into the American system.

Approximately 10 months after the initial stage of interviews, the participants were talked to by telephone and a follow-up interview scheduled. Respondents were reinterviewed no earlier than one week before and no later than two weeks past the desired time interval of 10 months. Thirteen subjects from the original sample of 76 did not participate in the follow-up study. The waiting-list, newcomer, and oldtimer groups lost 3, 3, and 7 members, respectively. Two of the dropouts were deceased, four refused to participate citing various reservations about the possible significance of a second interview after such a short interval, and seven individuals could not be reinterviewed within the allotted time interval because of serious illness or hospitalization.

The public housing sites chosen are located within a large metropolitan area. They are within one mile of each other, thus attracting relatively homogeneous populations. Each building is well-maintained and offers many of the most modern conveniences along with special accommodations for the elderly tenant. A relatively busy schedule of daily social, recreational, and educational activities is offered at each building. Residents of these sites had selected the given building among their three most preferred locations upon application and may have waited several years for a vacancy.

Applicants are accepted on the basis of earliest application. Most residents fall within the lower to lower-middle class economically. Specific limitations upon income and assets are also set as qualifications for admission. Rents vary and are based upon exactly one-fourth of each tenant's monthly income. Both single and married applicants

are accepted as apartments for individuals and couples are vacated. The sites sampled vary in population from 140 to 250 residents.

Instruments

A standard interview approximately 90 minutes long was conducted. It contained the following:

1. Demographic Data Sheet (see Appendix A) obtained basic social history data, including resident's occupation and occupation of spouse, prior living arrangements, reasons for moving into public housing, and several other basic personal data. These data were used to examine whether the samples within each group were of approximately similar backgrounds.

2. Leisure Time Activities Rating Checklist (see Appendix A) asks the respondent to rate level of participation in 45 activities in terms of the past four months and in terms of 10 years prior to the interview. Respondents were asked to select one of three degrees of participation to describe their past and present activity levels: "Never or Rarely," "Regularly," and "Very Often." These three levels were scored 1, 2, and 3 respectively. The activities given a rating of 2 or 3 were then summed to obtain a measure of the number of activities engaged in during the two separate time periods. A measure of activity intensity for both periods was also obtained by summing the scores for all 45 activities.

A score for the perceived change in activity number was determined by subtracting the number of past activities which received a score of 2 or 3 from the number of present activities scored 2 or higher.

A change in intensity of activity score was determined by subtracting past from present activity ratings for each activity and then summing the differences for the entire list. This ratings checklist was devised by Murphy (1977) and represents a comprehensive list of both individual and group-oriented activities.

3. The Affect Adjective Checklist asks each respondent to choose from a list of adjectives those which best describe him "Today." The 21 items which make up the state anxiety measure were given along with several buffer items. This device developed by Zuckerman (1960) was employed to determine whether waiting-list respondents were reacting to the testing situation as more threatening than either the newcomers or oldtimers.

4. The Quick Test of Intelligence, which is a verbal-perceptual test, was used as a brief screening device for general intelligence. The respondent is asked to choose one of four pictures shown on a card which best fits each of 50 words. All items need not be administered to obtain an intelligence estimate. The test was administered and scored according to the test manual. Levine (1971) has reported adequate validity for this test's use with elderly samples as a substitute for longer forms. Potential subjects who failed to obtain an intelligence quotient of 85 were eliminated from the study and replaced by an appropriate substitute.

5. Affective State Measure is a 9-item disagree-agree scale of the person's affect toward basic daily interactions. For example, whether the person has been bored with most people he talked with in the past week or whether he was looking forward to the upcoming weekend.

The items were selected from a variety of research studies employing elderly samples and rewritten to allow scorable responses in either a negative or positive direction. Responses were scored if they indicated greater interest or involvement along with positive affect (see Appendix A). The highest possible total score was nine.

6. Attitudes Toward Age-Segregated Housing (see Appendix A) is a 10-item disagree-agree scale of the person's favorability toward age-segregated housing in general developed by Sherman (1975). The highest possible total score was 10.

7. Personal Orientation Inventory (POI) is a 150-item forced-choice inventory which offers an overall self-actualization score as well as scores for two major components of self-actualization, Inner Support and Time Competence. The former consists of 127 items and the latter of 23 items. The two major scales are statistically independent.

The Inner Support (I) scale assesses the tendency to be guided by one's own motives and principles, rather than the pressures of one's peers and other people. This scale can be divided into five pairs of subscales constructed to assess five facets of Inner Support. The first pair focuses on interpersonal values. These are the Self-Actualizing Values and Existentiality subscales. The former subscale assesses degree of positive regard toward acting upon one's own principles and the latter subscale assesses the degree to which the person appreciates the need to flexibly apply these principles.

The second pair of subscales are the Feeling Reactivity and Spontaneity scales which reflect the degree to which the individual is

responsive to his own feelings. The Feeling Reactivity scale taps one's sensitivity to these feelings and the Spontaneity scale measures one's ability to freely express them.

Attitudes toward the self are measured by the third pair of subscales. The Self-Regard subscale reflects liking of one's self as a person. Acceptance of one's weaknesses is assessed by the Self-Acceptance subscale. The latter probably precedes the former psychologically since liking one's self is unlikely if one constantly berates the self for its limitations.

The Nature of Man and Synergy subscales were constructed to measure the attitude that man is basically good and the person's awareness of commonalities in seemingly opposite aspects of life, respectively.

The final pair of subscales involves one's sensitivity to important aspects of interpersonal relationships. The Acceptance of Aggression subscale is related to the Self-Acceptance subscale mentioned previously, but deals specifically with the acceptance of an occasional outburst of hostile feelings. The Capacity for Intimate Contact subscale indicates a healthy attitude concerning expectations and obligations within an intimate relationship. The healthy person is expected to strike a balance between total submissiveness and treating another person in an exploitative manner.

The other major scale, Time Competence (Tc), assesses the person's tendency "to live primarily in the present, free of hangups over past events and future uncertainties" (Bloxom, 1971, p. 291). The highly time competent person refutes the irrational belief that "because something once strongly affected one's life, it should indefinitely

evidence that the POI is relatively immune to "faking good" instructions by normals and the attempts of psychopathic felons to present a good impression. The study by Fisher actually found that felons asked to "fake good" scored lower on 9 of the 12 scales.

Given sufficient evidence for the reliability and nonfakability of the POI, the question of validity remains. Most studies have limited their investigations to the validity of the two major scales, except for Shostrom (1964) who has cited evidence that the POI discriminates well between self-actualizers, normals, and nonself-actualizers on 11 of the 12 scales ($p < .01$ for 10 subscales and $p < .05$ for 1 subscale). The experimental groups were clinically nominated. Similar supporting evidence for the major scales as good discriminators of self-actualizers versus nonself-actualizers can be found elsewhere (Fox, Knapp, & Michael, 1968; Knapp, 1965; McClain, 1970).

In summary, the POI does not merely represent a disguised social activity measure. The manner in which social interaction, isolation, and inactivity are handled is also examined, making the POI a good psychological tool for assessing adjustment among an age group which is limited by physical facilities and capabilities. For the present study, each of the 150 items within this instrument were administered and three self-actualization scores were obtained. These scores were (a) Inner Support, (b) Time Competence, and (c) POI Total, an overall measure of self-actualization consisting of the sum of Inner Support and Time Competence scores.

8. Retrotension and Protension which are measures devised by Bortner and Hultsch (1972) are intended to assess progress toward one's

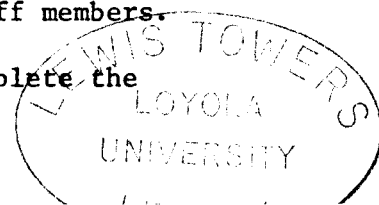
goals and degree of hopefulness, respectively. Each respondent is asked to rate the past, present, and future on an 11-point self-anchoring scale. The 0-point is defined in terms of the respondent's imagined "worst" possible life and the 10-point as his imagined "best" possible life. The respondents were asked to rate the present and then the past (five years ago) and future (five years ahead) in relation to their present rating.

Retrotension is defined as the past rating minus the present rating with higher assessments of progress indicated by more negative scores and lower assessments of progress by more positive scores. Protension is defined as the future minus the present with more positive scores indicating greater hopefulness.

Procedure

The investigator visited each site and briefly described the proposed study as a survey of the feelings and attitudes of the elderly concerning such topics as housing, different activities, and evaluation of one's living arrangements. The free opportunity to win a \$10 gift certificate at the end of the study was mentioned at this time. This orientation took place at each site during a regularly scheduled activity to acquaint the residents with the investigator and to assure prospective participants of the public housing program's approval and cooperation.

After these visits a brief letter repeating the nature of the study was distributed to each tenant by building and staff members. Those residents wishing to volunteer were advised to complete the



attached information blank which included name, age, length of residence, and convenient times to be interviewed.

For the first stage of this investigation, each respondent was interviewed individually by this investigator and given a standard interview lasting approximately 90 minutes. Each participant was reassured of anonymity and that all data would be reported in terms of averages of group results. Each respondent was promised that group results would be made available at a group discussion meeting upon completion of the study.

After obtaining the demographic information from each person, the investigator determined the respondent's intellectual level, shortly terminating interviews of people who failed to obtain an intelligence quotient of 85 or higher. This standard was set before the research began. The measure of intellectual functioning was followed in order by (a) the anxiety scale of the Affect Adjective Checklist, (b) rating of past and present activity levels, (c) the Personal Orientation Inventory, (d) a measure of the favorability toward age-segregated housing, (e) a brief current affective state measure, and (f) the time perspective measures, retrotension and protension.

Assistance in reading and/or filling out answer sheets was extended for several of the paper-and-pencil type questionnaires. The interviewer emphasized to each respondent that the information each person provided was more important than the skill or speed with which they answered the items in order to allay anxiety surrounding their test-taking abilities. The Personal Orientation Inventory stimulated many requests for explanations of the vocabulary used in various items.

These requests were satisfied with caution taken to avoid suggesting preferable answers or doing harm to the original connotation of the item as directed within the test manual.

Upon completion of the interview, the investigator thanked each person for their participation and allowed the person to comment upon their interview experience. Each respondent was also reminded of the need for a follow-up interview the next year and of the scheduled lottery which would follow the completion of the first set of interviews.

Approximately 10 months later, the investigator called the participants and arranged for a second interview. The same procedure employed during the initial interview sessions was followed, except that neither redundant information from the Demographic Data Sheet nor past activity ratings were obtained a second time. After completion of the second interview, respondents were thanked for their cooperation. They were assured that a group discussion of the results would be held at their respective buildings as soon as final results were available.

CHAPTER V

RESULTS

Background Characteristics of the Respondents

Demographic variables. In order to obtain valid comparisons among groups of elderly respondents varying as to place and length of residence, the groups should be relatively similar on other pertinent data. Control of the age factor is of considerable concern as it provides some check on the biological factors which may affect the individual's adaptive capacities, irrespective of environmental factors. Employing waiting-list members, newcomers, and oldtime residents also runs the risk of obtaining groups of systematically different backgrounds due to changing housing admission policies, changing neighborhoods where in the housing sites are located, and even differential volunteer rates among the groups sampled. The likelihood of additional factors contributing to the initial nonrandom selection of respondents is also increased with a longitudinal design, as the groups involved may show differential loss of respondents.

Table 1 presents data on the age and other demographic variables of the initial sample of respondents and the individuals who participated in the follow-up study. A look at these data indicates that the change in background characteristics between studies was relatively minimal.

In the initial study, the oldtimers were found to be significantly older than the waiting-list members and newcomer residents. With a

Table 1

Number of Respondents with Selected
Background Characteristics

Background Characteristics	Group					
	Waiting-List		Newcomer		Oldtimer	
	Time 1 N=22 ^a	Time 2 N=19 ^a	Time 1 N=24 ^a	Time 2 N=21 ^a	Time 1 N=30 ^a	Time 2 N=23 ^a
Age						
60-65	0	0	3	2	1	1
66-70	7	7	9	8	2	1
71-80	12	9	12	10	21	15
81-90	3	3	0	1	6	6
Sex						
Male	10	9	8	8	9	6
Female	12	10	16	13	21	17
Marital Status						
Single	3	3	4	3	1	1
Divorced	2	2	1	1	2	2
Widowed	13	10	16	15	15	12
Married	4	4	3	2	12	8
Occupation						
Professional	1	0	1	1	2	2
Nonprofessional	21	19	23	20	28	21
Spouse's Occupation ^b						
Professional	2	2	1	1	2	1
Nonprofessional	17	14	19	17	27	21
Religion						
Jewish	6	5	10	8	21	15
Catholic	7	6	9	8	6	6
Protestant	8	8	3	3	3	2
Other	1	0	2	2	0	0

Table 1 cont.

	Waiting-List		Newcomer		Oldtimer	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
Quick IQ						
85-100	15	13	12	11	18	12
101-115	4	3	5	3	7	6
Over 115	3	3	7	7	4	4
Education						
8 years or less	14	12	4	3	23	17
9 to 12 years	8	7	17	16	5	4
Over 12 years	0	0	3	2	2	2
Living Arrangement Prior to Public Housing						
With Spouse	4	4	2	1	19	14
With Family	3	2	2	2	1	0
With Friend	0	0	1	1	1	1
Alone	15	13	19	17	9	8
Primary Reason for Moving						
Financial	16	13	18	16	25	20
Activities	0	0	0	0	1	1
Other	6	6	6	5	4	2
Monthly Rent Prior to Public Housing						
\$100 or less	8	8	5	5	14	7
Over \$100	14	11	18	15	14	14
Monthly Public Housing Rent						
Less than \$30	0	0	2	2	0	0
\$30 to \$50	9	7	7	6	12	8
\$51 to \$75	13	12	12	11	11	8

Table 1 cont.

	Waiting-List		Newcomer		Oldtimer	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
Adequacy of Public Housing Versus Prior Residence						
Worse	1	1	6	6	9	7
Same	1	1	3	2	3	2
Better	19	16	15	13	18	14

^a Respondents were advised that they might omit any background information questions if they so desired. Thus, the N of respondents for particular items is sometimes less than the total.

^b This represents occupation of either husband or wife dependent upon sex of the respondent.

slightly larger decrease in respondents in the older age intervals, there was no longer a marked preponderance of older individuals among the oldtimer resident group and the age differences were reduced. The follow-up data showed the mean ages for the waiting-list, newcomer and oldtimer groups were 72.68, 71.05, and 75.35 years, respectively. Two-tailed t tests between groups indicated that the oldtimers remained significantly older than newcomers, $t(42) = 2.70$, $p < .01$, but the oldtimers and waiting-list members were no longer significantly different in age. No significant age difference was found between waiting-list and newcomer groups at time of follow-up.

A relatively similar balance of male to female respondents within each group was maintained over the 10 months. Approximately one-third of each group consisted of male respondents, with the higher representation of males in the waiting-list group reflecting a similar trend in current public housing programs.

Across the first three categories for marital status, the groups at both times were reasonably similar with few single and divorced individuals and a large number of widowed members. The oldtimers, however, included an appreciably higher percentage of married persons than the other two groups. Also, the oldtimers were even more likely to have entered public housing with their spouses. The waiting-list and newcomer respondents tended to be living alone just prior to the move into public housing.

The three groups continued to show differences in religious background. The waiting-list and newcomer groups showed a relatively equal representation of Jewish, Catholic, and Protestant members. The

oldtimers were predominantly Jewish. Those group differences parallel changes in the nearby communities.

Individuals were asked to report their main occupation and that of their spouse prior to retirement in order to determine their past socioeconomic status. The data indicated that the overwhelming majority of respondents and their spouses had been engaged in nonprofessional jobs. More than three-fourths of the sample cited financial security as the primary reason for moving into public housing. Only one person reported an attraction to the many social activities offered within public housing as the primary reason, but a sizeable minority pointed to the modern conveniences within housing specially designed for the elderly.

Approximately one-half of the respondents in each group was paying less than \$50 per month for rent and the other half less than \$75 monthly for their public housing residences. The higher rents usually indicate dual occupancy or a more recent biannual review of their income. As reported, small group differences existed in the amount of rent paid at the last residence prior to the move into public housing. The apparently lower rents paid by the oldtimers may be attributed to inflation. Over 60% of each of the original groups rated their public housing residence as the same or better than their prior residence. The waiting-list members reported more favorable evaluations of the physical adequacy of public housing than the newcomers or oldtimers.

Finally, the breakdown of educational level achieved and the current level of intellectual functioning indicated that the majority of respondents were in the average range of intelligence and had

completed less than 12 years of schooling. Two-tailed t tests were conducted to check for significant group mean differences on both variables. In the original sample, the newcomers were found to have obtained a significantly higher level of education than both the waiting-list and oldtimer groups. The mean educational levels attained by the three groups of respondents remaining at time of follow-up were similarly compared, but after the loss of 13 respondents in total, no significant group differences in education were found between groups. It was also found that the groups did not differ in level of current intellectual functioning during either data gathering period.

Activity and personal-adjustment differences between follow-up respondents and dropouts. An additional analysis of 42 demographic variables, activity ratings, and personal-adjustment scores obtained during the initial study was conducted to determine whether the respondents who did not participate in the follow-up differed significantly from the remaining participants. Table 2 presents the means and standard deviations for those activity ratings and personal-adjustment measures on which the follow-up sample differed significantly from the dropouts. None of the demographic variables examined differentiated significantly between the two groups.

Among the personal-adjustment scores, however, the follow-up respondents were shown to be significantly less anxious [t (74) = 2.21, $p < .05$], higher in positive affect [t (74) = 2.65, $p < .01$], and more highly time competent [t (74) = 1.95, $p < .05$]. In what was assumed to be a less adjusted direction, the follow-up individuals were found to be less favorable toward age-segregated housing than the dropouts, t

Table 2

Significant Comparisons of Means and Standard
Deviations of Adjustment Measures and Activity
Ratings Between Follow-up Respondents and Dropouts

		Follow-up Respondents	Dropouts	<u>t</u>	<u>p</u>
Adjustment Measures		<u>N</u> = 63	<u>N</u> = 13		
State Anxiety	<u>M</u>	2.59	4.23	-2.21	.03
	<u>SD</u>	2.36	2.83		
Affective State	<u>M</u>	6.24	4.77	2.65	.01
	<u>SD</u>	1.84	1.74		
Attitudes Toward Age- Segregated Housing	<u>M</u>	5.51	6.77	-2.02	.05
	<u>SD</u>	2.11	1.69		
Time Competence	<u>M</u>	15.59	13.92	1.95	.05
	<u>SD</u>	2.84	2.56		
Activity Ratings					
Past Interpersonal Number	<u>M</u>	4.08	2.15	2.40	.02
	<u>SD</u>	2.80	1.52		
Past Interpersonal Intensity	<u>M</u>	8.92	4.92	2.20	.03
	<u>SD</u>	6.31	3.62		
Present Interpersonal Intensity	<u>M</u>	8.54	4.61	2.41	.02
	<u>SD</u>	5.76	2.14		

(74) = 2.02, $p < .05$.

With respect to the activity ratings obtained in the initial study, the follow-up respondents showed significantly higher activity levels than the dropouts in three instances. The respondents who participated in the follow-up reported a greater number of interpersonal activity involvements 10 years earlier, $t(74) = 2.40$, $p < .05$, and greater intensity of such activities, $t(74) = 2.20$, $p < .05$. They also rated the intensity of interpersonal activities engaged in at present much higher, $t(74) = 2.41$, $p < .05$.

Analyses of Hypotheses

The results of the tests of the hypotheses stated for this investigation are presented in the following paragraphs. Each hypothesis is restated and the analysis related to that hypothesis follows.

Change in activity ratings by former waiting-list members. It was expected that former waiting-list members would become more active as they became more familiar with the different programs offered within public housing. The specific hypotheses were as follows:

Hypothesis 1a: Ten months after entry into public housing, former waiting-list members score significantly higher on the number and intensity of activities participated in at the present than at time of admission into public housing.

Hypothesis 1b: Ten months after entry into public housing, former waiting-list members report significantly smaller decreases in activity from the past to the present as compared with similar reports at time of admission into public housing.

In order to test Hypotheses 1a and 1b, a series of 3×2 analyses of variance with repeated measures on the second factor were conducted. The waiting-list, newcomer, and oldtimer groups represented the three

levels of the first factor. The activity ratings obtained at Time 1 and Time 2 (10 months later) represented the two levels of the second factor. Due to limitations prescribed by the statistical package employed, listwise deletion of respondents with one or more missing scores for a personal-adjustment variable was necessary. This restriction resulted in the elimination of a small number of respondents who participated in both stages of the longitudinal study from the following analyses. Thus, the waiting-list, newcomer, and oldtimer groups were reduced to 17, 18, and 21 individuals, respectively.

Table 3 presents the means and standard deviations of the activity ratings obtained at time of initial and follow-up interviews. Ratings of present activity were based upon reports of activity for the four months just prior to each interview. Ratings of past activity were based upon reports of activity 10 years prior to initial interviews. Perceived change in activity scores were obtained by subtracting ratings of past activity from ratings of present activity. Thus, negative perceived change scores indicate reduced activity over the last decade and positive perceived change scores indicate increased activity as compared to a decade earlier.

Table 4 presents the summary data for the analysis of variance for perceived change in number of activities, the only dependent variable relevant to Hypotheses 1a and 1b that produced a significant F value. Specifically, there was a significant main effect for time of measure with respect to how the respondents perceived the change in number of activities. Two-tailed t tests were utilized to determine which group or groups contributed to the significant change on this

Table 3
Means and Standard Deviations of Activity Ratings
for Waiting-List, Newcomer, and Oldtimer Groups

Activity Rating		Group					
		Waiting-List		Newcomer		Oldtimer	
		<u>N</u> = 17 ^a		<u>N</u> = 18 ^a		<u>N</u> = 21 ^a	
		Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
Present							
Number	<u>M</u>	6.53	6.59	7.55	7.44	8.76	7.52
	<u>SD</u>	3.43	2.51	3.18	3.31	3.78	3.47
Intensity	<u>M</u>	51.71	53.29	55.28	55.44	56.24	55.05
	<u>SD</u>	13.67	5.02	4.74	5.20	4.79	5.70
Past^b							
Number	<u>M</u>	7.70		9.61		7.81	
	<u>SD</u>	3.48		3.65		3.37	
Intensity	<u>M</u>	54.06		57.78		54.38	
	<u>SD</u>	5.10		5.74		3.93	
Perceived Change							
Number	<u>M</u>	-1.17	-1.11	-2.06	-2.17	0.95	-.29
	<u>SD</u>	3.26	3.06	3.17	3.39	4.38	4.08
Intensity	<u>M</u>	-2.35	-.77	-2.50	-2.34	1.86	0.67
	<u>SD</u>	5.04	5.45	4.27	5.20	4.73	5.66

Note. The means and standard deviations presented are based upon the ratings obtained from respondents who participated in both the initial and follow-up stages of this study.

^aListwise deletion of respondents with one or more missing score for a personal-adjustment variable resulted in the elimination of 2, 3, and 2 respondents from the waiting-list, newcomer, and oldtimer groups, respectively.

^bPast activity ratings were obtained only at Time 1. These past activity ratings were then employed in the calculation of perceived change in activity both at Time 1 and Time 2.

Table 4
Analysis of Variance Summary Data for the Perceived
Change in Number of Activities

Source of Variation	<u>df</u>	<u>MS</u>	<u>F</u>
Time	1	17.28	3.83*
Time x Group	2	2.84	<1.00
Time x Subjects	53	4.51	
Group	2	46.84	2.14
Subjects	53	21.92	

Note. Table 4 is based upon data presented in Table 3 and follows the same rules for exclusion of respondents.

* $p < .05$

variable over the 10-month period. Results showed that the oldtimers' perception of change in number of activities became slightly negative by time of follow-up and significantly different from the perceptions of positive change given at Time 1, $t(20) = 3.04, p < .01$. More plainly, the oldtimers at Time 2 perceived a decrease in the number of activities, as compared to their level of activity 10 years earlier and this decrease was significant when their perceptions at Time 1 and Time 2 were compared. Waiting-list members and newcomers did not differ significantly on perceived change in the number of activities across time. These findings show that Hypotheses 1a and 1b were not confirmed.

Supplementary analyses of variance were employed to examine a further breakdown of activities into activities participated in individually versus activities which demand a degree of interpersonal involvement. Table 5 presents the means and standard deviations for such activities for each of the groups. Tables 6 and 7 present the summary data for the analyses of variance which showed significant differences in the ratings of individual and interpersonal activities.

A significant Time x Group interaction and main effect for Group were found for the perceived change in number of interpersonal activities. The appropriate two-tailed t tests indicated that the oldtimers perceived a decrease in number of interpersonal activities over the 10-month period between interviews, $t(20) = 3.17, p < .005$. At the time of the initial study, the oldtimers differed significantly from the waiting-list members [$t(36) = 2.11, p < .05$] and newcomers [$t(37) = 3.38, p < .01$] in their perception of change in number of interpersonal activities over the last 10 years. The oldtimers perceived

Table 5

Means and Standard Deviations of Individual and Interpersonal
Activity Ratings for Waiting-List, Newcomer,
and Oldtimer Groups

Activity Rating		Group					
		Waiting-List		Newcomer		Oldtimer	
		<u>N</u> = 17		<u>N</u> = 18		<u>N</u> = 22	
		Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
Present							
Individual							
Number	<u>M</u>	4.00	3.76	4.05	4.00	4.05	4.00
	<u>SD</u>	1.94	.90	1.30	1.81	1.71	2.07
Intensity	<u>M</u>	23.29	23.00	23.83	23.72	23.57	23.48
	<u>SD</u>	4.84	2.89	3.28	4.38	4.37	5.58
Interpersonal							
Number	<u>M</u>	2.53	2.83	3.50	3.44	4.71	3.52
	<u>SD</u>	1.87	1.98	2.63	2.48	2.72	1.94
Intensity	<u>M</u>	28.17	29.58	30.50	29.95	31.62	30.57
	<u>SD</u>	4.18	5.20	6.13	5.49	5.88	4.56
Past							
Individual							
Number	<u>M</u>	4.35		4.05		4.38	
	<u>SD</u>	2.12		1.63		2.08	
Intensity	<u>M</u>	23.65		23.50		23.62	
	<u>SD</u>	5.38		3.85		4.70	
Interpersonal							
Number	<u>M</u>	3.35		5.56		3.43	
	<u>SD</u>	2.59		3.20		2.06	
Intensity	<u>M</u>	29.71		32.61		29.90	
	<u>SD</u>	5.48		7.34		4.51	

Table 5 Cont.

Activity Rating		Waiting-List		Newcomer		Oldtimer	
Perceived Change		Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
Individual							
Number	<u>M</u>	-.35	-.59	.00	-.05	-.33	-.38
	<u>SD</u>	1.54	2.06	2.03	2.35	2.33	2.48
Intensity	<u>M</u>	-.36	-.65	.33	.22	-.05	-.14
	<u>SD</u>	3.98	4.90	3.87	5.61	4.43	5.16
Interpersonal							
Number	<u>M</u>	-.82	-.52	-.55	-.61	1.28	.09
	<u>SD</u>	2.39	2.81	2.62	2.96	3.24	2.70
Intensity	<u>M</u>	-1.54	-.13	-2.11	-2.66	1.72	.67
	<u>SD</u>	4.59	6.78	4.84	4.91	6.43	5.77

Note. Table 5 is based upon data presented in Table 3 and follows the same rules for exclusion of respondents.

Table 6
 Analysis of Variance Summary Data for the Perceived
 Change in the Number of Interpersonal Activities

Source of

<u>Variation</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Time	1	5.58	3.45
Time x Group	2	5.11	3.16*
Time x Subjects	53	1.62	
Group	2	83.09	5.14**
Subjects	53	14.22	

Note. Table 6 is based upon data presented in Table 5.

* $p < .05$

** $p < .01$

Table 7
Analysis of Variance Summary Data for the Perceived
Change in Intensity of Interpersonal Activities

Source of

<u>Variation</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Time	1	18.08	2.03
Time x Group	2	19.32	2.17
Time x Subjects	53	8.90	
Group	2	277.67	5.07*
Subjects	53	54.76	

Note. Table 7 is based upon data presented in Table 5.

* $p < .01$

increases, while the latter two groups perceived losses in interpersonal activities. Upon follow-up, the oldtimers still perceived a slight positive change, but this was only significant in comparison with the newcomers, $t(37) = 2.50, p < .05$.

No significant changes for time of measure were found for the perceived changes in the intensity of interpersonal activity. However, a significant main effect for Group was found for this variable. Again, the oldtimers differed initially from the waiting-list members [$t(36) = 2.39, p < .05$] and the newcomer group [$t(37) = 3.32, p < .01$] in that oldtimers maintained higher levels of intensity than 10 years earlier, while the other two groups perceived a reduction in the intensity of their interpersonal activities over the same period. Ten months later at time of follow-up, the oldtimers reported smaller increases in how they perceived the intensity of their current interpersonal activities as compared to more than 10 years earlier, and a significantly greater positive perception of change in this regard than newcomers, $t(37) = 2.60, p < .01$.

Changes in self-actualization and time perspective among former waiting-list members. The relatively more stimulating environment presumably offered the waiting-list members was expected to enhance their personal-adjustment, as dormant capacities were brought into action. The specific hypothesis read as follows:

Hypothesis 2: Waiting-list members show significantly better adjustment on measures of self-actualization, retrotension, and protension 10 months after entry into public housing than at time of admission.

Table 8 presents the means and standard deviations of the personal-

Table 8

Means and Standard Deviations of Adjustment Measures
for Waiting-List, Newcomer, and Oldtimer Groups

		Waiting-List		Group Newcomer		Oldtimer	
		<u>N</u> = 17 ^a		<u>N</u> = 18 ^a		<u>N</u> = 21 ^a	
		Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
State	<u>M</u>	2.94	2.53	2.83	2.89	2.09	3.05
Anxiety	<u>SD</u>	1.89	1.32	2.35	3.27	2.91	2.80
Affective	<u>M</u>	6.24	6.53	6.33	6.50	6.29	6.67
State	<u>SD</u>	1.98	1.33	1.85	1.34	1.76	1.49
Attitudes							
Toward Age-	<u>M</u>	4.65	6.06	5.11	6.39	6.05	7.14
Segregated	<u>SD</u>	1.50	1.14	2.14	1.61	2.20	1.39
Housing							
Personal							
Orientation	<u>M</u>	94.70	94.23	95.78	96.39	96.05	98.14
Inventory	<u>SD</u>	12.76	11.54	12.95	11.80	7.21	8.70
Total							
Inner	<u>M</u>	81.18	78.18	79.22	80.05	79.48	81.62
Support	<u>SD</u>	10.45	9.72	11.24	10.10	6.96	7.50
Time	<u>M</u>	13.53	16.06	16.55	16.33	16.57	16.52
Competence	<u>SD</u>	3.14	2.25	2.55	2.50	2.23	1.83
Retrotension	<u>M</u>	-.35	-1.35	.17	-.33	-.67	-.28
	<u>SD</u>	2.94	2.80	3.13	3.34	2.82	2.39
Protension	<u>M</u>	-.65	-1.23	-.44	-1.17	-1.52	-2.33
	<u>SD</u>	2.23	1.60	2.01	2.06	2.25	2.03

^aListwise deletion of respondents with one or more missing scores for a personal-adjustment variable resulted in the elimination of 2, 3, and 2 respondents from the waiting-list, newcomer, and oldtimer groups, respectively.

adjustment measures discussed in Hypothesis 2 along with additional data on several brief adjustment measures obtained at Time 1 and Time 2.

With respect to self-actualization as assessed by the Personal Orientation Inventory, only the analysis of variance for Time Competence showed any significant effects. Table 9 shows the summary data which indicate significant Time and Group main effects and a Time x Group interaction. Two-tailed t tests of change over time for each group showed that the waiting-list members did indeed score higher on time competency 10 months after residence in public housing as predicted, $t(16) = 3.66$, $p < .005$. Neither the newcomers nor oldtimers significantly changed in level of time competence in the same interval.

Initially, the oldtimers [$t(36) = 3.49$, $p < .001$] and newcomers [$t(33) = 3.14$, $p < .005$] both were more highly time competent than the waiting-list members. Ten months later, there were no significant group mean differences on Time Competence.

Significant change over time was found among groups on both retrotension and protension. Table 10 summarizes the analysis of variance for retrotension. The data indicate a significant main effect for Time and a Time x Group interaction. Results of the appropriate t tests showed that the waiting-list group became better adjusted (i.e., perceived the present as better than the past) over their first 10 months in public housing as evidenced by the increasingly negative retrotension scores which are taken as a measure of feeling of progress, $t(16) = 4.41$, $p < .0001$.

Table 11 presents the data for the analysis of variance in

Table 9
Analysis of Variance Summary Data
for Time Competence

Source of Variation	df	MS	F
Time	1	12.89	5.09*
Time x Group	2	20.98	8.29**
Time x Subjects	53	2.53	
Group	2	34.55	3.75*
Subjects	53	9.20	

Note. Table 9 is based upon data presented in Table 8.

* $p < .05$

** $p < .001$

Table 10
Analysis of Variance Summary
Data for Retrotension

Source of Variation	<u>df</u>	<u>MS</u>	<u>F</u>
Time	1	2.89	4.99*
Time x Group	2	4.69	8.09**
Time x Subjects	53	.58	
Group	2	5.18	<1.00
Subjects	53	16.27	

Note. Table 10 is based upon data presented in Table 8.

* $p < .05$

** $p < .001$

Table 11
Analysis of Variance Summary
Data for Protension

Source of <u>Variation</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Time	1	14.28	12.31*
Time x Group	2	.11	<1.00
Time x Subjects	53	1.16	
Group	2	14.83	2.04
Subjects	53	7.25	

Note. Table 11 is based upon data presented in Table 8.

* $p < .001$

protension scores. The data indicate a significant main effect for time of measure. Changes over time not predicted, but of interest, were the significantly lower protension scores (i.e., future perceived less favorably than the present) for newcomers [$t(17) = 2.12, p < .05$] and oldtimers [$t(20) = 2.47, p < .05$]. Because of the large possible influence that knowledge of life expectancy rates may have upon the protension scores of the elderly and the already noted significant age differences between groups, the Pearson product-moment correlations between age and protension scores were obtained for Time 1 and Time 2. Age was not found to be significantly related to protension scores among the respondents in this study.

The remaining measures of state anxiety and current affective state were also examined as possible moderator variables in the investigation of the impact of housing upon adjustment. No significant group differences on either measure were found.

Correlations between present activity and measures of self-actualization and time perspective. Positive correlations between present activity and level of adjustment were predicted by the next hypothesis:

Hypothesis 3: Ratings of present activity are significantly positively related to better adjustment on measures of self-actualization, retrotension, and protension across all groups.

The Pearson product-moment correlations between present activity ratings and adjustment measures at Time 2, along with additional data from Time 1, are shown in Table 12. At follow-up, two of the three self-actualization measures were significantly correlated with present activity number and intensity at $p < .05$ or better. This was a repetition of similar findings that POI Total and Inner Support scores were

Table 12

Correlation Coefficients Between Activity Ratings and Adjustment Measures

Across Waiting-List, Newcomer, and Oldtimer Groups ($N = 63$)

Activity Ratings	Adjustment Measures									
	State Anxiety		Personal Orientation Inventory Total		Affective State		Inner Support		Time Competence	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
Present										
Number	-.11	-.32**	.37**	.28**	.36**	.49**	.36**	.30*	.23	.11
Intensity	-.04	-.31*	.37**	.23 **	.12	.38**	.33**	.24*	.32**	.11
Past										
Number	-.16	-.05	-.09	-.04	.34**	.19	-.14	-.02	.15	-.14
Intensity	-.15	-.06	-.08	-.05	.32**	.19	-.13	-.02	.12	-.18
Perceived Change										
Number	.09	-.22	.27*	.27*	.07	.22	.33**	.27*	-.06	.21
Intensity	.10	-.23	.25*	.24	.09	.30*	.28*	.23	.02	.21

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 12 Cont'd

Activity Ratings	Retro- tension		Pro- tension	
	Time 1	Time 2	Time 1	Time 2
Present				
Number	-.31**	-.26	-.14	.19
Intensity	-.26*	-.29*	.04	.12
Past				
Number	-.10	-.10	-.16	-.12
Intensity	-.14	-.14	-.09	-.13
Perceived Change				
Number	-.14	-.14	-.01	.26*
Intensity	-.12	-.22	.02	.32**

*p < .05

**p < .01

***p < .001

significantly positively correlated with present activity at Time 1. Time Competence scores, however, were not found to be significantly related to any present activity measure obtained at time of follow-up.

Among the time perspective measures there was only one significant correlation at follow-up. Retrotension was significantly negatively related to present intensity of activity. This finding is as predicted by Hypothesis 3, that is, more intense participation in activities was related to greater reported feeling of progress (i.e., present better than past) as reflected by the retrotension score. As can be seen in Table 12, protension scores were the only measures not found to be significantly correlated with a single present activity rating at either time.

Additional data presented in Table 12 indicated significant correlations between present activity and measures of current affect and state anxiety at Time 2. Degree of positive affect was positively related to the number and intensity of present activities across all groups ($p < .01$). Also, state anxiety was negatively related to these latter variables ($p < .05$ or better).

Table 13 provides further post-hoc analysis of the just discussed correlations by dividing the activity ratings into activities with either an individual or interpersonal orientation. Examination of this table indicates clearly higher correlations were obtained between individual activity ratings and adjustment scores than between interpersonal activities and adjustment. With the separation of activity into the individual and interpersonal components, it is apparent that high levels of self-actualization were more closely associated with

Table 13

Correlation Coefficients Between Individual and
Interpersonal Activity Ratings and Adjustment Measures (N = 63)

Adjustment Measures

Activity Ratings	State Anxiety		Affective State		POI Total		Inner Support	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
Present								
Individual								
Number	-.10	-.31*	.29*	.38**	.40***	.25*	.36**	.27*
Intensity	-.08	-.31*	.36	.43***	.43***	.26*	.37**	.27*
Interpersonal								
Number	-.16	-.16	.14	.40***	.07	.21	.09	.21
Intensity	-.12	-.18	.29	.40***	.22	.21	.23	.22
Past								
Individual								
Number	-.15	-.07	.14	.09	.06	-.01	.03	.01
Intensity	-.16	-.10	.18	.15	.13	.02	.09	.03
Interpersonal								
Number	-.10	-.02	.34**	.18	.15	-.04	.20	-.03
Intensity	-.11	-.01	.32**	.15	.16	-.04	.21	-.02
Perceived Change								
Individual								
Number	.05	-.18	.11	.19	.28*	.19	.29*	.20
Intensity	.04	-.16	.19	.23	.30*	.23	.29*	.24
Interpersonal								
Number	.03	-.15	-.08	.12	.33**	.19	.38**	.18
Intensity	.02	-.16	-.10	.14	.29*	.20	.33**	.20

Table 13 Cont'd

Activity Ratings	Time Competence		Retro- tension		Pro- tension	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
Present						
Individual						
Number	.32**	.04	-.18	-.15	.05	.30*
Intensity	.38**	.08	-.23	-.17	.11	.29*
Interpersonal						
Number	-.03	.13	-.29*	-.28*	-.09	.05
Intensity	.09	.10	-.30**	-.35**	-.21	.09
Past						
Individual						
Number	.16	-.09	-.28*	-.28*	-.11	-.09
Intensity	.19	-.08	-.34**	-.31**	-.12	-.11
Interpersonal						
Number	.08	-.10	.07	.06	-.13	-.09
Intensity	.08	-.09	.07	.07	-.11	.08
Perceived Change						
Individual						
Number	.12	.19	.12	.13	.15	.30*
Intensity	.19	.15	.07	.08	.13	.27*
Interpersonal						
Number	.02	.19	-.33**	-.26*	-.08	.12
Intensity	.00	.15	-.32**	-.34**	-.09	.12

*p < .05

**p < .01

***p < .001

individuals who actively occupied their time when alone or who chose activities which they can enjoy alone.

In addition, a divergence between the measures of retrotension and protension is suggested. Retrotension showed consistently significant high correlations with interpersonal activities. The negative correlations indicate that the more interpersonally active people were more likely to report greater feelings of progress as measured by retrotension. Protension scores, on the other hand, at least at time of follow-up, were significantly positively related to number and intensity of present individual-oriented activities ($p < .05$). Thus, a greater degree of hopefulness (i.e., relatively positive ratings of the future as compared to the present) was found among people who could maintain activity on their own.

Degree of positive affect, as measured by a brief 9-item scale, was shown to be positively correlated with both present individual and interpersonal activities ($p < .01$ or better) at Time 2. Level of state anxiety was negatively associated with participation in individual-oriented activities, with the relationship between these two variables reaching significance only at Time 2. Ratings of present interpersonal activity were not significantly related to state anxiety scores at either the initial or follow-up stages of this study.

Correlations between perceived change in activity and measures of self-actualization and time perspective. The elderly who reported fewer losses in activity over the last decade were predicted to be better adjusted than the elderly who did not find substitute activities as stated in the following hypothesis:

Hypothesis 4: Changes in activity level from the past (11 years earlier) to the present are positively related to higher levels of adjustment on measures of self-actualization, retrotension, and protension across all groups.

The data in Table 12 indicate correlations of lower magnitude between adjustment and perceived changes in activity than found between adjustment and present activity. POI Total and Inner Support scores correlated significantly with perceived loss in the number of activities as predicted, but not with perceived reduction in intensity. The only other significant correlations were obtained between protension and perceived change. A feeling of hopefulness was positively associated with perceived changes in activity number ($r = .26$) and intensity ($r = .32$). Retrotension, which involves a retrospective rating of one's life status, however, was not significantly correlated with any rating of perceived change.

The magnitude of correlations between perceived change in activity measures and adjustment scores remained relatively similar over the 10-month period. The lone exceptions were the increase in magnitude of Time Competence and protension scores, although only the correlations for protension reached significance.

Correlations between self-actualization and time perspective.

The remaining hypotheses are related to the consistency among the adjustment measures chosen for this study:

Hypothesis 5: Feeling of progress, as measured by retrotension, is significantly positively associated with level of self-actualization across all groups.

Hypothesis 6: Degree of hopefulness, as measured by protension, is significantly positively associated with level of self-actualization across all groups.

The data presented in Table 14 include the Pearson product-moment correlation coefficients between each of the adjustment measures.

Hypothesis 5 and 6 were not confirmed by the follow-up data, although some results were in the expected direction. Again, negative retension scores indicate a positive feeling of progress. Thus, the negative correlations between retension and self-actualization measures are in line with Hypothesis 5, although not significantly so. Pro-tension scores were only minimally correlated with any of the adjustment measures; thus, Hypothesis 6 was not confirmed.

Relationship of Age, Education, and Intelligence to Present Activity and Adjustment

At Time 1 in this longitudinal study the groups had differed significantly in age and educational level (Rak, 1977). In order to check upon any possible confounds related to these significant differences, the correlations between the variables of age, education, and current level of intellectual functioning and the scores on all adjustment and present activity measures were obtained (see Appendix B). The oldtimers remained significantly older than the newcomers at time of follow-up, but educational differences between groups were no longer significant with the loss of 13 respondents. Because of the remaining age difference and the generally important role of education and IQ in adaptive potential these variables were correlated with the adjustment scores and present activity ratings once again. Table 15 presents these correlations. Again it was found that age was not significantly correlated with either adjustment scores or present activity ratings.

Table 14

Correlation Coefficients Among Adjustment Scores Across

Waiting-List, Newcomer, and Oldtimer Groups ($N = 63$)

	Affective State		POI Total		Inner Support		Time Competence		Retro- tension		Proten- sion	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
State Anxiety	-.45***	-.37**	-.20	-.56***	-.16	-.55***	-.25*	-.44***	.21	.38**	.03	-.02
Affective State	—	—	.33**	.25	.33**	.22	.16	.25*	-.23	-.18	-.13	.08
POI Total			—	—	.97***	.99***	.60***	.77***	-.27*	-.19	-.13	-.03
Inner Support					—	—	.38**	.66***	-.27**	-.19	-.17	-.06
Time Competence							—	—	-.11	-.14	.06	.09
Retro- tension									—	—	.01	.00

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 15
Correlation Coefficients Between Age, Education,
Intelligence, and Measures of Adjustment
and Present Activity at Follow-up (N=63)

Adjustment Measures	Age	Education	Quick Test IQ ^a
Affective State	-.10	.17	.33**
Anxiety-Adjective Checklist	.03	-.18	-.18
Personal Orientation Inventory Total	.12	.25*	.34**
Inner Support	.08	.23	.35**
Time Competence	.15	.22	.17
Retrotension	.13	.04	.08
Protension	-.16	.06	-.11
Present Activity Ratings			
Number	-.14	.35**	.29*
Intensity	-.15	.42***	.26*

^aAll correlation coefficients are based upon data from 63 cases, except the correlations involving Quick Test IQ where N = 62 because of one missing case.

*p < .05

**p < .01

***p < .001

Education and IQ were found to be significantly related to POI Total and all present activity ratings. Also, Inner Support scores and IQ were significantly related.

Multiple Regression Analyses of Predictor Variables for Self-Actualization

Upon completing the preceding analyses of data, 58 variables, including each of the measures of adjustment and activity ratings at Times 1 and 2 of the longitudinal study along with selected background variables, were included in multiple regression analyses to investigate their predictive utility with respect to the three measures of self-actualization scores obtained at Time 2. Tables 16 through 18 present data on the percentage of variance accounted for by the predictor variables for POI Total, Inner Support, and Time Competence, respectively. Predictor variables were entered into the regression equations in order of their contribution to the explanation of the variance in the dependent variable, the largest contributing variable first, and so on. Only those variables which obtained significant F values ($p < .05$) in the test of their individual regression coefficients are presented in each table.

The Multiple R refers to the degree of correlation of any one predictor variable and those preceding it with the dependent variable. The R^2 shows the amount of variance in the dependent variable accounted for by a single predictor and those preceding it in the equation. The incremental variance accounted for by the inclusion of any one predictor variable in the regression equation is represented by ΔR^2 . Finally, the Simple R indicates the correlation between a single predictor and the

Table 16
 Percentage of Variance in the Total Scores of the
 Personal Orientation Inventory Accounted for
 by Background Variables, Adjustment
 Measures, and Activity Ratings:

Independent Variable	Follow-Up			
	Multiple <u>R</u>	<u>R</u> ²	Δ <u>R</u> ²	Simple <u>R</u>
State Anxiety ^a	.558	.311	.311	-.558
Spouse's Occupation ^b (Professional = 1; Nonprofessional = 2)	.616	.380	.068	-.296
Sex (Male = 1; Female = 2)	.649	.421	.042	.337

Note. Above data are based upon N of 63. Only those variables which obtained significant F values in the test of their individual regression coefficients are presented in the table.

^aThis independent variable represents the state anxiety scores obtained at Time 2.

^bThis represents occupation of husband or wife dependent upon the sex of the respondent.

Table 17
 Percentage of Variance in Inner Support Accounted
 for by Background Variables, Adjustment
 Measures, and Activity Ratings: Follow-Up

Independent Variable	Multiple <u>R</u>	<u>R</u> ²	Δ <u>R</u> ²	Simple <u>R</u>
State Anxiety ^a	.546	.298	.298	-.546
Spouse's Occupation ^b (Professional = 1; Nonprofessional = 2)	.608	.370	.072	-.302
Sex (Male = 1; Female = 2)	.644	.415	.045	.343

Note. Table 17 is based upon data employed in Table 16 and follows the same rules for exclusion of variables from the summary of regression data.

^aThis independent variable represents the state anxiety scores obtained at Time 2.

^bThis represents occupation of husband or wife dependent upon the sex of the respondent.

Table 18
 Percentage of Variance in Time Competence Accounted
 for by Background Variables, Adjustment
 Measures, and Activity Ratings: Follow-Up

Independent Variable	Multiple <u>R</u>	<u>R</u> ²	<u>ΔR</u> ²	Simple <u>R</u>
State Anxiety ^a	.439	.139	.193	-.439
Best Life ^a	.555	.308	.115	-.267
Attitudes Toward Age-Segregated Housing ^b	.611	.373	.065	.329

^aThis independent variable represents the score obtained at Time 2.

^bThis independent variable represents the score obtained at Time 1.

dependent variable.

The data in Tables 16 and 17 indicated that the three best predictors of POI Total and Inner Support were (a) state anxiety, (b) occupation of spouse (husband or wife dependent upon sex of the respondent), and (c) sex of the respondent. Level of state anxiety accounted for over 29% of the total variance in both measures. Although there were only seven individuals who reported that their spouses were employed in professional jobs, this rough socioeconomic status indicator accounted for approximately 7% of the variances. Knowledge that the sex of the respondent was female also contributed another 4% to the capacity to predict higher levels of self-actualization on these two components. Over 40% of the variance in each dependent variable was explained by 3 of the 58 variables, with negligible increases in ability to predict these aspects of self-actualization.

Table 18 presents the amount of variance in Time Competence accounted for by the list of predictor variables. State anxiety, with 19% of the total variance, again accounted for the most significant amount of variance. The second most effective predictor was a supplementary score obtained along with the time perspective measure. This variable was labelled "Best Life" and was defined as the ratings of the individual's "best time of his life" upon the 11-point self-anchoring scale used for the time perspective measures. Over 11% of the variance in Time Competence scores was accounted for by the Best Life ratings. The negative Simple R indicates that the highly time competent people were more likely to assign a lower rating for the best time of their lives. Scores on the Attitudes Toward Age-Segregated Housing scale

obtained at Time 1 of the longitudinal study accounted for another 6% of the variance, while more current ratings on the same scale were not significantly predictive. More favorable attitudes toward age-segregated housing were highly related to level of time competence 10 months later.

The finding that state anxiety measures obtained at Time 2 were highly predictive of follow-up scores on all three self-actualization measures, further indicated the high correlations between the latter measures. The second and third most highly predictive variables for Inner Support and Time Competence differed which was taken as partial confirmation of the degree of divergence between these separate aspects of the general construct of self-actualization.

When these results are compared with the multiple regression data found at Time 1 (see Appendix B), it is apparent that the utility of only one predictor variable was confirmed. Knowledge of the sex of the respondent was highly predictive of POI Total and Inner Support scores at both times. Female respondents were more likely to score higher on these latter measures of self-actualization. The previously strong predictive strength of IQ was not confirmed at follow-up.

DISCUSSION

In this study an attempt was made to determine the effects of age-segregated public housing upon the adaptive capacities of the aged. The public housing sites chosen emphasize independent living while affording daily social and activity programs designed specifically for the elderly. In conjunction with the assumption that the elderly who enter this relatively more stimulating environment would become more active, the general hypothesis that they would show signs of higher levels of psychological adjustment than their waiting-list counterparts was examined.

Nonrandom Comparison Groups

It is necessary to discuss the difficulties in obtaining a random selection of respondents, the means by which the effects of these selection biases are reduced, and the resultant limitations upon the generalizations that may be made from this study.

First, participation in this study was strictly voluntary. As a result, a large percentage of housing residents failed to respond to the request for volunteers. The high number of rejections among prospective newcomer and oldtimer residents contrasted sharply with the high percentage of waiting-list members who agreed to be interviewed. Several factors may have contributed to these differential volunteer rates among groups. One factor may have been the greater degree of personal contact between waiting-list members and this investigator at the time of requests for participation. The possibility that waiting-

list members in some manner sustained the belief that their participation or lack of participation might affect their entrance into housing may also have been a factor in their high volunteer rate. However, this factor was not mentioned in the postinterview discussions. The greater likelihood of waiting-list members volunteering might best be understood in light of the greater suggestibility of people involved in a new setting where the social demands are as yet undefined. It should be noted that there were no apparent group difference in willingness to cooperate in the follow-up.

Since level of activity is a major variable in this study, the trend toward higher present activity levels among the housing residents (newcomers and oldtimers) at Time 1 may suggest the differential selection of only the more active residents. The plausibility of such a selection bias is greater for the newcomer group, than it is for the oldtimers. An examination of the past (10 years earlier) activity ratings for each group indicated that the newcomers were significantly more active at an earlier stage prior to their public housing residence than either the waiting-list members or oldtimers.

Comments by several respondents and prospective volunteers who declined participating in the study suggested to this investigator that a relatively wide range of individuals, with respect to activity interests, was represented in the newcomer and oldtimer groups. For example, several of the oldtimers who refused to participate indicated that previous studies at their sites had either been unsatisfying experiences or had reduced the novelty of such an experience, thus the loss of some typically very active oldtimers. There were also several newcomers and

oldtimers who reported that they were not interested in any of the activities offered within public housing.

Second, as noted before, in order to obtain groups relatively similar in age, oldtimers under the age of 80 were selected first, and only then were older volunteers interviewed to fulfill the desired quota for oldtimers. Even with this restriction the oldtimers were significantly older than the other two groups during the initial study. Following the differential loss of the more elderly respondents over the 10-month period, the oldtimers were still significantly older, but now only in comparison with the newcomers. This finding necessitated a careful look at the age factor in relation to the activity and adjustment variables studied. Correlations between age and the latter variables were shown to be nonsignificant.

In general, the remaining demographic variables examined indicated that the comparison groups were from relatively similar backgrounds. This was especially true in terms of the variables related to housing, such as primary reason for moving, rent prior to and after moving into public housing, and rating of the adequacy of new residence in comparison with previous accommodations. Waiting-list and resident groups also reported similar socioeconomic backgrounds, not only in the present as defined by public housing requirements, but also in terms of past occupations of self and/or spouse. The only other apparent significant differences between groups occurred in terms of religious background and marital status.

The group differences in religion and marital status can be partially explained in terms of factors outside this study's selection

process. The neighborhoods wherein the public housing sites are located have changed from predominantly Jewish populations to a mixture of ethnic and religious backgrounds, paralleling the differences between the oldtimer group and the more recently formed waiting-list and newcomer groups. The majority of respondents did indeed report living within two or three miles of their respective public housing sites just prior to entrance.

The greater proportion of married oldtimers as compared to newcomers and waiting-list members who tended to be unmarried may be linked to admission procedures of the public housing program. Married applicants are accepted on the basis of vacancies in apartments designed for double-occupancy. However, when one spouse dies, the surviving spouse is allowed to retain the larger apartment, rather than move into an apartment designed for single occupancy. Thus, as the years pass by, fewer and fewer apartments for married couples are made available. This trend is substantiated by the high number of oldtimers who reported living with their spouses just prior to their move into public housing versus the relatively small number of more recent applicants.

In addition to the factors involved in the nonrandom selection of the respondents at Time 1, it was suspected that additional factors may have further increased the selectivity of the original sample by Time 2. Analysis of Time 1 scores of all 76 of the original sample did indeed find the dropouts to have been significantly less adjusted on measures of state anxiety, positive affect, and time competence, as well as less active. These results indicated that in generalizing from the results of this study, one must be aware that a select group of elderly public

housing residents was examined.

Although much of the demographic data indicated groups of relatively similar backgrounds, the initial cross-sectional study of differences between groups on activity and adjustment measures suffered because of the problem with uncontrolled initial individual and group differences (Rak, 1977). The longitudinal design of this study, however, allowed a look at change over time for each group with their own initial scores as a baseline for change.

Self-Report Measures

An attempt was made to employ reasonably objective and theoretically-sound measures of activity and personal-adjustment. The checklist of leisure time activities presented a wide range of individual and group-oriented opportunities. In only a few instances were activities reported that did not fit easily into a given category; thus, the checklist devised by Murphy (1977) provided a relatively exhaustive checklist for the sample interviewed. However, ratings of the number and intensity of activities were completed by each respondent and, by necessity, relied on the subjectivity of self-reports.

The main measures of self-actualization and time-perspective were selected on the basis of their superiority to previously used scales in studies of the aged in terms of their degree of objectivity and theoretical importance. The self-actualization instrument was based upon forced-choice items of approximately equal social desirability. The items were derived from empirical studies of self-actualizers versus nonself-actualizers from various age groups. The question of

whether these items presented choices equal in social desirability for the sample of elderly employed in this study cannot be answered since age-norms for the POI are not provided. It is this investigator's impression, however, that the overwhelming majority of items received responses in both directions.

Personal time perspective measures were based upon ratings of the individual's past, present, and future life status upon a self-anchoring scale (i.e., the worst and best life you can imagine for yourself). By the use of such a self-anchoring scale it was assumed that the focus would remain upon personal adjustment, rather than adjustment to housing.

The potential utility of the self-actualization and time-perspective measures in studies of the aged was shown as they showed greater sensitivity to differences between groups and across time than did the briefer, self-report measures of state anxiety, current affective state, and favorability toward age-segregated housing. The latter measures were probably more open to undesired response sets because of the transparency of their items, their disagree-agree format, and the superficial nature of the constructs measured.

Hypotheses and Implications

Present activity and perceived change among groups. Hypothesis 1a predicted that present activity levels would be significantly higher for the waiting-list group 10 months after entering their housing residences than were reported at time of admission. No specific changes were predicted for newcomers and oldtimers. The general assumption was that the waiting-list members were coming from a relatively deprived environment

and the move into public housing would offer a wide array of stimulating activities. The results did not support Hypothesis 1a, nor were any significant changes in the newcomer and oldtimer groups noted.

An observable, although nonsignificant change, was the slightly higher mean and reduced variability in the intensity of activities among the waiting-list members. This writer suggests that these data may indicate a partial adaptation to the increased opportunities for activity offered within public housing. On the whole, however, the newcomers did not appear to be as deprived in terms of activity involvements as was presumed. As a point of comparison, waiting-list members in this study were markedly different from the housing applicants described in Carp's (1968) study. In contrast with the applicants to Victoria Plaza, the waiting-list members lived in larger and nicer apartments, maintained several ongoing activities or group associations, and often their application to public housing represented a well-planned decision made years earlier.

It was also predicted by Hypothesis 1b that 10 months later, the waiting-list members would perceive significantly less change in the number and intensity of activities over approximately the last decade, as compared to similar ratings at time of admission. This hypothesis was not confirmed. Since a significant positive change in present activity level was not found for the waiting-list group, the basis for Hypothesis 1b was already removed.

There was one significant change in the perceived change of activity variable. Oldtimers became more negative in how they perceived their current activity level as compared with initial ratings

of past activity (i.e., activity of approximately a decade earlier). Closer examination of the present activities engaged in by oldtimers indicated that the number of interpersonal activities had significantly declined and contributed the major portion of the perceived losses. Their perceptions of change were still relatively less negative and intensity of interpersonal activities remained higher than those of the other two groups. The change in number of interpersonal activities may indicate the effects of a growing familiarity with and complacency toward the regularly scheduled group activities in their public housing programs as suggested by Weinstock and Bennett (1971). An extension of this latter hypothesis is the deleterious effects upon oldtimers who may increasingly limit themselves to activities conducted in their buildings.

Group comparisons of adjustment levels. Hypothesis 2 predicted positive changes by the waiting-list group on measures of self-actualization and time perspective over the 10 months. This hypothesis received partial confirmation in that waiting-list members showed significant increases in Time Competence and Retention (i.e., viewing the present more positively than the past).

In the initial study of the three groups (Rak, 1977) the newcomer and oldtimer groups were both significantly more time competent than the waiting-list group. At follow-up, the groups were relatively similar in level of time competence. Residence in age-segregated housing may have relieved some concerns about past failures and future uncertainties, thus allowing the elderly to live more fully in the present. This change may be a function of the greater feeling of competence brought

about by a move into housing where the residents are relatively similar in their abilities and capacities and where economic concerns are reduced by the low-rent housing.

The Inner Support scale and the Total scores on the Personal Orientation Inventory, however, focus more upon changes in one's interpersonal adjustment. This may account for the lack of significant findings. Public housing may afford greater personal security without necessarily increasing one's interpersonal efficacy. As already discussed, the waiting-list members were relatively active prior to entrance and apparently were not presented with significant increases in activity opportunities which might stimulate presumably dormant adaptive capacities. The different findings for the Inner Support and Time Competence measures also suggest that two divergent aspects of self-actualization were assessed.

Unlike the findings of Bortner and Hultsch (1972) which showed that people over the age of 70 rated the past, present, and future in descending order, the respondents in this study showed generally more favorable assessments of the present in comparison with the past and future. The waiting-list group, as predicted, was the only group to show significantly better adjustment as assessed by a measure of their feeling of progress (retrogression). How could 10 months in public housing possibly affect such a change? It is relatively safe to state that the general status and well-being of most people is reflected in their choice of housing. The public housing sites sampled in this study provide accommodations which would cost less than one-fourth the amount that the residents would pay for similar housing in the

surrounding community; however, from the comments of many of the respondents it was apparent that they would not move into a public housing site simply because it was offered. Several respondents had indeed turned down the first or second placements in public housing offered while waiting for a desired location. The provision of such housing was often a relief not only from prior financial worries, but also gave them a home in which they took personal pride. Many respondents often had outside visitors, whereas, prior to public housing they rarely invited friends to their apartments.

Protension scores, indices of hopefulness, showed consistently negative ratings of the future in comparison with the present. A higher degree of hopefulness would normally be associated with greater adjustment, but this may not be true among an aged sample especially with a measure of hopefulness based upon projections into the relatively distant future, that is, five years. More negative ratings of the future are not surprising in light of the difficulty in projecting improved life status against the background of inevitable biological deterioration and life expectancy rates. The fact that approximately 20% of the sample had developed a mildly serious to serious physical illness during the span from initial to follow-up interviews with no significant group changes in protension, shows the remarkable resiliency and basically optimistic view of this sample of elderly people.

Present activity and adjustment level. Hypothesis 3 predicted that present activity level would be positively correlated with better adjustment. The strong positive correlations between ratings of present activity and the Inner Support and POI Total scores reached only slightly

lower magnitudes than those found in previous studies of activity and adjustment, with the latter defined in terms of satisfaction, morale or other more superficial affective variables. Even among a sample of people over the age of 70, the well-adjusted person maintains a relatively high degree of activity. According to the construct of Inner Support, the more active elderly individuals were significantly more self-motivated and confident about relying on their own thoughts and principles. Those people who were less active seem to be less confident and apt to follow the lead of others. This finding is in agreement with Weinstock and Bennett's (1970) "disuse theory" and Busse's (1977) "atrophy-of-disuse" theory as applied to psychological functioning described in the Introduction.

The initially high correlations between present activity and Time Competence indicated that the more active elderly were less likely to brood over past mistakes or future uncertainties. The positive, but lower and nonsignificant correlations at Time 2 may indicate that other factors besides activity contribute to level of Time Competence. One possible factor is the degree of security felt by the individual. Results indicated that as the waiting-list members became more familiar with public housing, their level of Time Competence significantly increased.

Feeling of progress toward one's goals, as measured by retrotension, was also highly significantly correlated with present activity except with number of activities at Time 2. The low correlations between present activity and protension may indicate the inevitability of lower ratings of the future. The elderly, unlike younger individuals, may

not look at present activity in terms of the payoff for the future, but they may assess their progress by how well they maintain active involvement. They may enjoy activities more for their intrinsic value than to bolster their hopes for future achievements.

Examination of the correlations between self-actualization and activity ratings divided into those engaged in as an individual versus those which occur in group settings suggested that highly self-actualized elderly persons are able to redirect their activities to a more restricted setting. By viewing the changes in activity by the elderly according to this division, the more negative connotations of psychological and social withdrawal may be avoided. The value placed by the aged on the ability to find alternate sources of activity which can be enjoyed individually was further supported by the high positive correlations between protension (future rated more favorably than present) and ratings of individual-oriented activities. Thus, future studies of the elderly should be cautioned to examine both aspects of activity (individual versus interpersonal) before generalizing that interpersonal withdrawal represents a more global disengagement by the elderly.

Perceived change in activity and adjustment. As predicted by Hypothesis 4, greater perceived losses in activity (from 10 years prior to the present) would be related to lower levels of adjustment across all groups. POI Total, Inner Support, Protension and Affective State scores were the only measures to correlate significantly with at least one perceived change in activity measure. On the whole, the relationship between perceived change in activity and self-actualization is less strong and less clear than the relationship between present activity and

self-actualization. Perceived change in activity measures were based upon ratings of present and past (10 years prior) activity. With respect to the past activity rating, it is possible that the more removed the activity measure is in time from the present, the greater likelihood of a less clear relationship to current adjustment. Ratings of past activity may be less reliable than ratings of recent activities; that is, there may be larger error variance with past activity ratings in comparison with measures tapping more recent activities and the longer the interval between ratings of activity and adjustment the greater possibility of intervening variables which might affect the relationship.

Interestingly enough, in the initial study, the time-perspective measures were not found to be significantly correlated with the perceived change in activity measures. It was expected that the time-perspective measures would correlate highly with perceived change measures since they shared a common mode of measurement in that both included a self-rated perceived differential, the former in terms of life status and the latter in terms of activity level.

The continued nonsignificant correlations with retrotension suggest that an individual's evaluation of his life status is not based solely or even largely upon his activity level, although many studies have shown high positive correlations between activity and satisfaction across many age groups. The negligible relationship found between perceived changes in activity and protension scores at Time 1 suggested the need for further investigation of protension scores as measures of personal adjustment. Findings at Time 2 only add to the confusion, as protension

now correlated significantly and positively with perceived change in activity.

One plausible explanation for these contradictory results may lie in the changed attitudes of the respondents at Time 2 which may have contributed to more accurate ratings. First, the waiting-list and newcomer groups had increased knowledge of what to expect in life as they settled more deeply into their new living arrangements. Second, in terms of the protension scores, respondents seemed much more at ease in discussing the fears and losses which arise in old age. Thus, the protension ratings, although relatively stable, probably reflected true inner feelings more closely the second time around.

Personal time perspective and self-actualization. How did the personal time-perspective measures compare with measures of self-actualization? The tests of Hypotheses 5 and 6 showed that neither retrotension nor protension scores correlated significantly with self-actualization scores. Although not significant, the data indicated that the greater the degree of reported progress (retrotension), the more likely the respondents were to be following their own principles and values as determined by the Inner Support scale.

The failure to obtain significant positive correlations between self-actualization measures and protension further suggests a possible measurement artifact noted by Bortner and Hultsch (1972). There may be a reality-based ceiling upon ratings of the future by people well up in years. Another general criticism of the time perspective measures which may account for the failure to obtain significant correlations is the relatively ambiguous nature of the directions for rating one's

time perspective. Because it is a self-report device, respondents may be defining progress or hopefulness in very idiosyncratic ways, although using a similar scale. The self-actualization measures, on the other hand, are based upon forced-choice items defined by relatively concrete behaviors.

Predictors of self-actualization. The best predictors of POI Total and Inner Support scores were (a) state anxiety, (b) occupation of one's spouse, and (c) sex of the respondent. In accounting for over 29% of the variance in these measures of self-actualization, level of state anxiety (assessed by means of a very brief adjective checklist) easily surpassed factors cited in Lawton & Cohen's (1974) study of the best predictors of well-being among their housing residents. Low levels of state anxiety were highly predictive of high levels of self-actualization.

Although only 9 of the 63 respondents who participated in both the initial and follow-up studies reported that their spouses had worked at a professional job, knowledge of this crude index of socioeconomic status was helpful in predicting level of self-actualization. Those individuals with professional people for marriage partners were more likely to be living a more independent life in terms of following their own principles and motives. It may be suggested that these people were experienced in exercising such capacities and probably were better educated than most people of their generation. Education was found to correlate significantly with many aspects of adjustment.

The third significantly predictive variable was the sex of the respondent. Earlier, Rosow (1967) had found that females tended to

adjust much better within age-segregated housing than did males. Adjustment in Rosow's study referred to the establishment of social contacts, i.e., the number of friends. The predominance of female residents in age-segregated housing, including the sites chosen for this study, undoubtedly facilitates social interaction among females. The findings of Rosow do not answer the question of whether increased social interaction leads to greater independence or dependence among the aged. The present study, however, found that females tended to be better adjusted in terms of degree of self-motivation as assessed by the Inner Support scale. In accordance with adaptation theory, the males may be more likely to feel unsure of themselves in a female dominated atmosphere and consequently be more open to peer pressure.

It should be noted that at Time 1 of the longitudinal study, the three most highly predictive variables for POI Total and Inner Support were (a) current level of intellectual functioning, (b) sex of the respondent, and (c) current affective state. Obviously, the predictive utility of knowledge of the sex of the individual was shown each time, while the other variables varied. There does not seem to be an easy explanation for the fluctuations in the utility of predictor variables. Because of the very strong contribution of the state anxiety measure at Time 2, however, some comment is in order.

Since the state anxiety measure is a very brief, self-report instrument, adequate rapport with the interviewer is essential to obtain an accurate account of the person's current feelings. At Time 2, the general impression of this investigator was that the respondents showed a much broader range of emotionality and were much less defensive than

at Time 1. The high predictive utility of state anxiety scores at Time 2 may indicate that the elderly are attuned to their current level of adjustment and in a more familiar setting are apt to acknowledge their true feelings.

Level of state anxiety also was found to be highly predictive with respect to Time Competence. Highly anxious people scored lower on Time Competence. Both measures seem to reflect a good degree of uncertainty about one's present state. The other significant predictors were a rating of the individual's best time of his life on the scale used for the time perspective measures and the degree of favorability toward age-segregated housing obtained at Time 1.

People who rated the best time of their life at a more conservative level were more likely to have high scores on Time Competence. Such restraint in evaluating the best time of life may indicate a person who more easily accepts the good with the bad. A good time for these people did not translate into a problem-free period. This attitude seems to go along with the capacity to leave past mistakes or failures behind one's self and not become overly concerned with potential problems.

Degree of favorableness toward age-segregated housing, as reported at Time 1, was positively and significantly associated with Time Competence at Time 2, but not at Time 1. The question that arises is why were earlier ratings of favorableness toward age-segregated housing more predictive of Time Competence 10 months later than more current ratings of the former measure. Each group was noted to have become much more favorable in their attitudes by Time 2. In view of the fact that the groups were initially highly favorable, it may be suggested

that overly acceptant attitudes may not be signs of good adjustment. There may be a strong element of heightened dependency accounting for an uncritical look at the disadvantages of age-segregated housing. People who are most likely to adapt well to public housing are probably those who show a degree of favorableness toward such an arrangement, but who acknowledge the potential problems.

Multiple-regression analysis of the Time Competence scores at Time 1 showed that group membership (waiting-list versus newcomer and oldtimer), current level of intellectual functioning, and prior living arrangement were most highly predictive. The most important difference in the results of the analysis conducted at Time 2 was the absence of group membership as a significant predictor. This makes sense in that all the respondents were now more similar via increased familiarity with public housing. And as noted earlier, all three groups at Time 2 scored relatively similar on Time Competence. This change was predicted by Hypothesis 2.

Within the multiple-regression analyses conducted with data from Time 1 and Time 2, present activity measures varied in their predictive utility. The lower contributions of present activity as compared with other variables suggests a much more inclusive effect upon adjustment stemming from the general atmosphere and sense of security provided by public housing.

Recommended Policy Changes in Public Housing Programs

The respondents in this study indicated the elderly engage in a wide variety of activities. These included such diverse activities as

playing tennis, learning new languages, leading senior citizen political action groups, and even one person, age 70, who enjoyed riding his unicycle every day. Unfortunately, a few housing programs offered only the standard activities such as bingo and card playing, with few additional opportunities for the individual who needs more stimulating activities.

The results of this study showed that maintaining as high a level of activity as is physically possible is psychologically beneficial. Individual-oriented activities seem to take on greater importance in this regard with increasing age. It is suggested that educational or instructional programs which teach the skills necessary for various hobbies or introduces new avocations be emphasized. Also, the probability of increased familiarity and complacency toward even the most interesting group-oriented activities suggests the need for more rapid change in the type and content of group activities. To stimulate further independence and interest among the residents, planning and leading of such activities may be handled by the residents themselves.

Another problem which receives little attention in public housing is that of the male who enters a female-dominated building. There is virtually no way of changing the female numerical domination because of the longer life expectancy for women, but attention can be paid so that the activities are not solely slanted toward more female interests.

Recommendations for Future Research

Several suggestions for further research stimulated by this study are presented in the following paragraphs. These include recommended

improvements upon this study and future areas of interest.

One of the most difficult aspects of any study of the elderly is to obtain a random sample of respondents. With additional cooperation from public housing programs, the random selection of residents might be attainable. In lieu of this goal, it may be possible to obtain unobtrusive measures on both volunteers and nonvolunteers to determine significant differences between the two groups. Such unobtrusive measures as death rates, number of housing activities participated in, number of visitors, etc. may be employed to assess how select a group is being studied and what limitations must be placed upon the generalizations from a given sample.

Self-report ratings of activities and adjustment may be supplemented with ratings by others (including housing staff or friends). Also, in order to examine more specifically the impact of public housing, activities engaged in could be divided into two types, over and above the individual and interpersonal ratings obtained in this study. Rating of activities could be obtained for those offered within the public housing program and those activities engaged in outside the program. It may well be that the well-adjusted elderly person needs to maintain contact with the surrounding community in order to achieve a well-balanced and stimulating social life.

Additional factors other than activity level may be investigated. Several of these might be the number of friends within public housing, the degree of integration of the housing site within the surrounding community, degree of participation by residents in the planning of social and activity programs, and any number of more basic housing

factors, such as, number of residents, access to transportation, similarity to previous residences, etc.

A final recommendation is for continued longitudinal studies of the impact of housing upon personal-adjustment variables. Results of cross-sectional studies may too easily be taken to support outdated theories of aging. This is especially true as the elderly begin to challenge the cultural stereotypes once firmly held about the aged. This study has shown that significant positive changes in personal adjustive characteristics can occur within a relatively short time, even among an elderly sample.

SUMMARY

This study investigated the longitudinal impact of age-segregated public housing upon the psychological functioning of the aged. Five similar public housing sites were sampled to obtain groups differing as to length of residence in relation to public housing. The three groups compared initially were waiting-list members ($N = 22$) who had just signed their leases, newcomer residents ($N = 24$) who had lived in public housing between 4 and 13 months; and oldtime residents ($N = 30$) who had lived in public housing over three years. All were volunteers. Respondents were reinterviewed 10 months later when waiting-list members were then relative newcomers and the newcomers and oldtimers had become more familiar with public housing.

It was assumed that housing specifically designed to meet the physical and social needs of the elderly would afford its residents (newcomers and oldtimers) a relatively more stimulating environment than their community counterparts (waiting-list members). Thus, 10 months after an initial examination of group differences in activity ratings and adjustment scores, waiting-list members who were now residents of public housing for almost a year were expected to show significant increases in activity and adjustment. The general hypothesis, based upon a disuse theory of psychological functioning, was that greater stimulation via increased activity and involvement would be reflected in more adaptive psychological functioning, as well as in greater satisfaction.

The major measures of personal adjustment employed were the Personal Orientation Inventory, a measure of self-actualization, and retrotension and protension, both measures of personal time perspective. These measures were selected to determine whether public housing affected changes in more comprehensive and theoretically important personal adjustment variables than assessed in previous studies which have emphasized measures of satisfaction.

Results indicated that the waiting-list members did not become significantly more active or change their perceptions of activity loss over the last decade 10 months after admission into public housing. Reasons discussed for this lack of activity increase focused on data which indicated that the waiting-list members were not coming from environments as relatively deprived as originally presumed. Oldtimers at time of follow-up reported significantly greater losses in activity than reported 10 months earlier. It was shown that the major decline occurred within the number of interpersonal activities in contrast with individual-oriented activities. The significant negative change, when compared with the still high present level of activity maintained by the oldtimers, was taken as a sign of increasing boredom with or complacency toward the activities offered within public housing and the surrounding community.

Of the two major facets of self-actualization measured by the Personal Orientation Inventory, residency in public housing seemed to affect changes in Time Competence more than Inner Support. Waiting-list members became significantly more time competent during the first 10 months of residency, while the newcomers and oldtimers maintained their

previous high levels of time competence. Within the first year of rehousing, it was suggested that personal security is enhanced while interpersonal competence may lag behind.

The Time Competence scale measures the tendency to become pre-occupied with past failures and future problems, both of which may become less intrusive as the individual begins to feel secure within low-rent, public housing. The capacity to live according to one's own set of values and motives, as assessed by the Inner Support scale, however, may be a more enduring personality characteristic. Similar patterns of relating may continue even within changed housing and activity opportunities.

The waiting-list group also reported significantly greater feelings of progress (present better than past) at time of follow-up as assessed by Bortner and Hultsch's (1972) retrotension measure. No other group reported significant changes on this measure; thus, it was suggested that positive changes in one's living conditions contribute a large amount to how successful one feels in relation to achieving a better life status. The lack of significant changes for any group on protension, a measure of hopefulness about the future, was discussed in terms of the possibility of a measurement artifact within the scale and the utility of such a measure for the elderly.

In general, activity level was highly related to better adjustment, especially to the tendency to live according to one's own motives and principles. Among the aged sample studied, it was further noted that adjustment was related to the capacity to engage in individual activities, more so than interpersonal activities.

The results of this longitudinal study indicated that public housing may have significant effects upon more comprehensive and theoretically-sound measures of personal adjustment in addition to general satisfaction or affect. Further, the effects are not entirely attributable to the increased opportunities for activity and thus suggest the importance of additional factors, such as lower rent or closer proximity to age peers, which enhance personal security. It was encouraging to note further that newcomer and oldtime residents of public housing maintained relatively high activity and adjustment levels over the 10 months. Recommendations for future research and public housing program changes were discussed with respect to the need for further longitudinal studies of personal-adjustment variables and more diverse activity opportunities.

Reference Notes

1. Jackson, J. J. Social impacts of housing relocation upon urban, low-income black aged. Paper presented at the Annual Meeting of the Gerontological Society, Toronto, Ontario, October, 1970.

REFERENCES

- Aldrich, C. K., & Mendkoff, E. Relocation of the aged and disabled: A mortality study. Journal of the American Geriatric Society, 1963, 16, 127-135.
- Bloxom, B. Review in O. K. Buros (Ed.), The Seventh Mental Measurements Yearbook. Highland Park, N. J.: Gryphon Press, 1971.
- Bortner, R., & Hultsch, D. Personal time perspective in adulthood. Developmental Psychology, 1972, 2, 98-103.
- Brand, F. N., & Smith, R. T. Life adjustment and relocation of the elderly. Journal of Gerontology, 1974, 29, 336-340.
- Braun, J., & LaFaro, D. A further study of the fakability of the Personal Orientation Inventory. Journal of Clinical Psychology, 1969, 25, 296-299.
- Busse, E. W. Theories of aging. In E. W. Busse & E. Pfeiffer (Eds.), Behavior and adaptation in late life (2nd ed.). Boston: Little, Brown, and Company, 1977.
- Carp, F. M. Effects of improved housing on the lives of older people. In B. Neugarten (Ed.), Middle age and aging: A reader in social psychology. Chicago: University of Chicago Press, 1968.
- Carp, F. M. Long-range satisfaction with housing. Gerontologist, 1975, 15, 68-72.
- Carp, F. M., Zawadski, R. T., & Shokrkon, H. Dimensions of urban environmental quality. Environment & Behavior, 1976, 8, 239-264.

- de Vries, H. A. Report on jogging and exercise for older adults. Washington, D. C.: U. S. Administration on Aging, Department of Health, Education, and Welfare, 1968.
- Ellis, A. Rational psychotherapy. Journal of General Psychology, 1958, 59, 35-49.
- Ellis, A. Reason and emotion in psychotherapy. New York: Lyle Stuart, 1962.
- Fisher, G. Performance of psychopathic felons on a measure of self-actualization. Educational and Psychological Measurement, 1968, 28, 561-563.
- Fox, J., Knapp, R., & Michael, W. Assessment of self-actualization of psychiatric patients: Validity of the Personal Orientation Inventory. Educational and Psychological Measurement, 1968, 28, 565-569.
- Fried, M. Grieving for a lost home. In L. J. Duhl (Ed.), The urban conditions. New York: Basic Books, 1963.
- Guinan, J. F., & Foulds, M. L. Marathon group: Facilitator of personal growth? Journal of Counseling Psychology, 1970, 17, 145-149.
- Hamovitch, M. B. Social and psychological factors in adjustment in a retirement village. In F. M. Carp (Ed.), The retirement process. Washington: U. S. Government Printing Office, 1968.
- Havighurst, R., Neugarten, B., & Tobin, S. Disengagement and patterns of aging. In B. Neugarten (Ed.), Middle age and aging: A reader in social psychology. Chicago: University of Chicago Press, 1968.

- Jeffers, F., & Nichols, C. The relationship of activities and attitudes to physical well-being in older people. Journal of Gerontology, 1961, 16, 67-70.
- Kasal, S. V. Physical and mental health effects of involuntary relocation and institutionalization on the elderly: A review. American Journal of Public Health, 1972, 62, 377-384.
- Klavetter, R., & Mogar, R. Stability and internal consistency of a measure of self-actualization. Psychological Reports, 1967, 21, 422-424.
- Knapp, R. R. Relationship of a measure of self-actualization to neuroticism and extraversion. Journal of Consulting Psychology, 1965, 29, 168-172.
- Knapp, R. R. Handbook for the Personal Orientation Inventory. San Diego: Educational and Industrial Testing Service, 1975.
- Kral, V. A., Grad, B., & Berenson, J. Stress reactions resulting from the relocation of an aged population. Canadian Psychiatric Association Journal, 1968, 13, 201-209.
- Lawton, M. P. Supportive services in the context of the housing environment. Gerontologist, 1969, 9, 15-19.
- Lawton, M. P., & Cohen, J. The generality of housing impact on the well-being of older people. Journal of Gerontology, 1974, 29, 194-204.
- Lawton, M. P., & Nahemow, L. Ecology and the aging process. In C. Eisendorfer & M. P. Lawton (Eds.), The psychology of adult development and aging. Washington: American Psychological Association, 1973.
- Lawton, M. P., & Rajic, R. Housing. Gerontologist, 1972, 12, 3-10.

- Levine, N. Validation of the Quick Test for intelligence screening of the elderly. Psychological Reports, 1971, 29, 167-172.
- Lieberman, M. A. Relationship of mortality rates to entrance to a home for the aged. Geriatrics, 1961, 16, 515-519.
- Lipman, A., & Smith, K. Functionality of disengagement in old age. Journal of Gerontology, 1968, 23, 517-521.
- Maddox, G. L. Activity and morale: A longitudinal study of selected elderly subjects. Social Forces, 1963, 42, 195-204.
- Maddox, G. L. Persistence of life style among the elderly: A longitudinal study of patterns of social activity in relation to life satisfaction. In B. Neugarten (Ed.), Middle age and aging: A reader in social psychology. Chicago: University of Chicago Press, 1968.
- Maslow, A. Toward a psychology of being (2nd ed.). New York: Van Nostrand Reinhold, 1968.
- McClain, E. Further validation of the Personal Orientation Inventory: Assessment of self-actualization of school counselors. Journal of Consulting and Clinical Psychology, 1970, 35, 21-22.
- McRae, J. Housing for the elderly in Northern Europe. In C. C. Osterbind (Ed.), Social goals, social programs, and the aging. Southern Conference on Gerontology (24th). Gainesville: University Presses of Florida, 1975.
- Murphy, D. Sex role identity in the aged. Unpublished doctoral dissertation, Loyola University, Chicago, 1977.
- Palmore, E. The effects of aging on activities and attitudes. Gerontologist, 1968, 8, 259-272.

- Palmore, E., & Maddox, G. L. Sociological aspects of aging. In E. W. Busse & E. Pfeiffer (Eds.), Behavior and adaptation in late life (2nd ed.). Boston: Little, Brown and Company, 1977.
- Phillips, B. Role change, subjective age, and adjustment: A correlational analysis. Journal of Gerontology, 1961, 16, 347-352.
- Rak, G. R. Impact of age-segregated public housing upon self-actualization and other personal-adjustment variables among the aged. Unpublished master's thesis, Loyola University, Chicago, 1977.
- Riesman, D., Glazer, N., & Denney, R. The lonely crowd. New York: Doubleday, 1950.
- Rosow, I. Social integration of the aged. New York: Free Press of Glencoe, 1967.
- Seeman, W., Nidich, S., & Banta, T. Influence of transcendental meditation on a measure of self-actualization. Journal of Counseling Psychology, 1972, 19, 184-187.
- Shanas, E. Living arrangements and housing of old people. In E. W. Busse & E. Pfeiffer (Eds.), Behavior and adaptation in late life (2nd ed.). Boston: Little, Brown and Company, 1977.
- Sherman, S. R. Patterns of contacts for residents of age-segregated and age-integrated housing. Journal of Gerontology, 1975, 30, 103-107.
- Shostrom, E. L. An inventory for the measurement of self-actualization. Educational and Psychological Measurement, 1964, 24, 207-218.
- Shostrom, E. L. Manual for the Personal Orientation Inventory. San Diego: Educational and Industrial Testing Service, 1966.

Weinstock, C., & Bennett, R. From "waiting on the list" to becoming a "newcomer" and an "oldtimer" in a home for the aged: Two studies of socialization and its impact upon cognitive functioning. Aging and Human Development, 1971, 2, 46-58.

Zuckerman, M. The development of an affect adjective check list for the measurement of anxiety. Journal of Consulting Psychology, 1960, 24, 457-462.

APPENDIX A

Explanatory Letter to Housing Residents

Dear Resident,

I am a student working toward my Doctor's Degree in Clinical Psychology at Loyola University. I am interested in surveying the feelings and attitudes of senior adults toward several topics such as housing, different activities available to people over the age of 55, and how satisfied people are with their present living arrangements.

I have obtained permission to ask for volunteers at several of the (Name of the public housing program) buildings. The survey requires an interview of one to two hours in length now and another shorter interview ten months later. As an incentive to participate, a raffle will be held after the first round of interviews. There will be several \$10 gift certificates for nearby grocery stores awarded to those volunteers whose names are chosen in the raffle drawing. The chances of winning will be approximately one in 15, so the chances of winning are very good.

I have already received the names of several volunteers during a recent visit to your building, but I do need more. If you wish to volunteer, please fill out the information below and return this sheet to the center's office as soon as possible. If you have any questions regarding this survey or your part in it, please do not hesitate to call me at _____.

Thank you,

Gerald R. Rak

Name _____ Age _____

Telephone Number _____ Room Number _____

How long have you been living at your current residence? _____

What days and times would be convenient for you to be interviewed?

Demographic Data Sheet

1. Name _____
2. Birthdate _____ 3. Sex _____
4. Education _____ years completed.
5. Marital Status: Single Married Divorced Widowed (circle one):

6. Occupation _____
7. Spouse's Occupation _____
8. Living Arrangement before entering public housing:
 - a) With Spouse _____
 - b) With Family _____
 - c) With Friend _____
 - d) Alone _____
 - e) Other _____
9. Religion _____
10. Reasons for moving into public housing: _____

11. Prior living accommodations:
 - a) Rent _____ per month
 - b) Number of rooms _____
 - c) Adequacy in comparison with public housing _____
12. Present rent in public housing _____ per month

Leisure Time Activities

	Activity	Past			Present		
		Rarely/ Never	Regularly	Very Often	Rarely/ Never	Regularly	Very Often
Ip ^a	1. Bridge						
Ip	2. Card Games						
Ip	3. Backgammon						
Ip	4. Other Games						
Ip	5. Shuffleboard						
Ip	6. Bowling						
In ^b	7. Swimming						
Ip	8. Tennis						
Ip	9. Golf						
Ip	10. Baseball						
Ip	11. Basketball						
Ip	12. Football						
Ip	13. Volleyball						
In	14. Fishing						
Ip	15. Boating						
In	16. Skating						
In	17. Skiing						
Ip	Attend Sport 18. Activities						
In	19. Gardening						

Leisure Time Activities

	Activity	Past			Present		
		Rarely/ Never	Regularly	Very Often	Rarely/ Never	Regularly	Very Often
In	Carpentry/ 20. Gardening						
In	21. Cooking						
In	22. Reading						
In	23. Knitting						
In	24. Crocheting						
In	25. Sewing						
In	26. Crafts						
In	27. Ceramics						
In	28. Painting						
In	29. Macrame						
Ip	30. Movies						
Ip	31. Plays						
Ip	32. Night Clubs						
Ip	33. Dancing						
Ip	34. Opera						
Ip	35. Television						
Ip	36. Travel						
Ip	Education 37. Classes						
Ip	Discussion 38. Groups						

Leisure Time Activities

	Activity	Past			Present		
		Rarely/ Never	Regularly	Very Often	Rarely/ Never	Regularly	Very Often
Ip	39. Fraternal Organizations						
Ip	40. Social Organizations						
Ip	41. Community Organizations						
Ip	42. Church Clubs						
In	43. Physical Fitness						
In	44. Interior Decorating						
In or Ip	45. Other						

^aAny activity marked in this manner was considered to have an interpersonal orientation and was scored as such.

^bAny activity marked in this manner was considered to have an individual orientation and was scored as such.

Affective State Measure

1. I spent the last week thinking or talking more about the past than about the present. (D)
2. I feel as if I learned something new this week. (A)
3. The days are too short for all I want to do. (A) (Carp, 1975)
4. I often find myself feeling depressed even though I am with a group of people. (D)
5. It bothers me to be alone. (D)
6. I am looking forward to this weekend. (A)
7. When I woke up this morning I was eager to begin the day. (A)
8. A younger person could learn something from talking with me. (D)
9. Most people I talked with this week bored me. (D)

Note. Scoring is in the direction of positive affect. (A) and (D) indicate the direction of the high score; A = Agree and D = Disagree.

Attitudes Toward Age-Segregated Housing

1. Older people have more in common with each other than they do with other age groups. (A)
2. When older people are living grouped together, they spend too much time thinking about the problems of aging. (D)
3. When older people are grouped together they tend to live in the past too much. (D)
4. When older people are grouped together you see a lot of sickness. (D)
5. These days I'm just as happy without other people's children around all the time. (A)
6. Having younger people around here would make it more fun. (D)
7. I'd rather live where there are people of all different ages. (D)
8. I like living in a place where there are no younger people. (A)
9. Younger people are too noisy. (A)
10. Even when younger people are living nearby, they tend to be pre-occupied with their own interests. (A)

Note. Scoring is in the direction of favoring segregated housing. The scale is taken from a study by Sherman (1975). (A) and (D) indicate the direction of the high score; A = Agree and D = Disagree.

APPENDIX B

I.

Percentage of Variance in the Total Scores of the
Personal Orientation Inventory Accounted for by
Background Variables, Adjustment Measures,
and Activity Ratings: Time 1

Independent Variable	Multiple <u>R</u>	<u>R</u> ²	ΔR^2	Simple <u>R</u>
Quick IQ ^a	.507	.257	.257	.507
Sex (Male = 1; Female = 2)	.605	.366	.111	.439
Affective State	.654	.428	.062	.399

Note. Above data are based upon N of 76. Only those variables which obtained significant F values in the test of their individual regression coefficients are presented in the table.

^aOne missing case due to temporary problem with eyesight.

II.

Percentage of Variance in Inner Support Accounted for
by Background Variables, Adjustment Measures,
and Activity Ratings: Time 1

Independent Variable	Multiple \underline{R}	\underline{R}^2	$\Delta \underline{R}^2$	Simple \underline{R}
Quick IQ	.480	.231	.231	.480
Sex (Male = 1; Female = 2)	.576	.331	.100	.420
Affective State	.624	.389	.058	.382
Past Activity Intensity	.670	.448	.059	-.036
Length of Residence	.702	.493	.046	-.172

Note. This table is based upon data employed in the preceding table and follows the same rules for exclusion of variables from the summary of regression data.

III.

Percentage of Variance in Time Competence Accounted
for by Background Variables, Adjustment Measures,
and Activity Ratings: Time 1

Independent Variable	Multiple \underline{R}	\underline{R}^2	$\Delta \underline{R}^2$	Simple \underline{R}
Group (Waiting-List = 1; New- comer and Oldtimer = 2)	.386	.149	.149	.386
Quick IQ	.495	.245	.096	.342
Prior Living Arrangement (Alone = 1; Other = 2)	.549	.301	.056	-.190

Note. This table is based upon data employed in the two preceding tables and follows the same rules for exclusion of variables from the summary of regression data.

IV.

Correlation Coefficients Between Age, Education,
Intelligence, and Measures of Adjustment
and Present Activity: Time 1

Adjustment Measures	Subject Variables		
	Age	Education	Quick Test IQ ^a
Affective State	-.11	.23*	.37***
Anxiety-Adjective Checklist	-.08	.01	-.04
Personal Orientation Inventory Total	.03	.21*	.51***
Inner Support	-.01	.14	.48***
Time Competence	.14	.32**	.34***
Retrotension	.07	.03	-.06
Protension	-.11	.13	-.03
Present Activity Ratings			
Number	-.04	.20*	.41***
Intensity	.07	.11	.31**

^a All correlation coefficients are based upon data from 76 cases, except the correlations involving Quick Test IQ where N = 75 because of one missing case.

*p .05
 **p .005
 ***p .001

APPROVAL SHEET

The dissertation submitted by Gerald Raymond Rak has been read and approved by the following Committee:

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The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

August 23, 1977
Date

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