

REMINISCING, TIME ORIENTATION, AND
SELF-CONCEPT IN AGED MEN

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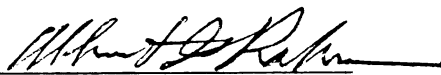
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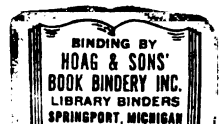
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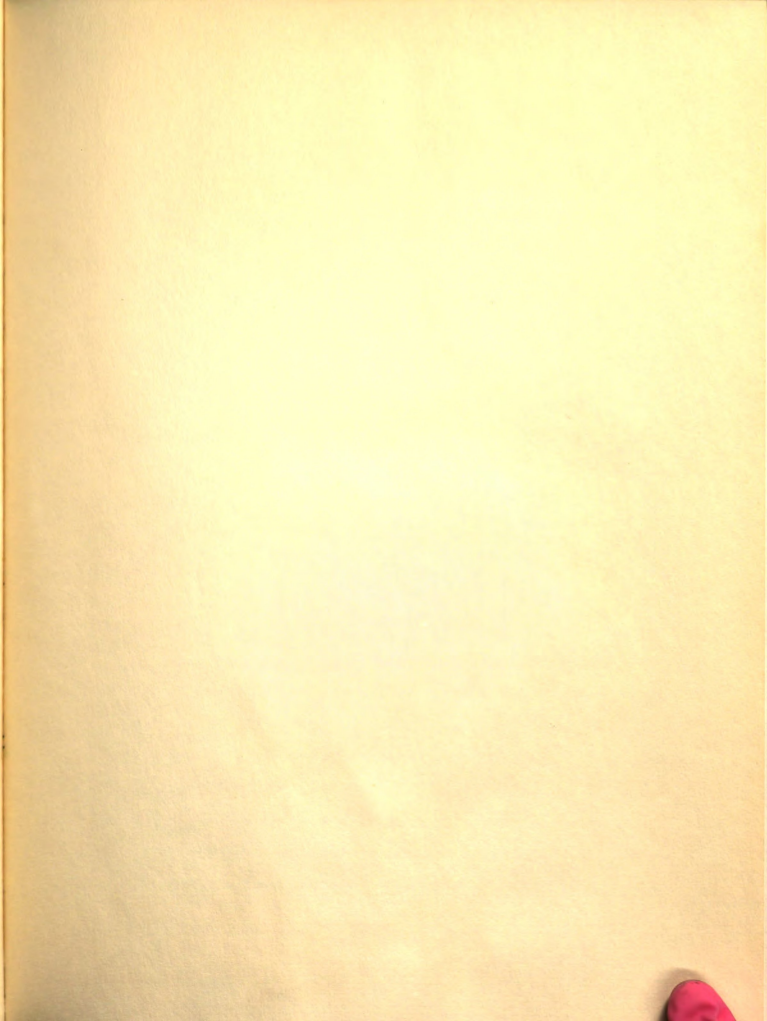
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REMINISCENCE, TIME ORIENTATION, AND
SELF-CONCEPT IN AGED MEN

William J. Westman

Investigators who have studied the aged have emphasized the need for more research on mental adaptation in old age. The few extant studies of reminiscing suggest that this common behavior serves as a coping function in contrast to prevailing opinion that it is wasteful and/or maladaptive. However, this suggestion is inconsistent with the popular view in time orientation literature that orientation to the past, assumed to characterize the aged, is maladaptive.

The present study explored the interrelationships between reminiscing quantity, type of reminiscing, time orientation, and self-concept in aged males. Age and type of residence (community vs. nursing home) were also studied in relation to the major variables of the study. No specific hypotheses were formulated due to conflicting findings on some of the variables and lack of relation to the others.

The sample consisted of 60 aged men, all of whom had at least average intelligence. One-half were well-adjusted

community volunteers (CV), and one-half were nursing home (NH) residents. Both subsamples were divided equally into three age groups, i.e., *ABSTRACT

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By
Leonard J. Postema

Total F score on the Tennessee Self-Concept Scale (TSCS).

Reminiscing was elicited by use of a standard set of general questions focusing each subject on his past. The need for more research on normal adaptation in old age. The few extant studies of reminiscing suggest that this common behavior serves an adaptive function in contrast to prevailing opinion that it is irrelevant and/or maladaptive. However, this suggestion is inconsistent with the popular view in time orientation literature that orientation to the past, assumed to characterize the aged, is maladaptive.

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The sample consisted of 60 aged male volunteers of at least average intelligence. One-half were self-sufficient

(b) self-concept levels varied significantly with age and residence

community volunteers (CV), and one-half were nursing home (NH) residents. Both subsamples were divided equally into three age groups, i.e., sixties (60's), seventies (70's), and age eighty or over (80+).

The data were obtained in individual interviews, usually at each S's residence. Self-concept was assessed by the Total P score on the Tennessee Self-Concept Scale (TSCS). Reminiscing was elicited by use of a standard set of general questions focusing each S's attention on his past. The measure of reminiscing quantity was the number of statements referring to the past. Two judges classified the Ss into four reminiscence types, viz., Conflict, Avoidant, Defensive, and Well Adjusted reminiscers based on clinical criteria and descriptions in past studies. Time orientation data were obtained (a) by direct questions about current relative time direction usage, and (b) by the percentage of Thematic Apperception Test (TAT) story responses referring to past, present, and future for three TAT cards.

Neither time orientation measure proved adequate. Social desirability, response inconsistency, and confusion affected direct question responses while stimulus pull resulted in an artifactual preponderance of "Present" responses to the TAT.

Results indicated that (a) reminiscence quantity is not significantly related to any other variable in the study, (b) self-concept levels varied significantly with reminiscence

types from lowest to highest as follows: Conflict, Avoidant, Defensive, Well Adjusted, and (c) the present sample had a significantly higher mean self-concept level than the TSCS norm group. *Personality Integration.*

Community Ss especially in the 80+ and 60's age ranges (a) had a higher self-concept level, (b) tended to reminisce more, (c) produced more TAT responses, and (d) tended to have a more "balanced" (evenly distributed) time direction usage than did nursing home residents. Increasing age was significantly associated with decreased TAT productivity though not with reminiscence quantity or type. Reminiscence Avoiders tended to be bound to the present.

It was concluded that optimal adaptation to the problems of old age (Erikson's Ego Integrity?) is associated with greater openness (e.g., TAT productivity) and the capacity to flexibly use all three time directions (balance), while the poorest prognosis for adjustment (Despair?) is associated with the primitive defense of avoiding past conflicts and a rigid adherence to present concerns.

Integrating the present results with past research and theory, it was suggested that (a) reminiscing can serve as a valuable entre to effective therapeutic intervention where appropriate, (b) reminiscence type appears to be an important diagnostic and prognostic indicator for geriatric therapy, (c) reminiscing content can serve to pinpoint unresolved

Leonard J. Postema

conflicts, and finally (d) that reminiscing, heretofore generally overlooked, is an important naturally-occurring behavior in the aged that may possess creative potential for enhancing personality integration.

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By

Leonard J. Postema

To my wife Dorothy
and our children
Jim, Debbie, and Becky

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The author wishes to express his great appreciation and warm regards to Dr. Albert J. Rabin, Chairman of the doctoral committee, not only for his invaluable assistance throughout the planning and execution of this study but also as a teacher and one whose continuing trust helped sustain me through some rough periods of my graduate student career.

To my wife Dorothy

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I also wish to thank Mrs. Berna Harter, director of the Battle Creek Senior Recreation Center, and its staff plus the personnel of the many Battle Creek area nursing homes

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INTRODUCTION

In recent years, students of the aging personality have begun to probe for the determinants of personality change and adaptation in later life. Empirical and descriptive studies in gerontology have given rise to theory building and to studies of the developmental nature of old age in the whole scheme of life. Some developmental crises and goals of later maturity have been identified. Currently more emphasis is on individual coping patterns in these crises in order to determine how the developmental goals of senescence are achieved. Recent studies of well adjusted normal aged subjects indicate that a reappraisal of some common behaviors, previously thought to be symptomatic of deterioration or maladaptation is in order. These behaviors may actually aid adaptation. The present research is an exploratory study into the relationship of one such common behavior, viz., reminiscing, to time orientation and to self-concept in aged males.

REVIEW OF THE LITERATURE

Senescence and Ego Development

Most students of aging no longer consider senescence to be merely a period of deterioration and decline but a distinct phase of human development (e.g., Clark, 1967; Kastenbaum, 1964b; Neugarten, et al., 1964; Peck, 1956; Rabin, 1945; Sarnoff, 1962). This developmental view has arisen despite most personality theorists' almost complete disregard of old age in the formulation of their theories (Riegel, 1959). Since development implies growth and unfolding or maturation of the organism, how can old age with its obvious decline be considered developmental?

Erik Erikson (1963), in his brilliant extension and elaboration of psychoanalytic theory, has pointed the way. Outlining in broad strokes his eight epigenetic stages of man, Erikson makes clear that the essence of human development is ego development. The final goal of man then, according to Erikson, is an ego state transcending mere narcissistic gratification; one which dynamically encompasses and integrates the strivings both of self and mankind in the face of physical decline and death (cf. definitions of personal adjustment in Havighurst, 1956).

While this notion fits well with what is commonly considered the "wisdom of the ages", there is much research literature to establish the fact that most aged people apparently do not attain such a state. On the other hand many investigators, e.g., Butler (1967b) as well as one's common experience, can easily point to many people who have, to a large extent, attained this ego state and even contributed significantly to society in their senescence. The arrested development of some is inadequate evidence to deny that senescence is a developmental stage.

The Concept of Coping and Developmental Crises of Later Life

What are the factors that promote development toward ego integrity in the aged and what can be done to enhance the probability of attainment of the state in any given aged individual? Ego psychologists such as Hartmann and Erikson, and others such as White and Maslow have emphasized the positive, adaptive functions of behaviors previously considered primarily defensive in nature. Almost all behaviors can be viewed as attempts to deal with potentially threatening stimuli or problem situations arising in one's life. Of course, not all behaviors are equally effective or adaptive. The range of human conditions from extreme maladaptation to eminently creative lives is ample evidence of this. The problem then becomes one of determining what behaviors or what aspects of behaviors are useful in promoting successful coping and which are not.

This paper presupposes that the period of life commonly called "old age" or senescence contains certain developmental crises inherent in it, which while not exclusive to this period, are uniquely and predominantly associated with it. Overshadowing all others is the imminence of death. Death, of course, is a crisis with which no living person has had any experience and which must remain insoluble. However, Erikson sees the problem as, the expectation of death with the two alternative approaches being "Ego Integrity vs. Despair."¹ The former produces a creative acceptance of one's existential situation while the latter is basically a fear of death and an ultimate frustration with one's whole life. Kastenbaum (1964a) refers to this dilemma as "the crisis of explanation (p. 316)." More specifically, however, some problems important in senescence are maintenance of self-esteem in the face of declining physical and intellectual capacities; coping with grief and depression resulting from personal losses; finding means to contribute significantly to a society

¹Peck (1956) suggests a further elaboration of these stages for the second half of life. He would divide Erikson's eighth stage into "Middle Age" and "Old Age" with four "sub aspects" of the former and three of the latter.

- Middle Age
- (a) Valuing wisdom vs. valuing physical powers.
 - (b) Socializing vs. sexualizing in human relationships.
 - (c) Cathetic (emotional) flexibility vs. cathetic impoverishment.
 - (d) Mental flexibility vs. mental rigidity.
- Old Age
- (a) Ego differentiation vs. work-role preoccupation.
 - (b) Body transcendence vs. body preoccupation.
 - (c) Ego transcendence vs. ego preoccupation.

Peck and Berkowitz (1964) report some empirical data based somewhat on this conceptual scheme (see p. 11 below).

of which older persons are still members; and retaining some sense of identity in an increasingly estranged older environment (McMahon & Rhudick, 1967, p. 66).

Others have emphasized the fear of isolation and loneliness and the fear of dependency in old age (e.g., Clark, 1968).

How can the aging individual cope with these problems?

Theoretical Analyses and Approaches
to Aged Personality Change

While most theorists and therapists have traditionally 'written off' the aged as incapable of change or not worth the effort, the increase in the proportion of aged in our population has forced society to take a new look at the aged and to make attempts at ameliorating their problems.

In an early review of psychoanalytic thinking regarding old age Kaufman (1940) recounts Freud's well-known impression that the aged were unworkable and then, the first tentative attempts by Karl Abraham, Jelliffe, Helene Deutsch, and a few others to use psychoanalysis with older patients. These attempts did establish that the aged were not as unworkable as believed, and resulted in initial hypotheses to explain the dynamics operating in the aged. These explanations, based as they were on limited experience and focused on pathology, seemed to be coalescing into the somewhat naive view that old age was merely development in reverse (Klopfer, 1965, p. 832). They failed to see the continuing ego development in normal and superior aged adults.

offer Carl Jung's practice included a large proportion of older patients, and he made pioneering attempts at analyzing and attempting to deal therapeutically with the psychological problems of later maturity. Jung (1934) believed that the psychology of youth differed basically from that of old age. In youth one was forced to develop the will in order to achieve. This produced a lopsided development of the conscious achieving part of the personality which he termed "ego", and a consequent underdevelopment of the "unconscious." Using dreams diagnostically, not only as indications of past traumas but also as harbingers of the future and the genus of creative thought, Jung encouraged his patients to express their unconscious fantasies by means of painting. This presumably functioned to restore a balance to the personality and by the process of "individuation" to arrive at "self", a sort of adaptive middle ground between ego and unconscious.

Erik Erikson's classic Childhood and Society (1963), first published in 1950, among other things served as a sort of theoretical global map of the entire life cycle. As such it served to open up and legitimize studies of ego development in adulthood and old age (Neugarten, 1964). Step by step each developmental crisis had to be successfully resolved in order to ensure final attainment of ego integrity. However, though penetrating in analysis and comprehensive in scope, Erikson was primarily concerned with childhood and a good first step methodologically.

offered no new suggestions to enhance the probability of a person's attaining ego integrity in senescence.²

Others have theorized about the nature of senescence in the life cycle, and an increasing number have attempted to deal therapeutically with psychopathology of the senium. These approaches span the spectrum from individual psychoanalysis, to resocialization of geriatric ward patients, to social psychiatry and anthropology. However, there is still a lack of systematic studies with normal subjects into specific coping mechanisms which may facilitate adaptation and ego integrity in senescence. Henry (1956) states:

It is often the same situations of complexity out of which spring both the complex normal and the self defeating neurotic. . . . The dynamics leading . . . to neurotic solutions are more clearly understood. The dynamics of being a complex normal adult are not (p. 35).

Henry further emphasizes that "the manner of adaptation to stress is the variable of significance (p. 34)."

Brief mention should be made of two prevalent social psychological theories of aging. These are, first, what has become known as the "activity theory" implicit in the 1949 studies of Cavan, Burgess, Havighurst, and Goldhamer, and the later "disengagement theory" of Cumming and Henry (1961).

²Gruen (1964) has made an interesting attempt at operationalizing Erikson's eight stages as personality dimensions. Rating scales were devised and applied to interview data from a cross-sectional sample of people with ages ranging from 40 to 65. This exploratory study, while not offering clear-cut findings offers some tentative confirmation for the theory and a good first step methodologically.

The former assumes that good adjustment in old age is based on the active continuance in, or adequate substitution for, the person's earlier adult roles. The latter theory appeared to hold the opposing view that gradual disengagement of the individual from society is inevitable and presumably conducive to good adjustment. However, in a later (1964) modification of her theory, Cumming has attempted to extricate it from this apparent opposition. She asserted that "activity and engagement are not on the same dimension (p. 6)." Her reasoning, though, is murky and unconvincing. In any event both "theories" are group oriented, give no indication as to how a particular aged person should cope with establishing his optimal level of engagement or disengagement and empirical studies of the two positions have so far proved inconclusive (Havighurst, 1961; Poorkaj, 1967; Rupp, Duffy, & Danish, 1967; Tallmer & Kutner, 1969; Tobin & Neugarten, 1961).

Some Studies Relevant to Individual Coping in Old Age

Some community-wide studies such as the Langley-Porter-San Francisco study (Lowenthal, Berkman, & associates, 1968) have established that there is a great degree of overlap in psychopathology present in aged confined to mental hospitals and community resident aged. This indicates that one's ability to cope well enough to maintain oneself in the community is not dependent solely on the absence of obvious psychopathology.

On the other end of the continuum an intensive multi-disciplinary National Institutes of Health (NIH) study of optimally healthy, well-functioning aged males established that even supposedly maladaptive defenses such as denial, counterphobic activity, obsessive-compulsive behaviors, and schizoid emotional withdrawal may be very adaptive in coping with the problems of old age (Perlin & Butler, 1963; Butler, 1967). In an earlier (1961) study with these same healthy, community resident subjects, Werner, Perlin, Butler, and Pollin reported that while most subjects reported decrements in their physical and cognitive functioning, increments were often mentioned in their social-psychological and personality-affective spheres. Even where decrements were reported, their data show many adaptive ways of dealing with the perceived decrements (e.g., use of a memo pad to compensate for failing memory) and relatively few complaints concerning these decrements. These results reflect both ego development and appropriate self-acceptance.

In a five year follow-up study of this NIMH sample (Butler, 1967), both improved adaptation (4ss) as well as decreased adaptation (6ss) was noted in the 10 ss who had changed in this regard out of 29 who were restudied. Of the original 47 ss, 39 survived and of these, 10 could not or would not participate in the follow-up. "Individual adaptation and widowerhood appeared to be important to survivorship (p. 1236)," indicating the significance both of intrapsychic and interpersonal/environmental events.

Weinberg (1956, 1967) asserts that much of what appears to be denial in the aged is actually an adaptive mechanism which he terms "exclusion of stimuli."³ He states that denial implies that a stimulus has been perceived, has been cathected to and invested in and then cathexis is withdrawn. "Exclusion of stimuli," on the other hand, is a mechanism which is used to block out, unconsciously, all but stimuli which are emotionally pertinent. This appears to be the other side of the coin of denial. Weinberg (1956) lists two other types of adaptive mechanisms, viz., conservation of energy and regression but does not elaborate on them. His conclusions are based mainly on psychoanalytic case studies.

"Intellectual control" as opposed to "impulsivity" is suggested as a favorable factor in differential mortality rates, and as such may be an adaptive mechanism in aging. This tentative conclusion was made by Slater and Scarr (1964) based on a factorial study of MMPI scales with older and younger ss. However, since the data are cross-sectional, the finding of greater intellectual control in older ss may simply reflect personality change in this direction with experience (and, therefore, with age) and be entirely independent of mortality causes. Studies by Neugarten and Gutmann (1964) and Gutmann (1964) indicate lessened rather than greater intellectual control with age.

³This mechanism was also stressed by Watson in his 1954 review (p. 311 ff.) though he did not attach a label to it.

Peck and Berkowitz (1964) studied seven attributes which they considered necessary to adjust to developmental crises of middle life. These attributes were drawn from their expansion of Erikson's stages of ego development. These were: (a) Cathectic flexibility, (c) mental flexibility, (c) ego differentiation, (d) body transcendence, (e) ego transcendence, (f) body satisfaction, and (g) sexual integration. These were then correlated with a measure of "adjustment." Their results showed consistent differences only with regard to socio-economic status and not by age or sex. They conclude that the lack of age differences tend to show that adjustment to developmental crises of aging is largely due to good adjustment in one's earlier life. They do not deal with the question of how adaptation can be improved or if some of these attributes can be acquired in middle and late life.

Many of these studies were part of a much larger research project of adult human development in Kansas City. In another study of this population (Rosen & Neugarten, 1964), consistent age differences were found using the Thematic Apperception Test. Older Ss introduced fewer non-pictured characters, less conflict, a lower activity-energy level, and a lower affective intensity level into their TAT stories than did younger Ss. This was taken as support for their

hypothesis that with increased age there is less energy available to the ego for responding to, or maintaining former levels of involvement in, the outside world. The implication is that the older person tends to respond to inner rather than to outer stimuli, to withdraw

emotional investments, to give up self-assertiveness and to avoid rather than to embrace challenge (p. 99).

A five-year follow-up study (Lubin, 1964) confirmed a drop in ego energy on a longitudinal basis using the same type of analysis. However, a reworking of the Rosen-Neugarten data with a similar type of analysis failed to reveal the same age differences (Neugarten & Miller, 1964).

Summing up data from their extensive cross-sectional and longitudinal community-wide study of aging in Kansas City, Neugarten et al. (1964) found the following trends. There is a change with age from "active mastery" to "passive mastery." There is increased preoccupation with the inner life; decreased emotional cathexis toward persons and objects in the outer world, and generally what they term greater "interiority" with age. This goes along with constriction in ability to integrate wide ranges of stimuli (cf. Weinberg's "exclusion of stimuli") and less willingness to deal with complicated and challenging situations. On the other hand they found that age was not consistently related to socioadaptive functioning and that even in the face of obvious physical and cognitive deterioration many aged continue to function satisfactorily in the community. Reflecting on this they state:

How do those men and women who give evidence of ineffective thought processes continue to appear integrated? Although these questions did not fall within the direct line of inquiry in these studies, the implication is that there are coping and synthesizing processes which presumably provide continuity (p. 197).

They then suggest habitual processes as one explanation.⁴

McMahon and Rhudick (1967) contend that reminiscing too, is such an adaptive coping mechanism in the aged. They based this contention on (a) finding much reminiscing in a sample of males of above average capability and longevity (25 Spanish American War veterans), and (b) the significant relationship found between ability to reminisce and survival in a follow-up study one to three years later. These authors as well as Butler (1963a) challenge the commonly held opinion that reminiscing is a sign of senile deterioration or maladjustment in the aged.

Summary

In this section an attempt has been made to review relevant personality theory, and the theoretical background of senescence as a distinct phase of ego development with its own unique developmental crises. Erikson's theory of ego development has been most fruitful here. The concept of coping was examined as the means by which the aged individual overcomes these crises in the attainment of final ego integrity. Also, various behaviors or coping mechanisms which have been advanced as being adaptive were reviewed.

⁴One would also suspect continuity of environment as a significant factor in maintaining integration since there is much evidence to show how discontinuities in environment such as displacement by urban renewal or superhighways often precipitate institutionalization, or death, e.g., see report in Geriatric Focus, April 15, 1969, 8, 2.

2nd. Studies of the aging personality have revealed that behaviors previously thought to be evidence of deterioration or maladaptation may actually be adaptive means of coping with the problems of aging. Extensive personality studies have also listed many attributes thought to be necessary for adjustment, but conclude that these must be acquired at an early age. Most studies have continued the trend of chronicling the effects of deterioration with age. The continuing dearth of research on coping mechanisms that are adaptive in normal aging and lack of research on methods of enhancing ego development in old age was pointed out.

Neugarten et al. (1964) have called attention to the increased "interiority" with age and have noted the seemingly paradoxical ability of many aged to continue adequate socio-adaptive functioning despite physical and cognitive deterioration. They suggested that coping mechanisms which provide continuity are the key to this paradox.

Reminiscing has been advanced as such a continuity providing coping mechanism. The following section will deal with the relevant theory and research on reminiscing in the aged.

Reminiscing

For the purposes of this discussion reminiscing is defined as "the act or habit of thinking about or relating one's past experiences" (Webster's International Dictionary,

2nd ed.). This is to be distinguished from the technical use of the term in experimental psychology as "recall or recognition, without intervening overt practice, of items previously not recallable; an increment in a practiced act after a period of non-practice" (English & English, 1958).

Some Functions of Reminiscing in the Aged

McMahon and Rhudick (1967) classified their Ss into four categories on the basis of their reminiscing's content and function. Based on their descriptions, these categories might be called: (a) regressive, (b) obsessive-compulsive, (c) well-adjusted, and (d) depressive.

The "regressive" type is characterized by denial of present inadequacies and the use of reminiscing to enhance self-esteem by idealizing the past. The "obsessive-compulsive" seem preoccupied with reviewing their life and deeds in a judgemental-evaluative way. The "well-adjusted" seem to be able to tell a story for the sheer pleasure of telling it and for the enjoyment and information of their audience. These people had no apparent "ax to grind" nor compulsion to review their lives. The "depressives" seemed preoccupied with current bodily ills and problems and had difficulty reminiscing at all. When they did reminisce it appeared fitful and was constantly interrupted by present concerns which apparently erupted into consciousness. Unfortunately the authors present no data on these four types of subjects and do not give any objective criteria or method of

classification. Their implication is that reminiscing, in and of itself, is adaptive.

Butler's Life-Review Hypothesis

Another investigator who has studied reminiscing in the aged extensively is Butler (1963a, 1963b, & 1968). Based on case study experience with his aged patients Butler postulates the universal occurrence in older people of an inner experience or mental process of reviewing one's life. [He] propose[s] that the process helps account for the increased reminiscence in the aged, that it contributes to the occurrence of certain late-life disorders, particularly depression, and that it participates in the evolution of such characteristics as candor, serenity, and wisdom among certain of the aged (1963a, p. 65).

In other words, Butler theorizes that reminiscing is only an overt (i.e., verbal) manifestation of a larger biologically determined mental process of reviewing one's life in old age and that this can be either adaptive or maladaptive.

Butler characterizes the life-review as "the progressive return to consciousness of past experiences, and, particularly, the resurgence of unresolved conflicts (1963a, p. 66)." He hypothesizes that this process is precipitated by an awareness of the imminence of death and occurs in younger persons, similarly, in the face of impending demise. However, he further speculates that this may be a general response to crises of various types, of which imminent death is only one instance. The life-review is seen as an active process which potentially proceeds toward personality reorganization. The more intense the unresolved conflicts, the more work remains

to be done to achieve reintegration, with the outcome dependent mainly on personality or character structure and to some extent environment.

Structurally speaking, Butler does not make clear where the life-review originates. He does imply that there may be either conscious or unconscious initiation. However, once in motion the process of surveying, observing, and reflecting upon the past, and especially reintegration, is said to be an ego function as is memory itself upon which reminiscence depends. McMahon and Rhudick imply that their "life-review" subjects seemed to be exercising largely super-ego type activities, i.e., self-critical moral evaluations.

Adaptive and maladaptive aspects of the life-review.

Theoretical considerations aside, Butler comments on some of the adaptive manifestations of the life-review. Through re-evaluation, presumably drawing on subsequent experience, the aged person is often capable of expanded understanding of previous conflict situations. The resulting greater understanding and acceptance of life is able to mitigate one's fear of death. Where this is obviously creative he states the effects can be very constructive. He feels that in the majority of the elderly a substantial reorganization of personality does occur.

However, Butler believes that the life-review can contribute to psychopathology as well, i.e., severe depressions, states of panic, intense guilt and constant obsessional

rumination. Those especially prone to these bad effects, Butler (1963a) states, are those who have always put a heavy investment on the future, the future which their old age cannot deliver; those who have "consciously exercised the human capacity to injure others (p. 70)" i.e., those with real guilt, and the characteristically arrogant and prideful whose narcissism is disturbed by the prospect of death. In these instances the life-review may contribute to the known higher suicide rate in the aged.

An interesting theoretical problem is implicit in the differing positions of Butler and some psychoanalytic writers. Other writers, e.g., Kaufman (1940) emphasize the "return of the repressed" in old age as an indication of lessened ego energy, while Butler posits the life-review as an active process of attempted personality reorganization in which the ego is actively engaged in resolving long-standing conflicts in preparation for death. Such an attempt at reintegration would seem, if anything, to call for an expenditure of ego energy far in excess of anything the individual would be required to muster at any previous time in his life. The latter position has interesting economic implications for psychoanalytic gerontology. Perhaps, instead of a decline of ego energy in the 60's and 70's, there is a redistribution of ego energy to more internal affairs (Neugarten et al., 1964). The decline, if any, may come much later than usually thought (see discussion of Gorney, 1968, p. 24 ff, below).

Interpersonal aspects of the life-review. Besides the intrapsychic functions of reminiscing Butler also views reminiscing as serving an interpersonal function. "Oppressive garrulity" may reflect a person's loneliness and his wish to be heard according to Butler. Implied here is that reminiscing combined with common courtesy on the part of the other person may serve the function of relieving loneliness by keeping the other person there. Furthermore, revelations from the past may drastically alter an aged person's object relationships, either strengthening, weakening, or even destroying long time interpersonal bonds. Butler also notes that the other person's reaction may have a profound effect on the aged reminiscer. 'Bursting the balloon' of a regressive idealization of the past may have what Butler calls the Shangri-La effect, i.e., changing an alert youthful looking face into an aged careworn one.

Based on his life-review hypothesis Butler states that "probably at no other time in life is there as potent a force toward self-awareness operating as in old age. Yet the capacity to change according to prevailing stereotype, decreases with age (1963a, p. 75)." He notes that the major portion of gerontological research is concerned "almost enthusiastically" with measuring decline in old age. His call for comparable attention to studies of the individual, focusing on growing wisdom, and the meaning of experience is, I believe, very appropriate.

Theoretical problems with the life-review. While Butler's study of reminiscence and adaptation in old age appears fruitful, the usefulness of postulating the "life-review" (essentially a past-review) as a universal biologically determined response to approaching death seems questionable. Butler, himself, notes that the name "life-review" unfortunately implies an orderliness which is usually lacking. Often only certain critical periods of one's life are dwelt upon, not one's entire past (1963a, p. 67). Evaluating the evidence cited for the universality of the "life-review," one could just as easily cite evidence to posit a universal response to "view-the-present" or "preview-the future."

Perhaps a stronger case could be made for conceptualizing the life-review as a special instance of one phase of problem-solving. Whenever, a situation is encountered in which gratification is not immediate or not quickly assured by the use of habitual patterns of response, an apparently automatic memory scan for previous similar situations and successful patterns of response takes place. The more difficult the problem or accumulated complex of problems, the more one must draw on a broader and broader focus of past experience in order to accomplish the ego's task of integrating id impulses for gratification with reality as perceived and tested by the individual. In old age one has an almost complete lifetime of experiences to draw upon, but for most, if not all, one is forced to deal with a problem so massive and unknown

that it defies solution, viz., one's imminent personal demise. In addition to this are all the other developmental crises listed earlier. Is it any wonder that attempts at problem-solving trigger off a memory scan for solutions of "life-con-review" proportions? Even for those who have confidently worked out their own philosophical answers to death, e.g., belief in personal immortality, long standing personal conflicts or other problems of aging may require extensive memory scan. The tentative solutions may often involve exercising one of the few remaining abilities left, i.e., verbal expression, and hence reminiscing. Reminiscing in turn possesses the creative potential of any medium of self-expression. As such it may well serve the same adaptive function of individuation that painting served for Jung's patients.

Reminiscing and Stress

Tobin and Etigson (1968) studied the effect of stress on earliest memory. Theirs is one of the few empirical attempts to study the reconstruction of reminiscence as reflecting "the synthesis of personally meaningful events from the past within the context of current environmental transactions (p. 435)." These investigators found a significantly greater amount of personal loss themes in the earliest memories of aged ss after being subjected to the stress of admission to old age homes than before.

Experimental Ss were asked for their earliest memories four months prior to admission (Time 1) and again two months after admission (Time 2). 51.1% of the experimental Ss showed increased loss vs. 20.0% of control Ss. There were four control samples, and all samples were similar as to sex, marital status, socioeconomic class, level of organic impairment, education, ability to care for their own physical needs, and ethnicity. The age range was 68 to 92 with a mean age of 78. The four control samples included one in which earliest memories were elicited before and after a similar six month period but while they were community residents the entire time. The second control group were Ss also on the waiting list at Time 1 (as were the experimental Ss at Time 1) but these continued on the waiting list at Time 2 as well. A third control group were short term institutional Ss from which earliest memories were elicited two months post- and again one year postinstitutionalization. The last control sample consisted of long term institutionalized Ss with earliest memories elicited one to three years then again two to four years postadmission.

Earliest memories were rated as to level of introduced loss on a 5-point ordinal scale from nonloss themes to extreme loss involving death themes.

Their data clearly show "that an adverse environmental change is reflected in the earliest memory, as manifested by an increase in the introduction of loss in the repeat reconstruction (p. 439)."

Interestingly (and unexpectedly) 50% of all their aged ss gave different incidents as their earliest memories at Time 2, i.e., the manifest content differed. This was significantly associated with shifts in latent content as well for all groups. This appears to differ from other studies of younger ss who more typically give the same incident as their earliest memory after similar periods of time (Hedvig, 1960 & Winthrop, 1958, as cited in Tobin & Etigson, 1968).

However, despite the shifts both in manifest and latent content, it was the strong impression of the investigators that the underlying dynamics were the same at both times. They tentatively conclude that the "surprisingly high percentage of 50% intraindividual variability in manifest content may be obscuring the dynamic consistency that is portrayed in the reconstruction of reminiscence (p. 442)." Further, they feel that at least three factors must be considered for determining the consistency of the earliest memory: (a) the availability of a storehouse of early incidents from which one is selected, (b) its expression in the synthesis of present adaptive concerns, and (c) the portrayal of characterological dispositions in the reconstruction.

In attempting to understand the increased variability of aged respondents they consider increased stress with age, cognitive deficits with age, and the possibility that Butler's postulated "life-review" with its increased reminiscent activity may be operative.

What does seem clear from this study is that reminiscence, though it may reflect a basic consistency of characterological dispositions presumably established in early life, is also subject to the influences of current environmental transactions. Though this study dealt only with stress and its reflected themes of loss in reminiscence, the possibility exists that current gratifications might also be reflected by themes of past personal gains in the reconstruction of reminiscence.

Patterns of Experiencing, Reminiscing,
and Age

In another study, drawn from the same research project that the Tobin and Etigson (1968) study was a part of, Gorney (1968) dealt extensively with reminiscence, Butler's "life-review," and its relationship to Eugene Gendlin's concept of "experiencing." Experiencing is conceptualized as the willingness to introspect upon feelings.

In an unpublished pilot study Gorney found a significant negative correlation between "experiencing" and chronological age from the 60's through the 90's. While this willingness to introspect upon feelings consistently lessened with age beyond age 80, he found a bimodal distribution in the 60's and 70's, i.e., he found both high and low experiencers in the younger age range.

In an attempt to comprehend these results within a developmental framework, some implications of Butler's

life-review theory were invoked. Gorney reasoned that the life-review, as a developmental process leading to personality reorganization, should be reflected in reminiscence by active attempts at conflict resolution followed by a more quiescent period of serenity when resolution had been achieved. Tying this to chronological age he hypothesized that persons in their 60's and 70's should more typically reflect active attempts at resolution of long-term conflicts while those in their 80's and 90's would largely have reached the resolution stage.

He hypothesized his "Old-High" experiencers (60's and 70's) were active life-reviewers, and his "Very Old-Low" experiencers (80's and 90's) were those who had achieved a serene or resigned life-review resolution. To explain his third group, the "Old-Low" experiencers (60's and 70's), he hypothesized that these were people who refused to engage in life-review activity by avoiding past conflicts and dealing only with present concerns.

His sample consisted of the entire study population of the parent project ($N=172$) on which a mass of data had already been collected. There were three subsamples: 100 Ss on the waiting list for admission to an old age home, 35 community residents who were still self-sufficient, and 37 Ss who had lived at least one year in an old age home. For various reasons, not all Ss were included in many of his analyses.

Gorney's primary measure of experiencing was developed by Gendlin. This was an Affect Questionnaire of open-ended questions focusing on Ss' experiencing of eight major affects (loneliness, depression, anger, shame, guilt, happiness, satisfaction and pride). Responses were rated on a 7-point experiencing scale ranging from complete lack of introspection to active, insightful understanding of one's inner processes. Gorney validated this by use of a modified version of Gendlin's Focusing Manual as a criterion measure administered to some members of the Community sub-sample.

A categorical measure of reminiscence type was constructed called the Evaluation of Life Questionnaire. This 17 question instrument was included in the interview schedule immediately after an extensive series of detailed life history questions. The Questionnaire was designed to encourage an evaluative set in each S to make judgments about his past life rather than to elicit associative reminiscing per se. Initially a qualitative analysis of responses produced six categories: (a) refusal to engage in reminiscence, (b) distortion of the past involving total flight, (c) distortion of the past involving partial flight, (d) manifestation of conflict indicating active life review, (e) partial resolution with one or a few conflict(s) outstanding, and (f) complete resolution with serenity. Problems of inter-rater reliability were resolved by eventually collapsing these into three categories. The first three categories

became (I) Flight from the past; category (d) remained as it was, (II) Manifestation of Conflict (Life-Review); while categories (e) and (f) became (III) Resolution.

A remarkably consistent distribution of types across subsamples was demonstrated with one-half displaying Flight, one-sixth displaying Manifestation of Conflict, and one-third Resolution. It was also established that type I (Flight from Past) Ss evaluated their lives rather neutrally, with somewhat flattened affect, type II (Life-Review) Ss evaluated their lives quite negatively, with intense affect and type III (Resolution) Ss evaluated their lives more positively with moderate affect.

The main hypothesis of the study assumed that willingness to introspect upon feelings (experiencing) was a necessary prerequisite for life review activity. Also, that the process of resolving old conflicts through the life-review in old age would lead to a state of serenity in very old age which would render further intense introspection developmentally irrelevant.

The results generally supported the three predicted patterns, however, two important non-predicted patterns emerged as well. As many of the Old-High experiencers (39%) fell into the Resolution category as into the predicted active life-review category. Also, 40% of the Very Old-Low experiencers displayed a non-predicted Flight from the Past as well as the 55% who were in the predicted Resolution category.

These results were found to be independent of the type of subsample, i.e., the five trends, three predicted and two non-predicted, were also replicated across all subsamples.

In an attempt to determine whether the two non-predicted trend Ss differed in some systematic way from those who followed the predicted patterns, additional analyses were employed using data from the large data pool of other psychological characteristics. However, these analyses failed to disclose any significant differences. The variables were grouped as follows: I. Affect Variables, i.e., Cattell Global Anxiety, Emotional Reactivity, and Life Satisfaction Rating. II. Temporality Variables, i.e., Expectations re Institutional Life, Self Compared to Earlier, and Denial of Institutionalization. III. Reminiscence Variables, i.e., Reminiscence Affect, and Reminiscence Evaluation.

Gorney concludes that his investigation provides general support for the hypothesis of a decline in willingness to introspect upon feelings associated with chronological age from the 60's through the 90's, and that this decline is related to developmental changes in patterns of reminiscence. However, he further concludes that reminiscence type alone most clearly differentiated the aged Ss he studied. Stated another way, the most important finding was that "Butler's modal developmental pattern of an active life review culminating in the achievement of resolution tends to occur at particular ages (p. 147)."

Summary

All of the studies reviewed in this section appear to agree that reminiscence is an important psychological process in old age. In addition its importance as an adaptive or at least potentially adaptive coping behavior was stressed by McMahon and Rhudick, Butler and Gorney.

Butler has made the major theoretical contribution here in conceptualizing reminiscence as a manifestation of a larger developmental process of reviewing one's life in order to attain final ego integrity preparatory to death. Both the Gorney and, to a lesser extent, the McMahon and Rhudick studies support this view and all of the studies lend support to Erikson's contention that old age is a truly developmental stage. *imp*

Some interesting differences are also apparent in these studies. While Butler includes all thoughts about the past as part of the life review, McMahon and Rhudick classify only those SS with obsessive-compulsive needs to judgementally evaluate their lives as "life-review" reminiscers. They identify at least two other types of reminiscing, i.e., regressive and well-adjusted informative story-telling. Gorney, apparently also interpreted Butler's "life-review" as primarily judgemental evaluative reminiscing since his measure was expressly designed to elicit this. What the latter investigators seem to have overlooked is Butler's emphasis on the interpersonal/environmental aspects of

reminiscing as well as intrapsychic attempts at reintegration. Perhaps it is precisely here that the concept of the life-review needs to be viewed in the broader theoretical context of problem-solving, whether of the intrapsychic conflict resolution variety or of the ongoing interpersonal/environmental-transaction variety.

The Tobin and Etigson study is especially pertinent to the latter point, since taken together with the other studies, it suggests both the reciprocal effect of stress on reminiscence and the creative selectivity involved in drawing on one's past experiences to assist in current problem-solving.

Another difference in empirical findings should be noted. Gorney's results indicate a negative correlation between chronological age and reminiscing (of at least the intrapsychic conflict resolution type) while McMahon and Rhudick's very-old Ss were apparently active reminiscers. Their veterans ranged in age from 78 to 90 with a mean age of 84, and according to Gorney's hypothesis should have largely ceased reminiscing. Perhaps these discrepant findings about reminiscing activity in very old age can be accounted for by the select nature of McMahon and Rhudick's sample. Gorney's sample was undoubtedly more typical of our aged population and suffering more from the problems of old age. This very difference suggests another possibility. The decline of experiencing and reminiscing may reflect declining ego energy in very old age. Gorney's "resolution" Ss consisted not only

of the serene but also of the resigned. The continuing of active reminiscence in McMahon and Rhudick's Ss might then reflect either their superior constitutions with larger reserves of ego energy, or that their active reminiscing was actually enhancing their survival potential. Another factor may well be the evaluative reminiscence set given to Gorney's Ss as compared to the nondirective approach used in the Boston area study. However, these differences need clarification.

The next section will be concerned with temporal orientation in senescence and its relationship to reminiscence and adjustment.

Time Orientation

Research on temporal experience in the aged somewhat parallels the study of reminiscence. Time orientation is a molar time concept referring to the direction of one's thoughts, fantasies, and expressions, i.e., to the past, present, or future. Obviously orientation to the past is intimately bound up with reminiscing.

While the literature on temporal experience has three major aspects, viz., estimation or perception of time intervals, time perspective, and time orientation, this discussion will primarily be limited to the latter two. For more extensive reviews of the literature, the reader is referred to Wallace and Rabin (1960), Fraisee (1963), Laffey (1963), and Smeltzer (1968).

Terminology. Differences in terminology have plagued research in this area, therefore, a clarification of terms at this point is desirable. Most of the above discussions employ Wallace's (Wallace & Rabin, 1960) distinction between time orientation and time perspective. Time perspective refers to the span of time covered by the person's thoughts, fantasies, feelings, etc. into the past and into the future, while time orientation, as mentioned, deals with their direction, i.e., to past, present, or future.

Various aspects of time perspective have been differentiated and studied. Extension refers to the distance into the future or past conceptualized. Density refers to the number of events with which one's perspective is populated. Coherence refers to the logical ordering of events in sequence. Kastenbaum (1963) in a study of future time perspective which he terms "futurity" also distinguishes directionality, i.e., the sense of moving from the present moment into the future, and separates futurity into personal and cognitive futurity. Personal futurity refers to the ability to project oneself into one's own future while cognitive futurity refers to one's ability to use time as an abstract cognitive category for organizing and interpreting experience in general. While the concept, time orientation, has the disadvantage of being confused with one of the cardinal psychiatric diagnostic signs, i.e., whether the patient knows what day it is, for the sake of uniformity in temporal experience research it will continue to be used in this study.

Significance of temporal experience. Only a little reflection is necessary to realize the psychological importance of time in our lives. Fraisse (1963) has written:

Man must somehow free himself from the state of change which carries him through life, by keeping the past available through memory and conquering the future through anticipation. This control over time is essentially an individual achievement conditioned by everything which determines personality, age, environment, temperament, experience (p. 177).

Indeed, research on temporal experience has almost matched the breadth of personality research itself. Much has been written about the development of the "time sense" in childhood and of the changing time orientation in the adult years (from future to past). Social class differences have been explored (e.g., LeShan, 1952), cultural differences noted (e.g., Hughes, 1961, and Smith, 1961), and disturbed temporal experience in various psychopathologic states (e.g., Dilling & Rabin, 1967), character disorders (e.g., Laffey, 1963) and drug addictions (e.g., Einstein, 1964) have been studied. Many other aspects of temporal experience and their psychological relationships have been studied, however, only studies relevant to aging and adaptation will be discussed here.

Time Orientation and Perspective in the Aged

General empirical findings. Fink (1953) investigated time orientation and its relationship to age, institutionalization, and activities in institutionalized and non-institutionalized older males. Each group of Ss was

subdivided into younger (aged 50-61) and older (aged 61-76) Ss. He found institutionalized Ss were more oriented to the past, and also that older Ss were more oriented to the past. He found work-related activities related to future time orientation though not organizational activities.

Fink implies that orientation to the past is maladaptive:

Many people use such responses as nostalgia for past social arrangements, general non-adjustive reactions of the type characterized by cynical attitudes, a "paranoic" approach to newly emerging arrangements, "nervousness", suicide or other means of withdrawing from social situations (p. 17).

This attitude is identical to the prevailing attitude toward reminiscing and is implied by other investigators and theorists such as Albrecht, Vissher, and Arieti (as cited in Fink, 1953).

Time and again, the literature cited links past time orientation or lack of future orientation to instances of maladaptation. In addition to the aged, one other category of Ss is consistently linked to a past time orientation, viz., depressives (Strauss, 1947 as cited in Wallace & Rabin 1960; Dilling & Rabin, 1967). This relationship is interesting because of the prevalence of depressive states in the aged. Cath (1965) has explored depression in the aged and characterized it with an even more morbid title, "depletion." Both old age and depression have been described as periods when the future seems blocked. Despite the many references to the aged and depressives being oriented to the past, Laffey, (1963), notes the paucity of studies dealing with

past time orientation or perspective. Seven years later, this research gap still exists.

Eson (as cited in Laffey, 1963) studied the time orientation of different age groups (10, 16, 25, and 65 year olds) and interestingly all showed a tendency toward greater future orientation, including the 65 year olds. Kastenbaum (1953) studied the future time perspective of 24 relatively intact older people (median age 77, range 66-89) as compared with 24 younger people (median age 19, range 18-24) differentiating between "cognitive and personal futurity." Cognitive futurity was assessed by completions of three story roots aimed at future, past, and unspecified temporal orientations. Personal futurity was assessed by the Important Events technique. Ss were asked to give the nearest personally important event in their past, the next nearest and the temporal distance between them. Future events were requested in a similar way.

With respect to cognitive futurity there were no significant differences in extension or density while older Ss stories were significantly more complex and coherent. However, with respect to personal futurity older Ss showed significantly less extension and density. Thus, though these older Ss had difficulty projecting themselves into their personal futures, their ability to use the future in an abstract cognitive way to order experience in general equalled that of young adults.

Some theoretical factors affecting futurity. An observation by Fraisse (1963) seems appropriate here.

Generally speaking, the future only unfolds in so far as we imagine a future which seems to us to be realizable.

This is clearly shown by our attitude to death. Obviously we all know that this is the end that awaits us, but it causes anxiety in us or a form of religious behavior which . . . is a defense against the unknown; but, as Merleau-Ponty remarks, it never becomes part of our temporal perspective, whatever our age. . . . When seen as an absolute end, death is not an objective to be reached (pp. 172-173).

Fraisse also emphasizes the importance of the temporal distance between the present and future situation, implying that the trauma of approaching death is greater for the aged than for younger people. Butler (1963a) implies that this trauma is greater in those aged who have always put a heavy investment on the future; the future which their old age cannot deliver. Relevant to this is Einstein's (1964) finding that following experimentally induced loss of "self-integrity," his adolescent SS showed a significantly extended (implying unreasonably so) future time perspective. Perhaps the aged Butler speaks of have always had a low level of self-esteem compensated for by the vague hope that one day their "ship would come in," only to realize in old age that their "ship" has foundered on the rock of too little time left.

Fraisse (1963) asserts that on the plane of our experience the future is practically nothing but the projection of desire or fear. In addition, a future perspective depends on the possibility of escaping from a present determined by

the situation or from the domination of the past. There is no future without at the same time a desire for something else and an awareness of the possibility of realizing it. When in old age the potential for ordinary need gratification is increasingly restricted, the abstract goal of ego integrity would appear to be the only logical 'something else' which could motivate a continuing personal future perspective. As Erikson has observed, this demands an existential acceptance of one's past life, and this in turn may require considerable working through of one's past conflicts. Thus, a creative reconstruction of one's past in old age may be necessary to maintain future perspective. The results of a study by Costa and Kastenbaum (1967) lend some support to this notion. They found that in a sample of centenarians, those who were most able to draw on their storehouse of experience by responding to questions about their earliest memory, the most salient historical event recalled, and their most personally exciting event, were the most likely to respond to a question about their future ambitions.

Nawas and Platt (1965) and Platt and Taylor (1967), based on an Adlerian approach, take somewhat the opposite tack. Though not dealing with aged ss, they focus on the lack of future time perspective in nostalgia (cf. reminiscence) and homesickness cases and suggest that treatment should proceed by reassessment of future goals. While this may work with younger adults, one wonders about the applicability of

this approach to the aged where restriction of future goals is reality based.

In connection with another problem of the aged Halpern (1967) found that placing a high valuation on the importance of work is negatively related to future time perspective and satisfaction with retirement. He found no relationship between future time perspective and chronological age in his sample of 65 retirees with adequate retirement income. Halpern concludes that the extent of future orientation is not only a developmental phenomenon but is mediated by cultural and personality factors as well.

Planning, desire for change, satisfaction, and age.

Recently Spence (1968) published a study of "futurity" and adaptation in a sample of 226 community residents who took part in the Langley-Porter San Francisco study (Lowenthal et al., 1968). In this study, however, "futurity" was assessed mainly on the basis of whether or not the Ss planned their activities a week or two in advance and whether or not they desired a change in their present situation. Active planning as opposed to the more passive thinking about the future implied in other future time perspective studies would appear to alter the entire concept and makes comparisons difficult. The measure of adjustment also raises questions of the comparability of findings. Spence used a morale score based on S's mood-state which, through cluster analysis, then permitted separating Ss on the basis of high vs. low

satisfaction with their current state. On the basis of these measures his Ss were divided into four groups:

(a) unsettled planners--those who planned and desired change (32.7%), (b) composed planners--those who planned but desired no changes (29.2%), (c) the disgruntled--those who did not plan but desired change (19.5%), and (d) the complacent--those who neither planned nor desired change (18.6%).

Spence's results showed that planning is positively related to satisfaction, desiring change is negatively related to satisfaction, and that there is no interaction effect between the three variables. He states that the two principal relationships are statistically significant and independent. Spence separately analyzed the effects of socio-economic status, sex, and age on these relationships. With respect to age he found (a) an inverse relationship between making plans and age holds primarily for those who do not desire change, and (b) an inverse relationship between desiring change and age holds primarily for those who do not make plans. This implies that those who desire change continue to plan; however, with increased age, i.e., age 75 and over, this relationship tends to disappear. The latter finding appears to fit the picture of Gorney's (1968) Very-Old Life-Review resolution Ss.

"Temporality," experiencing, and patterns of reminiscence with age. Gorney (1968) also furnishes data on "temporality"

for some of his Ss.⁵ "Temporality" appears to refer to the complexity of one's past or future time perspective. Gorney's "waiting list" Ss were assessed for future "temporality" on the basis of their expectations or denial of forthcoming institutional life. In addition all of his Ss were assessed on past "temporality" based on a comparison of themselves at the time of the study with what they felt themselves to have been at age 40. The two measures of complexity of past and future temporal organization correlated positively and significantly with experiencing ability for all Ss, while denial of impending institutionalization was negatively related to experiencing; all as predicted.

With respect to reminiscence types a more complex pattern emerged. "Flight from the Past" Ss had poorly articulated expectations, "Active Life Review" Ss had moderately articulated expectations, and "resolved" Ss had highly articulated expectations. Effective articulation of the past was most characteristic of active life-review Ss while denial of institutionalization characterized flight from the past Ss. Gorney interprets these findings as essentially congruent with Butler's (1963a) description of the life review process.

Summary

The bulk of temporal experience literature reviewed generally characterizes the aged as primarily oriented to the

⁵The reader is referred to the earlier section on "Reminiscing" (pp. 24-28) for a more complete discussion of this study.

past with constricted and sparse future time perspectives, though there are some discrepant findings. These temporal characteristics are also consistently linked to situations of maladaptation and depression, and have been associated with institutionalization, as well. However, there is a distinct lack of adequate research into past time perspective as well as a dearth of research into the temporal experience of the aged.

Some of the explanations for a past orientation were discussed. Fraisse (1963) has pointed out that people seem to concentrate on the longer portion of their life, i.e., in youth--the future, and in old age--the past. Perhaps more significantly, Fraisse writes that when the future seems blocked, the result appears to be concentration on the past. The future must have a goal or goals, and be realizable to maintain a reasonable future perspective. The possibility of unreasonably long and vague future time perspectives resulting from poor self-esteem and leading to maladaptation was also raised.

Kastenbaum (1963) has demonstrated that the commonly noted lack of futurity in the aged is limited primarily to their personal future, while, in intellectually intact aged, the capacity to use the future in an abstract cognitive way equals that of younger adults.

Contrary to the implications of most writers in this area, the present author holds that concentration of the aged

on the past is not necessarily a symptom of maladaptation but perhaps a necessary step in the resolution of life conflicts in order to attain ego integrity. Perhaps only when an adequate resolution has been achieved can a reasonable future time perspective be maintained.

Some of the continuing problems with terminology were noted as in the Spence study, as well as problems of differing assessment methodology.

Some indirect support for Butler's life review process was furnished by Spence's study and more directly by Gorney's research. Many of the studies reviewed could also be used as support for the interpretation of a decline in ego energy among the very old.

The following section will deal with some aspects of adjustment and self concept in the aged.

Self-Concept

Problems with the Concept of Adjustment and Rationale for Use of Self-Concept

As initially conceived, the purpose of this research was to study the relationship of reminiscence and time orientation to adjustment or adaptation in the aged. It soon became clear, however, that the concept of 'adjustment' is so broadly and nebulously defined that the plethora of research definitions are almost idiosyncratic to particular investigators. One need only briefly review the various meanings attached to the concept and the variety of assessment methods in the

studies reviewed to verify this. Some have limited the concept to experimenter judgments of narrow categories of strictly observable behavior while others use subjective judgments of happiness, morale, life-satisfaction, etc. Some criteria are sociologically defined while others consider only absence of psychopathology. Then again should adjustment be defined as a statistical norm or an ideal norm? Do we consider only passive adjustments, i.e., adaptations within the individual to conform to the environment, or the active impinging of the individual on the environment, or both? These questions raise fundamental issues of semantics and methodology in science which are beyond the scope of this research.

Because of these problems it was decided to substitute a concept which is generally considered to be a significant determinant and reflection of "adjustment", however defined, viz., self-concept. Though this concept too has been variously defined and assessed, it was felt that use of a reliable standardized measure with adequate validity data would aid in interpreting the generality of the findings without adding to the confusion of terminology and assessment.

Aging and Self-Concept

Since self-concept is widely known and used, no extensive review of self-concept literature will be undertaken here. In general, the literature on aging and self-concept indicates an overall pattern of positive self-concept, happiness, morale,

self-acceptance, etc. rising to its highest point in the late 20's and 30's and gradually declining after that (Bloom, 1961; Cameron, 1967; Dodge, 1961; and Kuhlen, 1948). However, Grant (1967) using the Tennessee Self Concept Scale, found a tendency to report a more positive self-concept with increasing age. He suggests though, that this may be a function of increased denial in the aged rather than an actual increase in self-esteem. He also found that older people tend to view themselves as more passive, less mobile, and less active than younger people.

One could argue that the differences Grant found are obviously reality based and that the higher self-concept scores in his aged Ss do represent a greater degree of self-acceptance rather than denial. Investigator values of these traits may well bias the interpretation of such findings and obscure the values that the aged themselves place on these traits. Grant's findings also point to the interaction of sex and socioeconomic status with age as determinants of self-concept. Such factors, therefore, must be considered in any study of aging and self-concept.

Summary

In this section the rationale for the use of self-concept rather than adjustment in the present study was discussed and a brief review of the trends of covariance between chronological age and self-concept was given. The possibility of investigator bias in interpreting self-concept data with

the aged was noted as was the need to consider sex and socio-economic factors in any study of age and self-concept.

The next section will attempt a formulation of the present research problem and the relationships to be investigated.

PROBLEM

Formulation

The research literature on adaptation to aging suggests that the present need is for more intensive study of normal aging in order to determine what coping mechanisms can enhance the attainment of ego integrity. Several studies have shown that many so-called "maladaptive" defenses actually do have adaptive value. McMahon and Rhudick (1967) have suggested that reminiscing is an adaptive coping response. Therefore, one purpose of the present research is to assess the adaptive potential of reminiscing in a less select sample of aged males than those used in their Boston area study. The finding of a positive correlation between quantity of reminiscing and positive self-concept would support their contention.

However, Butler's (1963a) life-review hypothesis and Gorney's (1968) research (with what can be considered a more typical aged population) suggest that the reminiscing-self-concept relationships is not so clear-cut. In a cross-sectional study, such as is within the scope of the present research, these latter studies would suggest that a high quantity of reminiscing, especially of the intrapsychic

conflict variety, would actually be associated with a low self-concept. Lack of reminiscing then could be interpreted two ways: (a) as maladaptive avoidance of life-review activity, or (b) as adaptive life-review "resolution." Therefore, one could only expect a low non-significant overall correlation between reminiscing quantity and self-concept.

Whatever adaptive potential is inherent in reminiscing or the life-review process might require an ideally controlled longitudinal study to determine ultimate outcomes of resolution or presumably irreversible maladaptation. Even these results would probably be confounded by the intervention of death.

Perhaps questions about the adaptive potential of reminiscing can only be dealt with by a qualitative analysis of the reminiscing content and by a rough separation on the basis of age. Following Gorney (1968), those with little reminiscing should then fall into the categories of life-review avoiders in their 60's and 70's, and life-review resolved Ss in their 80's and 90's. However, other types of qualitative differences in the content of reminiscing have been mentioned by McMahon and Rhudick (1967), and by Butler (1963a) though the nature of these differences has not been adequately explored. This study will explore qualitative differences between high and low self-concept Ss at various age levels in order to determine if life-review conflict resolution activity is the most significant type of reminiscing, whether other types

such as regressive idealization of the past and well adjusted "story telling" are also important, or whether some other set of variables can better explain the reminiscing-self-concept relationship.

The next relationships to be explored are those dealing with time orientation of aged male Ss and their self-concept. The aged have typically been assumed to be oriented to the past, and a past orientation has typically been linked with maladaptation. However, there is some conflicting evidence as to the past orientation of the aged, and also evidence suggesting that concentration on one's past in old age may be a necessary developmental step leading to the goal of final ego integrity.

Another relationship that has not as yet been investigated is that between reminiscing and time orientation. Though one would assume that, for example, much concentration on the past would automatically preclude any significant concentration on the future, implications from various studies would suggest that a reasonable future orientation may only be possible when one can and does freely use one's past experiences. Perhaps most maladaptive is the inability to effectively use more than one temporal direction, whether past, present, or future.

The final set of relationships to be investigated, while not the primary concern of this study, are of interest and are relevant to much past research in gerontology. These

have to do with the relationship of institutionalization (or the complex of factors associated with institutionalization) to the three major variables of the study, viz., reminiscing, time orientation, and self concept. Previous research (e.g., Fink, 1953) has shown that institutionalization is associated with a past time orientation and presumably with increased reminiscing and a poorer self concept. Within the limits of the design this study will test these relationships.

Summary of the Major Relationships to be Investigated

Because of conflicting or non-existent research findings concerning the relationships of the major variables of this study no explicit hypotheses will be tested. Rather, since the purpose of this study is to generate hypotheses, the major relationships to be explored will simply be stated.

- I. Reminiscing by self-Concept. Two aspects of reminiscing are to be investigated; overall quantity and qualitative differences between Ss that constitute distinct reminiscence types.
- II. Reminiscing by Time Orientation.
- III. Self-Concept by Time Orientation.
- IV. Institutionalization⁶ by:

⁶The present study is not designed or intended to investigate effects of institutionalization as such. Rather, it is designed to investigate differences between aged males living in nursing homes as opposed to those living independently in

- (a) Self-Concept
- (b) Reminiscing
- (c) Time Orientation

the community. It is assumed that the obtained differences will result not only from the effects of location of residence but also from the complex of factors that determined that location, e.g., general level of health, availability of others to care for the S, general socioadaptive functioning, etc.

METHOD

Subjects

The total sample consisted of 60 men, born in 1910 or before who have achieved a raw score of at least 100 on the Peabody Picture Vocabulary Test (PPVT) (Dunn, 1965).

Institutional subsample. -One-half of the total sample was drawn from nursing home (NH) residents. In addition to having achieved an adequate PPVT score these residents were selected by age groups with 10 Ss in their sixties (60's), 10 in their seventies (70's), and 10 eighty years old or over (80+). Only Ss who were physically capable of the tasks required for this study, and who agreed to participate were selected. The initial recruitment was made at a V. A. Nursing Home Care Unit. The remainder of the subsample was recruited from other area nursing homes until the total subsample was complete.

Community Volunteer subsample. The other half of the total sample was drawn from community volunteers (CV) residing independently in the same metropolitan area (Battle Creek, Michigan). These Ss also were drawn by age groupings, i.e., 60's, 70's, and 80+, and the first 30 volunteers to meet

the PPVT and age requirements were chosen. The initial recruitment of CV Ss was from people active in the city's Senior Recreation program.

The two subsamples were selected in order to insure a wide range of socioadaptive functioning (see Table 1) based on the assumption that community volunteers would be better adjusted and have a better self-concept than aged Ss who for various reasons require institutional care to survive. This assumption was tested and confirmed. Only male Ss were used since the V. A. Nursing Home Care Unit is limited to male residents and since inclusion of female volunteers would introduce possible sex differences which might confound the results.

Tests and Measures

Intellectual functioning. In order to assure at least average intellectual functioning, only persons with raw scores of 100 or above on the Peabody Picture Vocabulary Test (PPVT), Form A (Dunn, 1965) were selected as Ss.

The PPVT was used as a selection device for the following reasons: (a) it is easily and rapidly administered (approx. 15 minutes), (b) the ability presumably tapped, i.e., vocabulary, is known to "hold up" well and may even increase with age (Latimer, 1963), (c) vocabulary is the best single index of overall intelligence, and (d) the present investigator's personal experience has shown the test to be better tolerated and accepted by geriatric patients than other instruments.

Table 1
Comparative Demographic Data for the
NH and CV Subsamples

Class of Information	Subsample	
	NH	CV
<u>N</u>	30	30
Mean age by age group (in years--months)		
60's	65-6	64-9
70's	75-3	75-0
80+	85-10	85-2
Marital Status		
Single (never married)	23.3%	0%
Married	20.0%	66.7%
Widower	36.7%	30.3%
Divorced	20.0%	3.0%
Occupational level		
Professional/Managerial	6.7%	23.3%
Entrepreneurial	16.7%	20.0%
White collar	20.0%	23.3%
Skilled labor	16.7%	3.3%
Unskilled labor	36.7%	20.0%
Farmer	3.3%	10.0%
Education		
Grades 1 through 4	3.3%	6.7%
Grades 5 through 8	26.7%	36.7%
High school	30.0%	13.3%
College	10.0%	26.7%
Other specialized training	30.0%	16.7%
State of health (<u>S</u> 's own estimate)		
Excellent	10.0%	26.7%
Good	53.3%	60.0%
Poor	36.7%	13.3%

While the investigator is well aware of the deficiencies of the PPVT for this age group (e.g., lack of adequate norms and spuriously high I.Q.s reported for other age groups) it is felt that use of raw scores rather than I.Q.s and the above mentioned advantages make its use justifiable for the purposes of this study.

The PPVT is an individually administered 150 item vocabulary test. Typically only about 1/3 of the stimulus words are presented because a "basal" and "ceiling" are obtained precluding use of words above and below this range in difficulty. S is required to respond to each stimulus word by selecting the most appropriate of four pictures presented simultaneously on the plate for that item. The pictures are line drawings of objects or activities, one of which is related to each stimulus word. For example, to stimulus word "130 gauntlet", S must choose between pictures of 1) a drill chuck, 2) a slingshot, 3) a radar antenna, and 4) a heavy glove complete with a gauntlet.

The choice of a "cut score" of 100 was made because norms for the highest age group (17-6 to 18-5) show this to correspond to an I.Q. of 91 for that group. Though adult Ss of above average ability often go 'over the top' on this test, the PPVT at least establishes their vocabulary ability to be in the range required for inclusion in this study.

Reminiscing. Methods used in prior studies of reminiscing include a "non-directive" interview (McMahon & Rhudick, 1967)

earliest memory (Tobin & Etigson, 1968), and an "Evaluation of Life Questionnaire" (Gorney, 1968) in addition to the reminiscing which occurred spontaneously in the process of the psychoanalytic case studies of Butler (1963a).

A major problem in the elicitation of reminiscence is to provide a sufficiently unstructured situation to allow for spontaneous reminiscing to occur while still maintaining a sufficiently standardized set of stimulus conditions to make valid comparisons between Ss possible. Various interview formats were tried with some preliminary Ss, ruling out the non-directive approach and a "Public Opinion Sampling" Questionnaire ruse as unproductive of reminiscing. Also a more direct interview failed to yield much reminiscing unless the S's responses were extensively followed up, thus destroying any comparability between Ss. In all of these preliminary interview formats the present investigator was attempting to obtain responses yielding not only reminiscing data but also data that could be used to assess the S's major temporal orientation. However, finding neither dimension adequately assessed, separate techniques were devised to assess them independently.

A shortened and modified version of Gorney's (1968) Evaluation of Life Questionnaire combined with requesting the S's two earliest memories was used to more directly elicit reminiscing. This questionnaire, dubbed the Life Experience Questionnaire for this study, is contained in Appendix A.

It assesses the S's overall feeling about his life, his earliest memories, his main satisfactions and disappointments and the most difficult and happiest periods of his life. A frequency count of the statements dealing with the past was the measure of reminiscing quantity.

A system of reminiscence classification was developed partly on a post hoc basis. Several aspects of reminiscing were considered including intrapsychic conflict resolution attempts, defensive use of reminiscing, non-conflictual "story telling", success-failure themes, interpersonal aspects, self vs. other preoccupation and other qualities that emerged from the data. The relationship of these reminiscence types to self-concept in particular was examined with a view to determining which, if any, aspects of reminiscing appear to aid in the attainment of ego integrity. The reminiscence categories finally chosen were (a) conflictual, (b) avoidant, (c) defensive, and (d) well adjusted. The description of these categories is contained in Appendix C.

Self-Concept. The measure of self-concept was the "Total P Score" on the Tennessee Department of Mental Health Self Concept Scale (TSCS), (Fitts, 1965).

The TSCS is a self-administered scale consisting of 100 declarative self-referential sentences. For example, "19. I am a decent sort of person." S responds by circling the appropriate number on a 5-point scale giving his degree of agreement-disagreement. The answer sheet marked by S has all

the item scales arranged the same so that 1 stands for "completely false" and 5 stands for "completely true". However, since the TSCS includes both negative as well as positive valence statements, the scoring sheet (in carbon "snap-out" form), below the answer sheet, has the numerical sequence reversed for the negative valence statements. Thus, if a person circled "2" meaning "mostly false" as his response to "23. I am a bad person.", his scoring sheet would show the number "4" circled. The numerical sequence for positive valence statements is the same as on the answer sheet. Total P score is the sum of the numbers circled on the scoring sheet. In this way Total P score reflects S's positive self-concept.

The TSCS standardization sample (N=626) was a broadly based representation of the United States population. The age range was 12 to 68. Further research has shown the norms to be adequate and "the effects of such demographic variables as sex, age, race, education, and intelligence on the scores of the Scale are quite negligible" (Fitts, 1965, p. 13).

Time Orientation. Two methods were used in an attempt to assess each S's temporal orientation. The first method consisted of questions requiring S to state which temporal direction he currently thought about most, and which he currently thought about least, i.e., past, present, or future. He then was required to estimate the percentage of his waking hours he currently thought about each temporal direction.

This direct assessment method had not previously been tried and its validity was unknown, therefore, a second less direct assessment instrument, the Thematic Apperception Test (TAT), which has been tried (e.g., Epley & Ricks, 1963) was also used.

Three TAT pictures (cards 1, 4, & 7BM) were used to elicit stories. Instructions were fairly standard requesting S to make up a story about each picture using as much creativity as possible. However, each S was asked to assume that each picture was a scene that was occurring somewhere "right now." He then was requested to tell a story stating what happened in the past, what was happening in the present, and what would happen in the future. The percent of the S's TAT responses dealing with each temporal direction was the measure of his relative time orientation.

The TAT cards were chosen to represent males in three major phases of life. Card 1 (a boy contemplating a violin) represents childhood, card 4 (a young man who appears to be pulling himself away from a young woman) represents young adulthood, and card 7BM (an older man with a younger man who appears sullenly staring into space) represents later maturity.

Use of the TAT for this specific research purpose involves the a priori assumption that the measures, as outlined above, actually do tap the underlying personality variable desired, viz., time orientation. Rabin (1968, p. 617) rightly insists that such a priori assumptions with projective techniques

must be pretested and experimentally validated. That the TAT can be used to assess temporal experience data is clear (Wallace & Rabin, 1960). However, the method and measures in the present study differ somewhat from those used previously. Therefore, while use of these procedures provided a valuable preliminary test of the a priori assumption, confounding effects were noted and the results can only be considered as tentative evidence of the underlying personality construct, time orientation.

Procedures

Procedures with each S. The purpose of the study was briefly explained to each potential S as "research to learn how people adjust to the problems of later life so that we will know how to help other people adjust as they grow older." When their consent to participate was obtained each potential S was administered the Personal Data Questionnaire (Appendix B) and the PPVT. Any ineligible volunteers were then thanked and excused.

Each eligible S was then given the TSCS followed by a tape recorded interview with the Life Experience Questionnaire, time orientation questions and TAT cards. All of these assessment instruments were individually and, insofar as possible, uniformly administered to all Ss.

Recruitment of Ss. The data collection process took approximately five months to complete. When the initial

sources of Ss were exhausted (i.e., the V. A. Nursing Home Care Unit and the city's Senior Recreation Center), intensive and extensive efforts were necessary to recruit the remaining 60% of the sample. Virtually every nursing home within a 20 mile radius and a few as far away as 30 miles were contacted until the NH subsample was complete. Similarly, newspaper advertisements, a small newspaper article, an article in a V. A. employees newsletter that goes to all retirees, and personal contacts through friends, fellow employees, and the county welfare department were necessary to complete the CV subsample.

The investigator had no intimate knowledge of any of the Ss prior to the study and was acquainted with only a few. A few are community leaders and were known somewhat by reputation. Though the sampling method was obviously not random, every practical effort was made to prevent systematic bias. Negroes are under-represented with only two of the total N of 60. For the NH subsample several Negroes were screened but failed to attain the criterion raw score on the PPVT (undoubtedly due in part to discriminatory educational policies extant in their youth). For reasons unknown to the investigator few Negroes responded to the channels used to recruit CV Ss.

Scoring of measures and development of reminiscence classification system. Following the data collection, the TSCS protocols were independently scored by a person other

than the investigator and recorded on data sheets.

In order to obtain the measures of reminiscing quantity and relative time orientation, it was first necessary to get a tally of statements referring to past, present and future from the tape recorded responses to the Life Experience Questionnaire, Time Orientation questions, and TAT stories for each S. Therefore, all taped interviews were transcribed into typescript form.

Rules of classification were then developed to classify (a) which utterances constituted statements, and (b) to identify the temporal referent(s) of each scoreable statement. These rules are contained in Appendix D. Since some statements contained more than one temporal referent, the classification system in Table 2 was developed.

Table 2

Time Orientation Classification Symbols and
their Respective Temporal Referent(s)

Symbol	P	PN	N	NF	F	PNF
Time Referent(s)	Past	Past & Present	Present	Present & Future	Future	Past, Present & Future

Note.--"N" for "Now" was used to denote Present in order to avoid confusion with "P" for "Past."

All of the utterances in all of the transcribed interviews were separated by the investigator into scoreable statements and classified as to their time referents. A sample of five interviews was then drawn at random from the total sample, another judge was trained in the classification system, and he independently judged all the utterances for that subsample as to scoreable statements and their time referents. A Pearson correlation coefficient calculated for the total of 1594 paired decisions on the five interviews yielded an inter-judge reliability coefficient of .77. Analysis of the disagreements revealed that most were due to a trivial difficulty which had no effect on the accuracy of the principal judgments.⁷

After establishing the reliability of the classification, the number of each S's statements referring to the past on the Life Experience Questionnaire and past, present, and future statements in the TAT stories were recorded on data

⁷Many Ss indulge in speech mannerisms with repeated use of phrases such as "you know," or "yes, sir" which, while clearly not scoreable statements, can be included either at the end of one or the beginning of the next scoreable statement. In many instances both judges classified adjacent complete statements identically but differed in their choice of which statement the intervening nonscoreable phrase should be tacked onto. Since disagreements as to what constituted a scoreable statement resulted in no score for one judge, these zero ratings reduced the computed correlation.

The Pearson r was calculated by assigning the following values to the time classifications:

(no time classification made by one judge)	PNF				
	P	PN	N	NF	F
	0	1	2	3	4

There were only three PNF statements out of the total of 1594.

sheets. The former constitutes the measure of reminiscence quantity. To arrive at the measure of relative time orientation, each S's total number of TAT statements were summed and the percent past, percent present, and percent future recorded. The use of percents rather than raw numbers of statements, serves to equalize individual differences in TAT productivity.

Following qualitative examination of the interview material these reminiscence categories were identified: (a) conflictual reminiscing, (b) avoidance of reminiscence, (c) defensive reminiscing, and (d) well adjusted reminiscing. More detailed descriptions are found in Appendix C. Other aspects such as success-failure, self vs. other preoccupations, etc., were considered as well. However, these latter aspects have been taken into account in the classification criteria used, while use of the four categories listed has the advantage of providing more direct comparisons with, and extensions of prior research (Butler, 1963a; Gorney, 1968; McMahon & Rhudick, 1967).

Based on the criteria in Appendix C, the investigator classified each interview into one of the four categories. Since the Ss were drawn by age group and type of location (NH vs. CV), forming six groups of 10 Ss each, three interviews from each of the six groups (18 interviews) were randomly selected for a reliability check. Another Clinical Psychologist was given the criteria and independently classified this

18 interview subsample. Only two disagreements resulted yielding an inter-judge reliability contingency coefficient of 0.76.⁸ Discussion of the disagreements indicated that in each case each judge had considered the only alternative classification to be the one chosen by the other judge. Considering the type of data it was agreed that the accuracy of classification was adequate and the criteria should permit replicability of the findings in further research.

⁸Edwards (1954, p. 381) points out the limitations of this statistic and notes that it can approach 1.00 only when the number of categories for both criteria is very large. For the number of categories in this case C cannot exceed 0.816. However, C is the only useable statistic for this type of data.

RESULTS

Reminiscing and Self-Concept

Reminiscing quantity and self-concept. The Pearson product moment correlation coefficient calculated between reminiscing quantity and self-concept for the entire sample is .15 (ns). McMahon and Rhudick's (1967) implication that reminiscing in and of itself is adaptive is not supported by these data. Likewise, inspection of a scattergram revealed no indication of any significant correlation between reminiscing quantity and self-concept for the separate age groups.

Separate correlations coefficients were calculated to determine whether age itself correlated significantly with either of these two variables. This was done in order to focus on any possible developmental trend. Again both rs were nonsignificant ($-.05$ for reminiscing quantity by age, and $.13$ for self-concept Total F score by age). No developmental trends were found.

Reminiscence type and self-concept. Table 3 represents the results of the analysis of self-concept scores between reminiscence types.

Table 3

Self-Concept Score Means and Standard Deviations
for Four Reminiscence Types, the Total Sample
and the Tennessee Self-Concept Scale
(TSCS) Norm Group

	Reminiscence Type				Total Sample	TSCS Norm Group ^a
	Conflict	Avoidant	Defensive	Well Adjusted		
<u>N</u>	8	21	11	20	60	626
Mean	334	344	368	377	358 ^b	345.57
S.D.	28	34	41	28	36	30.70

Note.--One way analysis of variance between reminiscence types yields $F=5.27$, df (3 & 57), $p < .01$. Nonsignificant F_{max} . indicates variances not grossly unequal. Individual comparisons using Newman-Keuls method show all adjacent category comparisons nonsignificant, all comparisons three steps apart significant ($p < .05$), and comparison of extreme categories highly significant ($p < .01$).

^aTSCS data from Fitts (1965, p. 14).

^bA two-tailed t' test between the means of the total study sample and the TSCS norm group yields $t'=2.56$. Using df of study sample for a conservative test, $p < .05$.

In general these data suggest a hypothesis that the type of reminiscence a person engages in is, at the least, a reflection of his level of adjustment as measured by his self-concept.

In addition to the highly significant results of the reminiscence type analysis of variance, note that the mean self-concept level of the total sample is significantly higher than of the TSCS norm group.

Reminiscing and Time Orientation⁹

Reminiscing quantity and time orientation. Separate Pearson product moment correlations were calculated for all Ss between their reminiscing quantity and percent past statements on the TAT, percent present statements on the TAT, and percent future statements on the TAT. All three coefficients proved to be very small and statistically nonsignificant (past = $-.03$; present = $.02$; and future = $-.04$). These findings suggest that an S's overall quantity of reminiscing and his tendencies to talk about past, present, or future events in the telling of stories not directly related to his own life are independent.

Reminiscence type and time orientation. In the study as initially conceived, the investigator intended to classify Ss on the basis of their relative time orientation and then to relate these categories to the various reminiscence type categories. This was to be done in two ways simultaneously.

First, Ss were to be classified into (a) those using one temporal orientation predominantly, (b) those using two time directions on the TAT roughly equally while neglecting use of the third, and (c) those using all three temporal

⁹All of the time orientation analyses in the Results section used the TAT measure as described earlier. The direct question method of assessing time orientation, in the opinion of the investigator, was found to lack any validity due to S's widespread inconsistency in responding and lack of comprehension by many Ss. This topic will be discussed in more detail under an Additional Results section.

directions in roughly equal proportions. The standard for predominant use of one time direction was arbitrarily set at 55% or more in the research proposal. Use of any time direction 10% or less was set as the arbitrary standard indicating neglect of one time direction.

Secondly, in classifying Ss on the above basis the various time directions and combinations of time directions were to be recorded and related to their reminiscence types. The resulting contingency table would be a 4x7 table with four reminiscence types by (a) past, present, and future for the one predominant orientation, (b) past-present, present-future, and past-future, for a two-way orientation, and (c) past-present-future for the "balanced" orientation.

However, problems relating to an artifact of the TAT procedure as a measure of time orientation rendered the proposed analysis inapplicable. The mean percentages of the total sample for past, present and future responses respectively, is as follows: 13%, 59%, and 28%. Obviously, most Ss tended to respond more to the immediate stimuli (each TAT card) than they did to whatever tendencies they might have had to talk about the less immediate past or future.

This "card pull" effect will be discussed in more detail later. However, because of these findings, the arbitrary standard for one predominant orientation was modified from 55% to 65% and the intended analysis was carried out. Only three of the seven time orientation categories had any entries, therefore, Table 4 has been collapsed to reflect this.

Table 4

Frequencies of Ss Classified by Reminiscence
Type and Time Orientation Usage

Reminiscence Type	Time Orientation Usage			Row Totals
	One	Two	Balanced	
	Orientation	Orientations	Use	
	Dominant	Used	Past- Present- Future	
	Present	Present- Future		
Conflict	3	1	4	8
Avoidant	12	0	9	21
Defensive	4	1	5	10
Well-Adjusted	4	3	11	18
Column totals	23	5	29	57 ^a

Note.-- χ^2 (6df) = 4.08 (ns). The use of chi-square in the present table follows Karon's (1968) rationale.

^aThree S's of the total N of 60 told no TAT stories.

No meaningful inferences can be drawn from these data about a relationship between reminiscence type and time orientation.

An analysis of reminiscence type by age group was done and proved to be nonsignificant (see Table 5). To the extent that Gorney's (1968) "Conflict" and "Resolution" categories are comparable to the "Conflict" and "Well Adjusted" categories of the present study, these data do not support

Table 5
Frequencies of Ss Classified by Reminiscence
Type and Age Group

Age Group	Reminiscence Type				Row Totals
	Conflict	Avoidant	Defensive	Well Adjusted	
60's	1	6	4	9	20
70's	5	8	3	4	20
80+	2	7	4	7	20
Column Totals	8	21	11	20	60

Note.-- χ^2 (6df) = 5.60 (ns). The use of chi-square in the present table follows Karon's (1968) rationale.

Gorney's finding of an age trend from conflictual life review activity in the 60's and 70's to life review resolution in the 80's and 90's.

Time Orientation and Self-Concept

Self-concept scores for all Ss were correlated separately with the percent measures of (a) past, (b) present, and (c) future responses on the TAT. All coefficients were very low and nonsignificant (s-c x past $r = .06$; s-c x present $r = -.14$; s-c x future $r = .02$).

Because the three correlation coefficients were computed separately, the artifact of "card pull" producing more "present" responses overall, could not have any effect on

these analyses. The correlations for each time direction are independent. The results suggest there is no relationship between these aged males' measured self-concept and their tendency to talk about past, present, or future events in telling stories not directly associated with their own lives.

Institutionalization

Differences in these aged Ss associated with their location of residence, i.e., nursing homes vs. community, were analyzed for all of the major variables of this study. Age group differences were also investigated by two-way analyses of variance.

Self-concept. Tables 6 and 7 contain the results of the analyses by location of residence and age group using Total P scores as the dependent variable measure of self-concept.

The results confirm the assumption made prior to the study that community residents have a higher level of adjustment than nursing home residents as measured by self-concept scores. This differential adjustment level agrees with past research which has demonstrated this relationship repeatedly in many different samples using a variety of assessment methods (e.g., Davidson & Kruglov, 1952; Fink, 1953; Pan Ju-Shu, 1948; Tobin & Etigson, 1968). Note, however, that for this sample the higher self-concept level is contributed

Table 6

Self-Concept Analysis of Variance:
Age Group by Location of Residence

Source	<u>df</u>	<u>MS</u>	<u>F</u>
Age (A)	2	904	.69
Location (L)	1	5377	4.12*
A x L	2	1854	1.42
Error	54	1304	

* $p < .05$.

Table 7

Self-Concept Score Means and Standard Deviations
for Location of Residence by Age Group

Classification		<u>Age Group</u>			Row Totals
		60's	70's	80+	
Community	<u>N</u>	10	10	10 ^b	30
	<u>Mean</u>	368 ^a	351	384 ^b	368
	<u>S.D.</u>	41	24	28	52
Nursing Home	<u>N</u>	10	10	10 ^b	30
	<u>Mean</u>	349 ^a	352	346 ^b	349
	<u>S.D.</u>	46	44	28	9
Column Totals	<u>N</u>	20	20	20	60
	<u>Mean</u>	358	352	365	358
	<u>S.D.</u>	44	1.4	85	36

^aComparison of these subsamples yields $t=.98$ (18df), (ns).

^bComparison of these subsamples yields $t= 3.02$ (18df), $p < .01$.

entirely by the community Ss in the 60's and 80+ age groups, especially the 80+ Ss. As will be seen in later analyses, the Ss in their 70's consistently showed peculiar differences from their peers in the other two age groups.

The lack of a significant main effect between age groups reaffirms the previously mentioned lack of any significant correlation between age and self-concept.

Reminiscing quantity. In addition to its heuristic value, one purpose of this analysis was to reveal any differences in reminiscing quantity which might confirm or deny Fink's (1953) finding of increased orientation to the past with age and institutionalization. Reminiscing quantity would appear to be one indicator of orientation to the past. The summary data and presentation of means are found in Tables 8 and 9.

These results are inconclusive. There does not appear to be any consistent linear shift in the mean quantity of reminiscing with increasing age for this sample. As in the previous analysis the 70's age group appears to deviate from the general pattern of means. The Ss in their 70's reminisced less than did their younger and older peers within each location subsample.

The results do, however, show a trend toward a lesser rather than a greater tendency to reminisce by Ss within nursing homes. To the extent that quantity of reminiscing is an indication of orientation to the past, this trend does not support Fink's (1953) finding. However, an alternative

Table 8

Reminiscing Quantity Analysis of Variance:
Age Group by Location of Residence

Source	<u>df</u>	<u>MS</u>	<u>F</u>
Age (A)	2	58,844	1.75
Location (L)	1	103,418	3.07 ^a
A x L	2	8,268	.25
Error	54	33,634	

^a_p < .10 but > .05.

Table 9

Reminiscing Quantity Means and Standard Deviations
for Location of Residence by Age Group

Classification		<u>Age Group</u>			Row Totals
		<u>60's</u>	<u>70's</u>	<u>80+</u>	
Community	<u>N</u>	10	10	10	30
	Mean	285 ^a	140	206 ^b	210
	S.D.	204	137	199	230
Nursing Home	<u>N</u>	10	10	10	30
	Mean	155 ^a	84	142 ^b	127
	S.D.	278	88	129	120
Column Totals	<u>N</u>	20	20	20	60
	Mean	220	112	174	169
	S.D.	290	125	142	187

^aComparison of these subsamples yields $t = 1.19$ (18df), (ns).

^bComparison of these subsamples yields $t = .85$ (18df), (ns).

hypothesis is that reminiscing quantity is one aspect of a S's overall willingness to communicate with a relative stranger, the investigator, and therefore, more a measure of "openness" than of orientation to the past. This topic will be discussed in more detail later.

Reminiscence type. What effect does an aged male's residence in the community or in a nursing home have on the type of reminiscing or lack of it that he engages in? Table 10 presents the frequencies of Ss classified by reminiscence type and location.

Table 10
Frequencies of Ss Classified by Reminiscence
Type and Location

Classification	Reminiscence Type				Row Totals
	Conflict	Avoidant	Defensive	Well Adjusted	
Community	4	6	6	14	30
Nursing Home	4	15	5	6	30
Column Totals	8	21	11	20	60

Note.--The use of chi-square in the present table follows Karon's (1968) rationale. Using correction for continuity, χ^2 (3df) = 6.46, $p < .10$ but $> .05$.

The results of this analysis also proved to be inconclusive. Certainly the distribution in the Conflict and Defensive reminiscence categories could not be more evenly divided. The almost inverse relationship between the frequencies of Ss in the Avoidant and Well Adjusted categories is, however, noteworthy.

Time orientation. In order to independently assess the effects associated with institutionalization and age on the S's time orientation, separate two-way analyses of variance were calculated for each temporal direction. The analysis of variance summary data and presentation of means and standard deviations are contained in Tables 11 and 12.

Table 11

Time Orientation Analyses of Variances: Age by
Location, Using Percent TAT Responses
to Past, Present, and Future as Dependent
Variables in the Separate Analyses

Class of Data	<u>Time Direction as Dependent Variable</u>						
		Past		Present		Future	
Source	<u>df</u>	<u>MS</u>	<u>F</u>	MS	F	<u>MS</u>	<u>F</u>
Age (A)	2	19	.31	88	.51	34	.30
Location (L)	1	470	7.83**	1075	6.21*	117	1.04
A x L	2	14	.23	183	1.06	208	1.84
Error	54	60		173		113	

Note.--Three Ss in the NH 80+ group told no TAT stories. The means of the cells were used in place of the missing data in order to complete the analysis.

* $p < .05$.

** $p < .01$.

Table 12

Time Orientation Means and Standard Deviations of Percent TAT Responses Referring to Past, Present, and Future for Location of Residence by Age Group

Classification	Time Orientation Used as Dependent Variable									
	Past			Present			Future			Row Totals
	Com-munity	Nursing Home	Row Totals	Com-munity	Nursing Home	Row Totals	Com-munity	Nursing Home	Row Totals	
N	10	10	20	10	10	20	10	10	20	20
60's Mean	17	10	13	51	65	58	33	25	29	29
S.D.	7	6	15	11	12	31	8	9	16	16
N	10	10	20	10	10	20	10	10	20	20
70's Mean	17	11	14	56	58	57	26	31	28	28
S.D.	10	9	15	7	20	4	6	18	10	10
N	10	10 ^a	20	10	10 ^a	20	10	10	20	20
80+ Mean	14	11 ^a	12	56	66 ^a	64	29	24 ^a	27	27
S.D.	6	7	8	12	14	22	10	8	13	13
N	30	30	60	30	30	60	30	30	60	60
Column Mean	16	11	13	54	63	59	29	27	28	28
Totals S.D.	1.4	2.4	8	10	13	14	10	12	11	11

^aThree Ss in the NH 80+ group told no TAT stories. The means of the cells were used in place of the missing data and all affected means and standard deviations were adjusted accordingly.

The results of these analyses are biased somewhat due to the fact that three Ss in the NH 80+ subsample would not or could not produce any stories in response to the TAT instructions and stimulus cards. Since the number of missing Ss was small it was considered preferable to use the mean of the seven remaining Ss in that cell who did produce TAT stories and substitute it for the scores of the missing Ss. The analysis then was carried out as if the data for the sample were complete. It is doubtful that this procedure had any significant effect on the overall results.

The results of the analysis for past orientation bear directly on the finding of Fink (1953). Here again, one must use caution in interpretation due to the limitations of the measure. However, contrary to Fink's finding of greater orientation to the past in institutionalized Ss, these data suggest significantly greater orientation to the past in community Ss. Interestingly, a significant location main effect is also found for present orientation, though in this case the institutionalized Ss appear more present oriented. There were no differences not attributable to chance on the analysis for future orientation. In summary, the results show that under the TAT stimulus conditions for this study community Ss talk proportionately more about the past and proportionately less about the present than their institutionalized peers, while talking about the future in roughly equal proportions.

The lack of any significant age effect or interactional effect between age and institutionalization again fails to support Fink's finding though the results certainly cannot be considered conclusive.

Additional Results

In view of the questions about the validity of the main measure of time orientation used in the present study, several additional analyses were performed to shed light on factors affecting it. In addition, some analyses were performed to directly relate the use of past, present, and future responses on the TAT to each other. These in turn were related to the answers Ss gave to the direct questions about their temporal orientation. Finally, another score on the TSCS supposedly related to psychopathology was examined as a possible cross validation measure of the self-concept analyses.

TAT productivity. Because of the artifactual preponderance of TAT "Present" responses (card pull) found for all subsamples, productivity on the instrument was analyzed. Tables 13 and 14 contain the results of this analysis for overall productivity.

These results show a significantly higher number of TAT responses for community Ss and for the younger age groups. However, the CV 70's group again shows a marked deviation from the overall pattern of means rendering the interaction effect statistically nonsignificant.

Table 13

Analysis of Variance for Overall Productivity
on the TAT: Age by Location

Source	<u>df</u>	<u>MS</u>	<u>F</u>
Age (A)	2	1301	4.52*
Location (L)	1	4421	15.35**
A x L	2	680	2.36
Error	54	288	

* $p < .05$.

** $p < .01$.

Table 14

Overall TAT Productivity Means and Standard Deviations
for Age Group by Location of Residence

Classification		Age Group			Row Totals
		60's	70's	80+	
Community	<u>N</u>	10	10	10	30
	Mean	56	40	49	48
	S.D.	19	11	17	26
Nursing Home	<u>N</u>	10	10	10	30
	Mean	41	33	19	31
	S.D.	22	16	16	36
Column Totals	<u>N</u>	20	20	20	60
	Mean	49	36	34	39
	S.D.	33	15	67	20

In order to examine the effect of differential TAT productivity associated with each temporal direction, separate analyses were computed. Summary data and the display of means and standard deviations appear in Tables 15 and 16.

Table 15

Past, Present, and Future TAT Productivity Analyses of Variance: Age by Location, Using the Number of TAT Statements Referring to Past, Present, and Future as Dependent Variables in the Separate Analyses

Class of Data		<u>Time Direction as Dependent Variable</u>					
		Past		Present		Future	
Source	<u>df</u>	<u>MS</u>	<u>F</u>	<u>MS</u>	<u>F</u>	<u>MS</u>	<u>F</u>
Age (A)	2	36	2.12	326	2.17	178	4.94*
Location (L)	1	308	18.12**	836	5.57**	401	11.14**
A x L	2	4	.24	262	1.75	126	3.50*
Error	54	17		150		36	

* $p < .05$.

** $p < .01$.

The analysis clearly shows lowered levels of TAT productivity for all three temporal directions on the part of the institutionalized Ss. Though there are no age differences not attributable to chance on the Past and Present analyses, a significant lowering of productivity with age was demonstrated for Future responses. This same pattern of statistical significance also appears for the interaction effects for past,

Table 16

Past, Present, and Future TAT Productivity Means and Standard Deviations
of the Number of TAT Statements Referring to the Respective
Time Directions for Location of Residence by Age Group

Classification	Time Orientation Used as Dependent Variable									
	Past			Present			Future			Row Totals
	Com- munity	Nursing Home	Row Totals	Com- munity	Nursing Home	Row Totals	Com- munity	Nursing Home	Row Totals	
<u>N</u>	10	10	20	10	10	20	10	10	20	20
<u>Mean</u>	10	4	7	29	26	28	18	11	14	14
<u>S.D.</u>	6	3	12	11	14	6	6	7	15	15
60's										
<u>N</u>	10	10	20	10	10	20	10	10	20	20
<u>Mean</u>	7	4	5	22	18	20	10	11	11	11
<u>S.D.</u>	5	3	8	6	10	8	3	9	1	1
70's										
<u>N</u>	10	10	20	10	10	20	10	10	20	20
<u>Mean</u>	7	2	4	29	13	21	13	4	8	8
<u>S.D.</u>	4	2	11	17	13	35	5	3	20	20
80+										
<u>N</u>	30	30	60	30	30	60	30	30	60	60
<u>Mean</u>	8	3	6	27	19	23	14	8	11	11
<u>S.D.</u>	5	4	5	13	21	13	12	13	7	7
Column Totals										

present, and future between age of location. The deviation from the general pattern of means for the CV 70's group again appears, especially on the Present and Future analyses.

Another question that arises about the TAT measure is whether there were any important deviations in productivity for the separate TAT cards used, i.e., did the separate stimulus cards chosen for the study produce any marked differential card pull? This analysis is shown in Table 17.

Table 17

Means and Standard Deviations of Total
Sample for Each TAT Card
(Repeated Measures Analysis of Variance)

	TAT Card			Totals
	1	4	7BM	
<u>N</u>	60	60	60	60
Mean	12	13	14	13
S.D.	6.7	8.8	10.4	8.8

Note.-- $F = 2.36$ (ns), using df = 2 for card variance and 118 for residual (error) variance.

It is clear that no significant differential card pull effect occurred in the present study. A 'warm-up' or practice effect is suggested by the progression of card means corresponding to the sequence of card presentations, viz., card 1, 4, and 7BM. However, this effect was not statistically significant.

To statistically confirm the Ss proclivity to respond most and least with references to the past, present, and future on the TAT, the chi-square tests in Tables 18 and 19 were performed.

Table 18
Time Direction Used Most by Ss
Responding to the TAT

Past	Present	Future	Total
0	53	4	57 ^a
(19)	(19)	(19)	

Note.-- χ^2 (2df) = 92, $p < .001$.

^aThree Ss of the total N of 60 told no TAT stories.

Table 19
Time Direction Used Least by Ss
Responding to the TAT

Past	Present	Future	Total
51.5	0	5.5	57 ^a
(19)	(19)	(19)	

Note.-- χ^2 (2df) = 84.1, $p < .001$. Three Ss used an equal number of responses in two categories, therefore, half-scores were assigned where appropriate for these Ss.

^aThree Ss of the total N of 60 told no TAT stories.

It is obvious that under the conditions required by the present study Ss tended to give present responses most, future responses next, and past responses least in telling their TAT stories.

Finally, contingency tables were prepared to examine the relationship between the Ss' own estimates of the time directions used most and used least (responses to the direct time orientation questions) and those revealed on the TAT measures. The distributions of Ss are found in Tables 20 and 21.

Table 20

Frequencies of Ss Using the Respective Time Directions Most as Measured by the TAT and Ss' Own Estimates

Measure	Time Direction	TAT			Row Totals
		Past	Present	Future	
<u>Ss</u> ' Estimates	Past	0	16	2	18
	Present	0	17	2	19
	Future	0	12	1	13
Column Totals		0	45	5	50 ^a

Note.-- χ^2 (2df) = 0 (ns).

^aSeven of the total N of 60 used two or more time directions equally while three other Ss told no TAT stories. These 10 Ss are not included in this analysis.

Table 21

Frequencies of Ss Using the Respective Time
Directions Least as Measured by the TAT
and Ss' Own Estimates

Measure	Time Direction	TAT			Row Totals
		Past	Present	Future	
<u>Ss</u> ' Estimates	Past	17	0	2	19
	Present	2	0	0	2
	Future	19	0	1	20
Column Totals		38	0	3	N=41 ^a

Note.--Disregarding the row and column for Present on both measures, and adjusting the totals and df accordingly, χ^2 (1df) = .05 (ns).

^aFourteen Ss of the total N of 60 used two or more time direction equally while three other Ss told no TAT stories. These 10 Ss are not included in this analysis.

Many Ss exhibited a high degree of inconsistency in responding to the direct time orientation questions. These men might answer with definite responses to the "most" and "least" questions, then give conflicting percentage figures. Also, some responded with one temporal direction then changed their minds and decided the opposite extreme was correct. Finally, it was obvious for some Ss (and suspected of several others) that they responded in the direction perceived as socially approved for their age. For example, in response to

the "time used most" question, one S stated, "I'd have to say the past--No.--I should think more about the future now. Change that to future." For all such cases initial responses are used in Tables 21 and 22 since, presumably, the immediate affective reaction is a more accurate reflection of an S's actual time orientation than the qualified (defensive) response given later.

The results indicate there is no relationship between the two measures of time orientation used in the present study. It is interesting to note that when the Ss' own estimates are analyzed separately against chance the time thought of most distribution is not statistically significant ($\chi^2 = 1.24$) while time thought of least is highly significant ($\chi^2 = 14.94$, $p < .005$). These aged males are certain that present concerns are not least in their thoughts, though they share no such uniformity of opinion about past or future.

Number of deviant signs (NDS) as an alternative measure of adjustment. Total P score on the TSCS was used as the measure of self-concept in the present study because it ". . . is the most important single score . . . reflect(ing) the overall level of self-esteem (Fitts, 1965, p. 2)." However, the scale contains another score which purportedly bears on the overall level of adjustment.

The NDS Score is a purely empirical measure, and is simply a count of the number of deviant features on all other scores.

Also:

The NDS Score is the Scale's best index of psychological disturbance (Fitts, 1965, p. 5).

In the initial consideration of the use of this score, the decision was made to attempt to use it as a Total P Score correction factor in order to arrive at some sort of adjustment index. The reasoning was as follows. High levels of self-esteem can occur as a consequence of psychological disturbance, e.g., paranoid grandiosity, as well as from a realistic self-assessment and alignment of one's ego ideals with one's perceived actual self. Therefore, by weighting Total P Scores with NDS scores, a more accurate measure of adjustment should have resulted.

The entire sample was to be ranked from highest to lowest Total P score (1 to 60), then ranked again from lowest to highest NDS score (1 to 60). These ranks were then to be summed for each S and the resulting "adjustment index" scores again ranked from lowest to highest (1 to 60). This procedure was rejected for two reasons: (a) the NDS scores obtained appeared to lack validity based on many S's personal history data and other clinical criteria, and (b) the final ranking to be obtained was too far removed from the primary data of the study. It was, in short, a mathematical monstrosity.

As examples of the invalidity of the score, a chronic alcoholic with definite and severe (though diffuse) brain damage tied for the top rank, a blatantly delusional paranoid schizophrenic obtained an NDS score of 5 and NDS rank of 6, while other Ss' still exhibiting mental and physical residuals

of cerebral vascular accidents, obtained similar spurious NDS scores. In addition to these obvious false negatives, the entire distribution of NDS scores seemed to be only randomly related to the professed principal measure of adjustment on the same Scale, i.e., the Total P Score.

Before discarding the measure completely, it was decided to substitute NDS scores for Total P scores as the dependent variable in an analysis of variance comparing Reminiscence types. In this way a direct comparison of NDS scores with clinical judgments of adjustment and psychological disturbance was possible. Furthermore, results of such an analysis could also be compared to the results of the earlier analysis (Table 3) for an indirect comparison with Total P score. The NDS results are contained in Table 22.

Table 22

NDS Score Means and Standard Deviations for Four Reminiscence Types and the Total Sample

	Reminiscence Type				Total Sample
	Conflict	Avoidant	Defensive	Well Adjusted	
<u>N</u>	8	21	11	20	60
Mean	22	25	22	17	21
S.D.	13	14	13	11	13

Note.--One way analysis of variance between Reminiscence types yields $F = 1.31$, df (3 & 57), (ns). Individual comparisons using Newman-Keuls method shows all comparisons nonsignificant. Nonsignificant F_{max} test indicates variances not grossly unequal.

It is apparent that NDS scores do not discriminate psychological disturbance to any significant extent when compared with clinical judgments, nor do they bear out any expected inverse relationship with Total P scores for this sample. While the NDS mean score is lower for the well-adjusted Ss, the individual comparisons between means failed to turn up any statistically significant differences even between the extreme means of the reminiscence type subsamples.

No NDS score statistical comparison was made between the present study sample and the TSCS norm group. The TSCS author states that the norm group NDS distribution was "so extremely skewed that conventional parametric statistics are meaningless. . . . Actual mean is 7.3 but about 68% of non-patients score below this mean (Fitts, 1965, p. 14)." This type of extreme skewness is not apparent in the distribution of NDS scores for the present sample. Sample NDS scores appear evenly distributed and range from 1 to 57 with a mean of 21, standard deviation of 13, and median of 30.5. The direction of the skewness present is just opposite to that of the TSCS norm group.

Statistical considerations aside, it is evident that the present study sample would be considered extremely deviant (including well adjusted reminiscers) from the general population based on NDS scores alone. Perhaps NDS norms should be revised for this age range.

DISCUSSION

Limitations of Measures

It is appropriate to discuss the limitations of the measures used before discussion of the main relationships examined in an exploratory study such as the present one.

Self-concept. Total P score as a measure of overall self-esteem possesses face validity in the nature of the stimulus statements used, appears to tap a wide spectrum of the variables that are generally conceded to contribute to the construct of self-concept, and is based on a considerable body of research attesting to its reliability and validity (Fitts, 1965). Furthermore, when compared to the criteria for clinical judgments used to differentiate between Reminiscence types in the present study the measure demonstrated its intended discriminatory power. The only question that could justifiably be raised about the measure's validity based on the present results is its failure to show any significant inverse relationship with NDS scores. However, the weight of evidence tends to cast much more doubt on the validity of the NDS measure than on the Total P score (see previous discussion of NDS score under Additional Results section). Total P score appears to be a valid measure of self-concept.

Reminiscing quantity. Use of the number of statements referring to the past is the most direct measure possible of reminiscing quantity. Lacking other research, no reliability data are available. In the present study no time limits were imposed on the Ss' responses by the investigator. Also, efforts were made to set interview appointments so as to allow a maximum amount of time available before expected periodic interruptions such as the next mealtime.

Inevitably some instances occurred indicating that Ss themselves set time limits on the length of the interview extraneous to their own proclivity to talk. For example, some Ss had other commitments to keep not previously known to the investigator, some NH Ss had urinary difficulties requiring interruptions for bladder evacuations, and in other cases the unexpected arrival of relatives caused disruptions in the interviews that tended to cut them shorter than might otherwise have occurred.

Perhaps as many or more instances of Ss wanting to continue beyond the modal interview time occurred though, to cancel out the opposite tendency. Certainly no barriers to continuing interrupted interviews were imposed by the present investigator. Individual interview times to obtain all necessary data ranged from approximately one hour and five minutes to approximately four and one-half hours. The typical interview time was about two hours, 15 minutes, with about 40 to 45 minutes for the tape recorded portion, i.e.,

Life Experience Questionnaire, time orientation questions, and TAT.

While the measure appears valid, the negative findings of the present study with respect to reminiscing quantity and the probably naive assumption that garrulousness itself might significantly contribute to adaptation will probably consign the measure to relative disuse in the future.

Reminiscence type. The categorical measure of reminiscence type was based largely on previously identified reminiscence types considered important in past research (Butler, 1963a; Gorney, 1968; McMahon & Rhudick, 1967). The high level of reliability demonstrated in the independent assignment of Ss to reminiscence types by competent professional psychologists (C = .76 compared to a maximum of .816) attests to the clarity of the criteria and to the distinct nature of the reminiscence types as discriminable personality complexes.

The nature of the criteria differentiating reminiscence types is based largely on widely accepted clinical criteria (e.g., Deutsch & Murphy, 1955; Levy, 1963; Sullivan, 1954) for discriminating between people who are ego integrated, i.e., adjusted vs. defensive, or guilt ridden with active inner conflict (avoidance is viewed as a form of defensiveness). In addition, the present study offers some cross validation support in the findings of significant differences

in levels of self-concept between reminiscence types in the appropriate direction.

Time orientation. As indicated earlier, the assessment of relative time orientation proved the most fraught with difficulties.

If feasible, use of the direct question method would obviously be the most economical method of assessment of the personality construct, time orientation. However, as with so many other underlying personality constructs, time orientation appears to be laden with affective components, and many individual S's assessments of their own relative temporal orientations appeared so effected by social desirability factors as to cast considerable doubt on their accuracy. In addition, the intent of the time orientation questions was difficult to comprehend for several aged Ss. In spite of these difficulties many Ss did respond frankly and, in the opinion of the investigator, accurately to the questions. These more accurate Ss appeared to be the same as those who tended to respond openly to all other questions and were most likely classified as either Conflict or Well Adjusted reminiscers.

The problem of the preponderance of Present responses to the TAT stimuli (card pull) needs further discussion. The fact that this effect did not occur in any significant differential way to the three TAT cards used but was a general response to the entire TAT task suggests that these

aged Ss tend to respond in a concrete way to stimuli in general. Such concretistic thinking in aged Ss has been demonstrated in several previous studies with a variety of assessment techniques (e.g., Chesrow, Wosika, & Reinitz, 1949; Davidson & Kruglov, 1952; Klopfer, 1946; Thaler, 1956). An alternative explanation would be that these Ss are, in fact, predominantly present oriented when confronted with a task that involves the telling of stories not directly related to their own lives. The present results are inconclusive on this point.

Lack of correspondence between Ss' own estimates of their temporal orientation and time orientation as purportedly measured by the TAT method may reflect two aspects of temporal experience differentiated by Kastenbaum (1963). Kastenbaum demonstrated marked differences in intact aged Ss between personal and cognitive future time perspectives. His older Ss had no difficulty viewing the future in an impersonal cognitive way but did exhibit a marked deficiency in their capacity to project themselves into their own personal futures. The present Ss' estimates may reflect their personal time orientation while the TAT may reflect their cognitive time orientation.

The predominance of Present responses to the TAT may also be a function of TAT productivity. That is, minimal stories may simply reflect a lack of involvement in the task. Minimal involvement probably tended to result in mere card

description statements classified as referring to the Present. Such behavior may be due to a lessening of ego energy resulting in the "exclusion of stimuli" phenomenon described by Weinberg (1956).

The present study's results are inconclusive in this respect and the most parsimonious explanation of the "time orientation" results is that neither method used in the study validly or reliably measured the Ss' predominant time orientations.

Nevertheless, many of the "time orientation" analyses do offer useful information, the implications of which will be discussed in further detail below. Though the implications are important the reader is cautioned to resist premature conclusions or generalizations about aged people's time orientation on the basis of the present data.

Sampling Considerations

Examination of Table 1 (found in the earlier Methods section) reveals no reason to doubt that the present sample is fairly representative of the general aged populations in the community and in nursing homes.

The demographic data indicate generally consistent differences between the two subsamples on all aspects except age. More CV Ss tended to be still married and living with their wives, CV Ss tended to have more formal education and more socially valued occupations, and CV Ss as expected, tended to report a better general level of health than did

NH Ss. NH Ss tended to overrate their general health in the opinion of the investigator. This effect may be due to a combination of ego defensiveness and the differing frames of reference of Ss in and out of the institution.

In response to a question about disabilities, Ss both in and out of nursing homes tended to report the same type of physical difficulties. Disabilities mentioned run the full gamut of problems typical in old age, but cardiovascular problems, arthritis, and sensory deficits seemed to predominate. Obviously the severity of these problems was greater in NH Ss.

These demographic differences between subsamples suggest that the aged Ss in nursing homes tended to be less endowed (a) with interpersonal skills as indicated by marital status, (b) in level of intelligence as indicated by educational achievement, (c) in occupational proficiency, and (d) in general health than did Ss living in the community. These factors preclude any analysis of the effects of institutionalization per se in the present study.

Because participation was voluntary, it was anticipated that this self-selection process itself would tend to yield a sample somewhat above average in personal adjustment. The significantly higher self-concept level of the present sample over that of the TSCS norm group bears out this assumption.

The consistent deviation of the 70's age group on most of the measures used in the present study is puzzling.

In the process of recruiting Ss, the quotas for this age group were the first to be filled for both the NH and CV subsamples, which suggests the greater availability of men in their 70's. Since the recruitment and screening process began with the V. A. Nursing Home Care Unit (NHCU) and the Battle Creek Senior Recreation Center (SRC), several of the Ss in the 70's age group were drawn from these two sources (8 Ss and 5 Ss respectively). In the 60's age group three Ss and two Ss were drawn from the NHCU and SRC respectively, while one S and four Ss in the 80+ group came from these two respective sources.

The V. A. NHCU is located on the grounds of a large V. A. neuropsychiatric hospital and does care for some residents who formerly were NP hospital patients. However, it also serves entitled veterans with no prior history of neuropsychiatric problems. In the opinion of the investigator the characteristics of residents of the NHCU are not significantly different from the characteristics of residents of any of the other skilled nursing homes from which Ss were recruited.

The SRC is a city operated facility offering a professionally planned program of recreational activities to aged citizens. By and large the people who take advantage of the program are lower middle class white citizens (age 70 and over), who enjoy the dancing, card playing, and other social functions it offers. If anything, the investigator expected

relatively higher self-concept scores from this group than from their less active age peers.

It is doubtful that any known bias in the sampling procedure contributed significantly to the obtained differences between 70's Ss and other Ss. There are two alternative explanations: (a) the results reflect real differences in the aged population sampled, or (b) the differences are the result of random errors of measurement and/or sampling procedure. Conclusive evidence for either alternative can only be furnished by future research.

Characteristics Associated with Levels of Self-Concept

At this point an explication of characteristics associated with various levels of self-concept from all of the results of the present study is of value.

The highest levels of self-concept were found to be in the CV 80+ and 60's subsamples. The other four subsamples obtained comparatively equal self-concept mean scores. This suggests that the higher level of adjustment (as measured by self-concept) assumed to characterize self-sufficient community residents as opposed to their institutionalized age peers may not hold during the period of the 70's.

The high self-concept CV 60's and 80+ subsamples were also highest or tied for highest in reminiscing quantity, overall TAT productivity, and productivity of past, present, and future statements on the TAT. The four lower self-concept

subsamples tended to be roughly equal on reminiscing quantity, with the NH 70's lowest, and tended to show an age associated decline on all of the TAT productivity analyses. These findings suggest an overall greater willingness to communicate with a relative stranger (openness) when one's self-concept is high. However, low self-esteem coupled perhaps with lessening ego energy and increasing age appear to be factors that tend to isolate a person from his environment.

That these tendencies toward openness or isolation are not merely a function of garrulity is shown by the consistently negative findings for reminiscing quantity per se.

When reminiscence type is taken into consideration a very interesting pattern of self-concept mean scores is revealed. From lowest to highest the reminiscence type self-concept levels are as follows: (a) Conflict, (b) Avoidant, (c) Defensive, and (d) Well Adjusted. These statistically significant findings together with past research (Gorney, 1968; McMahon & Rhudick, 1967) and the criteria for inclusion of Ss in each category suggest an underlying rationale for this phenomenon.

Both Conflictual and Well Adjusted Reminiscers are by definition low in ego defensiveness, while Avoidant and Defensive reminiscers are highly defensive.¹⁰ The principal

¹⁰While the definitional criteria for Reminiscing Avoidance (Appendix C) do not exclude otherwise well-adjusted Ss from this category (cf. Gorney's, 1968, Resolution Ss), 20 of the 21 Ss who avoided reminiscing clearly did so defensively. The single possible exception was a 91 year old divorced

difference between Conflictual and Well Adjusted reminiscing is that there is active unresolved inner conflict in the former vs. a high degree of resolution or mastery of old conflicts in the latter.

On the other hand, the principal difference between Avoidant and Defensive reminiscers is merely the form of defensiveness used. Avoidance appears to be a more primitive and less effective form of defensiveness than the collected assortment of all other types of defense mechanisms classified under the rubric-Defensive Reminiscing.

Assuming the validity of the above premises, it would follow that people who perceive a great disparity between ideal vs. actual self, and who have achieved neither an adequate level of resolution nor adequate defenses to deflect these troubling thoughts, should be low in self-esteem. Moreover, those who are similarly low in overall life satisfaction but who have developed the defense of avoiding such thought content to a greater or lesser degree should be somewhat higher in self-concept than "defenseless" people. Furthermore, people who by whatever means have achieved a higher level of effectiveness in ridding themselves of troubling thoughts about actual disparities between their own

male, living alone in a run-down single room apartment, who had led an adventurous and rigorous life as a roving lumberjack, shipbuilder, and cannery worker throughout the Pacific Northwest and Alaska. He was very active in the SRC program, loved to dance, and was still quite alert when interviewed. However, he produced the least number of responses of any CV S.

lives and actions as compared to general societal norms should be generally higher in self-concept than either of the two preceding types of individuals. Finally, people who have in large measure realistically appraised both their own lives and the prevailing societal norms and have achieved a large degree of resolution and/or acceptance of their existential situation should generally be highest in self-esteem of all the types of individuals considered. The above formulations, based on the present results, are offered as testable hypotheses for future research.

When the age groups are compared, the highest frequency of 60's Ss is in the Well Adjusted category, the highest frequency of 70's Ss in the Avoidant category, and an equal frequency of 80+ Ss occurred in the Avoidant and Well Adjusted categories, though this is easily attributable to chance.

When CV and NH Ss are compared by Reminiscence type, almost equal frequencies of Ss are found in the Conflict and Defensive categories. However, an inverse proportion is found in the other two categories (i.e., 6 CV vs. 15 NH Avoidant Ss, and 14 CV vs. 6 NH Well Adjusted Ss). Had CV and NH Ss been compared solely on the basis of the latter two reminiscence types, the resulting differences probably would have been accepted as beyond chance.

Little, if anything, can be gleaned from the TAT "time orientation" analyses because of the confounding effects discussed earlier.

In summary, relatively high self-esteem appeared primarily in self-sufficient community residents who are in their 60's or age 80 and over. Community residents in the age range of the 70's do not differ significantly in self-esteem from all aged nursing home residents in the present sample.

High self-concept is associated with relative openness and a desire or willingness to communicate with other persons in the environment. In contrast low self-esteem seems to be associated with a tendency to isolate oneself from one's environment, and increasing age coupled with lessening ego energy.

A definite progression of self-concept levels was found to be associated with the four reminiscence types differentiated in the present study. The implications of this progression were discussed, and a rationale leading to testable hypotheses for future research was offered.

The consistently negative findings with regard to the reminiscing quantity variable were noted as was the lack of productivity of the TAT "time orientation" measure due to its confounding by card pull.

Integration of Present Results with Past Research

Reminiscing. The elicitation of reminiscing in the present study differs somewhat from methods used by previous investigators. Butler (1963a) based his Life Review hypothesis on the relatively spontaneous associative responses about

the past that his aged clients gave him in the course of psychoanalytic case studies. McMahon and Rhudick (1967) used a "nondirective" technique, and Gorney (1968) used his Evaluation of Life Questionnaire plus extensive personal history questionnaire responses.

The present study's method was somewhat more structured than the first two of the above methods. However, the element of spontaneity usually associated with the concept of reminiscing was definitely present in this study. The Life Experience Questionnaire merely focused the Ss on his past experiences with very general questions and gave him the opportunity to reminisce if, and for as long as, he wanted to. Most Ss, except for Avoiders, chose to respond to the immediate question and then talked about whatever they desired. Even a "nondirective" interview begins with some implicit or explicit understanding by the interviewee as to why he is being interviewed. In this respect the use of each question on the Life Experience Questionnaire can be viewed as a separate "nondirective" interview. However, in the present study the stimulus conditions are known and allow intersubject and intergroup comparisons as well as replication in future research. For these reasons the reminiscing referred to in the present study is considered generally comparable to that elicited in prior studies with the added advantage of making the stimulus condition explicit.

Reminiscing and self-concept. The present results leave little doubt that reminiscing quantity, in and of itself, is of little adaptive value in the enhancement of an aged person's self-concept. Reminiscing quantity is related to self-concept only in the limited sense that Ss who avoid reminiscing are significantly lower in measured self-concept than Well Adjusted reminiscers.

This finding lends little support to the conclusion of McMahon and Rhudick (1967) that reminiscing per se is adaptive. These investigators give no data on the number of Ss they considered well adjusted. It is evident from the glowing description of their 25 Spanish American War veterans though, that in the main, their Ss were well-favored individuals probably fitting the criteria of well adjusted reminiscers in the present study. McMahon and Rhudick did classify their Ss on the basis of those showing definite clinical signs of depression (4 Ss) and those suspected of depression (5 Ss). Their more depressed Ss experienced difficulty reminiscing and seemed preoccupied with more present concerns. Such Ss would undoubtedly be classed as reminiscing avoiders by the criteria of the present study. The present results suggest that the differing findings of the two studies are partially the result of sampling differences, but also that McMahon and Rhudick's (1967) conclusion was premature and not warranted by their data.

Gorney (1968) found a significant decline in active conflictual "life-review" reminiscing from the 60's and 70's to the 80's and 90's. He implies that reminiscing ceases when one reaches "resolution" of his life-review conflicts in the 80's and 90's. This conclusion, however, does not necessarily follow from the Life-Review hypothesis of Butler (1963a) that Gorney used to explain his findings.

Comparison of reminiscing quantity results is somewhat difficult because Gorney was principally concerned with conflictual reminiscing and because the limits of the present design prevent an adequate test of any trend with age for Conflictual reminiscers alone.¹¹ However, the present study does clearly show that there was no significant age-associated decline in overall reminiscing quantity for this sample.

Conversely, it can be concluded that the present Well-Adjusted (presumably life-review resolved) Ss did not cease to reminisce in the 80+ age range. On the contrary they showed a desire to share the lessons from life that they had learned for whatever potential benefit it might be to their listener. This lends support to the hypothesized adaptive aspects of the life-review cited by Butler (1963a). He suggests that ego integration is enhanced by the perspective of added experience

¹¹The necessarily post hoc classification of Ss by reminiscence types in the present study resulted in unequal Ns with only eight of the total N of 60 fitting the Conflictual reminiscence criteria. These were distributed as follows: 60's, 1; 70's, 5; and 80+, 2.

leading to wisdom and stresses the important role the life-review can play in enhancing current interpersonal relationships.

One finding of Gorney's (1968) study that was largely supported in the present investigation is the relative incidence of reminiscence types for the aged population in general. Assuming fairly close correspondence of the following categories, Gorney found an incidence of 50% Flight from the Past Ss vs. 35% Reminiscing Avoiders in the present study, 15% Life-Review conflict Ss vs. 13.3% Conflict reminiscers in the present study and 33% Life-Review resolution Ss vs. 33% Well Adjusted reminiscers in the present study. Presumably, most of the Defensive reminiscers in the present study would have been classified "Flight from the Past" by Gorney.

Gorney's principal conclusion was that "Butler's model developmental pattern of an active life review culminating in the achievement of resolution tends to occur at particular ages (p. 147)." This conclusion is not supported by the present data, at least for the particular ages Gorney referred to. Again, to the extent that his Resolution category corresponds to the present Well Adjusted category, such Ss were found in roughly equal numbers in both the 60's and the 80+ groups.

The reason for these differing findings may again lie in the nature of the two samples studied. Gorney studied a

total N of 172 Ss, 137 of which were either confined to old age homes or on the waiting list to be admitted to old age homes. Only 35 of his Ss were living self-sufficiently in the community. In contrast, one-half of the present sample was living independently in the community. Of these 30 Ss, eight were still gainfully employed on a full time basis, and three more were engaged in regular part time employment. Seven of the 11 Ss still employed were in the 60's age group.

The high incidence of still employed Ss in the CV 60's group coupled with the findings of high self-esteem and good adjustment for this group may be due in part to their continued employment. Halpern (1967) found that placing a high valuation on the importance of work is negatively related to future time perspective and satisfaction with retirement. Ss who are still employed have obviously not yet had to face the stress of retirement and the loss of self-esteem he implies may often result from it. Carrying this reasoning one step further, the lower level of self-concept found in the present CV 70's subsample may then partially reflect the loss of self-esteem presumably associated with the actual stress of retirement. Self-sufficient community Ss in the 80+ age range have probably achieved some sort of resolution of this conflict.

Perhaps, more important than retirement stress, which the Cornell Study of Retirement found to be grossly over-estimated (Thompson, 1956), the 70's age period is also the

period of greatest personal loss. Actuarially determined life expectancy for the general population indicates the 70's as the typical age range of death. Thus people in this age range must live with the actual loss of, or the reality based fear of the loss of, significant others, plus the vivid prospect of their own imminent demise.

Taking the above considerations into account, the present findings of good adjustment in both the CV 60's and 80+ age groups would seem to have theoretical implications for personality development as well. Erikson's (1963) outline of the epigenetic stages of ego development, each of which has its attendant crises to master, implies that successful mastery of each developmental crisis results in a new and richer level of personality integration. Erikson's (1963) concept of Ego Integrity presumably occurring mainly in old age then is obviously not the only period of personality integration, though it is perhaps the richest and most all encompassing.

Assuming the validity of Erikson's formulations, the present findings would suggest that the well adjusted Ss in the CV 60's subsample had largely mastered the Generativity vs. Stagnation crisis achieving a high level of personality integration, but had not yet been faced with the final complex of life crises which would determine their final level of personality integration.

The implications of the present study for Butler's (1963a) Life-Review hypothesis are difficult to ascertain in any quantitative way since his conclusions are based on individual case studies. The criteria for the various reminiscence types all fit into his discussion of the adaptive and maladaptive aspects of his hypothesized life-review phenomenon. Certainly the avoidance of reminiscence in an interpersonal context does not preclude the occurrence of life-review activity at least on an unconscious level. In many Avoidant Ss, the tendency toward life-review activity was very near the conscious level and was being actively suppressed. Many Conflict Ss also attempted to suppress their conflicts, but the compulsive eruption of these into consciousness and verbal expression indicated that these were beyond ego control.

Butler's thesis that the life-review is precipitated by a realization of the imminence of death cannot be conclusively confirmed by the present results. However, impressionistically, the imminent fact of death is a potent factor operative in the lives of the present Ss.

However, if this is so and the period of the 70's is the most probable period of death, why did the CV 70's Ss reminisce less than the CV 60's and 80+ Ss? The present study gives no conclusive answers. The similarity of CV 70's Ss to all NH Ss suggests that perhaps they are "closer" to the fact of death than CV 60's Ss while they have not had

the environmental support and/or time to resolve this crisis that CV 80+ Ss have had. Further research is needed.

It appears that Butler's life-review hypothesis and Erikson's epigenetic stages can profitably be integrated. The major crisis implicit in Erikson's Ego Integrity vs. Despair stage is the realization of the imminence of death. While Erikson merely describes the two extreme alternative outcomes of this developmental stage, Butler has further specified the integrative personality forces operative and some of the manifestations of this process. It would seem that there are important implications for therapeutic intervention to be derived from the integration of these two formulations. These will be discussed in more detail below.

Relative temporal direction usage and self-concept.

The present results can only be related to past temporal experience research in an indirect way because of the failure of the present study's "time orientation" measures to validly differentiate Ss on this variable. However, some useful data concerning Ss' temporal direction usage should be discussed.

Despite the spuriously high proportion of Present responses to the TAT for all subsamples in the study, the two highest self-concept subsamples tended to show a more balanced use of all three temporal directions than did the lower self-concept groups on this task. This suggests a greater flexibility in the capacity of high self-concept Ss to shift their temporal set in response to the demands of the

environment. In contrast, though no single statistical analysis proved significant in this respect, when taken together, all of the analyses tentatively appear to reflect a greater tendency by lower self-concept Ss to be bound to the present.

Qualitatively, it was the impression of the investigator that the TAT references to the future made by low self-concept Ss tended to be vague, and the story outcomes reflected either a cynical "life is purposeless" attitude or a Polly Anna "all will turn out well" attitude. A greater degree of impotence on the part of the characters in the TAT stories was evident for low self-concept Ss than for high. However, because these impressions have not been quantitatively tested against chance no conclusions should be drawn about these observed qualitative differences pending further research.

McMahon and Rhudick (1967) did observe that Ss who could not reminisce in their nondirective interview situation were constantly beset by bodily concerns and present personal welfare. This same phenomenon occurred with reminiscence Avoiders in the present study. The predominant underlying affect associated with these Ss appeared to be fear, i.e., fear that past conflicts might overwhelm them and fear of the future with its further anticipated depletions and death. The result is a person rigidly bound to the present as the "best of three evils". Not only is the future blocked for

these Ss, as observed by Fraisse (1963), but the past also appears blocked.

The statistically significant finding that past references are used least by the total sample on the TAT plus the lack of any shift toward more TAT references to the past with age or institutionalization do not support Fink's (1953) finding of greater past orientation with age and institutionalization. A possible explanation for this difference may lie in the distinction of Kastenbaum (1963) between personal and cognitive time experience mentioned earlier.

Though the present data do not justify any classification of Ss on the basis of predominant personal time orientation, it is clear that these Ss are not predominantly oriented to the past when confronted with a more cognitive impersonal task. Though one could argue that such a projective technique as the TAT is designed to elicit personal involvement by identification with the principal characters of the stories, yet it is obvious that such presumed identifications must be considered less personal than the relating of actual experiences from one's own life.

The finding that Ss in the present study tended to use Future TAT references more than Past, when taken together with the observed artifactual stimulus pull toward Present responses, lends some credence to the notion that these aged Ss may be cognitively oriented to the future. Eson (as cited in Laffey, 1963) found a greater tendency toward future

orientation in his 65 year old Ss as well as his younger Ss. However, this notion can only be considered speculation until demonstrated by future research.

The useable data gleaned from the present study plus findings of past research suggest that the capacity of use one's past experiences in the context of current interpersonal/ environmental transactions and to plan for the future tend to be associated with good adjustment as measured by self-concept. Conversely, the lack of this capacity tends to be associated with a poor adjustment characterized by fear of both past and future resulting in a personality rigidly bound to the here and now. These working hypotheses also have important implications for therapeutic intervention which will be discussed below.

Present results and adaptation to aging. The present results indicate that there is much overlap in the levels of adjustment (as measured by self-concept) of Ss both in and out of nursing homes. Since nursing homes are used as repositories not only of the physically infirm, but also the "mentally infirm," this fact, supported by the observations of the investigator and the data of this study, support the finding of Lowenthal, Berkman, et al. (1968) of a great deal of overlap in geriatric psychopathology in and out of mental hospitals.

Conversely, the relatively high level of self-concept presently found in many Defensive Ss confirms the finding of

Perlin and Butler (1963) that many so-called "maladaptive" defenses actually can support high levels of self-esteem in many aged people.

Nevertheless, one must hasten to add that such defenses appear to support self-esteem only insofar as the environment is tolerant of this defensive behavior and does not present stressful crises beyond the limits of the person's defensive strength. For example, the 89 year old community S who achieved the highest Total P score in the present study, was classified as a Defensive reminiscer.

This S's life history parallels that of the typical Horatio Alger hero who worked his way up from poverty to extreme wealth. His past and present superior intellectual and business capabilities are unquestioned. Yet, he has tended to equate his financial and business success with general moral, philosophical, and interpersonal success. His reminiscing reflects a "too perfect" self-image and rigid defenses against any suggestion that might tend to question his perceived level of perfection.

This S's position of extreme wealth, coupled with the tolerant respect by others for his position in the community, his past achievements, and his age support his defensive system. If this S were forced to function in a position requiring great sensitivity and interpersonal skill, e.g., that of a high school counselor in the inner city, his defensive fortifications undoubtedly would crumble.

Fortunately for all, no such demoralizing challenges are likely to occur.

The subject of age associated decline in ego strength has been a topic of discussion in much gerontological research (e.g., Cameron, 1967; Cath, 1965; Neugarten et al., 1964; Perlin & Butler, 1963). The present results show that depletion in ego strength as reflected by self-concept (a) is associated with depletion of physical strength (NH Ss score lower than CV Ss), (b) appears to be associated with the crises attendant to the depletion of one's reservoir of significant others (e.g., CV 70's Ss), and (c) is associated with the degree of old unresolved conflicts present and the nature and relative strength of the person's concomitant defenses to deal with such conflicts (cf. results by reminiscence types). The various combinations and permutations of the above factors, which is by no means an exhaustive list, indicate that the timing and rate of decline in ego strength is largely an individual affair. The finding of high self-esteem in both the CV 60's and 80+ subsamples tends to bear this conclusion out by contraindicating any necessarily inherent decline with age alone.

However, to the extent that the above factors tend to occur at roughly predictable age ranges, group trends may be predictable. The nature of the present study's sampling procedure and design, however, preclude the analysis of such assumed trends.

Some manifestations of loss of ego strength observed in the present sample tend to bear out the "exclusion of stimuli" phenomenon noted by Weinberg (1956). For example, in order to conserve their presumably low reserves of ego energy many low self-concept ss tended to avoid not only reminiscing but all interpersonal interaction by "going along" in as minimal a way as possible. This did not hold true for Conflictual reminiscers who consumed a great deal of ego energy in their attempts at conflict resolution, In fact, Conflict reminiscers appeared to have about as much ego energy as Well Adjusted reminiscers in the opinion of the investigator.

Impressionistically, the qualitative aspects of the obtained interview data support the importance of the person's basic character structure in the level of adjustment attained, as emphasized by Peck and Berkowitz (1964) and Tobin & Etigson (1968). However, the importance of interpersonal/environmental support noted by Tobin and Etigson (1968) was also found in the present study. This latter finding suggests that therapeutic intervention should be feasible and potentially effective where appropriate.

The importance of interpersonal/environmental transactions and the need for continuity in the maintenance and enhancement of socioadaptive functioning as noted by Neugarten et al. (1964, p. 197), suggest that reminiscing, with its inherent continuity providing potential, can provide

a valuable entre for effective therapeutic intervention where appropriate.

Therapeutic implications. The results of the present study would seem to have the following implications for therapeutic intervention to enhance the personality integration of troubled aged people.

When is therapeutic intervention indicated? Geriatric therapy would seem to be most indicated for aged people characterized as Conflictual reminiscers in the present study. These people have the awareness that their conflicts need resolution, tend to be most depressed, and as such constitute the highest suicidal risks. Furthermore, they appear to have their ego energy already bound up in attempts at resolution of their conflicts without, as yet, developing any strong defenses that would unduly hinder their psychotherapeutic progress. Prognosis would seem to be best for these conflicted people.

Next in order of priority would seem to be the aged reminiscence Avoider. Such persons, as noted earlier, often appear to have their conflicts near the surface of consciousness and they apparently have not yet developed impregnable defensive systems. Though probably not as high a suicidal risk as the openly conflicted geriatric client, reminiscence Avoiders probably have the poorest prognosis for longevity (McMahon & Rhudick, 1967) if effective therapeutic intervention is not undertaken.

It is doubtful that geriatric psychotherapy would generally be indicated for people such as the present Defensive Ss. These people appear to have strong characterologically based defensive systems that have been proven to sustain them throughout their life-times. Psychotherapy would seem to be indicated only when reality breaks through their defensive systems causing active inner conflict.

Some contraindications to therapy would seem to be poor health resulting in a low reserve of ego energy, or an unnecessary disruption of an effective defensive system that would otherwise be sustained by the environment without undue harm to others. If Butler's "Shangra-La" effect of 'bursting the balloon' of such a defensive system is unnecessary, no good purpose would be served by doing so.

How can reminiscence serve the joint goal of the client and the geriatric therapist to help the client achieve Ego Integrity? Butler (1963a), Erikson (1963) and others have called attention to the importance of the realization of the imminence of death as the prime motivator toward personality reintegration (Ego Integrity) in old age. Butler has noted that this serves as perhaps the most potent force toward self-awareness ever operative in one's life. Presumably this force sets in motion the active process of the life-review, manifested in an interpersonal context by reminiscing. The preceding discussion suggests that reminiscence type can be used diagnostically, and reminiscence content can serve to pinpoint unresolved conflicts.

Reminiscing about one's life to an interested and impartial listener appears to be an innocuous entre to therapy with none of the stigmata of "mental illness" attached to it. The beginning of therapy then (though perhaps not conceived of as such by the aged person) would appear to be best served by simply providing the conflicted client with the opportunity to reminisce. In many cases doing only this should allow the client to resolve conflicts on his own.

In most cases relatively non-directive techniques may be necessary to help the client focus on the critical aspects of his conflicts that he might otherwise completely misperceive or underrate as he reminisces. For example over emphasized personal inadequacies can be countered by reflecting more on actual strengths. The client can thus be aided to see and accept past conflictual situations in the perspective of his whole life.

In order to help the client place his conflicts in proper perspective, group therapeutic techniques using reminiscing may be helpful to him in the realization that others have faced similar situations and have been able to accept them as 'the way it had to be' (existential acceptance). Such revelations of "mistakes" on the part of his peers should also serve to help him relax the demands of his overstrict superego.

The need for continuity and stability to maintain adjustment in the lives of aged people is important. Reminiscing by its very nature provides the aged person with an inner

source of continuity through memory, which would appear can help him adapt to inevitable change. Support and encouragement of the positive aspects of the aged client's reminiscing should help him maintain or expand his self-esteem.

Supportive use of reminiscence may serve the reminiscence Avoider particularly well in the initial stage of therapy. An interpersonal relationship of trust may help the Avoider overcome his fear and allow him to deal with his past. The present results suggest that it is only when one's past experiences can be freely drawn on, that one can deal effectively with the challenges of the present and the future.

In the opinion of the present investigator, reminiscing appears to be an immensely important factor in the lives of aged people. It may be a manifestation of a basic personality drive toward reintegration that has been largely overlooked by gerontological and geriatric professionals. It may possess the creative potential toward self-fulfillment of every other means of human self-expression and it is actively employed by an age group that often has no other means of self-expression available to it. Further research into this apparent great potential by professionals and the appropriate guiding of it to aid troubled aged people seems appropriate and necessary if our society is to fulfill its obligations to its aged members.

Erik Erikson indicates the necessity of Ego Integrity for society by relating the last epigenetic stage of life to

the first, viz., Basic Trust vs. Mistrust. He states ". . . healthy children will not fear life if their elders have integrity enough not to fear death (1963, p. 269)."

Implications for Future Research

A rationale for the varying levels of self-concept associated with reminiscence types in the present study was given and appears worthy of further research. The main factors appear to be the presence or absence of unresolved conflicts and the presence or absence of adequate defenses or realistic coping ability to deal with these conflicts. The assumptions underlying this rationale are offered as testable hypotheses for future research.

The present study has raised more questions about the time orientation of the aged than it has answered. The present results appear to suggest that it is more profitable to investigate the time orientation or time direction usage of aged individuals in relation to their level of adjustment than to attempt to characterize an entire age population by one dominant temporal orientation.

While the present measures of time orientation proved inadequate, suggestions have been given to better assess this personality construct in future studies.

Several suggestions have been offered for the use of reminiscence type and content in geriatric therapy. These suggestions imply great potential for therapy and would seem to be very worth-while topics of future research.

Finally, several of the tentative conclusions offered and some of the questions raised in the present study would seem to have implication for personality theory in the aged. For example, the apparent deviation of 70's Ss from those in the 60's or 80+ ranges may have important implication for developmental views of aging or may be an artifact of the present study. What is the importance of the proximity of death as a motivator? These and other questions offer fruitful areas for research that may enhance our understanding of aging processes in general which in turn may enhance the probability of many people attaining ego integrity.

SUMMARY

The present investigation was an exploratory study of the interrelationships between reminiscing, self-concept, and time orientation in aged males of normal intelligence.

A review of the literature concerning broad theoretical issues and empirical findings about adaptation to aging as a developmental process prefaced a more specific review of the three major variables of the study. The need for more research into the process of normal adaptation to aging was noted.

The few extant studies of reminiscing suggested that this common behavior of the aged serves an adaptive function in contrast to prevailing opinion that it is irrelevant and maladaptive. The literature on temporal experience revealed few studies of the time orientation of aged Ss but a widespread belief that their presumed past orientation was maladaptive. The inconsistency of concluding that reminiscing is adaptive while past orientation is maladaptive was noted. The literature on self-concept throughout the life cycle generally shows a peak in the 20's and 30's and gradual decline after that, though there is conflicting evidence about self-concept in later life.

The present study investigated reminiscing quantity and type, time orientation, and self-concept in a sample of 60 aged male volunteers found to be of at least average intelligence. The sample was drawn in equal numbers from self-sufficient community residents and nursing home residents. The sample was also divided by age groups with equal numbers of both subsamples in their 60's, 70's, and 80+ in order to assess the effects associated with institutionalization and age as well.

The data were obtained in individual interviews and consisted of the Total P score on the Tennessee Self-Concept Scale as the measure of self-concept, the number of statements referring to the past on a specially modified Life Experience Questionnaire as the measure of reminiscing quantity, and the percentage of statements referring to past, present, and future in story responses to three TAT cards as the main measure of time orientation. A post hoc classification of Ss into four reminiscence types was then carried out. The four types differentiated were Conflict, Avoidant, Defensive, and Well Adjusted reminiscing. A second measure of time orientation was based on the Ss' own estimates of their current relative time orientation.

An artifactual confounding effect of card pull rendered the TAT measure inadequate as a measure of predominant time orientation. Social desirability factors, individual inconsistency and confusion rendered the Ss' estimates similarly

inadequate. Adequate interjudge reliability in the discrimination of the temporal references of the questionnaire responses and in differentiating Ss by reminiscence type on the basis of accepted clinical criteria was found to support these reminiscence measures as reliable and valid.

Results of the study indicated that (a) reminiscence quantity is not significantly related to any of the other variables of the study, (b) the mean levels of self-concept for each reminiscence type subsample were found to be significantly different in the following order from lowest to highest: Conflict, Avoidant, Defensive, Well Adjusted, (c) the mean self-concept level of the entire sample is significantly higher than that of the TSCS norm group, (d) no significant differences were found between reminiscence types when the distributions of Ss were separately analyzed by age, location of residence, or type of time direction usage on the TAT, (e) when self-concept was analyzed by age and location of Ss, community residents were significantly higher, though no significant age main effect was found, and (f) a tendency toward greater reminiscing quantity was found in community than nursing home residents.

Some additional analyses were undertaken to investigate the factors effecting the confounding of the time orientation measures and a possible alternative measure of adjustment from the TSCS.

These results indicated that (a) overall TAT productivity is significantly higher in community residents, (b) is significantly lower with increasing age, and (c) there is a significant interaction effect showing lessening TAT productivity from younger community residents to older nursing home residents. When TAT productivity is separately analyzed (age by location) for the number of TAT references to past, present, and future, (a) consistently lower productivity was found in nursing home residents for all three time directions though (b) the significant lowering with age and the interaction effect were only found for future TAT time references.

No differential card pull effect for past, present, and future TAT references was found between the three TAT cards used, though a differential "warm up" or practice effect was found indicating overall TAT productivity increased with each succeeding card presented.

Statistically significant tests indicated that Ss responded to the TAT with Present references most, Future next and Past least. No significant deviation from chance was demonstrated when the TAT measure and Ss' own estimates of their time orientation were compared.

The TSCS Number of Deviant Signs score was analyzed and rejected as an alternative measure of adjustment. It could not significantly discriminate Ss with known and blatant psychopathology, it was not validly related to clinical criteria of pathology-adjustment, nor was it even reliably

related to the main measure of adjustment of the same scale.

Integrating the results indicated that high levels of self-concept were found in both the community 60's and 80+ Ss while the other four subsamples were not markedly different. High self-concept appears to be associated with greater openness and the capacity to flexibly use all three time directions while low self-concept Ss tend to be more isolated and rigidly bound to the present. The main factors affecting the demonstrated progression in self-concept levels by reminiscence types were concluded to be the presence or absence of unresolved conflicts and the type and effectiveness of either defending against the troubling aspects of these conflicts or realistically resolving them through the use of the added perspective of experience. Testable hypotheses were offered to confirm or deny these conclusions in future research.

The present results were discussed in the light of past research. The naive assumption that reminiscing quantity per se is adaptive was rejected. Similarly the conclusion that very old well-adjusted people cease to reminisce was rejected. Rather, the importance of the nature of reminiscing as a reflection of self-esteem and as a possible means of enhancing adjustment was stressed. Various other aspects of the results were related to past research on adaptation to aging, theoretical implications were noted and some implications for use of reminiscing as an aid in effective therapeutic

intervention where appropriate were discussed.

It was concluded that reminiscing is an immensely important behavior in the aged which possesses great potential for the enhancement of personality integration.

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APPENDICES

APPENDIX A

LIFE EXPERIENCE QUESTIONNAIRE

1. On the whole what kind of life do you think you've had?
2. If everything were to be the same, would you like to live your life over again?
- 3a. If you were going to live your life over again, what would you change?
- 3b. If you were going to live your life over again, what would you definitely not want to change, i.e., what would you want to keep just as it has been?
4. What is the very first event that you can recall in your life?
5. What is the second event in your life that you can remember?
6. What would you say have been the three main satisfactions in your life? Why were they satisfying?
7. Everyone has had disappointments. What have been the three main disappointments in your life?
8. What were the three most difficult things you had to face in your life?
9. What was the happiest period of your life? What about it made it the happiest period?
10. What was the unhappiest period of your life? What about it made it unhappy?
11. Tell me more about yourself.

APPENDIX B
PERSONAL DATA QUESTIONNAIRE

1. Name _____
2. Age _____ 3. Date of birth _____
4. Marital Status Single ____; Married ____; Widower ____;
Divorced ____.
Number of children, if any. ____
Seen how often? _____
5. Main occupation _____
Any others? _____
Retired? ____ If yes, how long? _____
6. Hobbies or avocations _____

7. Highest educational level attained? _____
Specialized training? _____
8. State of health: poor ____; good ____; excellent ____
Disabilities _____
9. Living quarters (community volunteers) own home _____
rent ____; with relatives ____; other _____

APPENDIX C

CRITERIA USED TO DEFINE AND DISTINGUISH REMINISCENCE TYPES

Reminiscing Avoider

1. Tends to avoid self-disclosure or any kind of reminiscing.
2. Usually defensive use of avoidance, but not necessarily. May be well adjusted but just not care to discuss the past.
3. This judgment is based primarily on the limited amount of reminiscing of any kind done by the S.
4. Affect is usually flat.

Defensive Reminiscer

1. Tends to use reminiscing mainly to enhance ego.
2. This category includes those who complain about past or present injustices done him.
3. Also, garrulousness to ward off conflicts and/or loneliness without insight into this defense.
4. Inability to accept one's own limitations, e.g., unreal "too perfect" self-image that is defended by revealing only the "good."
5. Though conflict areas may be mentioned or alluded to, there is usually little affect or insight that any disparity exists.
6. Some conflict areas may be so well defended that they are apparent only to an impartial listener.
7. Similarly disparities between the defended S's self-perception and societal norms are apparent only to others.

Conflictual Reminiscers

1. Reminiscence leads to airing of personal and/or interpersonal conflict areas in such a way that S is painfully aware of them.
2. Often much, usually negative, affect.
3. S tends not to "blame" others and has some awareness that conflict results from disparity between "ideal" vs. "actual" perceived self.
4. Often such conflictual reminiscing seems to emerge compulsively and is not under control of ego.

Well-Adjusted

1. This reminiscing consists of informative and/or entertaining tales from S's past.
2. Also there is retelling of old hardships or conflicts that have been resolved.
3. Often S may wish to share these experiences for the benefit of the listeners or as a guide to help them.
4. Usually characterized by a high degree of openness about self though may consciously choose not to reveal things that might "hurt" significant others.
5. Usually found is a desire to help others and acknowledgement of help from others.
6. Affect generally positive.

APPENDIX D

CLASSIFICATION OF STATEMENTS AND THEIR TEMPORAL REFERENTS

Classification of Utterances as Statements

1. Count as one statement all those that can logically stand alone as a complete thought. This means that all complete thoughts strung together with conjunctions, e.g., "I was a farmer and--ah--later took up shoemaking and harness work because I had done some of that" would be counted as follows:

("I was a farmer) and--ah--(I later took up shoemaking and harness work) because (I had done some of that.)"

Notice that in statement 2 the subject "I" is clearly understood and, therefore, is counted separately.

2. Some Ss may make several utterances with both subject and verb understood and each should be counted, but exclude those which are simply mannerisms of speech, e.g., some Ss frequently begin or end statements with the phrase "you know" or "Ya' see?"

3. Count as one statement conditional sentences of the "If . . . then. . . ." variety even though there may be several "If . . ." clauses.

4. At times Ss begin a statement, interrupt it with another related but independent thought before continuing the initial statement, e.g.,

"See, I was playing the part of (I loved to act and was in all the high school plays), but I was playing the part of Othello."

Count both statements.

5. At times S may begin a statement but never finish it. If the ending is quite apparent, count it as a statement. If not, don't.

Classification of Temporal Reference

Past (P)

1. All statements recounting actual occurrences in the past. These include statements which S made as narrator of the events, and those S quotes others as saying, e.g., S is telling of incident involving his mother and quotes her, "Get up, honey." Also where S is quoting a conversation, "Get out a' here!" "Who's gonna' make me get out?" etc. Where S quotes the parties to the conversation.

2. All statements concerning a condition which existed in the past but no longer continues, e.g., "I used to be a drinker." Exclude statements of a condition which still continues and may be expected to continue in the future, e.g., "I was the oldest of eight kids."

3. All evaluative statements made about events or conditions which occurred in the past. Exclude evaluative statements referring to an indeterminate time period or

covering the past, present, and expected to continue in the future, e.g., "I've had a good life."

Present (N)

1. Include all statements that S implies refers to the current condition or situation even though they may be accomplished acts, or future acts, e.g., "Yesterday I had breakfast and went downtown"--also--"Tomorrow, we've got a dance at the club." Generally interpret "present" or "current" to include the past two months and the next two months, however, attempt to determine S's temporal frame of reference and accordingly classify what seems to constitute past, present, or future for him.

2. Include all statements S makes about himself now such as his personal philosophy of life--statements of enduring beliefs unless specifically relating to past or future events, e.g.,

"I believe in God." (present)
 "God created the world." (past)
 "Christ is coming again." (future)

Future (F)

1. Include all statements about S's expectations of the future including expected actual events, e.g., "I know I'm gonna' die," all expected or foreseen conditions; "I would like to be married again," desired or feared events or possibilities, "I would hate to have to be put away in a place like that."

Multiple Time Referents (PN, NF, PNF)

1. Many statements may relate to two or all three temporal directions, e.g., "I have always enjoyed good music." This implies mainly a reference to the past but also applies to the present and would be classed "PN" (past and now). There is also an assumption that the statement will continue to be true in the future however this is much less pronounced so is not scored "F".

2. Speaking of his changing neighborhood, one S stated: "It's going from a white segregated neighborhood to a black segregated neighborhood." This implies past, present, and future and is scored "PNF".

3. Statements referring to both present and future are labeled "NF".

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