THREE INFERENCES CONCERNING MYTHS OF AGING

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ABSTRACT

This paper utilizes the 1981 Harris Pole data to analyze three theoretically interconnected research questions that address the issue of social myths among the elderly. The three questions are stated: 1) Have the elderly accepted the stereotype of aging on a personal level?; 2) What variables predict those elderly who do not accept the aging stereotype?; and 3) Is there a specific age in which a general consensus exits that suggests the stereotype is accepted among the elderly? In the past, the analysis of the first question has been completed with descriptive statistics. The intent of this paper will be to utilize more powerful inferential statistical techniques; such as, Factor Analysis and Path Analysis.
INTRODUCTION

The concept of "myth" is not new in the study of aging. Many introductory textbooks in social gerontology discuss myths of aging and consequences of them (Decker, 1980; Harris & Cole, 1980). In fact, Harris and Cole (1980) divide their chapters according to myths of old age. Myths of aging stimulate thought in gerontology and are important theoretically. A good example is the "disengagement theory." It suggests that as individuals grow old, they follow a natural process of mutual disengagement from society. Society withdraws from them and they withdraw from society. Common sense, and more importantly, empirical evidence contradict the disengagement theory. Yet, even though the disengagement theory has been discredited, many gerontologists still think in terms of it with some elderly populations. One underlying theoretical assumption associated with the work addressed in this paper accepted the stereotype of the re-emergence of the disengagement theory in specifying differences among the "young-old," the "middle-old" and the "old-old."

In addition to their theoretical importance, the myths surrounding old age are also significant within the context of service delivery for the elderly. Acceptance of these myths among service providers can have a profound effect on the elderly client's self-esteem and self-perception (Lowy, 1979). This paper addresses three important issues relative to myths in old age, via their statistical significance rather than their theoretical or practical ones. This paper addresses three important issues relative to myths within the aging process.
THREE RESEARCH QUESTIONS

The first research question can be stated as: "Have the elderly accepted the stereotype of aging on a personal level?" By this question, it is assumed that the social structure has defined the elderly as being deprived of basic human survival needs such as income, housing, education, medical care, etc. Descriptive statistics (Harris & Cole, 1980; Lowy, 1979; Schwartz & Peterson, 1979; Williamson, Munley & Evans, 1980) indicate that elderly have generally accepted the stereotypical role of the aged but have not for their unique selves. Such an individual is likely to report, "most elderly have these particular problems—but I don't." This statement emerges into a fascinating paradox when large groups of elderly say the same thing. The approach to addressing this research question will not merely be merely a replication of an analysis of past descriptive statistics. A statistical inference will be made through the use of factor analysis.

The second research question can be stated as: "What variables predict those elderly who do not accept the aging stereotype?" Although the first question has been addressed with descriptive statistics, after reviewing the literature one can discover that this second question has not been raised by either descriptive or inferential statistics. Several particular variables are likely to predict the outcome variable: 1) General Life Satisfaction; 2) Activity; 3) Health; 4) Income; 5) Income Satisfaction; and 6) Chronological Age. The method of analysis will be hierarchical multiple regression. More specifically, the independent variables can be diagrammed in order of their influence on the outcome variable:
The third research question can be stated as: "Is there a specific age at which a general consensus exists suggesting the stereotype is accepted among the elderly?" It has already been established via descriptive statistics that most elderly have accepted the stereotype for their group but not for themselves. Yet, one can speculate that there exists a point in the chronological cycle where there is a turnaround—that is, a point at which elders actually state that they do accept the stereotype for themselves. The major problem in gerontological research is that the term "elderly" has been arbitrarily defined as age 65—an age accepted by researchers because of an act of the United States Congress in 1935. Perhaps the term "elderly" should be defined with an empirical basis rather than an arbitrary one.
THE DATA AND THE SAMPLE

The data used to explore myths concerning the elderly come from a 1981 Harris Poll survey entitled "Aging in the Eighties." It was the second in a series of surveys that asked the same basic questions. The first survey, entitled "The Myths and Reality of Aging," makes the intent of the survey highly relevant to the objective of this paper.

The Harris survey was derived in a stratified random manner with over sampling of the elderly respondents. The sample size was 3,428 with a mean age of 58.7 and a standard deviation of 18.8. The range of the sample was 12 to 99 with only 8.3% of the sample 26 years of age and younger. Twenty-four respondents did not report their ages. In an examination of central tendency, it is clear that over sampling occurred. The descriptive statistics provided are not congruent with the population distribution in the United States. Thus, the over sampling of this elderly population was intentional and is the specific reason the survey was utilized for this research project.

DATA PREPARATION

Prior to the analysis, some of the variables within the Harris Poll had to be reconstructed to be utilized in a meaningful manner. An outline of the variable construction is particularly important for readers who are interested in replication. Each variable will be listed followed by a brief discussion on how it was prepared.
for the present study. Missing data was handled in a "listwise" manner.

Age was limited to those respondents who were 65 and older. Thus, all distributions of the variables described below are limited to the elderly sample.

Income was the most difficult variable to construct in a meaningful manner for data analysis. The original single distribution was programmed as two separate variables. The original data was listed as follows:

[first variable]
A. Under $1,000 1
B. $1,000 TO $1,999 2
C. $2,000 TO $2,999 3
D. $3,000 TO $3,999 4
E. $4,000 TO $4,999 5
F. $5,000 TO $6,555 6
G. $7,000 TO $9,999 7
H. $10,000 TO $14,999 8
I. $15,000 TO $19,999 9
[second variable]
J. $20,000 TO $24,999 1
K. $25,000 TO $29,999 2
L. $30,000 TO $34,999 3
M. $35,000 TO $39,999 4
N. $40,000 TO $44,999 5
O. $45,000 TO $49,999 6
P. $50,000 AND OVER 7
NONE (vol.) 8
Not sure/refused 9

After reconstruction of the two distributions into one variable, the responses for each item were transformed into median scores. Thus, item "N" ($40,000 to $44,999) received a median response of $42,500. This median transformation facilitated a more meaningful interpretation of multiple regression. The median income for the entire sample was $5,500 (mean=$8,524 with a standard deviation of $7,686.95).
Health as a variable was distributed in a quasi-interval manner using the following distribution: EXCELLENT, GOOD, FAIR, POOR, NOT SURE, MISSING. Responses that were listed as "NOT SURE" were treated as missing.

Activity was constructed as an index from nine (9) question/statements:

1. When did you last attend a movie?
2. When did you last attend place to shop?
3. When did you last attend a senior citizens center or Golden Age club?
4. When did you last attend a restaurant?
5. When did you last attend a community or neighborhood center?
6. When did you last attend a church or synagogue?
7. When did you last attend a library?
8. When did you last attend a doctor or clinic?
9. When did you last attend the home of a neighbor or relative?

The subjects responded in the following manner: 1) Within the last day or two; 2) Within last week or two; 3) A month ago; 4) Two to three months ago; 5) Longer than three months ago; 6) Never (vol.); 7) Not sure. The nine variables were converted to an index with Cronbach's alpha utilized as a method of reliability analysis. The nine variables offered an alpha of .6019. In examining each item, item eight (8) was discovered to have significant impact on dropping the alpha. As a result, item eight (8) was dropped from the analysis bringing the alpha up to .6331.

Life Satisfaction was also constructed as an index. Liang (1984) has demonstrated via Confirmatory Factor Analysis that the Harris Poll items can support a multi-dimensional scale. The items were "consistently replicated across four randomly divided subsamples" (p.613). Eighteen items were used:

1. As I grow older, things seem better than I thought they would be.
2. I have gotten more of a break in life than most of the people I know.
3. This is the dreariest time of my life.
4. I am just as happy as when I was younger.
5. My life could be happier than it is now.
6. These are the best years of my life.
7. Most of the things I do are boring or monotonous.
8. I expect some interesting and pleasant things to happen to me in the future.
9. The things I do are as interesting to me as they ever were.
10. I feel old and somewhat tired.
11. As I look back on my life, I am fairly well satisfied.
12. I would not change my past life even if I could.
13. Compared to other people my age, I make a good appearance.
14. I have made plans for things I'll be doing a month or year from now.
15. When I think back over my life, I didn't get most of the important things I wanted.
16. Compared to other people, I get down in the dumps too often.
17. I've gotten pretty much what I expected out of life.
18. In spite of what some people say, the lot of the average person is getting worse, not better.

The subjects responded to each statement with one of the following items: 1) Disagree; 2) Not Sure; 3) Agree. Cronbach's alpha was utilized to analyze the reliability within the index. This first run demonstrated an alpha of .774. In examining each item, it was discovered that statement number three (3. "This is the dreariest time of my life") had a significant influence on bringing down the alpha. After item three (3) was removed, the alpha was raised to .816.

Income satisfaction was determined by asking the following question: Please tell me which one of the statements describes your present situation?

1. I really can't make ends meet with the income I have now.
2. I just about manage to get by with the income I have now.
3. I have enough to get along and even a little extra.
4. I can buy pretty much anything I want with the income I now have.
5. Doesn't apply.

The responses "Doesn't apply" (.6% or 11 subjects) and "Not sure/refused" (.9% or 16 subjects) were coded as missing data.

The "outcome variable" represents the difference (subtraction) of two
responses. The respondents were asked ten (10) questions regarding problematic situations personally confronted. Later, they were asked the exact ten (10) problematic situations that are faced by people over the age of 65. The subjects responded by: 4) Very serious problem; 3) Somewhat serious problem; 2) Not sure; 1) Hardly a problem at all. Following are the ten statements:

1. Not having enough to live on.
2. Poor health.
3. Loneliness.
4. Poor housing.
5. Fear of crime.
7. Not enough job opportunities.
8. Not enough medical care.
9. High cost of energy.
10. Getting transportation.

Perhaps the outcome variable could be more appropriately titled: "the degree of denying of the elderly stereotype among the elderly." The scores on these items can be best interpreted as: "the greater the difference between the scores on each item, the greater the denial of the elderly stereotype for the subject." More specifically, the scores on this scale can examined in terms of deviations from zero (0). Thus:

A) **Positive numbers** indicate that the subject defines him/herself as different from other elderly. This subject defines him/herself **worse off** than most elderly.

B) **Neither positive or negative (0)** indicate that the subject defines him/herself in the **same** manner as he/she would define an elderly person.

C) **Negative numbers** indicate that the subject defines him/herself as different from other elderly. This subject defines him/herself **better off** than most elderly.

In order to justify the grouping of the two sets of questions, Cronbach's **alpha**
was again utilized to assess the reliability. A alpha of .8245 was derived from the first set of 10 questions. In an individual examination of each item, it was discovered that the deletion of any single item would actually lower the alpha. Thus, all items provided a contribution to the scale. In the second set of ten questions, an alpha of .8388 was calculated. As in the first set of ten questions, it was discovered that if any single item were deleted the alpha would decline. The high alphas of the two sets of questions provide empirical support for the first research question. After subtracting the variables, a new variable ("Outcome") was created for the second and third research questions. Since "Outcome" can be considered an index of ten (10) variables, the alpha was again calculated with the result of .7811.

THE RESULTS

RESEARCH QUESTION ONE

Like many other groups (Tringo, 1970), elders face social structure stereotyping that cuts them off from needed social contact. In more recent studies, Austin (1985) looks at attitudes toward the elderly from a longitudinal perspective. He demonstrates that the United States population has been exhibiting progressively less avoidance behavior toward the elderly in the last fifteen (15) years. Since there is less avoidance toward the elderly, is there less stereotyping? There may be less of a stereotyping problem, but there is little or no empirical evidence to support such an assertion. In fact, the work of Fisher,
Arluke and Levin (1985) point out that the Parson's "sick role" is more apt to be associated with the elderly. They write,

Our finding that age effects [sic] the recovery dimension of Parson's model does support the contention that the young ascribe an elderly sick role. Given identical symptoms and background characteristics, our respondents were more likely to ascribe a terminal sick role to the elderly than to the middle-aged... From a sociological point of view the ascription of a terminal sick role to the elderly is a result of stereotyping: a process whereby decisions and judgments are based on expectations for the members of a particular category, regardless of the reality (p. 164).

The stereotype emerging from the social structure is also supported by the work of Levin and Levin (1980). Rosow (1974: 8) writes, "these images of the old are not confined to younger people alone, but they are also shared by the aged themselves." Later (page 88) he notes that, "they [the elderly] stigmatize others while resolutely dissociating themselves from the stigmatized category." It is clear that the United States population stereotypes the elderly. The second research question within this report addresses the issue of the manner in which the elderly stereotype the elderly.

Prior to constructing the outcome variable, factor analysis was utilized in examining the factor structure of the twenty questions. As stated earlier, simple descriptive statistics (usually percentages) have been used to demonstrate that elderly have accepted the stereotypical role of the elderly for others but not for their unique selves. In fact, the same 20 questions in the Harris Poll were cited as data to support the simple findings (Harris & Cole, 1980; Lowy, 1979; Schwartz & Peterson, 1979; Williamson, Munley & Evans, 1980). If two factors emerge (factor 1, the first 10 questions; factor 2, the second 10 questions), stronger support can be offered to the descriptive findings.
Before discussing the factor analysis on the 20 items, it may be appropriate to mention some limitations of the findings. Perhaps the major problem is the issue of ordinal data. The concept of treating ordinal data as interval appears quite controversial in both the distant and recent past literature of research methodology. Some authors (Allen, 1976; Borgatta & Bochner, 1980; Burke, 1974; and Labovitz 1970 & 1967) suggest that using ordinal data as interval is a meaningful alternative while others (Kim & Mueller, 1978; Stevens, 1948; and Wilson, 1974 & 1971) suggest that ordinal data cannot be treated as interval under any circumstances.

Essentially, there were four questions that this writer used to decide the appropriateness of the treatment of ordinal data. 1) Do the ordinal or quasi-interval distributions appear or approach normal distributions? After examining the 20 distributions, it seems safe to conclude normality. 2) Is there a large sample? The sample size is over 1,800, which is considered to be quite respectable. 3) What is the number of ordinal or quasi-interval categories? Five categories seem to be safe; four categories are questionable; three categories are risky. The questions used in this analysis contain four categories which fell within the questionable range. However, since the first two questions are answered in the affirmative, the third question becomes less problematic. 4) Has the reader been informed of the potential problem? Writers of social science research have a responsibility to readers. Readers who are consumers of research should be offered adequate information to make credible inferences concerning the data.

The decision to utilize an oblique rotation was based on the material outlined by Tabachnick and Fidell (1983). They suggest that if the factors seem to be
correlated (as they usually are in the real world) oblique rotation is more reasonable. Tabachnick and Fidell (p. 408) use .30 as their "rule of thumb." The factor correlation between Factor 1 (the first 10 questions) and Factor 2 (the second 10 questions) was .43386. Rummel (1970: 401) discusses the selection of the factor model based on the data and the research question. He writes that "pattern matrix is best for determining the clusters of variables defined by the oblique factors (p. 399). Table 1 exhibits the final rotation of pattern matrix.

The manner in which the loadings appear strongly support the conclusion of the descriptive statistics discussed earlier. In fact, in all the various rotations, the same two factors always appeared. The first ten items loaded on the first factor, while the second ten items loaded on the second factor. Essentially the two factors indicate that elderly accept the stereotype role for other elderly but not for themselves. Since it has been demonstrated that elders do not accept the stereotype for their unique selves but do accept the stereotype for other elderly, it seems intellectually interesting to attempt to identify what variables predict those elderly who do not accept the stereotype.

RESEARCH QUESTION TWO

The answer to the first research question offers a sufficient amount of support to demonstrate that elders (on an individual basis) do not accept the aging stereotype. However, elders have accepted the stereotype for their age cohort. This brings us to our second research question; "What variables predict those elderly who do not accept the aging stereotype?" This is an important question
### TABLE I

**OBLIMIN ROTATION 2 FOR 2 IN ANALYSIS 1 — KAISER NORMALIZATION**  
**OBLIMIN CONVERGED IN 5 ITERATIONS**

**PATTERN MATRIX**

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>FACTOR 1</th>
<th>FACTOR 2</th>
</tr>
</thead>
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<td></td>
<td>SELF</td>
<td>OTHER</td>
</tr>
<tr>
<td>Item 1</td>
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<td>.68409</td>
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<tr>
<td>Item 2</td>
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</tr>
<tr>
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<td>.54742</td>
</tr>
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<td>Item 4</td>
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</tr>
<tr>
<td>Item 20</td>
<td>.62540</td>
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</table>
because a great deal of variability exists toward stereotyping among the elderly. Levin and Levin (1980; 79-115) list four major role categories (all of which have sub-categories) in which elders have been observed to respond to the negative stereotype. Rosow (1974: 76-79) also notes wide variation among the elderly's reaction to the unwanted stereotype. What are the social characteristics that differentiate those who do not accept the stereotype compared to those who do? First, one needs to exam the recent literature concerning traditional variables used in gerontological research.

Because of the work of authors such as, Larson (1978), some might suggest that "life satisfaction" is an over-worked variable in social gerontology research. Yet, the concept of "life satisfaction" still dominates the recent social gerontological literature (Doyle & Forehand, 1984; Kremer, 1985; George, Okun & Landerman, 1985; Liang, 1984; Lawton, Kleban & di Carlo, 1984). In fact, George, Okun and Landerman (1985) state that not only does "life satisfaction" continue to be an major dependent variable in gerontology literature but other variables such as income and health should continue to be intervening variables. They also note "that, although the total and direct effects of age are trivial, age is an important moderator of the effects of marital status, income, health, and social support upon life satisfaction" (p. 209). There is also support for the use of a somewhat usual variable with this study. The work of Liang, Kahana & Doherty (1980) and Peter (1972) suggest that "income satisfaction" accounts for variation among "life satisfaction" that other variables can not. Thus, sociological variables such as: 1) Age; 2) Health; 3) Income; 4) Activity; 5) Income Satisfaction; 6) Life Satisfaction were used to predict the Outcome variable—the degree of denying the aging stereotype.
A path model is the most appropriate statistical method of analysis to be utilized. Wolfe (1980: 185) defines four types of path models: 1) Recursive; 2) Block; 3) Block-recursive; and 4) Non-recursive. The path model utilized can be defined as a "Recursive Model." The causal flow among the variables is unidirectional. There are no feedback loops--either directly or indirectly. The recursive model offers an opportunity to analyze the data on three levels. First, it allows the research to direct causal linkages. Second, it allows the research to analyze the extent to which intervening variables account for relationships among exogenous and endogenous variables--called indirect effects. Third, examining indirect effects offers the researcher the opportunity to identify spurious effects.

Correlations among the dependent variable and the sets of independent variables are illustrated on Table 2. These correlations were then broken down into direct, indirect and total effects by means of path analysis. The effects were derived from hierarchical regression analysis and expressed as path coefficients (standardized betas). The relative weight and priority of the path coefficients indicate the comparative importance of the variables (see Tables 3, 4 and 5). Thus, it is possible to infer which variables are the best predictors of the outcome variable (the degree of denying the elderly stereotype).

Moving from right to left on Table 3, the findings confirm the work of George, Okun and Landerman (1985) who state that although the "direct effects of age are trivial, age is an important moderator" of the other variables. It was not surprising to have derived a high beta between the relationship of HEALTH and LIFE SATISFACTION. Yet, HEALTH dramatically dwindled in importance on its influence toward OUTCOME. The variable that causes the greatest intellectual
<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Income Activity</th>
<th>Income Satisfaction</th>
<th>Health</th>
<th>Life Satisfaction</th>
<th>Outcome Variable</th>
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<td>0.299</td>
<td>0.963</td>
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**Correlation matrix of the variables under study**

Table 2
### Table 4

**Reduced-form and Structural Equations of a Model of Stereotype and Racial Prejudice**

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<th>Income</th>
<th>Activity</th>
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**Note:**

- **p < 0.05**
- **p < 0.01**
- **p < 0.001**

**Legend:**
- `LIFE SAL` = Life Satisfaction
- `INCOME SAL` = Income Satisfaction
- `ACTIVITY` = Activity
- `INCOME` = Income
- `HEALTH` = Health
- `AGE` = Age
### TABLE 5


<table>
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<tr>
<th>Dependent Variable</th>
<th>Predetermined Variable</th>
<th>Total Effect</th>
<th>Indirect Effect</th>
<th>Direct Effect</th>
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<td>.06*</td>
<td>.03</td>
<td>.03</td>
</tr>
<tr>
<td></td>
<td>HEALTH</td>
<td>-.12***</td>
<td>-.05</td>
<td>-.07</td>
</tr>
<tr>
<td></td>
<td>INCOME</td>
<td>-.06*</td>
<td>-.01</td>
<td>-.05</td>
</tr>
<tr>
<td></td>
<td>ACTIVITY</td>
<td>-.11**</td>
<td>-.02</td>
<td>-.09**</td>
</tr>
<tr>
<td></td>
<td>INCOMESAT</td>
<td>-.14***</td>
<td>-.02</td>
<td>-.11***</td>
</tr>
<tr>
<td></td>
<td>LIFESAT</td>
<td>-.15***</td>
<td>-.03</td>
<td>-.15***</td>
</tr>
</tbody>
</table>

*** p > .001

** p > .01

* p > .05
interest is INCOME SATISFACTION. Outside of LIFE SATISFACTION, it demonstrated the greatest amount of stamina after all other variables were controlled. However, the discussion of the strength of the various variables may be considered moot if one considers that they can explain only 9.62% (the adjusted R square) of the variation in OUTCOME.

A better or more robust model needs to be established. Several hypotheses to improve the model can be outlined at this point. First, traditional sociological variables such as HEALTH, INCOME, ACTIVITY do not require as much personal introspection as the stronger variables of INCOME SATISFACTION and LIFE SATISFACTION. One must keep in mind that the OUTCOME variable is quite introspective. Perhaps more social-psychological variables need to be applied in order to predict the "degree of denying the elderly stereotype." For example, LEVEL OF EDUCATION would not be a good predictor, but perhaps SATISFACTION WITH LEVEL OF EDUCATION would. LEVEL OF OCCUPATION would not be good but perhaps SATISFACTION WITH LEVEL OF OCCUPATION would. This may explain the reason INCOME SATISFACTION is a much more powerful predictor when compared to the more traditional sociological variable of INCOME. Since the OUTCOME variable is social-psychological in nature, the predictors also need to be social-psychological.

A search for subjective criteria was implemented within the 1981 Harris Poll questionnaire. Eight new variables were identified:

1) PERSONAL CONFIDENCE IN SOCIAL SECURITY;
2) PERSONAL DESIRE TO LEARN NEW VOCATIONAL SKILLS;
3) FEELINGS ABOUT RETIREMENT PRIOR TO RETIRING;
4) CORRECT RETIREMENT TIMING;
5) RETIREMENT SATISFACTION;
In interpreting the work of Levin and Levin (1980) and Rosow (1974), these variables would have greater predictive value when compared to the standard objective variables (e.g. INCOME) often used by sociologists.

A second hypothesis for addressing the denial of stereotyping has to do with order of prediction. Within this study, "denial" (or OUTCOME) was defined as the major dependent variable. Perhaps this variable requires redefinition as an independent variable. Are one's actions determined by one's denial, or is one's denial determined by one's actions? One's personal denial of the elderly stereotype is more apt to dictate one's social behavioral reactions to environmental stimuli. It is suggested that the combination of these two hypotheses will produce greater predictive power and a greater understanding of the aging process.

A third point can be made concerning a change in the construction of the OUTCOME variable. Although the concept and construction seem theoretically valid, statistical interpretation is quite complex and lacks the parsimony required for ease of understanding. The OUTCOME could be constructed as a more parsimonious variable if it were reconstructed as a unidirectional variable. Although reconstruction of the OUTCOME variable would have little or no effect on the beta weights, much thought must be given to the reconstruction of this variable.
RESEARCH QUESTION THREE

The third research question, "Is there a specific age at which a general consensus exists that suggesting the stereotype is accepted among the elderly?" has gained much recent attention from prominent researchers in social gerontology (Baum & Boxley, 1983; Hayflick, 1984; Kastenbaum, 1984; Mason, Baskey & Perri, 1985; Palmore, Nowlin & Wang, 1985). Most gerontologists no longer accept the age of 65 as being "old." Austin (1985) suggests that the general population of the United States also does not accept this age. Thus, one major new trend in social gerontology is to redefine "old age" via several different paths (to be outlined later).

To address this question, the OUTCOME Variable from the second research question was re-examined. Subjects who responded with a zero (0) score (they define themselves in the same manner as they define an elderly person) were compared to subjects who responded with all other scores. The t-test was used for each of the ten (10) variables plus the composite of the ten items. None of the t-tests demonstrated statistical significance. None of them came even close. This, of course, was attributed to the means of the compared groups. In all eleven cases, the means were very close to each other.

To be more precise, the t-test was run on a reformularization of the data in order to examine more subtle differences between the two groups. Subjects who responded with a zero (0) score were again used. They were compared to subjects who responded with a negative score that demonstrated the greatest distance from zero (0). Substantively, these scores would represent subjects who exhibit the
greatest amount of denial in defining themselves within the elderly stereotype. For the first ten (10) outcomes, those who responded with a -3 were included for the comparison. In the overall OUTCOME Index, -14 was utilized. Subjects who fell into the -14 category represented the largest group of subjects with the greatest distance from zero (0).

Cleaning up the data had no impact in the final results. As in the first set of t-tests, none demonstrated statistical significance. On a statistical/methodological level and a substantive level, a powerful commentary can be made. Statistically, of course, the procedure of utilizing the t-tests in this manner is inappropriate. If one ignores the theoretical substance, the f-ratio is a more appropriate tool. By using a series of t-tests, one increases the probability of making a type I error (rejecting the null hypothesis, when it is true). Statistically, one would think that at least one of the t-tests would reject the null hypothesis based on random chance alone. On a more substantive level, using the t-test rather than the f-ratio provided greater empirical evidence that there are no age differences between the two groups.

The final answer to the third research question is clear, unambiguous and powerful. There is no chronological point in the life-cycle that can clearly be identified as "old." In the first research question, the findings that the direct effect of age on the OUTCOME variable (.03) supports the results of the second research question. Rosow (1974: 14) points out that "sociological rather than objective physical factors primarily govern the social definition of old age." The recent research on the identification of "old age" has taken two different paths. The first path is represented by the work of Baum and Boxley (1983). They suggest that old
age should be redefined by utilizing subjective criteria such as "how I feel about myself." The work of Hayflick (1984), Kastenbaum (1984) and Palmore, Nowlin and Wang (1985) suggest objective criteria, such as "social functioning." Based on the results and conclusions of research question two, the subjective criteria would seem to be the more fruitful path.

One anticipated criticism of the results could be the conclusion that elderly who are non-communicable were not surveyed. Certainly, those with the most severe form of OBS were unable to respond to the interviewers' questions. Yet, it is important to consider that those persons represent a very small percentage of the elderly population, less than 5% (the proportion of elderly in care facilities). Thus, even accounting for those elderly who were not sampled, there still does not seem to be a point in the chronological cycle that represents old age.

**IMPLICATIONS AND SUMMARY**

This paper addressed three theoretically interrelated research questions concerning stereotyping and the elderly:

1) Have the elderly accepted the stereotype of aging at a personal level?
2) What variables predict those elderly who do not accept the aging stereotype?
3) Is there a specific age at which a general consensus exists that suggests the stereotype is accepted among the elderly?

The first research question has been examined long ago and many times by many authors as outlined by Rosow (1974). However, since the more powerful statistical techniques had not been mastered by social scientists during that time
period, it seemed appropriate to revive this question under more rigorous examination. In the past the question was asked on a unidimensional basis, while today it can be asked within a multidimensional sphere. Certainly, more powerful inferences can be made with Factor Analysis than with simple percentages. The most effective method to address this question would be Confirmatory Factor Analysis.

The second research question produced some disappointing results with less than 10% of the variance explained in the OUTCOME. Clearly, the path model needs to be reworked in at least two different directions. Perhaps traditional sociological variables have been over-used without question and more subjective variables have been under-used in the social gerontological literature. Besides utilizing more subjective variables, it appears to be theoretically sound to recast the path model using "denial of the aging stereotype" as an independent variable rather than a dependent one. Denial on a personal level would seem to be the causal impact of important aging adjustment factors. In other words, the theory requires readjustment since the empirical criteria are unable to provide adequate explanation.

The third research question has gained a great deal of interest in the most recent social gerontology literature. The analysis within this paper provides extremely strong empirical support indicating that there is no chronological age that can be defined as old. As indicated earlier, there seem to be two paths in attempting to define old age. One empirical path is subjective, while the other is occupied by researchers who are utilizing objective criteria to define old age. A reconstruction of the path model for research question two would provide some
insight into the more fruitful path to follow. If the hypothesis (concerning the powerfulness of subjective variables in predicting) is accurate, then it is likely that old age is best defined with subjective variables.

This paper brought together three important concepts concerning the elderly stereotype in which two global implications can be noted. First, it has been suggested that the best variables for analysis of the elderly stereotype are of the subjective variety. This is not to suggest that the research is to be of a psychological nature. It is important to realize that stereotyping emerges from the social structure. Collins (1981) points out that the major substantive task of the contemporary sociologist is to link micro concepts (i.e. the subjective nature of denying the elderly stereotype) to macro concepts (i.e. the social forces that produce a social structure's empirically false stereotype). Mere contact (e.g. therapy) with elderly will NOT dispell the stereotype. Rosow (1974:9) writes, "these images of older people do not vary according to others' direct contact or experience with them, but tend to be fairly stable, regardless of exposure. Hence, the stereotype conceptions are not easily subject to change through direct association." More sociological research needs to be completed on the influence of the stereotype on the elderly.

Second, the stereotype outlined within this paper is also the "ideal type" of elder first descibed in the work of Cumming and Henry (1961)--better known as the "disengagement theory." Essentially the disengagement theory suggests that there is a mutual need for disengagement by both the elder and society. The interpretation of the results of this study places grave doubts on the validity of this theoretical perspective. Most elders simply do not accept the stereotype for themselves on a
personal level. However, the stereotype is accepted in the abstract. Elders and people in general will agree that most elderly fit into the stereotype, but few can actually identify a real person who fits into the mold.
REFERENCES

Allen, Michael Patrick

Austin, David R.

Baum, Steven K. & Russell L. Boxley

Borgatta, Edgar F. & George W. Bohmstedt

Burke, Cletus J.

Collins, Randal

Cumming, Elaine & William E. Henry

Decker, David

Doyle, Daniel & Marilyn J. Forehand

Fisher, William, Arnold Arluk & Jack Levin

George, Linda K., Morris A. Okun & Riccard Landerman

Harris, Diana K. & William Cole

Hayflick, Leonard
Kastenbaum, Robert

Kim, Jae-On & Charles W. Mueller

Kremer, Yael

Labovitz, Sanford

Lawton, M. Powell, Morton H. Kleban & Eric diCarlo

Larson, R.

Levin, Jack & William Levin

Liang, Jersey

Liang, Jersey, Eva Kahana & Edmund Doherty

Lowy, Louis

Mason, Susan E., Patricia Baskey & Diane Perri

Palmore, Erdman, John B. Nowlin & Hsioh S. Wang

Peterson, David A.

Rosow, Irving
1974 Socialization to Old Age, Berkeley: University of California Press.
Rummel, R. J.

Schwartz, Authur N. & James A. Peterson

Stevens, S. S.

Tabachnick, Barbara G. & Linda S. Fidell

Tringo, J. L.

Williamson, John B. Anne Munley & Linda Evans

Wilson, Thomas P.

Wolfe, Lee M.