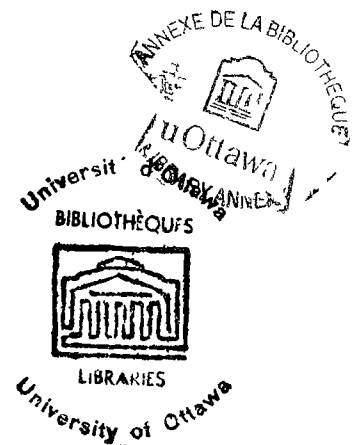


~~A COMPARISON OF OCCUPATIONALLY INCOMPETENT PERSONS OVER THE~~
~~AGE OF SEVENTY WITH OCCUPATIONALLY COMPETENT PERSONS OVER~~
~~THE SAME AGE~~

by Alphonso J. Orrico

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of the University of Ottawa through the
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CURRICULUM STUDIORUM

Alphonso J. Orrico was born in Jersey City, New Jersey, of Italian immigrant parents. He received the degree of Bachelor of Science from Rutgers University in New Brunswick, New Jersey in 1932 and the degree of Master of Arts from Columbia University in New York in 1933.

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INTRODUCTION

The Problem

This is a study in gerontology. Its purpose is to determine, within certain limitations of scope, why certain individuals continue to be occupationally competent after the age generally specified for retirement while others fall into a state of incompetency after that time. It seeks the causes of the alertness, vigorousness, and activeness with which the first group proceeds as it faces the future with enthusiasm and confidence and the causes of the broken spirit that is characteristic of the older person who has become an adject, disinterested charge of society or a dependent of his family.

The scope of this study is limited to a consideration of the mental characteristics of the individual to the extent that they can be measured by a standardized inventory, a questionnaire, and an interview. It seeks to collect data that indicates what characteristics are present in the competent man but absent in the incompetent and vice versa so that the end result includes two composite personality descriptions. The first describes the competent man over seventy years of age and the second the incompetent man

over seventy years of age.

All physical factors being equal, it is assumed that some mental quality is responsible for the ability of some persons to continue active after a certain age while some counter-condition is responsible for other individuals losing this ability. By determining how one group differs from the other, some light may be shed upon the responsible factors.

Historical Implications

The science of gerontology is new in name only. The aged have always been with us, although not in such great numbers as they exist today, and their problems have long taxed the minds of the great thinkers. More than two thousand years ago, Aristotle¹ and Cicero² anticipated the traits ascribed to older persons by modern gerontologists. Aristotle analyzed fifteen contrasting aspects of behavior in young and older persons in his second book on Rhetoric in an endeavor to acquaint students of oratory with the needs of various types of audiences. He never considered

¹Albert R. Chandler, "Aristotle on Mental Aging", in the Journal of Gerontology, Vol. 3, No. 3, issue of July 1948, p. 222-223.

²Marcus Tullius Cicero, Old Age, translated into English from the text of Nobbe by William Lewers, Dublin, Kelly, 1853, 35 p.

the subject as a pertinent part of his Psychology. His treatment of it was incidental to a treatment of problems attending the delivery of orations. In this way, Aristotle revealed the unconscious concern with problems of older persons exhibited by early writers. Cicero's discourse was directly concerned with age, and he tried to arrive at a solution of its problems by suggesting, among other things, that acts of pleasure would improve the mental status of the older person.

From statements of the problems of the aged and the descriptions of their characteristics by ancient philosophers has developed the science of gerontology. The history of this development has been adequately treated by Hinman¹ and other writers so that there is no need for any elaborate expansion of it here.

Need for the Study

There is no dearth of opinionated material, based on observation perhaps, that points to the need for research in this area. For example, there is the work of I. L. Nasher, M. D., in its preface², the author laments the serious lack

¹Frank Hinman, "The Dawn of Gerontology", in the Journal of Gerontology, Vol. 1, No. 4, issue of October 1946, p. 411-417.

²I. L. Nasher, Geriatrics, Philadelphia, Blackiston's, 1914, p. v-viii.

of attention that was given at the time of publication to the problems of the aged. His had been the first book on the subject since Diseases of Old Age which was written by Chariot and Loomis in 1861 and which consisted largely of translations of published lectures delivered by French physicians. Nasher attributed the neglect of the aged to the general mental attitude of the public which confined sentimental interest in the old to the immediate family of the individual. He stressed the fact that this interest was often less sentimental than dutiful. This author said in part:

We realize for all practical purposes the lives of the aged are useless, that they are often a burden to themselves, their families and the community at large. Their appearance is generally unesthetic, their actions objectionable, their very existence often an incubus to those who take upon themselves the care of the aged.

This disheartening statement reflects the attitude of Nasher's day, an attitude which had to be improved if the science of geriatrics were to advance and the study of gerontology were to originate. It reflects the inertia with which this pioneer and a few interested colleagues in America had to contend.

Recently, the interest in the problems of the aged has greatly increased because sociologists, economists, and statisticians have called attention to the fact that the number of persons past the age of sixty-five is steadily

increasing and that this increase will produce a number of serious consequences.

In the March 20, 1950 issue of Newsweek¹, there is an article prepared by the editors which points out that there are now 11,500,000 persons over sixty-five in our country while in 1930 there were only 5,000,000. The percent is steadily increasing so that it has been estimated that in time, with the decrease in birth rate, there will be in existence as many persons over the age of sixty-five² as there will be under that age.

The article states that the chances of a person over sixty-five-taking care of himself are not very good because almost half the persons past retirement age suffer some degree of economic hardship. In 1948, only half of these individuals were able to support themselves on incomes from investments and savings. About 3,500,000 had no incomes and 4,500,000 had incomes of less than one thousand

¹"What to Do About the Old Folks", feature article in Newsweek, Vol. 35, No. 12, issue of March 20, 1950, p. 58-64.

²This age is selected, not because it is necessarily the age at which senescence begins (Alzheimer's disease), but because it is the age at which social security payments begin and the one generally selected for retirement. Its selection has been an arbitrary one. The trend on the part of physicians has been to raise this age to seventy, as those who read the medical magazines will notice, the age selected for this experiment.

dollars a year. Although the statement is made that larger pensions are a possible answer, the article explains that many experts are of the opinion that they are at best a poor solution. The individual no longer looks to his own resources for survival, but relies wholly upon the state or his former employer. Such a situation will undermine individual initiative and freedom. It is a step toward socialism. Other experts feel that the pension systems will not be able to withstand the burden and will collapse. Hence the necessity of seeking another solution.

Hollingsworth¹, in 1927, reported that not over four per cent of adults at the period of later maturity had accumulated a competence sufficient to keep them independent of relatives or public philanthropy.

The March 1950 issue of R. N.² carries another pertinent article which reveals that existing facilities for the care of our older citizens are pitifully inadequate and that this already serious problem will become more acute as the number of older persons increases. It presents evidence that thirty-five per cent of the commitments to New York

¹H. L. Hollingsworth, Mental Growth and Decline, New York, Appleton, 1927, Chap. 14.

²Alfred Reetz, "Why Imprison Our Aged?", in R. N., A Journal for Nurses, Vol. 13, No. 6, issue of March 1950, p. 34-36, 78 and 80.

state mental hospitals from 1942 to 1948 were of older persons whose only ailment was indigency. This crowding of dependent persons into a hospital interferes seriously with necessary routine and prevents adequate care of the mentally ill. Its effect upon the comfort and morale of the committed is easily visualized. The article suggests that this problem be resolved by the establishment of a specially planned barrack type of community administered by a staff of psychiatrists, geriatricians, psychiatric nurses, attendants, and recreational and occupational therapists. Others feel that the need for such facilities might best be avoided by researches that will prolong the usefulness or independence of the older person.

Perhaps the most ambitious undertaking in the establishment of a community, one so planned that it will provide data that will ultimately enable society to cope intelligently with the problems of older people, is described by Grace R. Miller¹. The community, which is named Moosehaven, was established at Orange Park, Florida, by the Loyal Order of Moose after that organization became conversant with the existing problems. It maintains a Bureau of Research directed by Dr. Robert Kleemeier, formerly

¹Grace R. Miller, "City of Opportunity", in Magazine Digest, Vol. 40, No. 4, issue of April 1950, p. 96-98.

assistant professor of psychology at Northwestern University. A Moosehaven spokesman is quoted as summing up the purpose of the community in this manner:

The study is expected eventually to suggest answers for the first time to the problem of how to utilize fully the capabilities of elderly, healthy persons in an effort to combat the worries and feelings of uselessness and insecurity which often accompany later years.

The Bureau of Research is seeking answers to the following questions: What is old age?, What happens to the abilities and aptitudes of people in the late maturity years?, and Does there have to be a general decline in their capabilities; or can their development be continued or even increased?

Evidence that the problems of older persons have awakened active interest on the part of the United States government is offered by a newspaper article bearing the headline U. S. Parley to Help Aged Called at Truman Request¹. It announced that President Truman asked Federal Security Commissioner Oscar R. Ewing to call the first nation-wide conference on aging to be held in Washington, D. C., August 13, 14, and 15 of 1950. In his letter, the President

¹Bess Furman, "U. S. Parley to Help Aged Called at Truman Request", signed news article in New York Times, Vol. 909, No. 33,738, issue of June 8, 1950, p. 1, cols. 2-3.

requested Mr. Ewing to "explore with all appropriate groups, both within and outside the Federal Government, the problems incident to our increasingly older population and to report to me on your findings and recommendations".

Suggestions that were to be considered at the conference, as stated in the article, were:

1. Implications of an aging population. The Federal Government should set up a clearing house for studies and programs. The New York State Joint Legislative Committee on Problems of the Aged correctly stated that public policy should be defined.
2. Employment. Three reasons for letting workers stay in gainful employment as long as possible were given: a better adjusted individual, a partly self-supporting person lessening dependence, and more goods and services to raise living levels. Part-time employment, reduced wage rates and re-education were among recommendations.
3. Income maintenance. Faults in public and private insurance systems were cited, notably their tendency to compel retirement after sixty-five.
4. Health maintenance. Detailed recommendations focused on psychological preparation for old age and treatment in the field of chronic diseases.
5. Education. Recommended were programs for the the education of the older-age group, and "programs designed to change attitudes of our entire society toward older people".
6. Family life and housing. Suggested were boarding homes where aged could share social life and care with others situated similarly, and amending the housing act to permit Federal aid to units for older persons living alone.
7. Creational and recreational activities. Older people need opportunity to meet new friends to replace the relatives and friends they have lost.

Planning and leadership for older people by older people was recommended. The semi-outdoor centers in several Florida communities were cited. More research into the interests of the aged was recommended.

8. Religious programs and services. The report to be considered stated that more emphasis must be placed on the non-material aspects of man's nature. His spiritual nature demands opportunities to worship. Specific spiritual and religious services are important. The physical limitations of older persons present a particular challenge to the churches and religious organizations.

9. Community organization. Community surveys of facilities for the aging preparatory to new experiments in the field were recommended.

10. Personnel. More physicians, psychiatrists and counselors for the aging were recommended.

Immediately after this meeting of experts in the National Capitol, six articles were issued to the newspapers by Associated Press Newsfeatures to acquaint the public with the problems. They explained how councils of social agencies were sponsoring clubs, forums, and social centers for mature persons; how private industries had established retirement programs, counseling aid, and job placement bureaus for them; how public libraries had sponsored hobbies, lectures, and field trips; and how universities had set up courses to guide oldsters.

Of all the problems mentioned for discussion in the list above, that concerning education to change attitudes of society toward older people (and age) was found to be the most urgent by the present study.

Many other writers and investigators have evinced concern over the need for additional research in the field of gerontology. In 1944, Dinkel¹ reported on a study that revealed that the majority of young people no longer felt the responsibility of caring for parents who were no longer capable of self-support. This apparently indicates that older people no longer enjoy the security of knowing that they will be cared for by the families that they reared and will have either to find means of remaining self-supporting or seek assistance elsewhere.

Frankel² renders this finding more poignant when he demonstrates that family care of the older mental patient (and this could apply to older normal people as well) is advocated because many such patients do not do well in the hospital but flourish in the warmth of family life. He explains that family care often constitutes wholesome therapy because it increases the initiative of the patient and decreases his fretfulness and resentment at the confining

¹R. M. Dinkel, "Attitudes of Children Toward Supporting Aged Parents", in American Sociological Review, Vol. 9, No. 4, issue of August 1944, p. 370-379.

²Emil Frankel, "Mental Hygiene Problems of the Aged", in the Journal of the Medical Society of New Jersey, Vol. 42, No. 3, issue of March 1946, p. 79-83.

atmosphere of the hospital. Quite eloquently, the author expresses the sentiment that the older person needs to be made to feel useful, and that one of the finest acts that can be accomplished is to arouse the conscience of the American people to a sense of moral obligation to old folks, not merely to supply them with security against economic want, but also to teach them the need of giving understanding and loving care to old people, of making them feel themselves to be valued participants in family and community affairs.

A. J. Lewis and H. Goldschmidt¹, working with a Rockefeller grant, found a marked increase in the number of older persons admitted to mental hospitals in England and Wales between 1931 and 1938. They found that the background of these patients showed a severe deprivation of social contact with less and less feeling themselves members of the community. Some were not accepted by their families while others had not been living with their spouses or children at the time of the onset of their illness.

N. Lewis² places great emphasis on the need for rendering the older person economically useful. He stresses

¹A. J. Lewis and H. Goldschmidt, "Social Causes of Admissions to a Mental Hospital for the Aged", in Sociological Review, Vol. 35, Nos. 3 and 4, issue of July and August 1943, p. 86-98.

²Nolan D. C. Lewis, "Applying Mental Health Principles to Problems of the Aging", in New Goals for Old Age, G. Lawton, Ed., New York, Columbia University Press, 1943, p. 91-105.

the fact that older people must be made to feel that they are part of the world of affairs if they are to retain mental health. Dr. Lewis feels that frequent change of activity is a factor in retarding senility.

Allen, Blake, Carrell, Cicero, Kardiner, Lawton, and Rolleston are others who have made gerontologists aware of the inadvisability of a least complete retirement.

After pointing out that the human body possesses a highly developed brain and an especially intricate cerebral cortex which functions in the older years as well as in youth in enabling it not only to operate involuntarily but also to be endowed with a certain amount of volition expressed in behavior and motivated by thought and feelings, Allen¹ appeals to the physician to treat the older as a human being whose desire is to keep useful.

Blake² attempted to gain some insight into the attitudes toward retirement of some four hundred individuals from age thirty-five up. The results of this study are vague but seem to indicate a fatalistic attitude towards aging and

¹Edward B. Allen, "Psychological Orientation in Geriatrics", in Geriatrics, Vol. 4, No. 2, issue of April 1949, p. 67-73 .

²W. B. Blake, "Attitudes Towards Retirement and Old Age", in The American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 366-367.

the uselessness imposed.

Carrell states that leisure is even more dangerous for the old than it is for the young. He avers that appropriate work should be given to the older person but not rest¹. He states further that work is more effective than alcohol and morphine in helping people to bear adverse conditions², and that physiological and mental functions are improved by work³.

Kardiner⁴ claims that enforced retirement is a dangerous force about which we know little but against which we must guard. It is the basis of neuroses of the aged, and society should have the responsibility of ensuring that the activities of older individuals are never abruptly stopped but are changed in accordance with the altered capacities of the worker is his contention. Kardiner feels that in addition to food and love, the individual needs the opportunity to be both functional and effective.

¹Alexis Carrell, Man the Unknown, New York, Harper, 1935, p. 186.

²Carrell, op. cit., p. 221.

³Carrell, op. cit., p. 224.

⁴A. Kardiner, "Psychological Factors in Old Age", in Mental Hygiene in Old Age, New York, Family Welfare Association of America, 1937, p. 14-26.

George Lawton makes mention of the need, continued usefulness in nearly all of his writings. A renowned gerontologist, his conclusions are based on years of counseling service to the older client.

Rolleston¹ is of the opinion that the inability of healthy, vigorous individuals to continue to work in later years is an exception to the rule and is a matter of individual differences. He deplors the fact that enforced retirement is so regular a practice when it is such a harmful one.

Only one study² has been found by this investigator that contends that while there is much old age, there is comparatively little old age necessity of such a nature as to call for state action. It reports that it is probable that the majority of those who fall within any statistical definition of old age are able to support themselves by their own labors or have resources that render such labors unnecessary. Of course, this study includes in its wide scope persons who are dependent upon relatives, philanthropic groups, pensions, and the like, for maintenance. For that reason,

¹H. Rolleston, Some Medical Aspects of Old Age, London, Macmillan, 1922, ix-170 p.

²National Industrial Conference Board, The Support of the Aged, A Review of Conditions and Proposals, New York, National Industrial Conference Board, 1931, xi-65 p.

it is able to conclude that there is no urgent problem. Since its function is the investigation of the support of the aged, it ignores the psychological factors involved in the problems of older people. Also, its reference is to present conditions of the older person. It does not consider aspects of the problem as the older population increases. Its conclusion may mislead the average reader. Mention of this study is made here with comments to offset any argument that may be advanced against the need for further consideration of the problem.

It is well to conclude this introduction by mentioning Pollak's work¹. It calls attention to the need for research in the field of gerontology based on a frame of reference that will enable scientists to relate their studies so that they will be contributions to science or knowledge which are complementary rather than independent of each other. Pollak states that age presents special problems of adjustment characterized by frustration and that it is the purpose of research to solve these problems of adjustment so that the older person will become a happy member of society.

The present study attempts to complement whatever other work has been done in the field applying an approach

¹Otto Pollak, Social Adjustment in Old Age, A Research Planning Report, New York, Social Science Research Council, 1948, xi-199 p.

not used previously. It is aimed at describing some of the qualities of the occupationally competent person and the occupationally incompetent person so that some information might be yielded that would assist the worker who is interested in guiding the older person in maintaining that usefulness which is deemed so important in the proper happy adjustment of these people. It is directed also at alleviating some of the burden that has come to society in caring for the older person by suggesting how he may remain self-sufficient.

Since this thesis was prepared, articles on the subject have been appearing almost incessantly in the newspapers, magazines, and medical journals. They can not possibly escape anyone's attention. In almost every mail, the candidate receives these clippings from friends who feel that reference to them should be made. It is now too late to include many of these which do carry information that is very important. It can only be hoped that the reader has seen them and can see their relationship to this study.

CHAPTER I

RELATED LITERATURE

Literature in the field of gerontology is abundant. It ranges from the pseudo-scientific literature designed to attract profits by appealing to the hidden desire of most people for eternal youth and the pseudo-philosophical writings which rationalize for the purpose of offering consolation to those who cannot adjust themselves to their changing status all the way to the authentic, sincere reports which have made valuable contributions to the science.

Purpose and Scope of the Survey

The purpose for surveying the literature was threefold. First, it was necessary to ascertain just what studies had already been made so that duplication might be avoided and to determine whether or not the present study would be of a nature complementary to these. Second, it was considered important to determine the need for a study such as this. The third objective phase of the threefold purpose was to discover whether or not preceding studies presented evidence that indicated that the "prognosis", so to speak, for the older person was favorable, that is, whether or not his mental qualities and personality traits could be altered or improved. If this were found not to be the case, then a study of this sort would be wasted effort. An attempt was

made to fulfill the second of these objectives by reporting in the Introduction some of the literature reviewed. The literature which meets the needs of the remaining two objectives is reviewed in this chapter.

Considerable overlapping was found to exist in the works that were perused. For that reason, only a sampling of what were considered the most representative of these studies are reported here.

General Surveys

Both Donahue and Kuhlen summarized fairly comprehensively the results of studies in the general area of gerontology. Donahue¹, after tracing the history of researches in later maturity, concluded that it is no coincidence that the central nervous system ages much more slowly than the functions of procreation and other biological processes. She maintained that this occurred so that man might devote his time after the cessation of certain biological functions to creative thinking; and that in time, with the expansion of this period of later maturity, the reward may be a new era of intellectual conquest.

¹Wilma Donahue, "Changes in Psychological Processes with Aging", in Living Through the Older Years, edited by Clark Tibbitts, Ann Arbor, University of Michigan Press, 1949, p. 63-68.

Kuhlen¹ concluded that findings in research with older persons show relatively little loss in over-all productivity and efficiency. He pointed out that data that has been collected to date show that older workers have fewer accidents than the younger in spite of demonstrated changes in reaction time and sensory acuity. This author explained that sensory losses such as deafness pose special adjustment problems because of the attending social isolation. He called attention to the need for early consideration of individual health problems.

Lawton², in 1938, reviewed the literature in the field and reported that no adequate study of mental functions of older persons yet existed because a satisfactory psychometric tool, one which would compare the older person not only with his normal contemporaries but which would compare his abilities in their present state with his abilities as they were when he was younger, was lacking. Such a program, he contended, must be based on the theories that different test performances reach their peaks at different ages and

¹Raymond G. Kuhlen, "Psychological Trends and Problems in Later Maturity", in An Introduction to Clinical Psychology, edited by L. A. Pennington and Irwin A. Berg, New York, Ronald, 1948, p. 218-248.

²George Lawton, "Mental Abilities at Senescence; A Survey of Present Day Research", in the Journal of Applied Psychology, Vol. 22, No. 6, issue of December 1938, p. 607-619.

show different courses through maturity, and that even those performances which appear to decline rapidly after maturity in relation to other test performances are seen to decline slowly when compared with the rate of development.

Genetic Studies

The literature appears burdened with the so-called genetic studies which are now considered an essential part of the total of gerontological research. W. C. Miles and his associates seem to have contributed much of value in this area through a series of articles which have been released for publication since 1931. They are reports on a series of studies known as the Stanford University Studies of of Later Maturity which undertook to investigate the relationship of various human abilities to age. Comparisons of the abilities of twenty-five hundred subjects ranging in age from 7 to 94 were made. Two hundred of these subjects were past the age of 70. The studies of these subjects, who were drawn from church groups, clubs, lodges, and philanthropic societies, showed at what ages decline in the various abilities begin. In general, the studies showed great variability within and without the various age groups so that the factor of individual differences cannot be discounted. Some of the older individuals performed as well as or better than some of those

of the younger groups. Since the reports on these studies exist in great numbers, no individual foot-note references are made to them here. The reader is referred to the studies credited to Miles, W. C., in the annotated bibliography appended to this report.

One study on heredity has come to the attention of this candidate. It is that of Kallmann, Feingold, and Bondy who compared the life histories of one hundred fifty same-sexed, twin pairs of either zygosity between the ages of sixty and ninety-five and found that, as a rule, similarities in test scores, biological adaptabilities, and social histories of monozygotic twin partners considerably exceeded those of dizygotic twin pairs. They concluded therefrom that the ability to survive the period of senescence and to adjust to it seems to be part of the normal equipment of man and displays graded variations within the limit of normality.

Much has been made of the survival of the ability to handle vocabulary. In 1930, Babcock² reported on her

¹F. Kallmann, L. Feingold, and E. Bondy, "Comparative Adaptational, Social, and Psychometric Data on the Life Histories of Senescent Twin Pairs", in the American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 365-366.

²H. Babcock, "An Experiment in the Measurement of Mental Deterioration", in Archives of Psychology, Vol. 18, No. 117, 1930, 105 p.

test of mental efficiency which was designed for use with psychotic patients. It was based on the premise that deterioration occurs first in new learning and last in the earliest formed material. By finding the discrepancy between scores on Terman's vocabulary (representing the earliest formed material, language) and a series of speed and learning tests, the administrator could compute a measure of deterioration.

Other studies corroborated Babcock's assumption that vocabulary remained fairly stable at various ages. Among these were the investigations of Grace¹ and Brody².

Sorenson³ studied a group of 641 adults who were equated on the basis of educational and occupational status, and found that the curves for vocabulary ability ascended with age while those for paragraph-reading remained stationary.

¹A. G. Grace, "Individual Differences in Adults", in the Journal of Educational Psychology, Vol. 23, No. 3, issue of March 1932, p. 179-186.

²M. B. Brody, "A Note on the Use of the 1937 Revision of the Stanford-Binet Vocabulary Test on Mental Hospital Patients", in the Journal of Mental Science, Vol. 86, No. 362, (New Series No. 326), issue of May 1940, p. 532-533.

³H. Sorenson, "Mental Ability Over a Wide Range of Adult Ages", in the Journal of Applied Psychology, Vol. 17, No. 6, issue of December 1933, p. 729-741.

Gilbert¹ compared a group of 185 younger individuals with a group of 175 older persons on the Babcock tests and found that vocabulary did not improve with age but remained constant. This finding seems to vitiate that of Sorenson which is cited above. She explained the tendency of the learning curves to converge near the top by stating that the greater the individual's native intelligence, the less he deteriorates or the longer he retains his full efficiency.

A study conducted by Weisenberg and others² revealed that little decline occurred in vocabulary, reading, spelling, and arithmetic with age. One by Wechsler³ showed that tests which measure information, comprehension, object assembly, and vocabulary hold up with age while those which measure digit span, arithmetical reasoning, substitution, block designing, and finding similarities decline.

In 1941, Yacorzynski⁴ mentioned the possibility

¹Jeanne G. Gilbert, "Mental Efficiency in Senescence", in Archives of Psychology, No. 188, New York, 1935, 60 p.

²T. Weisenburg, A. Roe, and K. E. McBride, "Adult Intelligence: A Psychological Study of Test Performance", New York, The Commonwealth Fund, 1936, xiii-155 p.

³David Wechsler, The Measurement of Adult Intelligence, Baltimore, Williams and Wilkins, 1939, p. 66.

⁴J. K. Yacorzynski, "An Evaluation of the Postulates Underlying the Babcock Deterioration Test", in the Psychological Review, Vol. 48, No. 3, issue of May 1941, p. 261-267.

that vocabulary scores may be maintained in later maturity because there are different yet acceptable ways of defining words. He contended that deterioration may have eliminated some of the more difficult responses without disturbing the score of the subject.

In another report of her experiments with a younger control group and an older experimental group, Gilbert¹ stated that the vocabulary scores remained stable while the scores in naming opposites and in learning paired associates decreased. She indicated that the opposites showed least deterioration because they are more closely related to simple vocabulary than other tests such as the paired associates which was among those showing the greatest loss.

The Effect of Speed on Performance

Several studies have indicated that speed is a factor which affects the performance of older people. If this factor were eliminated, the older person would be relieved of a disadvantage and would be able to work more efficiently. Among these studies is that of Lorge² who gave a number of intelligence tests with time limits and the CAVD

¹J. G. Gilbert, "Memory Loss in Senescence", in the Journal of Abnormal and Social Psychology, Vol. 36, No. 1, issue of February 1941, p. 73-86.
January 1941

²I. Lorge, "The Influence of the Test Upon the Nature of Mental Decline as a Function of Age" in the Journal of Educational Psychology, Vol. 27, No. 2, issue of February 1936, p. 100-110

with unlimited time to 143 subjects from twenty to seventy years of age. It showed that time limits tend to place older individuals at a disadvantage. The author offered the opinion that a correction for speed may alter the curve of mental decline to one of mental plateau or even to a curve of mental growth. He explained that the reported facts of mental decline as concomitants of age are more apparent than real and are due to the fact that the tests used to measure ability are very often not genuine measurers of mental power.

In another study offered in 1940, Lorge¹ went into some detail to show that a power test and a speed test do not measure the same thing in spite of the fact that a high correlation may exist between these two types of tests. He found that groups equated on the basis of sheer power to do mental tasks revealed important differences not revealed by tests which measure an undifferentiated mixture of power and speed. Thus he concluded that imputed recession is not a loss of mental power as such but an inability to work as fast with mental tasks. In his opinion, speed obscures sheer mental power in older adults.

¹I. Lorge, "Psychometry: The Evaluation of Mental Status as a Function of the Mental Test", in the American Journal of Orthopsychiatry, Vol. 10, No. 1, issue of January 1940, p. 56-61.

A study of Lorge's conclusions leads one to doubt the validity of such results as those obtained by Hebb¹ who reported in 1941 that adult deterioration is least in vocabulary, information, and verbal comprehension and greatest in speeded tasks, abstract problem solving, and unfamiliar performance. Reference is made here, of course, to his inclusion of "speeded tasks".

Results obtained in the Stanford Later Maturity Studies by C. C. Miles² after administering the Otis S-A Higher Examination, Form A, as a fifteen-minute intelligence test to about two thousand persons show a correlation of -.50 between age and score.

Rabin³ administered the Wechsler-Bellevue Scale to one hundred individuals up to age 84 in a state hospital and discovered that the highest scores were achieved in the verbal and untimed power tests. The lowest scores were obtained on the performance tests. This, of course, might have been

¹D. O. Hebb, "Clinical Evidence Concerning the Nature of Normal Adult Test Performance", in the Psychological Bulletin, Vol. 38, No. 7, issue of July 1941, p. 593.

²C. C. Miles, "The Otis S-A as a Fifteen Minute Intelligence Test", in the Personnel Journal, Vol. 10, No. 4, issue of December 1931, p. 246-249.

³A. I. Rabin, "Psychometric Trends in Senility and Psychosis of the Senium", in the Journal of General Psychology, Vol. 32, No. (First Half), issue of January 1945, p. 149.

expected since speed is more of a factor in performance operations where muscular coordination enters.

Then there is the study of Berren and others¹ which was reported at the 1950 convention of the American Psychological Association. They compared the ability of younger and older subjects to add single columns of varied lengths from two to twenty-five digits, and found that the performance of the older subjects was more frequently limited by speed of writing than was that of the younger subjects. Significant differences remained even after the speed element was eliminated, however, except at the level of lowest difficulty. The authors stressed the necessity of identifying in the individual the particular process determining the altered score. The determinant might be a factor such as slow visual perception, response time, or the like.

W. R. Miles², in a study reported in 1942, described an experiment in which the Otis test was given with strict time limits and then repeated under conditions which permitted the subject to spend an unlimited amount of time on each item. The decline with age was less in the latter case.

¹J. E. Berren, C. Fox, and J. Botwinick, "An Analysis of Age Changes in the Rate of Performance of Simple Intellectual Tests", in the American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 365.

²W. R. Miles, "Psychological Aspects of Aging", in Problems of Aging, edited by E. V. Cowdry, Baltimore, Williams and Wilkins, 1942, Chap. 28, p. 756-784.

In 1941, Lawton¹ summed up work done at Columbia and Stanford Universities and concluded that decline in later maturity is chiefly in reaction time, alertness of attention, and speed of response. He maintained that the loss may be relatively slight and is often balanced by improvement in judgement and strategy in tackling problems that years of experience have produced. His scrutiny of the literature revealed further that there are persons whose reaction time, even in advanced age, reaches or exceeds the average of young adults.

Jones, Conrad, and Horn² had previously concluded that the inferiority of older groups was not due to a speed handicap nor to factors involving interest in picture, visual acuity, or education. They used completion and multiple-choice tests to measure recall and observation and found continued improvement up to the early twenties followed by a slight and then a marked decline.

Lawton³ presented evidence to show that reaction time reaches its peak in the late teens and early twenties.

¹George Lawton, "After Sixty-five", in Mental Hygiene, Vol. 25, No. 3, issue of July 1941, p. 414-419.

²H. E. Jones, H. S. Conrad, and A. Horn, "Psychological Studies of Motion Pictures; Observation and Recall as a Function of Age", in University of California Publications in Psychology, Vol. 3, 1928, p. 225-243.

³George Lawton, "Aging Mental Abilities and Their Preservation", in New Goals for Old Age, New York, Columbia University Press, 1943, p. 11-33.

He accounts for its great decline by mentioning that reaction time depends more than any other ability on physiological function and therefore exhibits the most marked decline. Here, too, he emphasized the fact that exceptions exist, and cites an experiment in which twenty-five per cent of the seventy-five year olds had a reaction time equal to the average of the group.

W. R. Miles¹ also came to the conclusion that in later maturity chronological age should not wholly determine readjustment or retirement but should be considered in the light of experimentally determined capacity. He was lead to this conclusion after studying reaction times by means of a board which measured reaction to an auditory stimulus of finger pressure, finger lifting, and foot lifting as from an automobile accelerator, of adults ranging in age from twenty-five to eighty-seven. He discovered that one-fourth of the older subjects were as quick or quicker than the average for the total group.

Bellis², in 1933, measured the reaction time to light and sound of 150 subjects of various ages, and recorded the shortest times for those between twenty-one and

¹W. R. Miles, "Correlation of Reaction and Coordination Speed with Age in Adults", in the American Journal of Psychology, Vol. 43, No. 3, issue of July 1931, p. 377-391.

²C. J. Bellis, "Reaction Time and Chronological Age", in Proceedings of the Society for Experimental Biology and Medicine, Vol. 30, No. 6, issue of March 1933, p. 801-803.

thirty. There was a 75% increase for light and a 95% increase for sound for older males and a 70% increase to light and a 100% increase for sound for older female subjects.

Comparative Decline

The proportion of decline in various abilities has been indicated by a number of investigators. Beeson¹ studied twenty cases with an average age of seventy-five by means of the Stanford-Binet intelligence scale, and found the average I. Q. to be 83. He considered this low value to be due largely to decline in mental processes at senescence although it is now known that the Stanford-Binet is not a satisfactory instrument for measuring the intelligence of adults. The writer found no deterioration with advancing age during the period of senescence. The older half of the men scored higher than the younger half. No explanation for this phenomenon is available. Deterioration was judged to be greatest for auditory memory for digits or words, immediate visual memory or perception, analysis and synthesis, inventiveness and ingenuity, imagination, numbers, and arithmetical reading. The best performance was on the vocabulary test.

¹M. F. Beeson, "Intelligence at Senescence", in the Journal of Applied Psychology, Vol. 4, Nos. 2 and 3, issue of June and September 1920, p. 219-234.

Another study reported in 1920 showed that low scores in tests of memory depends relatively little upon the type of mental disease and a great deal, relatively, upon the chronological age. Foster¹ came to this conclusion after testing a number of psychotics. He found no change with age in memory span for digits but decided changes in drawing from memory and memory for short paragraphs. The decrease began fairly early.

The administration of the Yerkes-Bridges Point-Scale to 106 non-psychotic persons up to eighty-four years of age by Foster and Taylor² showed the greatest decline in drawing from memory, dissected sentences, three words in one sentence, and number of words given within three minutes. Least decline occurred in aesthetic comparison, indicating missing parts, comparison of lines and weights, counting backwards, and absurdities. The older subjects excelled the younger in comprehension, absurdities, and abstract definitions.

¹J. C. Foster, "Significant Responses in Certain Memory Tests", in the Journal of Applied Psychology, Vol. 4, Nos. 2 and 3, issue of June and September 1920, p. 142-154.

²J. C. Foster and G. A. Taylor, "The Applicability of Mental Tests to Persons up to Eighty-five Years of Age", in the Journal of Applied Psychology, Vol. 4, No. 1, issue of March 1920, p. 39-58.

In 1922, Hall¹ made what was then considered the most elaborate attempt to view decline in its totality. His treatment of the subject was based upon a review of the literature and data secured by means of a questionnaire. The author concluded from information gathered in this manner that there were no generally recognized tests of any validity appropriate for persons above teen age. Thus there were no criteria for determining the mental ages of older persons or for studying the mental decline of those persons. Since then, Wechsler² attempted to supply such a test by devising the Wechsler-Bellevue Intelligence Scale for Adolescents and Adults. The Babcock test was mentioned previously.

Decline in completion items, analogies, and opposites was disclosed by Willoughby³ who administered the Army Beta tests to six hundred subjects. He compared parents and grandparents with their children and grandchildren in order to eliminate extraneous influences, and discovered that decline began at the age of eighteen.

¹G. Stanley Hall, Senescence, New York, Appleton, 1922, xxvi-517 p.

²David Wechsler, The Measurement of Adult Intelligence, Baltimore, Williams and Wilkins, 1939, x-258 p.

³R. R. Willoughby, "Family Similarities in Mental Test Abilities", in Genetic Psychology Monographs, Vol. 2, No. 4, issue of July 1927, p. 235-277.

The experiment of Tachibana¹, reported in 1927, while insignificant because of the number of subjects, is interesting from a historical point of view since it shows that interest in the subject was existent in Japan at this time. The investigator used two subjects each in experiments involving the use of chopsticks, tapping apparatus, and mirror writing. He found ascending and descending curves for each of the younger and older subjects with individual differences for the older subjects.

Mursell², in using the Kuhlmann-Binet and Kuhlmann-Anderson tests with reformatory inmates ranging in age from ten to seventy-four, found a steady decrease in I. Q. from 90 to 67. Of course, the group selected may have been of relatively inferior intelligence; and, as such, cannot be compared with the general population.

Subjects ranging in age from seventeen to eighty were tested for rate of tapping by finger, wrist, elbow, and shoulder movements by Nicholson³ about 1929. There was only

¹K. Tachibana, "On the Learning Process of the Aged", in the Japanese Journal of Psychology, Vol. 2, No. 4, issue of February 1927, p. 635-657 (from an abstract).

²G. P. Mursell, "Decrease in Intelligence with Increase in Ages Among Inmates of Penal Institutions", in the Journal of Juvenile Research, Vol. 13, No. 3, issue of July 1929, p. 197-203.

³T. F. Nicholson, The Increase and Decline in Speed and Control of Voluntary Motor Ability with Advancement in Age, Unpublished Doctor's Thesis, University of Indiana, 1929.

a slight decline which occurred earlier with fingers and wrist than it did with elbow and shoulders.

Pintner¹ noticed a decrease with age on the part of army officers who submitted to the Army Alpha examination. The decrease began beyond the twenties.

Warner² tested men and women up to the age of eighty-four on Knox Cubes, digit memory span, Porteous Mazes, and paired associates, and found that they equaled the army group on the cubes and digit span while they showed a slight decline on substitution and failed completely on paired associates. The author concluded that this group of oldsters was probably originally above the mean for the army group and later declined.

One of the experiments of the Stanford University Studies in Later Maturity³ measured creative imagination as a spontaneous activity by means of a moving shadow stimulus. There were no instructions directing the subject's attention to the possibility of subjective modifications. The

¹Rudolf Pintner, Intelligence Testing, New York, Holt, 1923, vii-406p

²H. M. Werner, "Some Psychological Tests of The Aged", unpublished masters thesis, New York, Columbia University, Department of Psychology, 1932.

³W. R. Miles, "Age and the Kinephantom", in the Journal of General Psychology, Vol. 10, No. 1, issue of January 1934, p. 204-207.

performer of this experiment found, after examining 616 males and 587 females from ages twenty-five to ninety, that the responses were uninfluenced by age, intelligence, and education, but not by sex. This finding portends well for the employment of older persons in those positions where the use of imagination is important.

Kubo¹ reported in 1938 that an examination of subjects seventy to one hundred years of age did not show a definite fall in rote memory until the age of eighty-two.

Studies of a small number of subjects from sixty to eighty-two by Ruch² showed that decline increased in the following order: Paired associates, nonsense syllables, false products.

The application of the Social Maturity Scale by Doll³ to 129 subjects in a preliminary study indicated that age twenty-five is the average adult ceiling of attainment in social maturity; that is, it increases from year to year until twenty-five but not thereafter. However, such

¹Y. Kubo, "Mental and Physical Changes in Old Age", in the Pedagogical Seminary and Journal of Genetic Psychology, Vol. 53, First Half, issue of September 1938, p. 101-108.

²F. L. Ruch, "The Differentiative Effects of Age Upon Human Learning", in the Journal of General Psychology, Vol. 11, No. 2, issue of October 1934, p. 261-286.

³Edgar A. Doll, "Measurement of Social Maturity Applied to Older People", in Mental Health in Later Maturity, U. S. Government Public Health Reports, Supplement No. 168, Washington, U. S. Government Printing Office, 1943, p. 138-146.

maturity does not decline appreciably until after sixty-five. The study is considered important by Doll because he sees survival as related to social ability; and, for that reason, it is necessary to set the age at which social effectiveness declines significantly so that provisions may be made for prolonging the prime. The author admitted that his study has yielded little more than orientation and method of approach.

The use of the Wechsler-Bellevue Adult Intelligence Scale by Madonick and Solomon¹ with fifty subjects ranging in age from sixty to eighty-five showed virtually no difference between the scores of the verbal and performance parts of the scale. This finding is significant since it indicates that preservation of capacities is not limited to verbal abilities as many studies have showed. In evaluating the results of this study, the fact that the test was administered to a select group must be considered.

Bourliere² brings good news regarding the preservation of involuntary abilities, if these might be so termed.

¹M. J. Madonick and Marion Solomon, "The Wechsler-Bellevue Scale in Individuals Past Sixty", in Geriatrics, ~~Vol. 2~~ No. 1, issue of January and February 1947, p. 34-39.

²Francois Bourliere, "Excitability and Aging", in the Journal of Gerontology, Vol. 3, No. 3, issue of July 1948, p. 191-195.

He applied electrical stimulus to the muscles of humans from the ages of twenty-four to eighty-four and to those of rats from one to 180 days old. He discovered a remarkable constancy of neuromuscular and vestibular excitability through all ages in those human subjects who possessed no pathologic condition of the nervous system.

That Information and Comprehension are the only tests of the Wechsler-Bellevue Adult Intelligence Scale that hold up with age was reported by Hunt¹ in 1949. On the other hand, Block Design and Digit Symbol seemed to be the only "Don't Hold Tests" which show gradual and consistent age decline, according to Hunt's treatment of Wechsler's material. The study is interesting as an example of how inconsistencies have crept into studies which have been accepted as scientific.

Botwinick and Berren² compared the performance of twenty-five organically deteriorated patients between sixty and seventy with that of normal individuals on the Wechsler-Bellevue and Eabcock scales, and found significant differences between the efficiency quotients, efficiency

¹Wilson L. Hunt, "The Relative Rates of Decline of Wechsler 'Hold' and 'Don't Hold' Tests", in the Journal of Consulting Psychology, Vol. 13, No. 6, issue of December 1949, p. 440-443.

²J. Botwinick and J. E. Berren, "The Measurement of Intellectual Deterioration in Senile Psychosis and Psychosis with Cerebral Arteriosclerosis", in the American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 364-365,

indexes, and senescence decline indexes of the normal and deteriorated groups but the decline quotients of the two groups showed a difference that was not significant.

A study of the lives of deceased persons by Lehman¹ revealed that the average creative output of the long-lived was somewhat greater than that of the short-lived and was more abundant at the more advanced ages.

Factors Related to Decline

Many investigators have sought the factors that account for mental longevity or decline. Snoddy² regarded rapid improvement as an index of adaptability and slow improvement as an index of stability. He considered old age as involving lowered adaptability rather than lowered stability although the latter had been encountered in very advanced years.

According to Hollingsworth³, the old have abandoned the learning attitude because they are seldom called upon

¹H. C. Lehman, "The Creative Years of Long-lived Versus Short-lived Persons", in the American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 365.

²G. S. Snoddy, "Learning and Stability", in the Journal of Applied Psychology, Vol. 10, No. 1, issue of January 1926, p. 1-36.

³H. L. Hollingsworth, Mental Growth and Decline, A Study of Developmental Psychology, New York, Appleton, 1927, (Chapter 14), 396 p.

for new adjustments and are temperamentally indisposed to make them.

Thorndike and his collaborators¹ maintained that almost anything is learned at later ages, but the capacity for such learning is altered by the fact that older persons are less motivated than younger individuals. This comes about because many persons discontinue learning upon reaching adulthood with the feeling that they have learned all that they need to know.

After studying the performances of extramural classes made up of elementary school teachers, Sorenson² stated that the decline in learning ability which occurs after a certain age may be overcome through resumption of vigorous study.

Wiersma³, in 1930, and C. C. Miles and W. R. Miles⁴, in 1932, reported that decline in intellectual abilities

¹E. L. Thorndike et al., Adult Learning, New York, Macmillan, 1928, x-355 p.

²H. Sorenson, "Adult Ages as a Factor in Learning", in the Journal of Educational Psychology, Vol. 21, No. 6, issue of September 1930, p. 451-459.

³E. D. Wiersma, "Psychology of Dementia", in the Journal of Mental Science, Vol. 76, No. 312 (New Series No. 276), issue of January 1930, p. 1-42.

⁴C. C. Miles and W. R. Miles, "The Correlation of Intelligence Scores and Chronological Age from Early to Late Maturity", in the American Journal of Psychology, Vol. 44, No. 1, issue of January 1932, p. 44-78.

with age is smaller or remains unimpaired in those gifted in early life with lively interests and in those who are highly educated.

Using the Army Alpha test on 1191 unselected subjects from ten to sixty years of age, Jones and Conrad¹ concluded that the outstanding intellectual power of certain adults is due to stocks of information that they have accumulated.

In 1933, W. R. Miles² studies 450 persons up to eighty-nine years of age, and estimated the decrement of learning ability to be as great as the decline of sensory capacity.

Ruch³ contended that learning decline depends upon initial ability. According to his theory, a man who was a football player in his early life can more easily learn to play handball in later life than a man who never was an athlete. The author cited many studies to prove his contention.

¹H. E. Jones and H. S. Conrad, "The Growth and Decline of Intelligence: A Study of Homogeneous Groups between the Ages of Ten and Sixty", in Genetic Psychology Monographs, Vol. 13, No. 3, issue of March 1933, p. 223-298.

²W. R. Miles, "Age and Human Ability", in the Psychological Review, Vol. 40, No. 2, issue of March 1933, p. 99-123.

³Floyd L. Ruch, "Adult Learning", in the Psychological Bulletin, Vol. 30, No. 6, issue of June 1933, p. 387-413.

W. R. Miles¹ pointed out that long mental life correlates with amount of intelligence or educational achievement and that training and practice account for a large amount of the considerable gain that it is possible to achieve from year to year within a natural minimum or maximum potentiality.

In 1935, Gilbert² added another study to those that indicated that mental decline is slower in the more intelligent and better educated.

A similar conclusion was reached by Shakow and Goldman³ who found that persons of very high intelligence usually maintain high vocabulary scores until eighty while those of average intelligence show a decline much earlier.

Evidence which shows that physical disability due to age comes on sooner in manual workers than in mental workers was presented by Folsom⁴ in 1940. His opinion was

¹W. R. Miles, "Training, Practice, and Mental Longevity", in Science, Vol. 81, No. 2091, issue of January 1935, p. 79-87.

²J. G. Gilbert, "Mental Efficiency in Senescence", in Archives of Psychology, Vol. 27, No. 188, 1935, 60 p.

³D. Shakow and R. Goldman, "The Effect of Age on the Stanford-Binet Vocabulary Score of Adults", in the Journal of Educational Psychology, Vol. 29, No. 4, issue of April 1938, p. 241-256.

⁴J. K. Folsom, "Old Age as a Sociological Problem", in the American Journal of Orthopschiatry, Vol. 10, No. 1, issue of January 1940, p. 30-39.

that the type of work produces aging.

An examination of twenty less seriously demented patients between sixty-eight and eighty-three by Halstead¹ demonstrated that the test items which presented the most difficulty were those which required the subjects to break away from old mental habits and adapt themselves to unfamiliar situations. These included tests of recent memory, judgement, planning, and reasoning.

Lawton² again came into the picture in 1945 with a review which disclosed that not all physical inadequacies of older people are due to the infirmaries of old age. Many result from the neglect of physical conditions, the failure to keep up exercise, and from accidents.

Early in 1920, Foster and Taylor³ attributed deterioration to lack of practice, alertness, interest adaptability, and rapidity of adjustment to the tests used, the Yerkes-Bridges Point Scale. He thought of deterioration as loss in ability due to these insufficiencies.

¹H. Halstead, "A Psychometric Study of Senility", in the Journal of Mental Science, Vol. 89, Nos. 376 and 377, issue July and October 1943, p. 363-373.

²George Lawton, "Mental Decline and its Retardation", in the Journal of General Psychology, Vol. 32, Second Half, issue of April 1945, p. 229-248.

³J. C. Foster and G. A. Taylor, "The Applicability of Mental Tests to Persons Up to Eighty-five Years of Age", in the Journal of Applied Psychology, Vol. 4, No. 1, issue of March 1920, p. 39-57.

Physiological Studies

Lansing¹ made a most comprehensive review of the literature concerning the physiology of aging. One hundred four studies were evaluated in his report. He concluded that the data reviewed showed only a scratching of the surface and that information on permeability, viscosity, hydrogen ion concentration, enzyme activity, and protein synthesis changes with age was needed to complete the picture. Up to the time of his report, little more than speculative conjecture could be made in this area.

Religious Factors

Three studies which deal with the role of religion in the lives of older persons have come to the attention of this candidate. Cavan and her associates² surveyed three thousand people in order to devise instruments of tested reliability and validity for the measurement of personal adjustment. She found that men and women without any religious affiliation have a significantly lower mean

¹Albert I. Lansing, "The General Physiology of Aging, A Review", in the Journal of Gerontology, Vol. 2, No. 4, issue of October 1947, p. 327-338.

²Ruth Cavan et al., Personal Adjustment in Old Age, Chicago, Science Research Associates, 1949, xiii-204 p.

attitude score than the entire group.

A treatise by Waterman¹ offered the suggestion that older people find suitable activity in the church. Such activity might include the promotion of social justice, the rebuking of moral delinquency and vice, and the alleviation of suffering. He explained that these activities should not exclude the younger members of the church who should make use of the experience and wisdom of the more mature minds.

Mead² has made some interesting observations. Among these is the one which points out that in cultures such as that of Bali where old age is considered the preparation for a new life, people master new skills very late in life with ease and success. She was confident that methods of teaching which would enable older persons in our own culture to learn new skills with facility could be devised as a result of these observations.

¹Leroy Waterman, "Religion and Religious Observance in Old Age", in Living Through the Older Years, edited by Clark Tibbitts, Ann Arbor, University of Michigan Press, 1949, p. 99-112.

²Margaret Mead, "Contexts of Aging", excerpts from a paper delivered before the New York State Committee on Aging, reported in Justice, Vol. 34, No. 3, p. 12, Cols. 3 and 4.

Residency as an Issue

Several studies have attempted to ascertain the importance of home life in the proper adjustment of the aged and of adults in general.

Levinson¹ studied a number of homeless and domiciled men. His investigation revealed a great number of differences between the two groups. The most important finding for the present study is that more homeless men exhibit mental deterioration than do domiciled men.

Davidson and Kruglov² studied thirty-two residents of a Hebrew home for the aged by means of the Rorschach Personality Test and found that the subjects exhibited personality traits which differentiated them from younger adults as well as from old people who lived at home. These characteristics included marked constriction, little interest in the outside world, withdrawal into a kind of fantasy, intellectual deterioration, and strong feelings of inadequacy. However, individual variation did occur among the ten men and twenty-two women examined.

¹Boris M. Levinson, A Comparative Study of Certain Homeless and Unattached Domiciled Men, Unpublished Ph.D. Thesis, New York University, 1947, iii-272 p.

²H. H. Davidson and L. B. Kruglov, "Personality Characteristics of the Institutionalized Aged", in the American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 367-368.

Chalfen¹ made a study of the activities of 108 residents of old age homes and 108 frequenters of recreation centers. He discovered that the two groups differed more in the extent and nature of their activities than they did in their interests, that the center group was better adjusted in leisure-time activities, and that those of high socio-economic status were more dependent upon themselves for leisure-time gratification than were those of low socio-economic status who depended upon others to provide such activities for them.

Physiological Age

Among the several writers who place great stress on the matter of physiological age are Carrell and Lewis. Carrell says:

The date of retirement is also determined by the age of the worker. It is known, however, that the true condition of an individual does not depend on his chronological age. In certain types of occupations, individuals should be grouped according to physiological age.²

¹L. Chalfen, "The Relationship of Several Psychological and Socio-Economic Characteristics and the Activities and Interests of Senescents in New York City", in the American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 366.

²Alexis Carrell, Man the Unknown, New York, Harper, 1935, p. 187-188.

Lewis said:

Age is an extremely elastic term which in physiological concepts can rarely be used in its chronological sense, and what is meant by age in terms of structure-function may overtake a man in his earlier years according to results of predisposition, previous diseases, and stress of wear and tear to which the body has been subjected. Some people are old and worn out in childhood while there are many old people old chronologically and yet are quite useful.¹

Many other authorities have asserted that age does not depend so much upon the number of years that a person has existed as it does upon the condition of the body, and, it might be added, upon the state of mind.

Characteristics of the Aged

The personality characteristics of the aged have long occupied the attention of gerontologists. It is logical to describe first characteristics that are to be improved before any attempt is made to improve them.

In 1922, Rolleston² mentioned diminution of psychical activity, failing of initiative, of elasticity, and of originality, difficulty of assimilation of new ideas and fresh lines of thought, ready occurrence of mental

¹Nolan D. C. Lewis, "Applying Mental Health Principles to Problems of the Aging", in New Goals for Old Age, edited by George Lawton, New York, Columbia University Press, 1943, p. 91-105.

²H. Rolleston, Medical Aspects of Old Age, London, Macmillan, 1922, ix-170 p.

fatigue, and impairment of concentration, attention, and memory as the characteristics of old age.

Kuhlen¹ accounted for the characteristic differences that exist between the younger and older age groups by explaining that the latter had grown up under social conditions that varied from those of the younger group. The older group retains these characteristics of a former period, expecting others to conform to them, and their presence is mistaken for age changes.

Barker² and Kaplan³ both mentioned narrowing of interests as the chief characteristic of the aged. Barker added forgetfulness, dulling of emotional reactions, and gaps of memory filled in by silly confabulations.

The most elaborate list of characteristics is given by Cavan⁴. These include worry over finances attendant upon

¹R. G. Kuhlen, "Social Changes: A Neglected Factor in Psychological Studies of the Life Span", in School and Society, Vol. 52, No. 1332, issue of July 6, 1940. p. 14-16.

²Lewellys F. Barker, "Physical Changes in Old Age and Their Effects Upon Mental Attitudes", in New Goals for Old Age, edited by George Lawton, New York, Columbia University Press, 1943, p. 71-90.

³Oscar J. Kaplan, Mental Disorders in Later Years, California, Stanford University Press, 1945, vii-436 p.

⁴Ruth Schonle Cavan, "Index of Senility", in Social Adjustment in Old Age, New York, Social Science Research Council, 1946, p. 139-145.

threatened retirement; worry over health; feeling unwanted, isolated, lonely; feeling suspicious; narrowing of interests leading to introspection; increased interest in bodily sensations and physical pleasures; loss of memory, especially for recent events and in the field of spontaneous recall; mental rigidity; overtalkedness, especially of the past; hoarding, often of trivial things; loss of interest in activity and increased interest in quiescence; feeling of inadequacy leading to feelings of insecurity and anxiety; feeling of guilt and irritability; reduction of sexual activity accompanied by increased sexual interest especially on the part of the male with regression to earlier levels of expression; untidiness; conservatism; inability to adjust to changed conditions, and decreased social contacts and participation.

Klopper¹, in 1946, applied the Rorschach Personality Test to thirty residents of a Hebrew home for the aged and to twenty non-residents, and confirmed Rorschach's statement that there are three signs pathognomic of normal old age. These are a diminution of the capacity to make use of inner resources and a weakening of reactions to emotional challenges, a lessening of perceptual acuity and a

¹Walter G. Klopper, "Personality Patterns of Old Age", in Rorschach Research Exchange, Vol. 10, No. 4, issue of December 1946, p. 155-166.

somewhat lowered level of intellectual efficiency, and a narrowing range of interests.

Lawton¹ listed eighteen forms of maladjustment that are characteristic of old age. Among these are the preference for safety as against zestful but uncertain adventure and the adoption of the role of infallibility and prophesy.

Trumbull, Pace, and Kuhlen² conducted a study that yielded interesting material. They analyzed data collected by means of questionnaires mailed by Time Magazine to practically all college graduates in the United States whose surnames began with Fa. A fifty-nine per cent response totaled nine thousand cases. The survey included classes from 1879 to 1947. The subjects ranged in ages from twenty to ninety. The results showed an expansion and constriction of life activities which continued over a long period and which persisted to a late age. Political activities were maintained to a late age while participation in civic activities declined early. The age at which the

¹George Lawton, "Personality Adjustments in Old Age", in Social Adjustments in Old Age, New York, Social Science Research Council, 1946, p. 119-125.

²R. Trumbull, C. R. Pace, R. G. Kuhlen, "Expansion and Constriction of Life Activities During the Adult Life Span as Reflected in Civic and Political Participation", in the American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 367.

RELATED LITERATURE

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decline began seemed to depend upon the amount of initiative and energy involved in the activity.

Albrecht¹ attempted to measure the relationship between the social roles of older people and the degree of personal adjustment attained by them by administering the Personality Register, designed to measure traits of older people, and the Cavan Scale of Social Adjustment Ratings for Later Maturity to one hundred people over sixty-five. He found that significant differences and correlation coefficients existed.

Psychiatric Studies

Psychiatrists, clinical psychologists, and mental hygienists have not neglected the older population. Many investigators have studied psychiatric factors as they apply to older persons.

C. C. Miles¹ administered the Bernreuter Personality Inventory to 550 older subjects of average and superior

¹R. Albrecht, "Personality and Social Roles in Old Age", in the American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 368.

²C. C. Miles, "Age and Certain Personality Traits of Adults", in the Psychology Bulletin, Vol. 30, No. 8, issue of October 1933, p. 570.

ability and found that the four traits measured by the scale, namely neurotic tendency, introvert tendency, self-sufficiency, and dominance, are independent of age.

Watters¹ decried the fact that many authorities describe conditions in older individuals as "senile psychoses" when they are actually neuroses that may occur at any age.

Wagner² gave examples that indicated that the mental disorders of senility are not always related to physical changes, but are often intensified forms of similar conditions that are carried over from youth. This author claimed that these conditions in their aggravated form are precipitated by idleness and deprivation of responsibility.

Stieglitz³, on the contrary, attributed these diseases to physical changes and stated that prevention

¹T. A. Watters, "The Neurotic Struggle in Senescence", in Geriatrics, Vol. 3, No. 5, issue of September-October 1948, p. 301-305.

²Margaret W. Wagner, "Mental Hazards in Old Age", in the Family, Vol. 25, No. 4, issue of June 1944, p. 132-137.

³Edward J. Stieglitz, "Factors Contributing to Mental Diseases in the Aged", in the Journal of Gerontology, Vol. 2, No. 4, issue of October 1947, p. 283-295.

would be accomplished by working with the aging rather than with those who were already senile.

Reports by one thousand students of psychology collected by Stanton¹ on cases of old people whom these students considered successfully adjusted revealed that the majority of them had found opportunities for successful employment.

Prados and Fried² employed the Rorschach Personality Test in a study of thirty-five older persons up to eighty years of age. They found that there was no single crucial period during which a general adaptation to the process of aging was likely to occur. Anxiety was experienced by individuals under seventy. This anxiety was described as a more intellectual or more superficial kind than that experienced by neurotics. It expressed a feeling of inadequacy which was based on a fear of being incapable of fulfilling demands imposed upon them.

¹J. E. Stanton, "Employment and Service Potentialities of Old People", in the American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 366.

²Miguel Prados and Edrita Fried, "Personality Structure of the Older Age Groups", in the Journal of Clinical Psychology, Vol. 3, No. 2, issue of April 1947, p. 113-120.

Subjects over seventy appeared resigned to their conditions.

Post¹ presents the optimistic results of a survey of 477 individuals over sixty-five which show that 81.8% were normal; and, out of the remaining eighteen and two-tenths per cent, 14.4% exhibited simple borderline changes in their mental functions and habits. Only 3.8% showed evidence of definite psychiatric disability. The author deduced from this carefully planned study that the overwhelming majority of the aged retain their mental faculties to the full.

A philosophical view of age has been offered by Pegarski². He advised that older people be permitted to persist in their old habits which he describes as products of the age in which they grew up rather than products of senility. He asked that the aged be respected and venerated very much as people venerate and value antiquities.

Overholser³ emphasized the fact that psychological rather than physiological factors account for mental

¹E. Post, "Mental Aspects of Senescence", in the British Medical Journal, Vol. 6, Nos. 1 and 2, issue of December 1949, p. 54-56.

²Bernard Pegarski, "Old Age", in The Oratory, issue of February 1952, p. 23-24.

³Winifred Overholser, "The Problems of Mental Disease in an Aging Population", in the Proceedings of the National Conference of Social Work, New York, Columbia University Press, 1941, p. 455-463.

disturbances by pointing out that studies of the brains of aging persons indicated that the mental symptoms manifested bore no direct relationship to the extent of the structural damage to the organs. He concluded that the type of personality possessed by the individual and the variety of experiences to which he had been subjected were unquestionably important factors in determining the type of behavior. The investigator said further that one must look further than pathology to discover why persons require hospital care in later years.

Morgan¹ interviewed 396 persons from seventy to ages over ninety who were receiving old age allowances and found that, although old people are treated as a homogeneous group, they display as many variations of personality traits as young persons. These variations were thought to be determined by cultural, educational, and economic backgrounds as well as sex differences. This investigator found that freedom from physical disabilities, pleasant social and emotional relationships with friends and relatives, hobbies, outside interests, the quiet privacy and independence of action provided by being in one's own home, and some form of work or useful activity contributed to happiness in the aged.

¹Christian Margaret Morgan, "The Attitudes and Adjustments of Recipients of Old Age Assistance in Upstate and Metropolitan New York", in Archives of Psychology, No. 214, 1937, 131 p.

Lawton¹ has observed that fear of aging is often more important than aging itself and that the attitude of the community frequently has great impact in its direction. He claimed that actual physical changes of the aged may be related to these attitudes.

In 1938, Landis and Page² made known their findings that mental hospital patients suffering from diseases of the senium, cerebral arteriosclerosis and senile dementia, came in disproportionate numbers from those who are economically dependent and who are illiterate or had little formal schooling.

Kennedy³ said that it is necessary to take into consideration the psychological changes which occur along with physiological changes. For example, if a man became domineering as a result of the realization that he could no longer compete with younger men, he might recover from his

¹George Lawton, "Psychological Guidance to Older Persons", in Mental Health in Later Maturity, Supplement No. 168, U. S. Government Health Reports, Washington, U. S. Government Printing Office, 1943, p. 73-87.

²C. Landis and J. D. Page, Modern Society and Mental Disease, New York, Farrar and Rinehart, 1938, p. 56-78.

³Foster Kennedy, "Borderline Mental Problems in Later Maturity", in Mental Health in Later Maturity, Washington, U. S. Printing Office, 1943, p. 64-72.

evolutional tendencies if his behavior were analyzed for him.

Hartwell¹, in establishing an organic basis for senile diseases of the mind, expressed the opinion that the most that can be done for the senile psychotic is to help the public to understand the afflicted individual and help care for him.

Gitelson² explained that the emotional problems of elderly people were problems of adaptation. The increasing helplessness of the old person causes him to struggle for the security which is escaping him and probably make an unwholesome adaptation to the situation. This author also contended that the dulling of recent memory and the sharpening of remembrances of events of the past might not be due to organic changes alone but to a desire to turn away from the painfulness of the present.

Frolich³ compared the stresses encountered in old age with those encountered during adolescence which is

¹Samuel W. Hartwell, "Mental Diseases of the Aged", in New Goals for Old Age, edited by G. Lawton, New York, Columbia University Press, 1943, p. 132-143.

²Maxwell Gitelson, "The Emotional Problems of Elderly People", in Geriatrics, Vol. 3, No. 3, issue of May-June 1948, p. 135-150.

³Moses Frolich, "Mental Hygiene of Old Age", in Living Through the Older Years, edited by C. Tibbitts, Ann Arbor, University of Michigan Press, 1949, p. 85-97.

simply another period of emotional unrest in which adjustment is likely to be even more strenuous than in later maturity. He made clear that the severity of the stress depended a great deal upon the previous life of the individual. Those who reaped the benefits of rich living based upon principles of mental hygiene were less likely to experience difficulty in later life.

Fisher¹ discussed the problems caused by the stresses and strains which changes in social structure have placed on older persons. She divided these into two categories, those caused by dependency itself and those of personal maladjustment which have their roots in the past and which are caused neither by old age or by economic dependency.

A study by Clow and Allen² of 365 older patients who were admitted to a New York hospital between 1936 and 1946 revealed that sixty per cent were predominantly depressed. The degree of depression was greater in those suffering from functional disorders than in the organically deteriorated patients. Depression decreased as deterioration

¹Gladys Fisher, "Mental Hygiene Problems as They Emerge in Old Age Security", in Mental Hygiene in Old Age, New York, Family Service Association of America, 1939, p. 27-31.

²Hollis E. Clow and Edward B. Allen, "A Study of Depressive States in the Aging", in Geriatrics, Vol. 4, No. 1, issue of January-February 1949, p. 11-17.

progressed. It appeared as if nature protected the individual by rendering him less sensitive to overwhelming feelings of depression by performing a natural lobotomy or by creating the type of condition that follows electric convulsive therapy.

In another study¹, these authors stated that it is uncommon for the psychoneuroses to occur for the first time in later maturity. They claimed that concern over health, worry over finances, fear of losing security, loneliness, fear of not being wanted, fear of having out-lived one's usefulness, and fear of losing the place formerly occupied in the community predispose to psychogenic changes of some degree. They added that the loss of a spouse, threatened disability from a physical disorder, and, less frequently, problems resulting from financial loss, retirement, breaking up of the home, and moving into a strange or new environment often precipitated a neurosis.

Bowman² offered a very pessimistic approach to the problem by asserting that practically nothing could be

¹H. E. Clow and E. B. Allen, "Manifestations of Psychoneurosis Occurring in Later Life", in Geriatrics, Vol. 6, No. 1, issue of January-February 1951, p. 31-39.

²Earl M. Bowman, "Types and Special Factors of Mental Illness in Old Age", in Mental Hygiene in Old Age, New York, Family Service Association of America, 1937, p. 32-38.

done to improve the conditions of the aged except to assist them in leading a simple life with little strain in the company of people who would be kind, who would humor them sympathetically, and who would refrain from doing anything that would irritate them.

Lewis and Goldschmidt¹, after concluding that sociological factors rather than physical factors brought a great many older patients to the hospital, studied the cases of twenty-five men and twenty-five women patients. They found, as possible predisposing causes of illness among the patients, severe deprivation of social contact, with less and less feeling oneself a member of the community, rejection by families, living apart from spouses or children, remarriage with no ties of affection with the newly acquired spouse, living alone, and restricted activities.

Lawton², in delivering the concluding address at a symposium on aging, cautioned against dismissing most of the difficulties of the aged as somatic because many are

¹A. J. Lewis and H. Goldschmidt, "Social Causes of Admissions to a Mental Hospital for the Aged", in Sociological Review, Vol. 35, Nos. 3 and 4, issue of July-October 1943, p. 86-98.

²George Lawton, "Concluding Remarks", in the American Journal of Orthopsychiatry, Vol. 10, No. 1, issue of January 1940, p. 85-87.

psychosomatic and others entirely psychological. He spoke of psuedo-senescents whose mental and emotional manifestations are not warranted by the extent of somatic change and who fall into either of two classes, those who previously suffered some psychotic tendency and those who developed many of the stigma of decline as a result of current socio-economic pressure. The speaker explained that these psuedo-senescents result from an inability to retain or regain roles and functions which were rendered inoperable by cultural and economic forces.

Deductions from the Survey

Recapitulation of this chapter shows that research in the field of gerontology has leaned heavily on the side of genetic study. Researchists have been eager to determine at what ages the various abilities begin to decline. Vocabulary studies were greatly emphasized here because ability to define words was found to suffer least from advancing age. The latter finding was eagerly seized upon by those geneticists who welcomed a tool with which to facilitate their studies of deterioration and gave great impetus to them. Speed or reaction time experiments were carried on to a great extent influenced, no doubt, by the favor accorded them in the early days of

the experimental psychology of the laboratory.

As a whole, these studies have yielded valuable basic material. They have disclosed the existence of individual differences among members of the older population and have demonstrated that some older persons perform as well as or better than younger persons. These findings account to some extent for some older persons remaining occupationally competent while others become useless. However, they do not show why many persons have become occupationally incompetent in spite of the possession of the abilities for continued usefulness. The studies of comparative decline, in which decline in one type of test response was compared with decline in another type, are important to the extent that they reveal the activities or types of work in which the older person might be most successful. To analyze them properly and to relate them to particular employment categories would, however, require a great deal of ingenuity.

Mention has been made of sensory defects, the handicap of speed, and, in one or two cases, the presence of physical deterioration as the cause of these declines. The present study has attempted to complement these findings by adding other reasons to the list. It deals more specifically with the pseudo-senescents mentioned by Lawton. Many investigators have attempted to account for

mental decline or mental longevity by mentioning various other factors not included in this paragraph. Most of their statements are speculative, however, and require further investigation.

The very few studies of the influence of religion in the lives of older persons show the need for this power in salutary adjustment and in awakening the potentialities to learn. Also valuable are those investigations which have made known the need for private home residency for older persons.

Not the least important are the inquiries which show the need for continued activity on the part of older persons. This finding, together with that relating to residency, make more urgent studies directed toward find^{ing} the causes of occupational competency and social efficiency or independence on the part of older persons. Only part of the question as to what renders some persons occupationally competent is answered by those who advance the principle of physiological age inasmuch as it has been noticed that many physiologically competent persons remain occupationally incompetent in spite of the opportunities for employment that are available to them while some physiologically old persons remain gainfully employed.

Those studies which described the characteristics of the aged treated them as general attributes of later maturity.

However, inspection of these characteristics indicate that they are of such a nature that they need not exist and that there is a possibility that means of elimination and prevention might be reached through persistent study. Nevertheless, the presentation of those descriptions provides the investigator with the background required to understand the subjects with whom he is to deal.

The psychiatric studies lend weight to the present study by indicating that the conditions which afflict the aged are often psychological as opposed to physical. With the exception of one or two "dissenters", writers in this field agree that many mental conditions of the aged are essentially similar to those that besiege the younger population. One of these writers concluded that only 3.8% of the older population exhibited symptoms of definite psychiatric disability and that the majority of the aged maintain their mental faculties to the full. This is good news indeed to those who wish to restore the older population to usefulness. Some investigators are of the opinion that the personality quirks of older persons are nothing more than manifestations of the older culture in which they had been bred.

The greater part of the literature reviewed speaks well for the aged. Data accumulated show that attempts to maintain the older population occupationally

competent need not be futile. Abilities have remained intact in a large number of older people and conditions which have disabled others have been found to be largely psychological. As such, the latter are amenable to change. It has been indicated that occupation is necessary to the mental health of older individuals. For that reason, an attempt to supply information that may lead to the maintenance of occupational competency is justifiable.

The present study differs from others in the manner of procedure. Apparently, none has attempted to compare a group of incompetent individuals with competent persons. Since the investigator had set out without anticipating any definite results, it was almost certain that a few of the findings of other investigators would recur. However, in this study, they recur either as traits of the competent group or the incompetent group and, as such, in an entirely different aspect.

CHAPTER II

THE SUBJECTS

The ideal sampling for a study of this kind would consist of two groups each including subjects of the same age and sex, the same level of intelligence, the same occupational status, and the same educational attainment. The groups would be comparable in marital status, physical health, and a background that had offered equal opportunity for the attainment of success. All factors that might exert some influence on the ability of the subject to remain occupationally competent or occupationally incompetent would have to be controlled. The availability of subjects meeting these specifications on an equal basis was extremely limited and perfect matching was impossible. It was possible only to approximate as closely as possible the similarity of the two groups used by endeavoring to include the same variables in each group.

For purposes of comparison, the subjects of this experiment were divided into two groups of forty-eight subjects each. It was not planned to have an equal number in each group. The occurrence of an equal division was purely coincidental. One of the groups was described as the occupationally incompetent group and the other as the occupationally competent group.

The Occupationally Incompetent Group

The first group was made up of thirty-four able-bodied men and fourteen able-bodied women, who because of factors other than physical or mental disability, had been unable to continue in the pursuit of their daily occupations in spite of a need and desire to do so. Many had become entirely dependent upon members of their families or some social agency for sustenance, e. g., food, shelter, clothing, spending money, etc., Others had managed to survive on meager savings and by performing occasional services such as baby-sitting for relatives. None had been able to procure steady employment. Some possessed their own homes purchased when the means were available. None was a resident of any institution.

The occupationally incompetent group consisted of subjects ranging in age from seventy to eighty-six with a mean age of 72.8 years. Twenty-four of these were married at the time of the study, nine were single, fourteen widowed, and one divorced. Twenty-two had completed an elementary school education, six were high school graduates, while twenty were alumni of colleges and professional schools. Fifteen members of this group lived alone while ten were obliged to seek support for their wives and fourteen had to share their savings and incomes such as that supplied by Social Security and relief agencies with offspring who had

also become occupationally incompetent. It is well to mention here that those described as seeking support for their wives did not necessarily find that support. The few who did earned only a few cents by doing odd jobs, but the amount received in this manner was hardly enough to meet the couples' needs.

The Occupationally Competent Group

The occupationally competent group also comprised thirty-four men and fourteen women (another coincidence), all able-bodied individuals who were successfully and gainfully employed in positions where each was apparently performing efficiently. None was in any way dependent upon members of his family or welfare agencies for subsistence. Nine had been compelled to retire from former positions because of mandatory retirement laws, but all sought other positions and succeeded in finding them. Others were still working in their original positions or in positions to which they had moved by reason of promotion or because they offered greater opportunity for advancement, better working conditions, more salary, a more convenient location, or because they were more interesting to the individual.

The members of this competent group ranged in age from seventy to ninety-one with a mean age of seventy-three. Twenty-four were married, six were single, and eighteen were

were widowed. Twenty men of this group supported wives and fourteen contributed to the support of offspring who had become occupationally incompetent. Thirty-two of these individuals had the advantages of a college or professional school education, six completed high school, and five were graduates of elementary schools.

Occupational Status of the Groups

For reasons to be stated in the chapter on procedure, the subjects of the two groups were not matched on the basis of intelligence test scores. Instead, an effort was made to secure as subjects only those persons who were engaged in occupations that require more than average intelligence. These are the so-called white collar jobs that require more mental effort than they do muscular exertion for efficient performance. Only those positions that were ranked highest in the lists compiled during World War I and World War II were chosen. Lists used were those referred to by Fryer¹ and Stewart².

¹Douglas Fryer, "Occupational Intelligence Standards", in School and Society, Vol. 161, No. 401, issue of September 2, 1922, p. 273-277.

²Naomi Stewart, "AGCT Scores of Army Personnel Grouped by Occupations", in Occupations, Vol. 1261, No. 1, issue of October 1947, p. 5-41.

The list derived from group intelligence examinations administered during World War I was based on the results of scores obtained from 3,598 men. Rankings ranged from 1 to 96. The list developed from the results of classification examinations administered during World War II to enlisted men of the United States Army is based on more than 250,000 cases. It provides rankings from 1 to 227. Neither of these lists includes the results of tests administered to members of the women's services. That of World War II differs from that of World War I in its omission of professions such as theology, medicine, and dentistry since no tests were administered to commissioned officers in the second war. It does carry the scores of medical students, dental students, and other professional students, however, and these have been employed as the basis for ranking the professional subjects of this study. It is realized that this method offers some disadvantage since some of the students may have been those without the ability to complete the professional course.

Table I shows the distribution of the population of this study according to occupation and gives the ranking according to the lists described above. Certain occupations were not included in either of these lists. In those cases, the ranking of a related occupation such as optician for optometrist is stated.

Table I. - Distribution of Subjects According to Occupational Status.

Occupation	Rank in World War I List	Rank in World War II List	Number of Occupationally Competent Subjects	Number of Occupation- ally In- competent Subjects
Accountant	3	1		3
Architect	1	2		3
Clerk	14	40	8	9
Dentist	9	15	1	
Editor	5	25	2	1
Educator	5	11	8	6
Engineer	1	2	4	5
Executive	10	13	2	2
General Manager	10	46	1	1
General Office Worker	14	40	1	1
Geologist	5	66	1	
Gerontologist	4	4	1	
Government Worker	14	40	1	3
Lawyer	5	12	1	1
Librarian	5	11	1	1
Maintenance Engineer	52	50	2	
Merchant	25	53	2	1
Minister	2	11	2	2
Music Teacher	5	11	1	
Optometrist	26	131	1	
Pharmacist	26	19		1
Photographer	16	79	1	
Physician	4	4	2	2
Research Worker	5	11	2	1
Scientist	1	2	2	1
Secretary	11	18	1	1
Technician	1	2		2
Writer	5	7		1

In the listing of the occupations, categories are broad. Educator, for example, includes administrative officials such as deans and assistant superintendents of schools as well as college professors, high school teachers, and elementary school teachers. Since the subjects who were engineers did not specify whether they were chemical, mechanical, or electrical engineers, only one category was selected from the World War II list which gives separate rankings for each of these types of engineering students.

Because the subjects of this experiment began their careers before World War I, the first list might be considered as more appropriately applying to them. Certain variations in standards may operate to differentiate them from present day members of the professions.

It is seen, from a study of Table I, that the subjects of the competent group achieved an average ranking of 10.7 on the World War I list and an average ranking of 25.5 on the World War II list while the incompetent group averaged 7.6 on the former list and 17.9 on the latter. These are close enough to each other to make it possible to state that the groups were equated fairly equally on the basis of occupational level and consequently intellectual level. When the ranges, 1 to 96 for the World War I list and 1 to 227 for the World War II list, are considered, these average rankings in intellectual level appear very high in that

range. It is noteworthy that the incompetent group ranked higher than the competent group in this estimate of intellectual level. No conjecture as to the reasons for this will be made here, nor will any conclusions be drawn from this finding except to call attention to the fact that one or two rankings of the occupations of the members of the competent group (such as that of optometrist which would have been expected to be different) were great in value.

Health Status

A sincere effort was made to match the subjects on the basis of physical and mental health. No member of either group was afflicted with a perceptible psychosis or severe psychoneurosis.

No physical examination was employed to select the subjects on the basis of physical fitness. Casual observation and the subject's description of his physical condition were used. Physicians of Doctors Hospital in Union City, New Jersey, were retained as consultants in case any question arose as to a subject's eligibility. Results obtained from the administration of the Mental Health Analysis¹ which will be described in the chapter on tools showed that all the

¹Louis P. Thorpe et al., Manual of Directions, Mental Health Analysis - Adult Series, Los Angeles, California Test Bureau, 1946, 12 p.

subjects of this study equaled or exceeded the norm for the section designated as "Freedom from Physical Defects". The incompetent group achieved a mean percentile score of approximately 87 and the competent group a mean percentile score of 82 for this category. Therefore, it might be concluded from this evidence that the two groups were fairly equal insofar as the possession of physical defects was concerned. Nevertheless, it must be indicated here that the Mental Health Inventory measures the number of visible physical defects which are consciously perceived by the subject and as they affect his feelings of adequacy and competency.

Physiological Age

Since considerable attention has been given by other authors to the matter of physiological age as opposed to chronological age in the classification of individuals, it was deemed important for the purposes of this experiment to include subjects as nearly equal in physiological age as possible. Almost the entire number of subjects looked younger than their years seemed to indicate. Each felt younger than the average person over seventy, had a youthful outlook, and was capable of engaging in mildly strenuous activity such as golf, horseshoe pitching, and the like.

Conclusions from the Data Presented

A consideration of the data presented above should disclose that an honest effort was made to equate the subjects of both groups on the basis of age, sex, marital status, intelligence, education, occupational level, physical and mental health, and the like. An equal number of men and women was included in each group. The mean ages of the groups were approximately the same. The distribution as to marital status for both groups of subjects shows elements common to both. The occupationally incompetent group may have more subjects who have not progressed beyond elementary school than the competent group, but this factor appears less important when it is considered that the opportunity for advanced education was denied many intelligent persons at the time these subjects attended school. Education was more selective, the democratic idea of education for all children regardless of native ability had not yet been put into practice, and many intelligent persons had to forgo higher education to earn money with which to contribute to the support of their families. More important for the evaluation of the intelligence of the population of this experiment is the distribution of that population according to occupation. As was stated above, each was employed in a position that required better than average intelligence. It is possible for a person to succeed in his work in spite of a lack of education if he has the required intelligence.

Thus it may be inferred from this matching, which was by no means perfect, that the chances of any of the factors mentioned affecting the results have at least been limited. If sex, living alone, supporting a wife, etc., played any part whatsoever in affecting the results, the same affect would be present in the results of both groups since persons affected by the various factors were present in both groups. Therefore, if it is argued that the fact that a man had to support a wife and help maintain incompetent children made it necessary for him to remain in his position to earn the money needed for this purpose, this argument may be refuted by pointing out that subjects who were required to provide for wives or children were included in the incompetent group as well as in the competent group. Similarly, it cannot be argued that persons living alone found it necessary to secure employment to meet their needs for companionship through the association such employment provided with fellow workers because individuals who lived alone appeared in the makeup of each group. In like manner, the influence, or rather the possibility of influence, which each of various factors might have exerted on the results may be eliminated or minimized. Through matching the subjects on the basis of physical and mental health, any chances of these factors influencing the results have been eliminated.

Before concluding this chapter, it must be added that subjects for this experiment were drawn from among the members of Neighborhood and Old Guard Clubs in and about New York City and Jersey City. These clubs are maintained for the purpose of providing social life for the older citizens of the community. Some of the subjects were simply residents of the neighborhood who were referred to the candidate by friends or who had heard of the study from others and asked to be included as subjects so that they might learn more about themselves. All were quite enthusiastic and willing to cooperate.

CHAPTER III

THE TOOLS

The Preliminary Interview

A preliminary interview of a random sampling of about twenty-five older persons prefaced the actual experiment. Its purpose was to determine just what topics most concerned these persons so that a questionnaire and a more extensive and intelligent interview might be planned. For the purposes of this interview, a casual conversation was initiated. Notes were made from memory after the conversation on the topics that appeared to be most emphasized.

The stereotypy of these conversations was surprising. It was found that older persons liked most to discuss their positions, if they were working, and why they enjoyed working at them. If they were retired, they were inclined to talk about the conditions under which they were forced to retire. A great part of those interviewed described their home lives, their means of subsistence, the treatment that was accorded them by their children, the pleasure that was derived from association with grandchildren, etc. Pensions and savings came in for a great deal of treatment.

It seemed that a great many older people felt that they had earned, through the experience of living, the privilege of serving in an advisory capacity on ways in

which to live successful lives. This advice was considered to be the philosophies by which they themselves lived and each was encouraged to express this philosophy briefly.

Some of the oldsters described their fears and worries as if they were seeking advice that would help them allay the anxieties that beset them. Others boasted of their calm nerves, their happy states of mind, and the physical vigor that was theirs.

Nearly all the older generation derived pleasure from talking about their religious beliefs and how they had developed them. Their activities was another item of which they spoke at length often with boastful pride. A large number of the subjects liked to dwell upon their present lives and to indicate what they enjoyed about it and to mention the unpleasanties that it offered. This lead some to reveal why they wished they were young again or why they would not wish to be young once more. A considerable number of those interviewed included in their ~~conversations~~ as mention of their fears. Some told why they presently or previously feared old age. For that reason, a question referring to that fear was made an item of the questionnaire.

It may seem that all the above should more logically appear in a discussion of the results rather than in a description of the preliminary interview. It is given here so that the reader may know how the items for the questionnaire were derived.

The Questionnaire

The questionnaire, a copy of which appears in this thesis as Appendix I, was based upon a tabulation of topics obtained during the preliminary interview. The purpose of this questionnaire was to prepare the subject for a more comprehensive interview. The preliminary interview revealed that an uncontrolled interview resulted in a waste of much time on irrelevant topics. By requiring the subject to complete a questionnaire in advance, it is possible to adhere strictly to the topics to be stressed by having the questionnaire in hand and requesting the subject to elaborate on certain of his assertions or to clarify them.

The questionnaire includes topics that were most stressed by older persons in the preliminary sample interviews described above. Others are lead questions designed to bring additional information. For example, the question concerning the subject's ability to do arithmetic was used to ascertain the number of other abilities possessed by him. It was possible for the interviewer to say: "I see that you are pretty good at arithmetic. Are there any other abilities like that that you have?" Similarly the question about golf often lead to a discussion of other athletic activities in which the subject engaged. Many of the items in the check list were intended for this purpose. Some of them, such as those about faulty memory, moodiness, lonliness and loss of

interest, represent traits often ascribed to older persons by gerontologists. They were used in this study so that it might be ascertained to what extent the subjects possessed such traits.

An effort was made to render the questionnaire as simple as possible in order not to impose any hardship on the persons who were to complete it. For the most part, the correct answers were indicated by check marks. The subjects were asked to elaborate on some of these answers by simple questions such as "Why?", for example, after the answer to the question, "Do you wish you were young again?"

Originally, it was decided to mail some of the questionnaires to persons in various parts of the United States so that their reactions might be added to the data already collected. This was done in some few cases, but only some of the information collected in this manner was used for background material. This explains the letter which introduced all the questionnaires. Minneographing was employed in making copies, and only the one stencil, that which included the letter, was used for all copies.

The Interview

The interview is best explained in the chapter on procedure. Its purpose was to gain information with which to elaborate the responses to the questionnaire.

The Mental Health Analysis

It was considered advisable for a study of this kind to employ a standardized device to obtain information that would supplement that obtained by means of the questionnaire and by interview and observation. It would make it possible to compare the subjects with the general population as well as with each other.

The Mental Health Analysis¹ was chosen because of ease with which it may be administered and because it measures traits which appear to be important in appraising persons for occupational competency. Among these are "Satisfying Work and Recreation", and "Adequate Outlook and Goals".

The Analysis is organized in two sections each of which consists of five categories. The first section is intended to detect mental health liabilities while the second section is designed to reveal mental health assets. The liabilities include behavioral immaturity, emotional instability, feelings of inadequacy, physical defects, and nervous manifestations. The assets are close personal relationships, inter-personal skills, social participation,

¹Louis P. Thorpe, Willis W. Clark, and Ernest W. Tiegs, Mental Health Analysis, Los Angeles, California Test Bureau, 1946, Manual of Directions, 12 p.

satisfying work and recreation, and adequate outlook and goals. Percentile scores are given for the total test, the section on liabilities, the section on assets, and for each of the separate traits.

The subject responds to two hundred questions by encircling the "yes" or "no" which follows each. The questions are simply and clearly stated in large print which abrogates the possibility of error in interpreting them.

The reliability of the Mental Health Analysis, computed by means of the Richardson-Kuder formula based on 1225 cases, is given by the authors as .967 for the total score, .934 for the section on liabilities, and as .931 for assets. The authors argue for the validity of the test by pointing out that there is an adequate selection of items based on research and the use of statistical computation; the ten categories of mental health represent functionally related groups of crucial, specific evidences of mental health assets or liabilities corresponding to present-day mental health concepts used in describing normal growth and development; and the items are disguised so that the individual cannot answer the questions in such a manner as to protect himself¹.

¹Thorpe, et al., op. cit., p. 4.

The devisers of the test give no description of the population upon which the norms have been based except to say that it was made up of approximately 1,200 adults of both sexes in business, industry, and government services in eight different communities and that sex differences were not sufficient to justify the preparation of separate norms for each sex. A letter directed to the authors by the candidate over a year ago requesting further information on this matter has been ignored. No effort was made by the experimenter to establish norms for the older population with which the test was used. The purpose for employing this test in the present experiment was to determine whether or not the occupationally competent group over seventy was any more similar to the younger or average population than the occupationally incompetent. For that reason, the establishment of separate norms for the older adult would invalidate the results.

The Digressory Interview

The chapter on procedure will explain the reason for including the digressory interview as an integral and important part of this study. The interviews lasted about one-half hour each, and were conducted to determine whether or not adolescents feared old age; and, if so, what factors influenced this fear. These interviews were informal but direct in nature prefaced by a few moments devoted to the establishment of rapport.

CHAPTER IV

THE PROCEDURE

Method of Experiment

The method used in this study was essentially the experimental one. Two groups were compared with each other. The experiment differed from the usual in that there was no control group as such and no controllable force was brought to bear on either group. Ordinarily, in the experimental approach, an attempt is made to control all essential factors except a single variable. This variable is manipulated with a view toward determining and measuring the effect of its influence. For example, it is desired to determine whether or not reading aloud has any advantage over reading silently in increasing a child's reading ability. In this case, two experimental groups are required in addition to a control group. The children are all of the same age, same intelligence, same grade, etc. One experimental group is made to read aloud over a certain period of time and the other silently. The control group serves for comparison and engages in no activity. At the end of the period decided upon, all three groups are tested and the results subjected to statistical treatment to determine whether or not any differences noticed in the scores are significant.

In the present experiment, a group of one type of individual was compared with a group of another type to determine why a certain condition persisted in one while it did not persist in the other. A control group was unnecessary since no controllable influence was caused to operate on one group to the exclusion of the other. The purpose of the study was to determine what natural or incidental influences might have affected each group so that the end result, occupational competency or occupational incompetency was brought about. In a very broad sense, each group might be considered a control group for the other since certain variables influenced one group and bypassed the other. This cannot be considered experimental, however, since none of the so-called variables could be perfectly controlled. In this experiment, only one variable, range of age, was strictly controlled since no subject was under a certain age. To compensate for the existence of other variables which might have ~~abstractly~~ influenced the results, an attempt was made to render one group as similar as possible to the other in compositeness.

Original Plans

Originally, the plans for this experiment were much more ambitious. It was intended to administer the Wechsler-Bellevue Adult Intelligence Scale to each subject and also the Rorschach Psychodiagnostic Test and the Thematic Apperception Test for the purpose of comparing the intellectual

qualities of competent and incompetent persons and to obtain a more reliable measure of their personality traits by interpreting their non-structured responses to projective devices. However, the candidate encountered the same difficulty as Kent¹ and Madonick and Solomon² who report that their experiences have indicated that the scores of older persons who submit to the Wechsler-Bellevue Test are affected by the undue strain that the test places on their visual capacity. This candidate found that the Rorschach and the T. A. T. also penalized the older subject because of the visual strain involved. Many were unable to concentrate for long on either the blots or pictures which soon appeared blurred. This more ambitious program of comprehensive testing was abandoned after the subjects revealed that they did not have all the free time that was required for all the sessions and when they appeared for testing time after time with the explanation that they had forgotten their glasses and preferred "just to talk about their problems".

¹G. Kent, "D. Wechsler, The Measurement of Adult Intelligence (A Review)", in the Psychological Bulletin, Vol. 37, 1940, p. 251-254.

²M. J. Madonick and Marion Solomon, "The Wechsler-Bellevue Scale in Older Individuals", in Geriatrics, Vol. 2, No. 1, issue of January and February 1947, p. 34-39.

Collection of Data

Each of the subjects was provided with a copy of the questionnaire which has been described in Chapter III and which appears in Appendix I. He was asked to complete it, return it, and wait for a possible appointment to discuss in detail the responses made therein. Subjects were permitted to have the questions read to them by another member of the family and to have the latter record the responses if such a procedure were more convenient.

Each questionnaire was accompanied by a copy of the Mental Health Analysis also described in Chapter III and which appears at the end of this thesis as Appendix II. Here, too, he was permitted to obtain the assistance of a member of his family in reading each item and in recording each response. The title of each Mental Health Analysis was changed by inking out the words "Mental Health" and substituting the word "Personality". This appeared to be advisable to avoid any reluctance on the part of the subject to submit to a test that might reveal "mental aberrations".

The subjects were requested to return the completed Mental Health Analysis along with the questionnaire in a self-addressed stamped envelope that was provided. He was told that he need not record his name on the test blank or the questionnaire so that any information provided would remain confidential should the forms later go astray.

Identity was recorded on a separate slip of paper or on the outside of the envelope. Since many of the subjects were well-known citizens in responsible positions, they had offered to serve as subjects under the condition their identities would not be disclosed. They exercised every precaution not to sign their names on any questionnaire or test blank that might be preserved. Their desire for anonymity has been respected.

The completed questionnaires were divided into two groups. Those that appeared to have been returned by occupationally competent persons were assigned to one group and those that seemed to have been completed by occupationally incompetent individuals to another group. The assignments were determined by the responses to such questions as "Are you still employed?", "Do you have an independent income?", etc. The questionnaires of those who did not appear to meet the qualifications of subjects of either group were discarded. These were mostly those which contained some ambiguous statement or where health or mental conditions were disqualifying.

When subjects appeared for an interview, their questionnaires were taken from the appropriate group and used as guides to the interview and as a ^{means} ~~men~~ of controlling it and restricting it to relevant topics. Observations and impressions were recorded.

Interviews were conducted by 'phone and correspondence in cases where the subjects were not able to appear personally

and where he was known to the experimenter. Additional information was obtained from their friends or relatives.

Mention was made in the previous chapter of a digressory interview or experiment. Developments in this study, specifically the fact that so many of the subjects some time in their lives had had a fear of old age or an unwholesome attitude towards it, made it seem expedient to determine at what age this fear and attitude began, how they originated, and what direction they took.

For this purpose, children of various age groups were interviewed, until it was ascertained at what age level the fear became apparent. In connection with this part of the study, 137 adolescent boys and girls were interviewed. Each was lead by direct questioning, after proper rapport had been established, to reveal whether or not he feared age or old people and to disclose family conditions that might account for the development of his fear or attitude.

Treatment of the Data

All data was recorded in writing, for the purpose of later drawing comparisons between the two groups of subjects. The frequency of certain responses was tabulated for the competent group and for the incompetent group. Such information, the philosophies of life, the reasons for wanting to be young again, the activities, the fears, etc., were studied and treated qualitatively. The interpretations are more subjective than they are objective.

Only 43 of the competent subjects and 39 of the incompetent subjects returned Mental Health Analyses that could be used. The others were discarded because the subjects did not answer all of the questions, were doubtful of the answer most applicable to certain items, or in some other way invalidated the results.

The Analyses were scored according to the directions¹ supplied by the authors and interpreted in terms of the norms² established by them.

The percentages of occupationally competent and occupationally incompetent subjects who exceeded the norm set by the authors of the test were computed for each category by the ordinary method of dividing the total number of subjects of the particular group who correctly completed the inventory into the number of subjects who had scores that equalled or exceeded 50, the established norm. For example, if 28 of the 39 incompetent subjects achieved scores of 50 or higher for behavioral immaturity, 39 was divided into 28 giving a percentage of 71.8 which means, of course, that 71.8% of the incompetent population over the age of seventy, if the sample was a representative one, reacts on the basis of childhood ideas and desires.

¹Louis P. Thorpe, Willis W. Clark, and Ernest W. Tiegs, Manual of Directions, Mental Health Analysis, Adult Series, Los Angeles, California Test Bureau, 1946, p. 5.

²Thorpe et al., op. cit., p. 12.

The averages of the scores in each category for each of the two groups were also computed, the differences of each set of means obtained, and critical ratios for each difference derived in order to determine whether or not that difference was significant¹. Such a value (the critical ratio) indicates whether or not further testing of similar samples would yield virtually the same results or whether or not it is probable that the mean difference would be reduced to zero or even reduced in favor of the other group.

The method used in determining the critical ratios required first that a column of scores in intervals of 5 be arranged and the frequency (f) of each interval indicated, i. e., twenty-five scores between 90 and 95 would have an f of 25. Each frequency was then multiplied by the score whose frequency it represented and indicated as fd. Afterwards, each score was squared and multiplied by the frequency. These were listed in a column headed fd^2 . The columns f, fd, and fd^2 were each totaled (Σ).

The following operations were then carried out in the order listed, first for the competent group and then for the incompetent group:

¹The services of the experts of the Statistics Department of the Psychological Corporation, New York, N. Y., were retained to treat the statistical matter of this study. The correctness of these statistics is thus guaranteed. Such services were restricted to computations.

1.

$$M = \frac{\sum fd}{N}$$

2.

$$G^2 = \frac{\sum fd^2}{N}$$

3.

$$G = \sqrt{G^2}$$

4.

$$G_m = \frac{G}{\sqrt{N}}$$

Then, with the information derived by means of the above formulae, the following operations were performed to arrive at the critical ratio:

$$M_x - M_y = D$$

$$G_d = \sqrt{(G_{M_x})^2 + (G_{M_y})^2}$$

$$\text{Critical Ratio} = \frac{D}{G_d}$$

In these formulae:

M signifies "Mean"

\sum signifies "Sum of"

N signifies "Number of Subjects"

G signifies "Standard Deviation"

G_m signifies "Standard Deviation of the Mean"

- M_x signifies "Mean of the Competent Group"
 M_y signifies "Mean of the Incompetent Group"
 D signifies "Difference"
 S_d signifies "Standard Deviation of the Difference
between the Standard Deviations of
the two Means"

A critical ratio of 3 or more signifies that the difference between the means of the two groups may be considered to be a true difference.

For a more detailed explanation of critical ratios, the reader is referred to Garret¹.

In the digressory research relating to the reactions of adolescents to aging, the responses were recorded and their frequencies noted in terms of percentages. These were then treated or interpreted qualitatively.

¹Henry E. Garret, Statistics in Psychology and Education, New York, Longmans and Green, 1949, p. 199-200.

CHAPTER V

THE RESULTS

The Mental Health Analysis

Table II shows the percentages of occupationally competent subjects whose scores exceeded the norm set by the authors of the Mental Health Analysis in each of the categories. For comparison, it shows also the percentages of occupationally incompetent subjects who exceeded that norm for the same categories. The norm is given as 50. Table III gives the mean norms achieved in each category by the occupationally competent subjects as a group and also by the occupationally incompetent as a group. The critical ratios for the differences of the means of the two groups for each category are also shown so that the significance of the differences may be seen. A ratio of ³~~2~~:00 or more indicates that the difference is significant.

An examination of Table II reveals that more occupationally competent than occupationally incompetent subjects exceeded the norm for each of the categories except that of "Freedom from Physical Defects". The number of competents who exceeded the norm for the total score of the test and the component scores for liabilities and assets was also greater than the number of incompetents who exceeded the norm for those items.

THE RESULTS

Table II. - Percentage of subjects who exceeded the norm for the various categories of the Mental Health Analysis.

Category	Occupationally Competent	Occupationally Incompetent
Liabilities	72	57
Freedom from Behavioral Immaturity	49	23
Freedom from Emotional Instability	74	69
Freedom from Feelings of Inadequacy	63	36
Freedom from Physical Defects	100	100
Freedom from Nervous Symptons	93	49
Assets	65	41
Close Personal Relationships	51	46
Interpersonal Skills	74	59
Social Participation	33	18
Satisfying Work and Recreation	60	31
Adequate Outlook and Goals	93	76
Total Score	74	48

The mean scores of the competents for each of the categories, for the total test, and for the component scores for the liabilities and the assets exceeded those of the incompetents.

The difference in the percentage of subjects who exceeded the norm was greatest for "Freedom from Nervous Symptoms" where 43% more competent than incompetent subjects were included and least for "Freedom from Emotional Instability" and "Close Personal Relationships" in which categories only 5% more competents than incompetents exceeded the norm.

The greatest difference in mean scores was that for "Freedom from Nervous Symptoms" where it amounted to 28, and the smallest difference was that for "Freedom from Physical Defects" which was four points.

Table III shows that whereas the mean scores of the occupationally competent exceeded the mean scores of the occupationally incompetent in all categories, the differences in mean scores for freedom from behavioral immaturity, freedom from feelings of inadequacy, freedom from nervous manifestations, and satisfying work and recreation only could be considered significant.

The occupationally competent group as a whole exceeded the norm for all the categories except freedom from behavioral immaturity and social participation. The occupationally incompetent group as a unit equalled or exceeded the norm in

Table III. - Mean Scores on Mental Health Analysis

Category	Occupationally Competent Subjects	Occupationally Incompetent Subjects	Critical Ratios
Freedom from Behavioral Immaturity	45	25	3.23
Freedom from Emotional Instability	71	60	1.66
Freedom from Feelings of Inadequacy	54	33	3.12
Freedom from Physical Defects	87	83	1.33
Freedom from Nervous Manifestations	75	50	3.99
Close Personal Relationships	55	42	2.02
Interpersonal Skills	65	50	2.19
Social Participation	33	20	2.25
Satisfying Work and Recreation	52	31	3.36
Adequate Outlook and Goals	87	74	2.81

all categories except freedom from behavioral immaturity, freedom from feelings of inadequacy, close personal relationships, social participation, and satisfying work and recreation.

The Questionnaire and Interview

The questionnaires and interviews showed, as one might expect, that the occupationally competent subjects were employed for a longer period than the occupationally incompetent. This additional period was sometimes as long as fifteen years. In only nine cases had the competent persons been obliged to retire from their original positions because of their age. All found new positions soon afterwards. Twelve occupationally incompetent subjects were required to retire from their occupations because they had reached the age of retirement. None of these had been able to acquire another position or to remain in one for any length of time. All subjects had had equal opportunities for finding new positions particularly during the war period when defense jobs were numerous. Other incompetents had left their positions because they felt that they were no longer capable of working. They felt that such indisposition was temperamental rather than physical. Twenty-three incompetent persons felt capable of continuing to work but felt that there was no place for them in the

occupational world.

All forty-eight competent subjects felt that they were independent of relatives and friends and that they could continue to remain so, not only because of the income resulting from their employment, but because of the savings that had accrued. Each was of the opinion that he was capable of caring for himself physically, could make his own decisions because of mental alertness, was able to provide his own recreation, and could, in general, live very much as he did in his younger days.

Thirty-six of the incompetent subjects felt that they were living independent lives in spite of their inability to continue to earn salaries. They were permitted freedom of action by those who provided maintenance and this, in their opinion, constituted independence. Unlike the competent subjects, they had no voice in running the household, making important decisions, entertaining friends, planning recreational activities, and the like. They experienced a certain amount of restriction which they tolerated and of which only a few would rather have been relieved.

All competent subjects had always had a strong desire to remain independent. This desire still continued. Thirty-nine incompetent subjects had at one time had this desire while the others had wished to become dependent in order to

be relieved of the responsibilities of life. All of these were recipients of relief benefits of one kind or another which would have been denied them if they accepted employment.

Fifteen incompetent subjects said that they were willing to accept positions if they were offered to them so that they might continue to try to regain their occupational competency. Eleven were so greatly discouraged after repeated attempts to remain employed had failed that they said they would refuse all offers of employment in the future. Others were indifferent or made unreasonable stipulations as to the type of work, hours of employment, etc., that could not possibly have been accepted by any employer.

More than half (72%) of the incompetent persons gave some indication that they at one time had been afraid of old age. Only four of the competent had had this fear. Some had overcome it after they had reached old age and found that it was not as intolerable as they had feared. However, in most cases, it had taken its toll of factors that make for healthy personalities.

The Digressory Interview

Most subjects were vague about the period in life when fear of age began. Many were able to trace it to attitudes unconsciously implanted by unthinking adults.

These factors made it appear important to conduct some digressory research to ascertain at which period in life the fear generally takes root and to determine, if possible the immediate causes.

At first, a number of younger and older elementary school pupils were interviewed. As far as they were concerned, youth is perpetual. Older persons seem to them to be born that way and are here to protect them and to love them and be loved in return. Startling results were forthcoming in the interview with adolescents, however. Of the 137 high school pupils interviewed, 30% feared old age or some factor associated with it as old people themselves, disability, etc., More astonishing was the fact that 77.4% of these youngsters who once loved older persons as the interview with elementary school pupils disclosed now hated them. An assortment of reasons was given for this hatred. Many maintained that oldsters are impatient, they do not understand the young, they are old-fashioned, they do not know the problems of the young, they are cranky, they are bitter toward the young and are trying to get revenge because of their jealousy of youth, they have odd ways, they are inefficient, and they are ugly looking. Others, to continue the list, insisted that old people are out of their minds or are outright crazy, they are "grumpy", they are strict, they are unable to get along with youth, they

are slow, they lack cheerfulness, they nag, they put too much responsibility on young people, they lack a sense of humor, they are "too wise", they act peculiar, they are grouchy, they are hard to get along with, they are unfriendly, they cannot reason, they act stupid, they are in their stupid second childhood, they have too much authority, they are feeble, they are sick all of the time, and they are irritable. These reasons for hating older people are taken verbatim from the interviews with the adolescents.

Additional probing revealed that these youngsters were merely attempting to rationalize their feelings toward age. Many disclosed that they were actually building up psychological defenses against a state in life against which they felt it very necessary to defend themselves. They appeared to hate their teachers and other older persons because they reminded them of a state in which they themselves did not wish to find themselves. Some of them actually stated that they dreaded the helplessness which befell older people through illness.

It is interesting to note that these very same children claimed that they lived according to philosophies that admonished one to treat others as he would be treated himself.

A great many of the young people interviewed in this part of the study had other fears of things or

situations that threatened security such as high places, wild animals, and drowning. Both dull and bright pupils had similar ideas about age, so that intelligence is probably not a factor in determining attitudes toward it.

Further interviewing of adolescents demonstrated that of the 30% who feared old age, 83% had parents who, at least indirectly or unconsciously, instilled that fear of age or an insalubrious attitude towards the aged in them. This was accomplished by addressing to them such remarks as, "Don't ever grow up; stay young as long as you can", or "I wish I were young again like you, you don't know how lucky you are". Some had often overheard their parents, mothers especially, speak about an associate in such a manner as, "That old Mrs. Jones, she must be thirty years old if she's a day". Again and again it was revealed that, if a parent had no other reason to criticize another person, she would condemn her because of her age. Consequently, the adolescent began to think that growing up was a terrible catastrophe and that being an adult was an unbearable hardship. Criticism of others because of their age made age appear to be a disgrace. Is it any wonder, then, that these young people built up a defense against growing up, one that probably caused the behavioral immaturity that, aside from social participation which was expected, received the lowest value for all subjects in the Mental

Health Analysis. The same type of reaction towards age seemed to be perceptible in the personalities of the members of the incompetent group.

The greater part of the oldsters, both competent and incompetent, seemed to resent the attitudes of younger individuals toward them. They realized that they were set apart from the youth of the country as belonging in a category different from that of the rest of the human group as if they were a separate species. Only about 5% of the oldsters were willing to resign themselves to this inevitable, so to speak, inclination of human nature. They had been that way themselves as younger people, and felt that they were now suffering the results of their own ignorance. Others were apologetic for the fact that they were old, and felt that it was necessary for them to be very solicitous toward younger people to compensate for the trouble that they were causing them. This was especially true of many of the incompetents who were fearful that their security might be threatened if they fell out of the good graces of the younger element upon whom they depended for support. Some of these feared being placed in institutions for the aged thus being deprived of their independence. Most of the incompetent subjects felt that they remained at the mercy of youth for their well-being.

Additional Data from the Questionnaire Interview

Seventy-five per cent of the competents and 56% of the incompetents had philosophies of life which guided them in planning their daily routines. These are listed in Appendix III and will be discussed in the next chapter. It was not possible to ascertain to what extent each adhered to his particular philosophy or how these assisted them in meeting their life's problems.

Only sixteen of the subjects designated as occupationally ~~incompetent~~ ^{competent} wished they were young again while thirteen of those classified as occupationally incompetent had this desire.

Among the competents, one wanted to live his life over again because he enjoyed it so much that he considered it worth repeating. Another wanted to continue to work indefinitely; and, by repeating his life, could continue to be of service to others in this respect. Still another wanted "to be able to enjoy life evermore". One scientist of eighty wished to be young again in order to marry. He had skipped this experience in his youth and regreted this in later life. A successful woman physician engaged in cancer research wished she were young again at this period in world history when women enjoyed many privileges and advantages denied the women of her time.

In general, those who longed for the return of their youth fell into four categories, those who felt that they could have lived better lives, those who enjoyed life so keenly that they wanted to experience it again completely, those who left tasks undone in the past and which they wished to return to complete; and, finally, those who wished to return to youth to escape their present predicament. These were in the majority among the incompetents and did not exist among the ~~competents~~ competent. In the third category, for illustration, was a lover of music who had abandoned a career in that field which she believed would be an asset to her now.

It must be added that most of the competent did not wish to return to youth, and gave various reasons for not entertaining that wish. A great many wished to experience every phase of life including that of the older period. Some asserted that they accepted their places in the history of life and wanted only to follow nature's plan. Many actually enjoyed their later years, and were reluctant to abandon them if it were possible to do so.

One individual felt that a new life might be worse than that completed up to the present. A dentist felt that "we are in the best days of world history as indicated in the Bible, and youth has perilous times ahead". He wanted to be spared the responsibility of dealing with those

perilous times. A scientist wanted "to see~~er~~ what's ahead, beyond the now and here". An optometrist stated, "The future doesn't look too bright to me. It is an unhappy fact that while we are in an age of marvelous comfort and pleasure, paradoxically we have violence, nervous tension, rackets, scandals in all fields, no God-fear, immorality is on the upswing, a possibility of another war with gas, germs, or atomic bomb will not make a happy future. Conditions as they are at present are not terrible, but ---", and he left the rest to the imagination of the interrogator. Others were all confident that they had lived full, satisfactory lives of no regret and there was no need to live them over.

The incompetent subjects offered less interesting reasons for wishing to be young again. Seven wanted to return to youth to be able to work again. A few longed for the physical vigor that accompanies youth, while others regreted having lead misguided lives which included experiences that might best have been omitted from them.

Those who did not wish for a return to youth claimed variously that life had too many tears, that there was a better life ahead, that once was enough; and, principally, that there was no point in repeating what would lead up to the same situation. Generally, the incompetent felt that although he formerly had qualms about age, he now found that it was not as unpleasant as he had anticipated and he

was fairly content with his physical state if not with the social conditions that were made to accompany it.

Only six competents and five incompetents suffered fears other than that of age. The competents feared losing their companions, thunder storms, insecurity of their children, serious illness, doing wrong and not fulfilling the will of God, retirement, and insanity. Four of those who had fears were women and two were men. The incompetents, all women, had fears of being left alone, chronic illness, becoming blind, and becoming a burden to others.

All competent subjects were actively religious, 63% all their lives and 23% since childhood or youth. Fourteen per cent accepted religion in later life. Of the incompetents, 66% were actively religious while 34% were emphatically irreligious. Of the religious, 84% were born into religious families and had never lost their fervor, 15% adopted religion during their early years, and 5% turned to religion late in life.

One-half the incompetents believed that they enjoyed retirement. The other half preferred to be employed. All but two of the competent subjects dreaded prospects of retirement.

The incompetents accounted for their enjoyment of retirement with one or more reasons. Many enjoyed their hobbies and associations with others, according to their

responses. In other words, they engaged in activities that adequately substituted for formal employment. One incompetent said in part, "I enjoy life. Occupation, circumstances, if not ill, have little to do with enjoyment. I would work if wanted and I could do what is required. Retirement or not is but a detail as to happiness".

The competent subjects replied to the question, "Why do you not wish to retire?", with answers such as the following:

Complete inactivity or inactivity with no purpose would be boring.

My health has always been good; and, as long as that continues, I would much prefer to keep on at work. I love my work.

Too much needs to be done and I must do my share.

Good health needs activity.

When a person retires, he loses interest, and my observation is that he soon dies.

When asked to state what they liked about their present life, the competent subjects gave the following reasons:

Ability to work

Security in a position that keeps the mind occupied

Opportunities to share professional experiences with others.

Opportunity for public service

Opportunity for creative work
Increased freedom in present work
Considerate employers
Pleasant home life
Companionship
Good health
Independence
Research backed by years of experience
Fewer household tasks because of fewer
members in the family.
Visits to homes of children and companion-
ship of grandchildren
Demonstration of appreciation by others for
work accomplished
Opportunity to continue to contribute to
community health (physicians)
Freedom from pressure
Friends
Opportunity for church work
Opportunity to be left alone
Decreased responsibility
Time to engage in pleasant activities.
Existence in a wonderful age with the op-
portunity for new learning with new inventions
Opportunity to continue service to others
Realization of continued achievement
Shorter hours of work

Financial independence

Having children who have succeeded in careers

Living in own home independent of children

As nearly as possible, the above items are listed in the order of frequency. The incompetents offered the following reasons which are listed in the same order:

Decrease in rush and hurry with an opportunity to rest when tired

Freedom from responsibilities

No appointments to keep

Opportunity to choose own activities and to carry them out leisurely

Not having to worry about getting up for work

Relief from grind of employment

Memories of success in business or profession

Home life; freedom from intrusions; freedom to come and go as one chooses

Good health; ability to engage in various activities

Friendships

Opportunities for service through affiliations with church and charitable organizations

Seeing children happy and successful

Television and other means of recreation

As their dislikes, the competents mentioned:

Limitations such as decreased vigor. (Some subjects mentioned that they were grateful for the many compensations for this lack such as experience, increased wisdom, etc.)

Frustrations which arose when the oldsters' proposals at places of employment were rejected by younger associates as outmoded (This was also referred to as "lack of freedom on the job.")

Loss of spouse and children

Disharmony among children

Confinement in small quarters with no space for hobbies such as gardening

The dislikes of the incompetent subjects included only the following:

Limitations in vigor

Inability to meet the challenges of the times

Decrease in income

Lack of challenging activity

Some of the items in the above lists may appear to duplicate each other, especially in the list of "likes" of the occupationally competent subjects. The items are stated as closely as possible in the original words of the subject, and similar items are included if only a shade of difference may appear to distinguish them from another.

THE RESULTS

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The number of activities which the occupationally competent subjects carried on in addition to those of their regular employment was truly surprising. These included:

Active membership in fraternal organizations, service as officers and membership on committees

Active membership in professional societies including service as officers and membership on committees

Active membership in civic and welfare organizations including service as officers and membership on various committees

Membership in women's clubs

Membership in grandmothers' clubs

Membership on boards of trustees of universities

Membership on curricula planning board of a university

Attendance at church services

Attendance at Bible classes

Lecturing before various groups

Preaching

Electioneering

Social service

Attendance at extension courses of universities

Participation in war veterans' activities

Research

Reading

Writing books and periodical articles

Preparing book reviews

Revising the Bible

Hunting

Golf

Walking

Sailing

Fishing

Gardening

Archery

Motor boating

Landscape gardening

Traveling

Photography

Cutting hedges

House work

Performing on musical instruments

Singing

Church organist

Listening to radio

Viewing television

Sewing and fancy work

Card playing

color
Cross-word puzzles

Collecting buttons

Arts and crafts

Portrait painting

Household painting

Mending china and broken furniture

Washing woodwork

Attendance at concerts and operas

Collecting fragments of literature (One subject has accumulated 2700 pages of quotations.)

Writing letters of opinion to editors of newspapers

Writing memoirs

Writing letters to friends (One subject wrote as many as five hundred such letters a year.)

Attendance at motion pictures, plays, exhibitions, etc.

Collecting photograph records

Spearheading various movements

Visiting relatives and friends

Holding public office

Working in own scientific laboratories

Church deacon

Motoring, and caring for car, row boat, and other possessions.

Counseling

Cooking

Visiting nearby cities

Teaching Sunday School

Shopping

Membership on executive committee of Red
Cross and Tuberculosis League

The occupationally incompetent persons also engaged in a variety of activities. However, these activities were performed by a smaller number. Although all the competent subjects each engaged in several of the activities listed, all of the following activities were performed by 30% of the incompetent subjects. Seventy per cent had no activities.

Active membership in church, welfare, and civic
organizations

Gardening

Stamp collecting

Coin Collecting

House work

Church attendance

Musical performance

Attendance at lectures, concerts, plays,
operas, and motion pictures

Card playing

Sewing

Walking

Taking dog for walks

Watching boxing bouts on television

War veterans' activities

Reading

Collecting antiques

Membership on civic committees

Golf

Hunting

Sailing

Fishing

It is interesting to note other findings. Twenty-eight per cent of the competent subjects suffered from faulty memories. Forty-three per cent of the incompetents suffered from this disturbance. Nineteen per cent of the former and 38% of the latter were able to remember events of the past with more clarity than the present. According to the theories applying, the percentages of those with faulty memories for the present and sharp memories for the past should have been equal since the faulty memory is supposed to force these persons to revert to the past and to confabulation as a means of compensation.

About 9% of the competent and 15% of the incompetent subjects were inclined to be cranky. Only two incompetent subjects were subject to moods. None of the competent subjects was so disposed. However, an equal number of each, about 65%, were able to say with confidence that they were happy and content the greater part of the time.

It is noteworthy that eighteen per cent of the competent subjects and twice that number of the incompetents liked seclusion. These subjects just wanted to be left alone and possessed something of the schizoid personality. Some felt that they were unwanted by others or that they were unable to "keep up" with others. Three of the occupationally incompetent subjects admitted that they were shy by nature. Five of each group had been shy as children, but had overcome that shyness after the attainment of adulthood.

Five competent subjects worried over finances while eight incompetent subjects were so preoccupied. Four of the former and thirteen of the latter worried about their health. Three competent subjects felt unwanted by friends while all the incompetent ^b subjects were of the opinion that they were always welcome in the homes of acquaintances and friends. They were not aware of any indication that their conversations or presence bored or annoyed others.

Six members of the competent group and eight members of the incompetent group were lonely most of the time. Six of those in the first group and three in the second group had a feeling that others tried to take advantage of them. Other members of both groups assumed the "let them try" attitude.

Only two members of the incompetent group were losing interest in life. All members of the competent group enjoyed an active interest in life. In a few cases, there was an

increase in the amount of interest over that which the subjects possessed in earlier life. The will to live seemed to have increased. Many of the incompetent subjects, nevertheless, had decided early in life that they would "give up" at a certain age because the battle was a losing one.

Five incompetents worried over a number of possible eventualities. All other subjects had learned not to worry prematurely about eventualities of which they were uncertain.

Sixty-seven per cent of the competent subjects engaged vigorously in some hobby. Only half this number of incompetent subjects so occupied themselves. Fifty per cent of the competents engaged actively in politics. Twenty-three per cent of the incompetent subjects gave some time to political activity. Nearly all the remaining subjects voted, however.

Seventy-one per cent of the subjects who were occupationally competent preferred to associate with younger people while 66% of the incompetent subjects preferred the latter's company to that of older persons. Eighty-two per cent of those in the first group enjoyed talking a great deal. Sixty-seven per cent of those in the second group came into this category. Forty-one per cent of the competents and 37% of the incompetents attended parties and other social affairs. Eight per cent of the occupationally competent subjects and a like percentage of the incompetent subjects

claimed that they still enjoyed dancing. Fifty-four per cent of the members of the competent group continued to travel extensively which only 18% of the incompetents indulged in this type of recreation. Twenty-three per cent of the former and 31% of the incompetents found time for long walks.

About twice as many competent subjects as incompetent belonged to clubs and participated actively in its functions. These percentages were seventy and thirty-three. Seventy-three per cent of the competents appeared to be efficient in such fundamental skills as arithmetic, reading, etc., while only 56% of the incompetents seemed to retain these skills to any extent.

Forty-eight percent of the competent subjects were meticulous in their dress and appearance as were 43% of the incompetent subjects. These were careful about the appearance of their clothing and enjoyed grooming themselves properly. However, in spite of careless dressing on the part of a large number of the subjects, 73% of the competent and 56% of the incompetent subjects appeared younger in their bearing and manner than would normally be expected of persons of their years.

More competent than incompetent subjects were conservative in their ideas. Forty-four per cent of the former and 36% of the latter were admittedly old-fashioned.

However, there appeared to be some discrepancy when 18% of the competents and 22% of the incompetents claimed that they could not change their ideas to conform with present day notions.

Only 22% of the competent subjects tired easily, 8% admitted that they were becoming more and more stingy with age, 16% sat a great deal of the time thinking, and 14% were visibly nervous as compared with 50% of the incompetent for the first condition, 10% for the second, 21% for the third, and 31% for the fourth.

Forty-three per cent of the occupationally competent individuals and 35% of the occupationally incompetent persons were still ambitious about achieving success. In the case of the incompetent, this ambition appeared to be more of the daydream variety than it was of the true type. While the competent subjects actually acted to realize their ambitions, the incompetent subjects merely thought of them. In this connection, it is interesting to note that 4% of the competent subjects indulged in daydreaming while 16% of the incompetent subjects resorted to this type of adolescent revery.

Over 94% of the competent subjects and 69% of the incompetent subjects liked to keep busy most of the time. Sixty-four per cent of the latter and 84% of the former

used a great deal of their leisure time around the house performing necessary chores. About 82% of the occupationally competent and 63% of the incompetent spent the greater part of their leisure time reading. The rest of the time was divided largely between fishing and golf by the men. Women occupied themselves for the most part with sewing and other hand work.

CHAPTER VI

DISCUSSION OF THE RESULTS DISCUSSION OF THE RESULTS

The Mental Health Inventory

Excepting for "Freedom from Physical Defects", it appears from an examination of the scores obtained by the subjects on the Mental Health Analysis¹ that more occupationally competent subjects than occupationally incompetent subjects are well-adjusted in those mental qualities measured by that inventory.

Physical Defects

All of the subjects, both competent and incompetent, exceeded the norm for "Freedom from Physical Defects". It is possible that the selection of subjects on the basis of equality in physical status was responsible for this result. Since the critical ratio of the difference in mean scores for this trait was less than 3.00, the difference of four points is insignificant and does not mean that the competent subjects were at all superior to the incompetent insofar as physical fitness is concerned. It is more accurate to state that the two groups were equal in

¹Louis P. Thorpe, Willis W. Clark, and Ernest W. Tiegs, Mental Health Analysis-Adult Series, Los Angeles, California Test Bureau, 1946, 8 p.

physical fitness.

The explanation is demanded here that the section of the Analysis just described measures the extent to which subjects are concerned with those defects which may cause the individual to "respond with feelings of inferiority because of unfavorable comparisons or of handicaps in competition with other persons"¹. These defects are said to affect the individual's personality through the unhappiness that the restrictions associated with incapability bring.

Distinguishing and Common Traits

Although a greater number of competent persons than incompetent persons exceeded the norm for each of the several categories measured by the inventory under consideration, the derivation of critical ratios for each of the differences between mean scores for each category show that only four of these differences may be considered significant. In other words, it may be said that most occupationally competent persons over the age of seventy may be distinguished from occupationally incompetent persons over that age on the basis of behavioral maturity, freedom from feelings of

¹Louis P. Thorpe et al., Manual of Directions, Mental Health Analysis - Adult Series, Los Angeles, California Test Bureau, 1946, p. 3.

inadequacy, and freedom from nervous symptoms but not on the basis of emotional stability, physical defects, close personal relationships, inter-personal skills, social participation, and adequate outlook and goals.

It may be inferred from a study of the mean scores that both groups are generally emotionally stable, are free from physical defects, enjoy the results of close friendships of a warm and substantial nature, are socially skillful, get along well with others, and have a satisfying philosophy of life that guides the behavior of the members in harmony with socially acceptable, ethical, and moral principles. Neither group participates to any great extent in a number of group activities in which cooperation and mutuality are in evidence according to the interpretations placed on the scores by the authors of the Analysis. Low scores in this category were to be expected for the type of subjects used in this experiment because of the restrictions and limitations placed upon their activities by somewhat uncontrollable factors. Although most of the subjects were willing to contribute to the success of group endeavors, the opportunity to do so was denied them by the social structure of which they were a part and by certain physical limitations. Thus the older person cannot always enjoy the feeling of belongingness and the possession of status which his nature requires. He must at times remain isolated. In

only a few cases were schizoid tendencies responsible for this state in the individual. In spite of these findings on the part of an objective inventory, however, the more subjective interview revealed a large number of varied activities in which members of each group engaged. The low scores in this standardized Analysis may have been due to the comparison of the groups with a younger population. If this be so, it might be said that older persons, competent and incompetent, rate low in social participation when compared with younger individuals.

On the other hand, the results of statistical treatment of the data supplied by the Analysis show that the member of the occupationally incompetent group is more immature in his behavior, feels more inadequate, has more nervous symptoms, and engages in less satisfying work and recreational activities than the competent individual.

Nervous Manifestations

The greatest difference was found between the mean scores of the two groups in "Nervous Manifestations". Many more occupationally incompetent than occupationally competent subjects displayed symptoms such as eye strain, loss of appetite, inability to sleep, chronic weariness, and dizzy spells, which may have been physical expressions of emotional conflicts.

The authors of the Analysis list as possible causes of low scores in this area:

- a. Supervisional or executive domination which suppresses the individual's inclinations and activities
- b. Lack of opportunity for normal emotional expression.
- c. Repression of the desire for recognition when it is denied
- d. Repression of guilt feelings arising from hatred of associates, sexual irregularities, and the like
- e. Lack of success
- f. Inability to make or keep friends
- g. Threat to security
- h. Lack of interests which challenge, or of opportunities to do interesting things¹

It is easy to see how certain of the above might apply to unemployed older persons. Items b, c, e, g, and h are especially applicable. Without the vehicle with which to achieve it, in this instance useful work, the individual cannot have success or recognition. In addition, he lacks security and challenging interests. The latter was mentioned by these subjects in replying to the question which asked them what they did not like about their present life. Of

Thorpe et al., Op. Cit., p. 11.

course there are other ways in which he might provide for these, but the average individual does not possess the capacity to attain these independently in an atmosphere outside the employment world.

On the other hand, the nervous symptoms may not be caused by unemployment, but may be responsible for it. Every therapist knows of cases where the nervous individual is unable to continue with his work because of the interference of troublesome symptoms. Sometimes Item a above is a causative factor. The individual is unable to bear supervisory or executive domination or the responsibilities imposed upon him by his duties and emancipates himself from them by subconsciously developing the symptoms that will enable him to abandon his work.

It may be further demonstrated that the occupationally incompetent person, not able to divert himself through employment, feeling helpless vocationally and socially, pushed aside by a society that does not wish to be burdened by his presence, develops emotional conflicts that are easily converted into physical symptoms by the person who wishes to blame his incompetency on his physical state or who does not wish to face the reality of a situation with which he is not able to cope. The development of these symptoms might attract the sympathy of others and thus get aid for the individual because of his apparent helpless

state. They may also afford him an excuse to remain incompetent and consequently idle thus apparently solving the problem for the individual who does not realize that resort to this mechanism produces a neurotic state.

Also, it has been the experience of the candidate that many persons fear the "disgrace" of a nervous or mental condition and convert their emotional conflicts into physical symptoms thus enabling them to seek the ministrations of the physician for a physical condition rather than one that is mental. In this way, the individual feels that he is saving face. Patients who resort to this mechanism try to believe that the alleviation of these physical symptoms (which are in reality mental symptoms in disguise because they have converted their emotional feelings into physical symptoms) will relieve them of their emotional conflict.

Behavioral Maturity

Other line
The significant differences between the mean scores of the competent and incompetent groups in the other three categories mentioned were practically equal.

Only 23% of the occupationally incompetent subjects were mature in their behavior. Consequently, the greater number of these subjects reacted to their problems, to a

greater extent than the competents, on the basis of childhood ideas and desires. According to the authors of the Analysis:

He has not learned to assume responsibility for, or to accept the consequences of, his own acts. He attempts to solve his problems by such childish methods as sulking, crying, pouting, hitting others, or pretending to be ill. He has failed to develop emotional control and thinks, primarily in terms of himself and his own comfort.¹

It is pointed out that behavioral immaturity may be caused by:

a. Actual lack of ability in relation to assignments (expectations)

b. Conflicts in the home; quarreling with associates

c. Teasing or ridicule by associates

d. Childhood illnesses, the effects of which (attitudes of dependence, helplessness, etc.) persist in adult life

e. Over-protection and over-direction on the part of parents when a child; not enough responsibility on the part of the individual²

A study of this category as it applies to the subjects of this study makes one reflect on the popular referral to older persons as being in their second childhood. It is possible that some of these persons did not always react to their problems with infantile techniques so that some of the

¹Thorpe et al., op. cit., p. 3.

²Thorpe et al., op. cit., p. 9.

causes listed by the authors may not apply. Then, too, behavioral immaturity can very well account for the failure of the older person to retain competency. He cannot assume responsibility and has reverted to a state where he must depend upon others for sustenance and care very much like the small child.

It is evident, from data collected during interviews, that many of the subjects encountered conflicts in the home with quarrels resulting. Some were overwhelmed by the limitations placed on their abilities, and others complained of the teasing that was often thoughtlessly directed at them by younger people who sought diversion by "kidding an old man" about activities in which they believed he could no longer engage. Such unprovoked comments as "Oh, you're too old for that sort of thing" irritate the older person immeasurably especially when he has made no move whatsoever to engage in the activity to which reference is made. This serves only to make him believe that he is moved further and further from the sphere of world activity.

Perhaps the only weapon available to the older person with which to fight his problems is childlike behavior, and he uses it frequently. Many of the occupationally competent subjects also used it. This category obtained the second lowest score in each group. Beginning to feel as helpless as a small child again, the older person resorts to

the behavior of the child. It is not unreasonable to assume that the child resorts to the behavior typical of his age because of his helplessness. Therefore, as the older person returns to this helpless state, he reverts to the behavior which originally helped him solve his problems. Just as the child regards the older person as the one who controls his destiny, so does the older person regard the younger one, and he will attempt to force that person to manipulate that destiny ^{in his favor} with certain behavior techniques.

Those subjects who did not recourse to immature behavior to solve their problems also did not feel helpless. They had acquired a dignity of demeanor which did not encourage ~~teasing~~ by others or promote conflicts in the home. These subjects were not made to feel that they lacked ability, and were not regarded as "old fogies" by associates. They were not among those whose suggestions at their places of employment were rejected as outmoded. These persons had built a place of importance for themselves that demanded respect of others, especially ^{of} those who required their services. This was particularly true of physicians and judges.

Feelings of Inadequacy

More occupational incompetent than competent persons suffered from feelings of inadequacy which, with satisfying work and recreation, was second in rank of differences between the two groups. This means that more incompetent than competent persons over the age of seventy feel inferior and incompetent. It reveals that the incompetent persons recognize their state. It discloses also that incompetents who have these feelings have them more intensely than the competents who have them.

Persons who have feelings of inadequacy are of the opinion that they are not well regarded by others, that people have little faith in their future possibilities, and that they are unsuccessful socially. They feel that they are left out of things because they are unattractive and lack ability according to the Mental Health Analysis manual¹.

Feelings of inadequacy are generally attributed to rejection by friends or associates, lack of affection on the part of the individual's family and friends, unsatisfactory home conditions, lack of success on the job, lack of hope

¹Thorpe et al., op. cit., p. 3.

for the future, and hostile attitudes on the part of supervisors, acquaintances, and friends.

It is quite easily seen how many of these conditions described by the authors of the Mental Health Analysis¹ might apply to older persons. They are often rejected, and very frequently complain about conditions at home where they are made to feel unwanted. They are no longer employed, and have no hope for the future. The digressory part of this experiment has revealed that there exists an hostile attitude on the part of younger persons toward the older person. More than one study reviewed in the Introduction and Chapter I of this thesis substantiate these findings. It is not surprising, in view of all this, that older persons feel inadequate.

Satisfying Work and Recreation

It seems almost unnecessary to report that significant difference resulted between the mean scores of the competent and incompetent groups in satisfying work and recreation. It is entirely evident that the occupationally incompetent person should lack something essential to mental well-being in not being able to experience success and satisfaction in some type of work. There is nothing to

¹Thorpe et al., op. cit., p. 10.

challenge him or to satisfy his need for approval and a sense of achievement. Neither does he enjoy as much participation in hobbies and recreational activities which provide release from nervous tension as the occupationally competent person over the age of seventy. What concerns us here is the fact that, while he has more leisure time, the occupationally incompetent person engages in fewer hobbies or other recreational activities than the occupationally competent person. It seems that the same factors that stimulate the competent person to be active occupationally stimulate him to be active recreationally. While the occupationally incompetent person needs these activities to assist him in relieving himself of the nervous tension caused by idleness (as demonstrated by his low scores in the section disclosing nervous manifestations), he neglects them. It is safe to infer from this that the same factors that render the incompetent person incompetent in employment activities also render him incompetent in recreational activities.

Both the occupationally competent group and the occupationally incompetent group scored lowest in social participation. The difference in their scores was not statistically significant so that it is safe to conclude that older persons in general engage in fewer social activities than are considered necessary for normal mental health for the general population.

Applicability of the Analysis to Older Persons

In treating the above data, the general interpretations attached by the authors of the Analysis to scores achieved by those who submit to it were given. To be sure, these authors do not interpret them as they apply to persons over the age of seventy. The Analysis was evidently standardized on an average adult population scattered mostly about the younger ages. It is interesting to note that the interpretations fit the older person nicely. The writer of this thesis has attempted to make this obvious in his discussion of the results thus far treated. Direct quotation from the manual of directions which accompanies the test has been introduced into this chapter so that the reader might perceive how interpretations intended for younger subjects rather aptly apply to older persons.

Individual Differences

In considering the findings discussed above, it must be borne in mind that among the members of the occupationally competent group were subjects who scored low in behavioral maturity, feelings of inadequacy, freedom from nervous manifestations, and satisfying work and recreation. Likewise, there were members of the occupationally incompetent group who scored higher than some of those belonging to the first group in these categories. Like so many other

studies, this one reveals that individual differences occur among older persons just as they do among younger ones, and that they cannot be categorized as a group apart from others.

Since no separate norms were derived for this group of older persons, they were compared with the younger subjects upon whom the Analysis was no doubt standardized. The purpose of this study was not so much to determine how one group of older persons compared with another group of older persons as it was to ascertain how older people of different statuses, occupationally competent and occupationally incompetent, compared with young, active persons. There is no doubt that the occupationally competent subjects compared favorably with the younger subjects except, possibly, in behavioral maturity and social participation where the group as a whole fell below the norm. This does not mean, however, that there ^{are} no members of either group who did not show scores far exceeding the norm in these two categories.

The incompetent subjects fared worse than the competent subjects when compared with the persons upon whom the inventory was standardized because they scored below the norm on feelings of inadequacy, close personal relationships, and satisfying work and recreation as well as nervous manifestations and the two categories mentioned for the competent group. The obvious conclusion may be drawn, therefore, that occupationally competent persons over the

age of seventy are more like younger persons than are occupationally incompetent persons over the age of seventy insofar as their reactions to a standardized mental health inventory are concerned.

The Questionnaire-Interview

A perusal of the data gathered from the questionnaires and interviews reveals that the same conditions that affect the occupationally^{ly} competent subjects also affect the occupationally incompetent individuals. The important fact is that certain conditions affect more members of one group than affect members of the other. Therefore, it cannot be said with one hundred per cent scientific accuracy that all occupationally competent persons are of one absolute type and that all occupationally incompetent persons are of another clear-cut type. Each person appears to be an individual in the true sense of the word made up of varying proportions of different qualities.

Length of Employment

The disclosure that occupationally competent persons were employed for longer periods than their occupationally incompetent contemporaries was an expected finding. The incompetent person was obliged for some

reason or other to discontinue working while the competent person continued in his employment during the former's idleness. The fact remains, however, that those of the competent group made an effort to secure employment elsewhere, when they were obliged to discontinue employment, and succeeded in finding other positions. Equal opportunity for reemployment existed for members of both groups. Identical conditions of supply and demand of labor were existent, members of each group were equal in health status, etc. Attitude or mental outlook seemed to be the factor involved. The incompetent persons were ready to "give up" because the world offered them no encouragement and was "set against them" because of their helplessness. Competition with the younger element was too keen, and it was necessary to surrender to the superior strength of the latter. Defeat, to them, was inevitable.

The question on length of employment was included in the questionnaire to determine the eligibility of the subject.

Independency

A desire to remain independent of others seemed to be a required trait for competency. Two types of persons were encountered among the subjects of this study. Those who never shirked responsibility and wanted always to be

dependent upon their own resources were found among the occupationally competent. Those who felt that the world owed them a living or who were skilled at "gold-bricking" were among the incompetents. They appeared to lack pride in their accomplishments, and resorted to the immature behavior revealed by the Mental Health Analysis to extend the period of infantile dependency indefinitely. They had no voice in the management of household affairs nor did they want it. They had simply regressed to the childhood state where parents had assumed all responsibility for them. Here the condition was reversed. The parents were now in the place of the children, and the children assumed parental attitude and care toward the mother or father.

While many of the incompetents stated that they had desired to become independent and would accept employment, there was reason to doubt the sincerity of their statements. Excuses for not accepting employment were offered whenever the interviewer asked the interviewee whether or not he would accept a certain position that he believed was available. Pretention was made that conditions under which the individual could live apart from his offspring with an independent income could be arranged. The subjects were reluctant to give up maintenance supplied by welfare organizations and the care supplied by others. They could not assume responsibility, and feared competition

in industry with younger people. They felt that all that younger people desired of them was "to be seen and not heard"; and, when they were seen, they were to be inactive and not interfering in a world that belonged to youth. There appeared to be in progress a veritable "battle of the ages" in which the younger were subduing the older.

Although thirty-six of the competent subjects stated that they were living independent lives, their description of what constituted independency did not fit the ordinary definition of such a state nor was it the same type of independence enjoyed by competent subjects. The latter depended entirely upon their own resources while the incompetent subjects were at least partially dependent upon others. They needed others to provide food or shelter, to plan their activities, to make decisions for them, and the like. It appears as if those subjects who claimed to be independent did so because they wanted to feel that they were able to live their own lives.

Attitude toward Age

A digressory study described in an earlier chapter revealed that the opinion regarding the "battle between the ages" was not unfounded. It originated from an unhealthy attitude toward older persons that developed in early adolescence. This attitude, which was one of hatred mixed

with fear, might be interpreted as a defense mechanism on the part of the young person against adulthood and "later maturity", to continue to use the euphemism adopted by gerontologists. The high school pupil does not so much hate even the kindly older school teacher as he does the fact that she reminds him or her of a state in which he does not wish to find himself, even remotely. In fact, the older teacher is symbolical of a state in life that the average younger person wishes to escape because he has learned to fear that state. Interviews with the older subjects and the adolescents disclosed that this fear attitude had been developed in the individual by undiscerning adults, often the parents.

It has been pointed out by mental hygienists that many forms of dodging reality exist and that the process of dodging is usually acquired during childhood. Children almost deliberately seek to evade the disagreeable in life by resorting to all kinds of subterfuges such as pretending to be ill to avoid attending school on the day of an examination. Is it any wonder, then, that when the child hears his parent or any other adult exclaim, "Oh, I wish I were young again", or "You're lucky to be so young, nothing to worry about" and all that sort of thing, he begins to wonder about the advisability of growing up? Then, when he hears his mother refer to that "old Mrs. Jones who must be thirty if she's a day", he begins thinking that no worse calamity can befall a person than to become thirty.

or whatever other age is mentioned, and he begins to set up subconscious defenses against growing up. Especially is he confused when he notices that there is nothing otherwise wrong with Mrs. Jones aside from being thirty years old; and he, himself, falls in line with his relatives and begins to condemn others for being a certain age when he can find nothing else for which to criticize them. To him, growing in maturity has become one of the greatest misfortunes that can come to anyone, and he immediately seeks ways of avoiding it. This attitude is sometimes responsible for schizophrania. The individual fears to go forward to the stage where he will have to assume the responsibilities of the adult, and he goes into a state of catatonic or hebephrenic schizophrania where he has regressed to a stage in childhood where he is happy in his freedom from responsibility and where he has decided to remain permanently.

This study has brought out the fact that a great many of the incompetent subjects had that fear of growing up that had been met in the adolescent. Practically all their lives they had built up defenses against that state which they found not to be as intolerable as they had been taught to believe by unthinking adults. Now they were encountering the same attitude in younger persons who were casting them aside because they reminded them of the state that they were seeking to avoid. This attitude very often

disguised itself as a hatred on the part of the adolescents which tended to make life uncomfortable for the older person. No attempt was made to determine to what age this fear and hatred survived. From general observation, it is not unreasonable to suppose that it extended well into adulthood.

Many may ask how one might account for the homes for older persons and the other charities provided for them. Their question may be answered by pointing out that such homes are means for some of discarding their older relatives. They are established by persons with no malice toward older people, to be sure, but are often made use of by individuals who prefer to forget their older charges rather than provide a home for them. By the same token, people establish prisons and have no love for criminals. They also establish mental hospitals. These are all necessary institutions to keep out of the community unwanted characters.

In articles reviewed for this dissertation, it was demonstrated that some physicians did not wish to treat older patients because they did not wish to be aware of physical states that might apply to themselves. The title of another article, "Why Imprison Our Aged", gives proof of the treatment accorded these people.

The fact remains that attitude toward age is a factor in determining occupational competency since fewer

than one per cent of the occupationally competent subjects had an unfavorable attitude toward age. If the others had had it during adolescence or later, they had since disregarded this malignancy. As has already been indicated earlier in this chapter, this defense against growing up may also be responsible for the low scores in behavioral maturity on the Mental Health Analysis. Both groups were affected, but more occupationally incompetent than competent subjects were involved and there was a mean score difference that was significant.

Philosophies of Life

Most of the subjects had philosophies of life although more of the competent than incompetent subjects were among these. A study of these in Appendix III shows that the philosophies of the incompetents do not differ very much from those of the competents excepting that the former tend to express their thoughts in fewer words than the latter. Most of them reflect faith in God, adherence to the Golden Rule, and a belief in keeping oneself busy. Most of them are predicated on moral living.

It is interesting to note that the competent subjects were more eloquent in expressing their philosophies as if they had something very important to offer to the world. The incompetent subjects were more matter-of-fact

and seemed less sincere. It appeared as if they thought that they were expected to have a philosophy and wanted to oblige by offering one. As a rule, the philosophies of all subjects stressed service to others. Probably they wanted to offer to others what they themselves were desirous of having. The eloquence and enthusiasm of the competent subjects in stating their philosophies were characteristic of their activity-driven natures.

Desire for Youth

Generally speaking, the competents did not wish to be young again or to relive their lives because they had no reason to want to escape from their present status. They were living useful lives, and considered their present stage part of the great adventure of living. This, too, was a matter of attitude. Some of the incompetents reflected an attitude of escapism, and would willingly regress to an earlier period in life where they were free of the problems of later maturity. Others would just as well remain at their present stage in life where they had no responsibilities and could depend upon others for sustenance. This, too, was a form of escapism. Generally, those who had lived full lives of no regret found no need to return to their youth.

While it is true that more competents than incompetents wished to be young again, the reasons for wanting to

return to youth and also those for wanting to remain in their present state are important in evaluating the results. The incompetents were those who wanted to return to escape their present predicament or to remain in their present state to be able to depend upon others for sustenance. The competent wanted to return generally because they had enjoyed useful lives which they had considered worth repeating. Those who wanted to remain in their present state were quite satisfied with maintaining themselves.

Fears

So few subjects possessed fears other than that of age that it is possible to state that older persons generally face many situations heroically and that the only state many wish to escape actually is that of age. Of the fears expressed, six might be said to be associated with age. These were fears of losing one's companions, illness, retirement, insanity (from senility), becoming blind, and becoming a burden to others. The fact that the fear of becoming a burden to others on the part of an incompetent person was included in these might lead the reader to state that this refutes the finding that the incompetent generally seeks to rely upon others for sustenance. It must be remembered, however, that only one subject possessed this fear.

Religion

The data on religion conform rather well with that reported in the survey conducted by Catholic Digest¹. All of the competent subjects and 66% of the incompetent subjects were actively religious. Only one incompetent subject was an avowed atheist.

In reporting that 99% of Americans believe in God, the result of a survey made by Ben Griffin and Associates of Chicago, an independent, commercial, opinion-research firm, the Catholic Digest made known that 91% of the persons past retirement age believe in God. The present study differed from that of the Catholic Digest in that it was interested in determining more whether or not the subject was actively religious than whether or not he believed in God with no demonstration of that belief. Here, too, it was revealed that more competent than incompetent persons were actively religious probably as a result of the same factor that rendered them more active occupationally, socially, and in hobby participation.

The 34% of incompetent persons who were classified as emphatically irreligious earned such a classification because, while they believed in God, they had begun to scorn

¹Ben Griffin and Associates, "Do Americans Believe in God?", in the Catholic Digest, Vol. 17, No. 1, issue of October 1952, p. 1-5.

formal religion as they began to adopt what resembled a mistaken communistic attitude in their demands upon others to share with them the results of their labors. They felt that the state was responsible for their welfare and should reward them for their former contributions to society such as having raised a family. The term "mistaken communistic attitude" is used in this paragraph because many of the subjects involved had the erroneous notion that, in a collectivist society, the state exists for the individual because it supplies such needs as medical care, for example, and not the individual for the state as is actually the case. This attitude was surely due to a strong desire for the security which the subjects thought was slipping away from them and for the lack of prejudice which was thought to be characteristic of the socialistic system. The persons who possessed this attitude had never had any great religious fervor. They condemned the church in some instances; and, while they admitted a belief in God, some were not too definite about this belief either.

It is noteworthy that very few of the older persons of this study turned to religion late in life for consolation. Those who did had neglected religion early in life because of lack of time for church activities. It is strange, however, that, while still actively employed, these 5% found the time for religion in later life, time which they had not found in the earlier period when people are generally more active. Perhaps ^{participation in} fewer of the other activities accounts for this.

Retirement

Another important part of the experiment is that which has to do with attitude toward retirement. The competent dreaded inactivity while half the incompetents claimed that they enjoyed retirement. There are many factors to be considered in interpreting these attitudes. Could it be, perhaps, that constant activity on the part of the competent helped them escape the realities of life just as alcohol helps the alcoholic escape and narcotics help the drug addict escape? Could it be a fact that the competent wished to remain young by continuing their active life because they could not accept their changing status? As one subject stated, "When a person retires, he loses interest; and my observation is he soon dies". It is difficult to believe that either of these was a motive behind the activities of these men and women who sought to be useful members of society who did not wish to become dependent upon others. Activity and responsibility did seem to be the means by which they maintained good mental health. Nevertheless, any sincere motives they may have had for remaining active must not be discredited.

A very few incompetents who claimed that they preferred to be employed again seemed sincere. At the same time, they lacked the quality that enabled the competent subjects

to remain in their occupations. They were not able to secure positions probably because of their approach in applying for them. The prospective employers may have detected the attitude which seemed to lack sincerity because it had been altered by conditions which lessen enthusiasm.

Satisfactions from Present Life

The occupationally competent subjects derived most satisfaction in their present existence from the fact that they were still able to work and enjoy security. "Freedom from responsibility" was mentioned most by the incompetents as an answer to the question, "What do you like most about your present life?" These replies add more support to the contention of this report that the competents sought to continue as responsible members of society while the incompetents were eager to evade the responsibilities of later maturity by returning to a childlike state where others assumed such responsibilities for them.

Many competent persons enjoyed increased freedom in their present work which makes it appear as if employers are not so exacting in their demands on older employees. Coupled with this was the item "considerate employers" which substantiates this statement as does "freedom from pressure" which ranked seventeenth in the list of conditions enjoyed by competent persons in their present life and "shorter hours of work" which ranked twenty-fourth. On

the other hand, these subjects resented the rejection of their suggestions at their places of employment by younger persons who considered these suggestions outmoded. All of these might be taken into consideration by the management of places of business that employ older persons.

It could be that the incompetent subjects were victims of less considerate employers who did not modify working conditions for them and thus created a distaste in these people for work. Therefore, while some of the incompetent persons may have preferred to continue in employment, they may have felt that they could not have continued under exacting conditions and took advantage of a situation that enabled them to retreat from them. The incompetents did mention that they were unable to meet the challenges of the times and that they also missed challenging activities. However, all this does not explain why they had not sought and found positions where conditions were more satisfactory just as their competent brothers had done. The fact that they were adept at finding reasons for not accepting employment has some significance here. It shows a lack of genuine desire to accept mature responsibility.

Activities

The number and variety of activities in which these subjects participated and which are listed in the preceding

chapter (pp. 98-102) show that there is much to occupy the leisure time of the person over seventy. For some reason, the competent subject engaged in many more activities than the incompetent in spite of the fact that the incompetents were unemployed and had more time for hobbies and other activities. It is stated again that the factor responsible for maintaining the competent person actively employed was probably also responsible for drawing him into a greater number of leisure-time activities. This increased activity may result from a number of factors such as initiative, interest, attitude toward life, etc. It may even have some hypomanic implications since that ailment often occurs among older persons.

Activities included those that are physical as well as those that are mental. An examination of the activities of the occupationally incompetent reveals the absence of club memberships, which were prominent in the list of the competent subjects, electioneering, and the more creative intellectual activities. They reveal that the incompetent subject is less civic minded than his competent contemporary.

Other Factors

Although other conditions outlined in Chapter V affected more incompetent subjects than competent subjects,

it cannot be said that such conditions prevent the individual over seventy from remaining occupationally competent. For example, 42% of the incompetent subjects suffered from faulty memories while 27% of the competent subjects had this defect. However, faulty memory did not prevent the 27% of competent subjects from being usefully employed. There is no evidence to show that the degree of defect was responsible.

Similarly, other conditions affected members of each group in disproportionate numbers. Both groups had members who wanted to be left alone, who felt unwanted, etc. Throughout the chapter on results could be found indications of treatment of older persons in general that gave cause for complaint such as feeling unwelcome in the homes of others or feeling that they are being taken advantage of by others.

The subjects of this study were asked about these traits (forgetfulness, feeling unwanted) and others such as fatigue which are often attributed to older people so that it might be determined whether or not more incompetent subjects than competent subjects possessed them. While it found that more incompetents than competents did have them, the difference was not spectacular. It is safe to say, as indicated above, that, since members of both groups had the traits, their possession is not a definite

determinant of competency.

Choice of Companionship

Some discussion must be given to the fact that the majority of older persons preferred the company of younger people. This was so not only because they desired to return to the group from which they considered themselves expelled, but also because such association provided them with an added sense of security. It brought them among persons who had the capacity to help them. There is also the suspicion that some of these oldsters wished to escape the reminder of their own state reflected from others in a similar state.

Travel

More competent than incompetent subjects traveled probably because they had the financial means. In addition, the incompetent subjects had limited interest in this activity as they had in others that required great effort.

Appearance

Appearance did not seem to make a difference in one's ability to retain or secure employment because over half the competent subjects were slovenly dressers, and a large number of incompetent subjects were neat dressers who looked

much younger than their years.

Conservatism

It is a trait of older persons to be conservative just as it is a trait of younger people to want to be progressive. One wishes to look back upon his accomplishments while the other wishes to look forward to them. Furthermore, each person wishes to produce his own advances and not rely upon those of others. That is why the younger associates of the older employee regard some of his ideas as outmoded much to the chagrin of the latter. The younger person will not accept the ideas of the older, and the older will not accept the ideas of the younger person. Each guards his productions jealously. Very often, if the same idea is produced at the same time by a younger person and an older one, it is accepted from the younger one as a modern idea and from the older person as an old-fashioned creation. Sometimes the older person wishes to hold on to old-fashioned ideas in order to remain in the epoch of his youth. Some older people pretend to be progressive in order to appear youthful. In the realm of conservatism-progressivism there is much rivalry between youth and age.

Of course, it is obvious that this condition does not pertain when very important issues are at stake. For example, in times of political crisis, the younger individual

is happy to accept the solution of the elder statesman and the elder statesman will listen to the ideas of his younger compatriot. When a younger person is seriously ill, he will not hesitate to consult the older physician so that he might profit from his experience and the wisdom of an older man. However, even here, one will often hear one remark that the younger physician is in possession of more modern techniques and knowledge because of his more recent graduation from medical school, not realizing that every physician has at his disposal medical journals and the discussions of hospital staff meetings to bring him up-to-date in his professional knowledge.

Fatigue

More incompetent subjects than competent subjects tired easily. It is rather easy to see why this should be when one considers that the incompetent person has not been accustomed to activity over a long length of time. In one or two cases there was some neurathenic tendency.

Daydreaming

Daydreaming comes in for some treatment here since it seems that the incompetent subjects were of the type who dreamed their lives while the competent subjects planned their lives and carried out their plans. The incompetent

may have been something of the schizoid type who is given to introspection and the inner rather than the outer life. This manner of functioning enables them to avoid the responsibilities of life and is characteristic of the child.

Activity

The finding that 69% of the incompetent subjects at least liked to keep busy most of the time is a good one. It shows that the incompetent person, at least innately, is not a lazy one. He does like to avoid responsibility; but, at the same time, will engage in activities of a helpful nature around the house, activities that will not demand too much responsibility. This desire to keep busy portends some good for the employment potentiality of those of the incompetent group, and indicates that, if the factors that lead to the incompetency had been controlled (presumably the attitudes of which mention has been made), the individual would still have the capacity to work. The fact that so many of these subjects spent time reading also shows a capacity for increasing knowledge,

Sex

Some incompetent persons, during the interview, brought up discussion on sexual matters. Many of these seemed to think that sexual virility was an indication of

youth and attempted to compensate for waning ability in this direction by telling salacious stories to impress their friends that they still had the interest in sex that would characterize them as youthful.

Others had been falsely indoctrinated by literature written by Freudian psychiatrists and psychologists that a sex life was necessary to mental well-being. These subjects wanted reassurance that they would not become mentally ill because of the absence of sex experience in their lives. In them was seen the cause of the incidence of sex offenses among older persons who were often brought to the attention of the writer by police magistrates who made use of the mental hygiene clinic with which he is affiliated for the correction of these persons. Unfortunately, the offenses very often involved children which is still another indication of the desire to return to childhood.

The Occupationally Competent Person

From a consideration of all the data collected during this study, it is possible to describe the occupationally competent person over the age of seventy as a man or woman who may be married, single, or widowed. He or she may be a graduate of elementary school, high school, college, or professional school. He is likely to have more years of

schooling than an incompetent person.

The competent person is employed steadily in his original position; or, if he was required to retire, has secured other employment. He has always had a desire to remain independent of others insofar as self-support is concerned, and has always maintained a wholesome attitude toward age. He usually did not have parents who unconsciously inculcated in him a noxious attitude toward maturing or older people.

This person has a philosophy of life that stresses faith in God, service to others, useful activity, and consideration for the rights of others. He is satisfied with his present status in life, and has no yearnings to return to an earlier status so that he might escape the problems of the present. He knows his responsibilities and accepts them.

The employable person has a number of hobbies, belongs to clubs, is not inclined to worry, and takes an active part in civic affairs including politics. He likes to keep busy, ^dand finds many activities to fill in his leisure time. He is more likely than the incompetent person to be supporting other members of his family. Such a person dreads the thought of retirement, and makes every effort to avoid having to abandon his work.

The occupationally competent individual is actively religious and has been so the greater part of his life. He is more conservative or old-fashioned than his unemployed contemporaries, but is less likely than they to possess the characteristics generally attributed to older persons.

The competent person is ambitious, and strives to offer something of value to the community. He never indulges in daydreaming, but has always been in harmony with reality. He seldom worries about finances, health, being alone, sex, or other matters with which the incompetent person is preoccupied. He is concerned, however, with the attitude of the younger generation toward the older person; and is generally disturbed if his ideas are rejected by it as old-fashioned. This individual prefers the company of younger people, and is more likely to be accepted by them than the incompetent older person.

The individual here described is emotionally stable, feels adequate, is not burdened by physical defects or nervous symptoms, counts among his friends some in whom he can confide and who show genuine respect for him, knows how to get along well with other people, experiences satisfaction in his work, participates in a variety of recreational activities which provide release from tension, and has a satisfactory philosophy of life with socially acceptable, ethical, and moral principles. He has an understanding of

his environment and the forces and cause and effect relationships which shape his destiny as a member of a social group.

The competent person is more likely than the competent person to behave in a mature manner. However, he does have some tendency to react on the basis of infantile desires and ideas when he cannot have his own way. Also, he falls below the norm set for the average younger individual for social participation to the extent that group endeavor does not provide him with the feeling of belongingness and the status that his nature requires. This results from the rejection of some of his ideas. In general, however, he is more like the average younger person than the older incompetent person.

The Occupationally Incompetent Individual

The occupationally incompetent person, like the competent, may be married, single, or widowed, and may be a graduate of elementary school, high school, or college. He is likely to have spent fewer years in school than his more competent contemporary.

This person is more likely than the competent person to exhibit characteristics generally attributed to older persons such as faulty recent memory, decrease in efficiency in fundamental skills, etc. He is less active in civic

affairs, because of a lesser sense of responsibility, and indulges in fewer recreational activities. This person is inclined to shirk responsibility, and is content to depend upon others for sustenance although he prefers to be independent in matters that do not require too much responsibility.

The incompetent individual fears or has feared old age, and usually has had parents or other relatives who unknowingly influenced him in that direction. His attitude toward age has been unwholesome, and he has often wished that he could regress to his youth to escape the ordeal of his present position. He is not likely to live according to a philosophy of life, and tends to dream his life rather than live it realistically.

This type of individual is not as religious as his competent brother, and tends to accept communistic doctrine as a solution to his problem. This person has long abandoned his desire to live, and is satisfied to vegetate. He is preoccupied about finances and his health. Like his employable contemporary, he looks younger than his years because of the fact that he belonged to a select group whose biological age was low. Like his contemporary, he tends to dress slovenly more often than he dresses meticulously.

The occupationally incompetent person feels inadequate, displays nervous symptoms, and derives no great

satisfaction from his leisure-time activities. He attempts to solve his problems by resorting to childish methods such as sulking, pouting, or pretending to be ill. He has not developed emotional control, and thinks primarily in terms of himself and his own comfort. Furthermore, he feels inferior and incompetent, and insists that he is not well-liked by others.

In addition to the many minor traits which distinguish the incompetent individual from the competent person, there is the prominent differentiating quality of attempting to resist the responsibilities of the present by returning to an earlier state in life where these did not exist. Consequently, he very often behaves in the manner characteristic of the stage to which he has regressed.

CHAPTER VII

A THEORY REGARDING DEPENDENCY AND ITS RELATIONSHIP TO THE INSTINCT OF SELF-PRESERVATION AS THE CAUSE OF NERVOUS AND MENTAL DISEASE

The incidence of nervous symptoms along with feelings of inadequacy, unwholesome attitudes, and other factors usually associated with mental and emotional illness among many of the members of the incompetent group warrants the inclusion of this chapter on the role of dependency as a cause of such disease symptoms.

Authorities on mental illness have attributed poor mental health to a great number of causes. Most common among these are sex incidences and unpleasant memories which have become so impacted in the subconscious mind as a result of the individual's tendency to preoccupy himself with their repression that their reappearance in disguised forms to get by the censor causes confusion and consequent neurosis. This, of course, is the Freudian point of view. Greisinger attributed mental disease to disordered reflexes of the brain. Adler advanced the theory of organic inferiority and the need for a feeling of superiority as basically responsible for maladjustment. Jung said, simply stated, that neuroses occur when a person's desires as an individual conflict with his desires as a member of society. Otto Rank gave us the notion of "birth

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Trauma", and Karen Horney the idea of "contradictions in culture" as causes of nervous diseases. Many others have sought to contribute some insight into the etiology of the psychoneuroses and psychoses. However, none^h has considered dependency in its relationship to the instinct of self-preservation as a possible cause of these diseases. If any has, he has referred to it so vaguely as to render his reference a passing thought rather than a definite theory. It is the opinion of this candidate that all theories so far advanced have something of value to offer, even if it is only to demonstrate how confused the entire field of psychiatry has become in its efforts to divorce itself from a philosophical background and assume the status of an exact science. Nevertheless, the writer dares develop one more theory to add to the many that are mercilessly expanding the literature on psychology and psychiatry.

The citation of a case or two that have come to the attention of the candidate will serve to illustrate how dependency with its disturbing reaction upon the instinct of self-preservation has activated psychoses in individuals who already may or may not have had some inclination in the direction of mental maladjustment.

One case concerns a not too old woman who became widowed early in life. She first showed signs of psychotic

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tendency when her memory became faulty, and she was unable to recall names of friends or to recognize them at all whenever she met them. Often she would telephone a friend or relative, and forget immediately after connection had been made whom she had called. This may appear to have no direct bearing on the case. However, writers have advanced the opinion that older persons develop faulty memories not necessarily because of organic deterioration, but because they are seeking to unburden their minds of an unpleasant present and to return to the more pleasant past the memories of which remain more vivid. Of course, there are others who would argue that the mind will reproduce those memories of occurrences which it received before it deteriorated, and is less receptive to those which attempt to form there during its deteriorated state.

As the disease of the woman we are describing progressed, she began accusing her son of stealing money which she, herself, had deposited somewhere in the house later forgetting the place that she had selected for its safe-keeping.

Suddenly, a condition of dissociated personality set in, and the patient became possessed of the delusion that she continually had in her presence a young girl who disobediently refused to eat. —On one occasion, she threatened, in

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real motherly fashion, to summon the police to force the imagined child to eat all of its food. At two or three o'clock in the morning, she would get up from bed to cook meals for the girl for fear she would starve. In this way, she added much to the discomfort of her mature son, her only child, whose sleep she frequently interrupted so that he might assist her in her obligation. Other times she would berate him for fear he might harm the girl whom her confused might regarded as deaf, dumb, blind, and generally helpless.

The son first noticed the incipience of the disease when his once affectionate mother displayed some degree of hostility toward him, and began accusing him of stealing money from her. This, at first, did not appear to be serious enough for medical attention. However, when she began looking into the mirror to address her reflection, which she considered that of another person, he had her removed to the psychopathic ward of a local general hospital for observation and treatment. The physicians there discharged her after an extended period of observation dubious that the condition was of any consequence since the patient appeared lucid during her confinement. Remission followed and lasted several months. A complete relapse lead the son to consult various specialists one of whom diagnosed the case as cerebral arteriosclerosis after a cerebroscopic examination.

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Institutionalization was recommended, and the woman became a patient of a state hospital where her cycloidal condition made her on some days believe she was in a convent and on other days know that she was in an institution. When her mind was hazy, she was content to remain in the "convent"; when it was lucid, she insisted upon her release. After admission to the hospital, the patient regarded her son alternatively as her father and as her husband.

This case alone seems to present several truths which substantiate the notion that states of insecure dependency conduce to nervous and mental disease. An analysis of the case might well begin with a consideration of the manner in which it developed. It is known that the son, frustrated by the thought of being indefinitely hampered in his activities and social progress by the need to care for his mother, who had no other relatives to assume this obligation, adopted an attitude of dejection. Doubtlessly, this attitude was encouraged when certain mechanisms of the instinct of self-preservation prompted the mother to demand that the son remain at home with her evenings, not so much so that she would not suffer loneliness since she had the companionship of friends, but so that she might prevent him from wandering from her side and leaving her

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with no assurance of continued sustenance. Great tension between the two was provoked whenever the son sought diversion in the company of some eligible young lady. Such a person was considered a culprit of the worst kind, guilty of trying to rob a helpless individual of her only means of existence. Adding to her nagging technique of whipping her son into submission, she sought to prevent his marriage by burdening him with such responsibilities as maintaining and managing real estate property from which losses rather than profits accrued. She created as many debts as she reasonably could to make it impossible for him to assume the additional responsibility of supporting a wife and children. She often resorted to malingering to arouse his sympathy. The woman required him to entrust all his funds to her care. It is not difficult to see how this ordeal produced in the son, whose sense of filial duty obliged him to tolerate his mother's behavior, a rebellious counter-attitude.

Knowing that his emotional feelings would not permit him to ignore his mother's wishes or to defy her, the son resorted to various means of releasing the nervous tension which an unsatisfied unconscious desire for vengeance was causing to accumulate. He sought to hurt his parent by frequently reminding her by implication or direct word that she was falling into decay and that her physical condition

was becoming such that her dependence upon him was becoming inevitable. The great sacrifice that he was making in forgoing marriage and in curtailing his social activities for her was emphasized, and the threat of abandoning her to marry at the slightest provocation became the instrument by which he forced her to consent to almost every wish of his excepting those of marrying and seeking the companionship of women, of course. He succeeded in turning the tables and in getting better meals and improved housekeeping, but little more than this attitude on the part of the son was needed to initiate the introspection which produced the little girl who, to the unfortunate woman, was her own self in another form. The son did not realize that the instinct of self-preservation would not permit his mother to accept the change, assuming the state of anility, that would render her helpless to gain sustenance to survive.

As the introspection mentioned previously slowly developed into disease, the woman would look into the mirror and observe her greying hair and lined skin (which was due, by the way, to a great loss of weight). This seemed to reveal to her the truth of her son's statements. She noticed that she was thin and pale and that her appearance was that of a weak, delicate woman who was becoming helplessly dependent upon a son whose willingness to assist her she was beginning to question. She became panic-stricken

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from thinking about the hopeless quality of her situation, and fear of further aging set in. Naturally, these thoughts were painful to her and caused her a great deal of agonizing discomfiture. It is natural in mental as well as physical conditions to wish to ease any pain; and, although the woman made a desperate effort to accept her condition, the words of her son had had their effect, and this became impossible for her. When she tried to accept the reality of her situation, the pain increased because proper insight was lacking.

The average person can usually intelligently alleviate physical pain, or will seek professional advice to aid him in eliminating it; but, when it comes to mental pain, it is another matter because the very nature of the disturbance causing the pain leads him to adopt techniques which, far from ameliorating the condition, aggravate it. In this case, in desperation, the patient tried to break away from the worn, seemingly disease-destroyed body and the tell-tale face that confronted her every time she looked into the mirror. She probably began, as is the case with individuals who have some cause for mental anguish, by trying to forget her condition. This was impossible, since it was so real; and, by trying to push all thoughts of it from her mind, she had caused it to assume obsessive

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proportions. She resorted unsuccessfully to compulsions. It was necessary to resort to other mechanisms to free herself of her agonizing obsession.

The affected woman started by denying that the reflection in the mirror and she were the same person. As she contemplated her reflection which bore all the traits that were detestable to her, she began convincing herself that the woman in the mirror could not be herself and finally that it was not herself. So greatly did she impress herself with this idea, in view of the desperation that was hers, that almost complete dissociation of personality occurred. Since the "other woman", as she referred to the mirror reflection, was a detached creation of her own mind, it necessarily bore all resemblances to her. It was, in fact, a detached replica of herself. Such an illusion, being the creation of a single mind, is controlled by that one mind; and essentially we have two persons, one real and the other imaginary, but with a single mind-control. Thus, perverted thinking, encouraged by an inability to face reality, enabled this individual to free from herself the woman with those characteristics which caused her so much agony.

The type of dissociation just described occurs occasionally in the cases of women in whom the characteristic

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of vanity is quite strong. They begin worrying about their appearances each time they look into a mirror until the reflections of themselves become unacceptable to them because they represent something which no longer satisfies their standards of beauty. They begin convincing themselves that the women in the mirror cannot possibly be themselves because they could not possibly have developed such unattractive features. They begin disjoining the women of the mirrors from themselves, and begin treating them as separate personalities to be hated, feared, and suspected. When these persons enter street cars or buses, they insist upon paying two fares, one for the "other ^{one} ~~one~~", or in paying two admissions to the theatre, etc.

In the case of the woman whose case is now under consideration, the dissociative process had not yet reached completion. The separated personality followed her about, as they do in all such cases, and continued to remind her that she herself might be like this hated companion because the rudimental cause of its creation persisted in the mind. Bothered by this thought, she again compared the reflection of the mirror with her memory of her own physical traits, and again she caused the series of thoughts, "she is not me, she can't be me", to flow through her mind every time she considered the "other one",

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Since the first attempt at escape from reality failed, the wish fulfillment mechanism of the mind went into operation to project the woman back in appearance and environment to the period when she was happiest and most secure. This is the process of regression usually referred to in abnormal psychology. The patient gained reassurance by convincing herself that she was not the woman of the mirror (from whom she had unsuccessfully dissociated herself), but a little girl living comfortably at home with loving, caring parents. Each time she looked into the mirror, now, she saw the reflection of herself as another person; and she considered herself a little girl without the responsibility of self-support. In the second process, instead of separating the undesired personality from herself and living with her own person, she separated the desired person from herself and lived in the latter. She reinforced this later delusion by having her father appear to her on occasion. She, herself, played the role of the mother. As stated before, she began later to regard her son alternatively as her deceased father and as her deceased husband in order to eliminate him as a factor that did not fit into the pattern of her present existence.

To analyze the case further, it is necessary to consider several incidental properties. It was already

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implied that the woman's failing memory was evidently an indication of her subconscious desire to forget her present life and all the unpleasantries associated with it. The precipitation of the second person was described at length. However, certain symbolism pertains which should be explained.

The patient's strong desire to save the child from starvation represented her concern over losing ^{her} own source of sustenance. She reinforced in her mind the determination not to starve by superfluously feeding the little girl who symbolically represented her. Forcing her son to assist her in feeding the child was her way of symbolically forcing him to continue to provide for her (the mother) food and the other necessities for sustaining life. Regarding the girl as deaf, dumb, and blind was the mother's way of representing her own helpless condition.

It was pointed out that the parent constantly upbraided the son lest he harm the young girl. This was her way of admonishing him not to harm her, the mother, through neglect. Accusing him of taking her money was her symbolized manner of accusing him of taking away from her her security which, even in normal individuals, is symbolized by jealous guarding and hoarding of money. The refusal on the part of the girl to eat symbolized, perhaps vaguely, the fear of the woman that this means of continuing her life was denied her.

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The threat of summoning the police symbolized a desire to resort to drastic means to ensure her security.

The hostile attitude towards the son was perhaps a manifestation of the mother's hatred for one who did not fit into her new plans and toward one who threatened her security by threatening to marry. When hostility did not effect his elimination as a son whose presence contradicted her delusion of being a young child, she brought it about by transforming him into her father who was now deceased but who was alive during the period of childhood to which she had regressed.

The dissociation of personality, which was explained in a description of the origin of the condition, was simply a procedure on the part of the woman to rid herself of characteristics that were unsatisfactory to her because they made her aware of her helplessness. She accomplished this by separating her undesirable self from her desirable self and transforming the detachment into a desirable form. The regression to a more pleasant period in her life was a mechanism of escape from an undesirable existence which afforded mostly concern and care about the preservation of herself.

The fact that the attending physician attributed the mental disease to cerebral arteriosclerosis is not

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entirely discounted. Hardening of the arteries may have been incidental to the mental disease. It may have been brought about through vascular changes sometimes induced by worry and nervousness. Anyway, many physicians claim that hardening of the arteries of the brain is often the agent which causes a latent mental condition to manifest itself.

The necessity of caring for a mother whose sole concern was her own self-preservation did not fail to take its toll of the son's mental well-being. In his case, it was noticeable that women of approximately the same maturity as his mother appealed to him. He talked to himself, and feared that he was becoming, if he was not already, greatly advanced in age. Whenever he considered marriage, he sought a woman who had an earning capacity that exceeded his. The son's intelligence was not meagre, as was evidenced by his intellectual and professional attainment; and he possessed a memory that was so abnormally retentive that he could not relieve it of the many incidents that he would rather have dismissed from his mind. Obsessive thoughts promoted the performance of compulsive acts.

Of great importance in a consideration of the son's case is the great emphasis he always placed on the value of money and the necessity of wedding a woman of some means in

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order to ensure his own security. Also of importance is the age-consciousness developed in him by the actions of his mother, a condition the incidence of which was shown to be great among the adolescents and older persons studied in this experiment. All of this attests to the fact that the son, too, was worried about self-security or self-preservation. He could not think of sharing his earnings with another, his wife, unless she could replenish it with at least equal amounts. Money, or some substitute for it, symbolizes security in any society. People worship it as the single item that preserves their lives by providing them with all the needs for continued existence. The expression "earning a living" probably had its origin in this thought. This money-security relationship was so instinctively developed in the person now under consideration that he would often borrow from friends when his wallet was well nourished because he feared he might decrease his own supply of what symbolized for him the source of life. Many avaricious persons have an instinct of self-preservation which is very strong.

The attraction of the subject to older women resulted from the strong attachment the mother succeeded in developing in the son for her, an attachment which later lost its significance. Although the writer of this thesis

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is far from being a Freudian psychologist, it seems to him that what approximates the Oedepus complex is brought about by those mothers who stubbornly possess their sons because of unconscious feelings that releasing them is equivalent to casting away an insurance of self-preservation. His interpretation of the Oedepus complex does not recognize the sex or jealousy implications established by Freud. It refers simply to the close attachment for mothers which is brought about in the manner to be described later in this chapter. This close relationship between the mother and the subject of this portion of the study brought about the exclusion of women of the same age as the latter. Only mature women had meaning for him and consequently appealed to him. The son described a delusional advancement of himself to his mother's age which he was unable to understand. It may have resulted from a desire to be in a better position to break away from her as someone other than her son with an obligation to support her. It may have been the result of a desire to enjoy a more satisfying companionship with her as a person of similar maturity of interests. However, in spite of this delusion, he became increasingly more age-conscious and dreaded advancement to the same age from

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which the mother sought to escape. His mother's attitude toward age made him unable to accept changes that age brought.

The patient often talked to himself for long periods. When this practice was not concerned with conversations that he was carrying on with a politician or some prominent person, it consisted of reciting numbers backwards and sometimes forward. In the first instance, the imagined positions in which he placed himself in order to carry on his conversations represented achievements which he wanted badly to realize but could not because of the limitations placed on his activities by his mother. What he could not possess in reality to render his life more full, he provided by way of imagined activity and fabrication. Counting backwards seemed to be his way of forcing himself back in chronological age. Counting forward and laughing upon reaching a certain number seemed to be his method of ridiculing the very idea that he had reached an advanced age. Association with a mother who tried to escape change to a period in life where she had become dependent upon others for support produced in this boy an obsessive-compulsive neurotic state. The case demonstrates in larger proportions the effects of the unhealthy attitudes toward age which this study found were

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fostered in offspring by their parents.

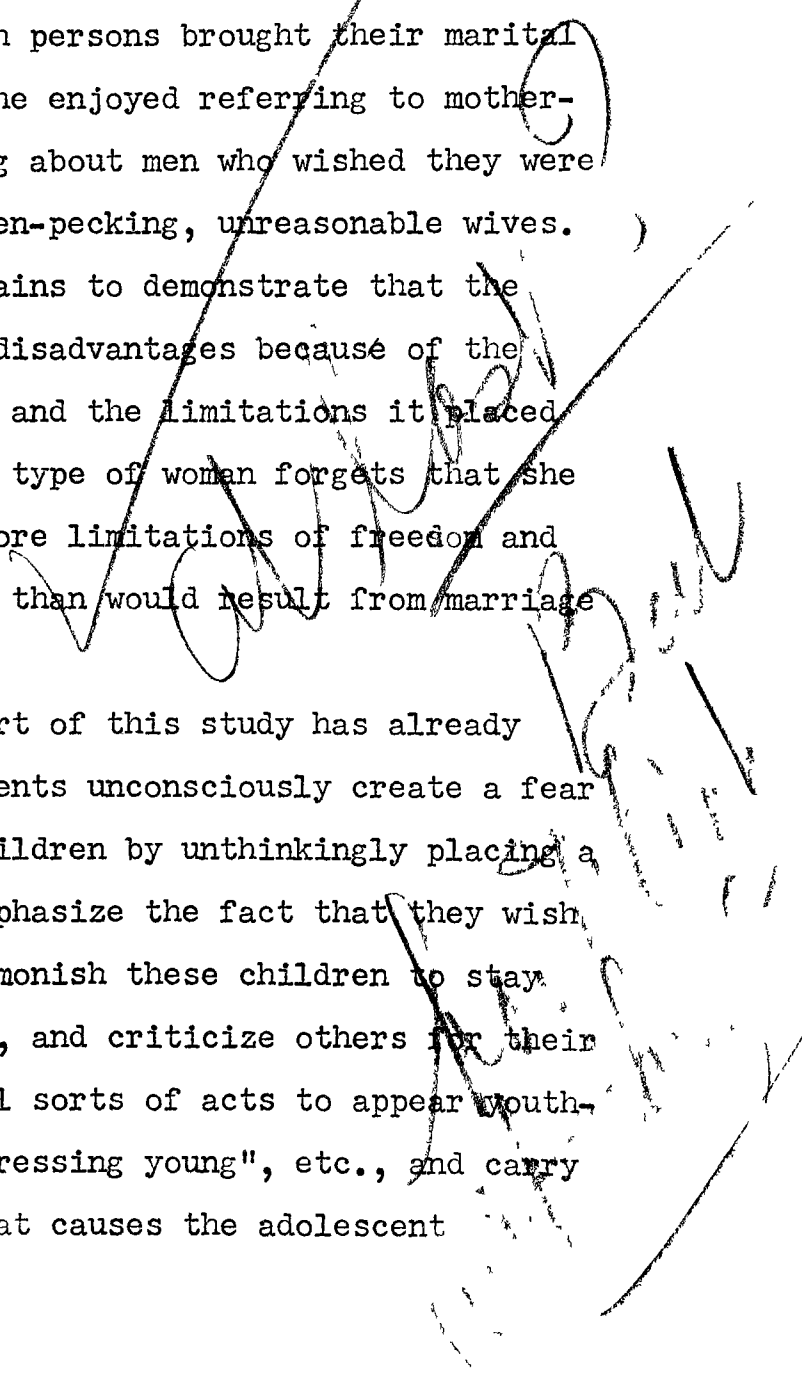
The apparent reasons that parents have for preventing their children from reaching maturity (in a figurative sense) vary. A mother is known to this writer who discouraged marriage on the part of her daughter because she dreaded the possibility of becoming a grandmother, a status she did not care to assume because of the stigma of age that has become attached to it. Others, like the woman described above, do not wish to lose their children because they represent security and insurance against loneliness in later years. These parents resort to all kinds of devious methods to keep their children infants and helplessly attached to them. Some make practical infants of their offspring keeping them in bed whenever they develop the remotest semblance of a cold or always insisting that the child looks pale and tired and must rest. These children are made to live such sheltered existences that they are unable to assume independent roles in the community. Some become the catatonic and hebephrenic schizophrenics who continue to live in fancied perpetual childhood.

Mothers who have sought to possess their children by conditioning their attitudes toward women and marriage have come to the attention of the candidate in the child guidance clinic with which he is associated. One mother

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has taught her sons to hate women and avoid marriage by pointing out the defects of women, describing all the unsuccessful marriages of which she knew, and tuning the radio to programs to which persons brought their marital problems for solution. She enjoyed referring to mother-in-law jokes, and relating about men who wished they were single again because of hen-pecking, unreasonable wives. The woman went to great pains to demonstrate that the marriage state had great disadvantages because of the responsibilities involved and the limitations it placed on a man's freedom. This type of woman forgets that she is placing upon her son more limitations of freedom and causing him more hardship than would result from marriage with a good wife.

The digressory part of this study has already demonstrated how some parents unconsciously create a fear of growing up in their children by unthinkingly placing a stigma upon age. They emphasize the fact that they wish they were young again, admonish these children to stay young as long as possible, and criticize others for their ages. Women resort to all sorts of acts to appear youthful such as making-up, "dressing young", etc., and carry these on to the extent that causes the adolescent



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to feel that maturity is a very unpleasant experience and one to be avoided. It must be remembered that the adolescent had been living a sheltered life as a young child, his parents had assumed all his responsibilities for him, the burden of providing a living were not on his shoulders, and his existence was concerned mostly with occupying himself in play unaware of the dangers from which his parents protected him. Therefore, he is not too eager to abandon this life when he has nothing but the dreaded life of his parents to anticipate.

People who write for children or plan entertainment for them do not always help overcome the tendency to develop in youngsters an unsound attitude toward age. The candidate has in mind a television puppet show which presents an old puppet who is always irritable and creates unpleasant situations for a young puppet who has been made the hero of the audiences. The program is conducted in such a manner as to turn the audiences against this old puppet. Quite often writers for children make their antagonists old persons such as old wrinkled witches. On the other hand, the fact that Santa Claus is depicted as old and yet is dearly loved by children illustrates that an entirely different attitude towards age can be

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encouraged.

There are many other instances which make apparent the struggle against age in the individual. These are mentioned because manifestations of unsound attitude toward age were so outstanding among the occupationally incompetent subjects as to render this condition the primary problem to be solved. Only by analyzing "age-consciousness" as it appears in the population at large and seeking its cause can the problem be dealt with properly. To this candidate, this attitude seems to have become associated with the instinct of self-preservation. Just as a person reflexively blinks his eyes when an object threatens them or automatically jumps when he notices an approaching vehicle jeopardizing his safety or instinctively pulls his finger from a hot object which he has accidentally touched, just so does he try to evade what has become for him the threatening aspects of age.

One of the mechanisms a parent, usually the father, resorts to when he feels himself falling out of the active social or business sphere of things is transference of a type different from that usually referred to in psychology. Realizing that he has passed that point in life where he can accomplish all of his ambitions, he identifies himself with one of his children, thus seeking to relive his

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his life. What the parent cannot accomplish or acquire himself, he accomplishes or acquires through his children thus effecting a kind of rebirth, living his life over again by requiring the child to act and think just as he would if he had his life to live over.

If this parent has more than one child, he selects one of these for his purpose; and this child becomes known as the favorite earning dislike from the other jealous but unsuspectingly more fortunate members of the family. The parent very often bribes the child by giving him everything he might desire in the way of luxury and enjoyment, something which the other members of the family cannot understand. In return, he requires the unfortunate offspring to follow the vocation he would follow himself, marry the type person he himself would select, choose the kind of friends he would like to have, enjoy the recreations he would seek, in fact, do everything he would do if he could relive his life, things that he wanted to do but could not accomplish or things that he did do and wants to repeat. In this way, he secures a kind of self-perpetuation. If the child rebels such as by marrying someone of his own choice, the parent is hurt and may become maladjusted. If the child does not rebel, then he (the child) becomes maladjusted because of the confusion or frustration resulting from not

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exercising his own free will.

We must not confuse the type of parent described above with the one who sincerely tries to guide his children by offering intelligent advice in matters of marriage, vocational selection, and the like. His behavior is not prompted by subconscious desires to regain youth, and he is simply and sincerely carrying out his role as a parent.

One of the reasons for including the interrogation on the desire to live one's life over again in the enquiry which accompanied this study was to ascertain to what extent any of the subjects resorted to the means explained above. In only one case could a definite decision be made. The father controlled his son's life through marriage. Only after service in the armed services was the young man able to break away from his parent's influence. He is now having a very difficult experience succeeding for himself in his profession. At this the parent smirks. At the same time, he has become desconsolate at the idea that his life's work has gone to ruin and there is nothing more to which to look forward. All the other information is based upon clinical experience.

Everyone is familiar with the individual who is always asking others their ages. If the person questioned replies with an age that is greater than that of the

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questioner, then the latter is elated. If it results that the questionee is younger, then the questioner is disturbed. Such a person may repeat this question to the same person almost every time he meets him to experience the joy of being younger than another over and over. He may repeat his question to the person who is younger than he in the hope that he was mistaken the first time. However, no one escapes being questioned about his age at least once by this individual. Newspapers appear to capitalize on this age-curiosity trait of so many people by almost never neglecting to mention the ages of persons in the news. It is not uncommon to see such news items as, "John Jones, age 36, was injured, etc." Also, whenever anyone recounts an experience that befell another, someone will usually speak up and ask, "How old was he?"

Women have a reputation for hiding their ages. General observation shows the operation of this tendency among men also and among individuals of almost all ages. Because of the stigma unconsciously placed upon age by members of society, a great many persons like to appear younger. Some have practical reasons for this masquerade such as gaining the advantages that attends youth when it comes to obtaining employment or a husband. Others indulge in the practice because of the desire to regress and avoid the supposed discomforts of maturity. To the latter group belong those

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who were influenced in this direction by their parents.

Knowledge of the fact that some persons are sensitive about their ages leads many to use reference to one's "oldness" as a means of causing him discomfort. Teasing others about their ages and even condemning them for being old are common practices. As has been stated previously, everyone has heard others say, without apparent provocation, "Oh, he must be at least eighty years old", or "She's every bit of twenty-eight", or "You old fossil", as if it were any fault of the referent that he has existed a certain length of time and as if he had committed a crime by doing so. Is it any wonder, then, that a person will lie about his age to avoid the stigma attached to it?

Some persons resort to the practice of referring to others as "Pop", "Mom", or, more derogatively, as "Old Man So-and-So". These persons might not be much younger than their referents; and, in some instances, might be older. It gives them a feeling of comparative youthfulness to be able to refer to others as older than they. During the last war, many older men were more enthusiastic than younger men in seeking enlistment in the armed forces because they felt that their acceptance, or at least the attempt at enlisting, would give them an air of youthfulness.

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In the main part of this study, it was reported that some of the incompetent subjects were concerned about sex. It was pointed out that sexual virility has come to be associated with youth to such an extent that many mature men seek to demonstrate their youthfulness by boasting of sexual conquests. Some of the older subjects interviewed admitted that they repeated salacious stories to impress others with their virility. A few older persons become involved with the law because of lecherous acts with minors. These have been attributed to aberrations associated with senility. If this is so, actions for which insane persons are not held responsible have some motive in their rationalizing minds. It was found that some of these were due either to a desire on the part of the committer to satisfy himself of his continued youthfulness or to a mistaken notion, fostered by followers of Freud, that repression of anti-social behavior promotes neurosis.

In another article¹, the candidate describes the case of an accountant who had to abandon his profession because

¹Alphonso J. Orrico, "Occupational Neuroses", in Occupational Therapy and Rehabilitation, Vol. 23, No. 2, issue of April 1944, p. 74-78.

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the figures with which he had to deal came to represent the years of his life. He had to resort to such impulses as obliterating these figures and miscalculating them to free himself of their obsessional annoyance. He came to avoid reading newspapers and magazines because they contained figures, and could not bring himself to look at license plates or price tags. It became impossible for him to handle money because they represented quantities. All figures had to be eliminated from his life. This patient responded to therapy.

Fear of looking at dead bodies, dread in passing cemeteries, fear of high places, etc., all are associated with the instinct of self-preservation, but here we are concerned only with those manifestations which have a bearing on maturity. Therefore, only that form of hypochondriasis which has a bearing on diseases connected with senility will be mentioned. This, surprisingly enough, was encountered among adolescents who did not wish to mature because they did not wish to become afflicted with arteriosclerosis, apoplexy, senile psychosis, and other such conditions. While they did not imagine that they suffered from the actual diseases, they possessed a morbid concern about them. Older adults also had this morbid anxiety when they considered the possibility of diseases of senility rendering

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them helplessly dependent upon others. Strangely enough, the occupationally competent subject did not have this concern so much as the occupationally incompetent subject. It seems that the motivations of the instinct of self-preservation did not effect certain mental states in the occupationally competent as it did in the incompetent because the former entertained a more wholesome attitude toward age.

In considering other indications of the fearsome attitude toward age, the writer is reminded of a friend who is greatly disgusted at the sight of old people. Their presence inspires both hate and fear in him, hate because they make him uncomfortable and fear because they remind him (just as they did the adolescents already referred to) of a state that he would not care to assume.

More than a few people have set themselves up as prophets who predict things that are to be. Everyone knows at least one person who fits into this category. Such persons predict, not because they have any particular facts upon which to base their prophecies, but solely because they like to project themselves into the remote future in their present physical states. This technique of progression is the opposite of regression. A normal example of this tendency is unnecessary. The candidate was once told of a young girl who considered herself to be a woman of

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ninety-eight. She feared degeneration while, at the same time, she ^{wanted} to attain a great age. This girl made use of the mental mechanism of projecting herself to that age so that she would be there once and for all in her present youthful state. This is an extreme case, however, but **similar** to that of the more normal person who is fond of telling what will happen at a certain remote period while seeing himself in that envisioned scene in all his youthful glory.

DiETING as well as the overeating and rapid eating which are sometimes observed in certain nervous diseases indicate an obedience to the demands of the instinct of self-preservation. A recent book with told, among other things, how to look younger sent thousands of people to health food stores for wheat germ, black strap molasses, and yogurt. To other oldsters, excessive eating seems to be consistent with good health, and they consume what they consider enough to keep them alive and eat it rapidly enough to keep up with the flame of life which might diminish. Nutrition, like money, has come to be considered a symbol of life.

The great consumption of hormonal face creams, hair dyes, and other cosmetics must not be forgotten. An

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unwholesome attitude toward age will drive people to devote any amount of money and time to the reconquest of youth.

A sufficient number of persons feel that they must apologize for their ages and offer excuses for them however impossible this may appear to be. Some will state their ages and add apologetically, "Isn't that awful?" Others find excuses by remarking about the rate at which the time had passed and use such expressions as the one that it seemed like yesterday that a certain incident occurred. It makes them feel young to philosophize that their lifetimes thus far have not been such a long time after all. They do not realize that if they think from one incident to another without giving any thought to intervening occurrences, it will seem like yesterday; but if they think of all the incidences that intervened between one incident and another one by one, the interval will appear very long. It is just like reading the first and last pages of a book without reading the intervening pages.

All the above has been given to demonstrate that a desire to escape later maturity and remain eternally young exists in many people. It is causing the maladjustment that was found in occupationally incompetent persons. This desire for eternal youthfulness has created certain undesirable attitudes toward age which for the most part begins

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during adolescence when the attitudes of parents foster certain misgivings about age in the child. There results a clash between youth and age which leads to unpleasantness for older people. Since the majority of occupationally incompetent subjects of this study seemed to have possessed this unwholesome attitude some time during their lives and the competent subjects seemed to be comparatively free of it, it is logical to assume that it has some relationship to inability to remain occupationally useful in later life. Therefore, ~~the solution to occupational incompetency seems to lie in improving the attitude of people in general toward age.~~ Since the attitude seems to begin during adolescence, that appears to be the period during which to begin. This matter will be treated in the chapter on recommendations.

In addition to tracing occupational incompetency to an unhealthy attitude toward age, it seemed expedient to determine the etiology of the attitude which parents pass on to their children. It might be said to be a product of the instinct of self-preservation. Since age sometimes leads to enforced dependency, the average person dreads it because it deprives him of the ability to earn sustenance ~~from~~ which insures him continued existence. One way, then, of

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satisfying this demand of the instinct of self-preservation is to take steps toward maintaining the older person independent to the extent possible. This does not mean providing him with the sustenance which he does not earn through his own efforts because it makes him feel helpless, and it is this helplessness which disturbs many of the older persons.

One of the subjects of this experiment asked whether or not it weren't paradoxical that people should be subject to the influence of a very strong instinct of self-preservation with its accompanying necrophobia. "Why", he asked, "should even a moribund person have that strong thirst for eternal life?" What answer could be given to this man? Perhaps it is one of the proofs of eternity that man has this instinct to want to go on and on in a useful manner. Perhaps the presence of this desire is to deter man from sacrificing the eternity of happiness that has been promised to him.

Margaret Mead indicated in a report to which reference was made in the first chapter of this study that members of primitive tribes who believed strongly in an eternal life retained the ability to learn to a very advanced age. This more or less strengthens the assertion that the instinct of self-preservation has a very definite purpose in the Great Plan. It causes man to wish to stay alive physically and mentally and to take advantage of the spiritual means of

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doing so. Mead's finding may also supplement contentions that mental decline is not necessarily physical.

The instinct of self-preservation is often responsible for guilt complexes. It appears to have something to do with the feeling of complacency experienced by those subjects who claimed that they had lived "lives of no regret" and the involuntional melancholy sometimes experienced by those who claimed to have lived regretful lives. In the latter, the bothersome condition may have been caused by the desire not to jeopardize the happy eternity for which the self-preservation instinct had conditioned them.

The writer makes no pretense at being a theologian. The above comments are made not without some trepidation. Their final evaluation is left to the more astute minds.

Now and then someone will suggest adopting the custom of the European and Oriental cultures of promoting extreme respect, amounting almost to veneration, for the aged. This is the old technique of offsetting the principle of the "survival of the fittest" (not accepted by this candidate) by insuring against maltreatment of the aged by substituting the opposite extreme. It is the same principle that operated in protecting the "weaker sex" against harm by emphasizing courtesy toward women through such acts as

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raising the hat, rising when one enters the room, relinquishing one's seat on a public conveyance to a woman, carrying bundles for them, walking on the outside when accompanying one, etc., etc. This system, which is no longer sincerely associated with helplessness, has operated admirably when applied to women because they are pleased by the attention it brings. However, it has not succeeded when applied to respect of one's elders because it serves to place them in a category separate from "normal" men and women, and the aged resent this. It emphasizes their helplessness, and does not recognize their worth. The older person does not wish to be considered an outcast, one who deserves isolation. The fact that thirty-four per cent of the occupationally competent subjects of this experiment and thirty-two per cent of the occupationally incompetent preferred the company of younger persons bears testimony to the need to be considered part of society as a whole and not as a separate entity. The subjects not included in this thirty-four and thirty-four per cent, for the most part, found equal comfort among younger and older persons and did not feel the need to emphasize their belongingness by insisting upon association with the young alone to escape isolation with the old.

The older individual likes to feel that the younger person appreciates his association with him on the same

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terms as he does that of another younger person. Sometimes he seeks to earn this privilege by feeling that the youth will profit from the wisdom and experience that he has gained through having faced and solved many problems of life. For this reason, he begins to profer advice that usually annoys the younger person. It is well to bear in mind that consideration is given here to the average older person and not to those incompetents who sought to evade responsibility by becoming dependent. By understanding the average oldster, it may become possible to assist the incompetent individual by guiding him according to what has been found to apply to the competent. It must also be remembered in the present discussion that the average older person does not wish to be considered a youngster. He welcomes the respect accorded his position in the community. He resents, very much the way the cripple does, any undue attention or sympathy given to his "disability". He resents also being cast aside as something to be avoided.

The older person does not see the reason for being cast aside. He knows that he may become a burden to his children, and this occupies his mind to the extent that he sees the need for independence. Yet the same prejudices that disdain this tendency to become dependent keep him

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from obtaining the employment he needs for independency. He also recognizes the annoyance that younger people find in his advice which they consider out-of-date and which they feel interferes with their own right to freedom of thought and action. The older person feels his world, ^{which he has worked so hard to build} being taken away from him and replaced by that of the younger person. He finds no place for himself in this new world, and feels keenly the rivalry between youth and age. The older person is struggling to hold on to the time and place of his youth by keeping in force some of the ideas of his prime while the younger person is attempting to push out of his sphere of things any semblance of the old which to him is symbolical of the decay which he seeks to avoid. The older person does not know why youth should be prejudiced toward him.

Already, great strides have been made toward the elimination of prejudices toward persons of other religions, races, and colors. A fairly successful attempt has been made to bring all these people to the realization that they are brothers, the children of a common Father. A great deal has been accomplished in this direction through education aimed at changing attitudes toward people who differ from us in nationality, color, or religious belief. However, very little has been done to eliminate this prejudice

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towards people of other ages, all because people do not recognize the forces responsible for its existence. Other minorities have been freed from their ghettos, why must the aged remain there? The former no longer have to change their names to avoid persecution or obtain employment. Why, then, must people still have to lie about their ages to avoid discrimination? Why must they do so to avoid mental discomfort?

Mental hygiene, simply described, is a matter of adopting proper attitudes toward life. This includes proper attitudes toward old age as well as toward illness, poverty, and the many other problems that beset people as they live. These attitudes may best be instilled or changed through education. Such a procedure may preserve the mental health of many individuals if instituted during adolescence, the period during which the individual is exposed to the forces of maladjustment. Since a wholesome attitude toward age seemed to make for occupational competency in the subjects of this experiment, efforts at developing it would certainly be well spent. At any rate, it may help prevent some of the mental maladjustment such as that observed in the case described earlier in this chapter. A study of this case will give some idea of the type of thinking (attitude) the individual must avoid since all mental or nervous disease,

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except possibly the organic, might be considered a conscious
force at least in its initial stages.

CHAPTER VIII

RECOMMENDATIONS

Some repetition here will make clearer to the reader the need for these recommendations. Since the factor that most distinguished the occupationally incompetent from the occupationally competent subjects was their attitude toward age, it is reasonable to believe that a correction of that attitude through education might help alleviate occupational incompetency in older persons.

The unwholesome attitude toward age and older people was found to develop during adolescence. At least it was found to be present during that stage and absent in younger children with whom it had not yet made an impression. Therefore, it is safe to assume that education toward correcting the attitudes should begin no later than the secondary school level.

The required education might take the form of a course in mental hygiene which would indicate to the young pupil the reason behind ~~this~~ hatred for older people. An effort also should be made to reach the parent who has unknowingly implanted the attitudes in her children. The high school pupil will also be warned to avoid implanting unwholesome attitudes in younger children.

The course should not be limited to a consideration of older persons for this topic is only one of many that have bearing on mental health. It should be a well-rounded course in mental hygiene that will aid the individual in developing into a healthy-minded adult who incidentally has learned what has caused occupational incompetency and unhappy later maturity in others and thus will be able to evade such conditions himself.

The skilful instructor of such a course will develop in the pupil a healthy attitude toward life in general; he will equip the child with the principles of correct living. With the desire to escape change and other seemingly unpleasant realities eliminated, the child will no longer have the need to build up defences against maturing. Consequently, hatred for the aged may disappear. This may make the lots of both the younger and older person happier, and will ultimately solve many problems associated with later maturity. It is not necessary that the older person be accorded reverence and respect as is the custom in other cultures. It is only necessary that he be treated as a human being who still belongs to the world and not as a piece of machinery that has been discarded.

The parent should be encouraged to begin training early. Although this study indicates that unwholesome attitude toward age does not take shape until adolescence,

there is no reason to believe that earlier influences have not played a part in its shaping.

The first requisite for imparting good mental health is good example. If the parent does not show an unwholesome attitude toward age, it is not likely that the child will.

It is the opinion of this candidate that imitation and not heredity is responsible for generally poor mental health in families. It is his impression that mental disease or mental attitude is not inherited in the same sense as that applied to the inheritance of physical characteristics. One forms his habits by imitating his elders. He learns to walk and talk in this manner. When a parent or grandparent or other relative encounters a problem and reacts to it in a manner which precipitates an unsound mental condition, the child (or adult later on), because he is unfamiliar with the rules of mental hygiene which would tell him that that particular method of reacting to the problem is an incorrect one, will react to a similar problem in the manner of his elders because that to him is the proper one. As a consequence, he may come by the same maladjustment as his relative.

The parent must avoid making disparaging remarks about age at all times. She must not make eternal youth appear so important by wishing to return once more to her younger days. Growing up should be made a thrill for the

child, and a challenge to grow up should be thrown at him on occasion. For example, if a child leaves his toys strewn about the floor, the parent may seize this as an opportunity to suggest that he take the responsibility for putting them away neatly since he is now so big and strong. The child who is disciplined through training to accept his responsibilities is being prepared for sane adulthood.

The adult must not make childhood pleasant for the youngster to the extent that he has no responsibilities to assume, and does not want to grow up to assume them. Many sheltered children become adults who wish to regress to the childhood where they had no responsibilities. Thus, it is necessary to make growing up the objective of many acts, even feeding. If the child hesitates to eat his food, it is very easy to make it apparent to him that he will not get to be a big healthy man like his daddy or his Uncle Joe if he does not eat what is good for him.

There are also various rules for the adult to observe in addition to those already mentioned. Most important, he should remember to avoid putting the older adult in the separate category which he himself is seeking to avoid. He might do this by not teasing such people about their ages and accompanying defects. He should avoid using such terms as "old fossil" and "pop" which categorize the person and stigmatize him. Such statements as these and the annoyances of older

persons about their ages should become socially unacceptable. On the other hand, the older person should not be regarded as a condemned person receiving the sympathy of a younger, more fortunate individual. Such behavior retards progress by causing many useful men to retire from many activities to which they might make valuable contributions. In evaluating a man's ability to perform a particular type of work, both his mental capacity and biological age should be considered.

In making these suggestions, the candidate does not seek to prompt people to disregard facts and not face them. He is simply seeking to avoid behavior which appears to worsen the attitude toward age and render it unbearable. In the light of the findings of this study, he is making recommendations that appear to be necessary if continued discomfort among so many members of the community is to be avoided.

SUMMARY AND CONCLUSIONS

The results indicate that occupationally incompetent persons over the age of seventy as a group may be distinguished from the occupationally competent persons over the age of seventy as a group on the basis of behavioral immaturity, feelings of inadequacy, nervous manifestations, and a lack of satisfying recreation.

The competent group was found to be more like the younger population than the incompetent group. The members of the former group were found to engage in more worthwhile activities outside their regular employment, possess a greater sense of responsibility, and to be blessed with a greater determination to remain independent.

Throughout the study, there appeared individual members of each group who resembled members of the group to which they did not belong in the various traits studied. The proportion or combination of these may have been significant. Anyway, it may be concluded that individual differences occur among older persons, competent or incompetent, just as they do among members of any age group.

Attitude toward age and life in general appears to be the most distinguishing factor encountered. A very large number of the occupationally incompetent persons had a fear of age which appeared to cause them to regress to a period

in life where they were irresponsible children dependent upon others for sustenance. Digressory research indicated that this attitude took form during adolescence through the influence of unthinking adults. This attitude was almost entirely missing among the members of the occupationally competent group.

It is concluded that, since an unwholesome attitude toward age appears to be the significant factor in creating the irresponsibility that is the chief cause of incompetency in physically and mentally able persons over the age of seventy, that education in the form of mental hygiene be employed to correct the attitude.

It is hoped that other investigators will extend this study by continuing it with a greater number of subjects. Still other investigators might attempt to determine whether or not retirement itself played a part in producing the maladjustments uncovered in the occupationally incompetent subjects by the Mental Health Analysis. It is frequently stated by authorities that complete retirement is bad for the individual. In this extension of the study, an attempt might be made to find a group of successfully retired persons to compare with a group of unsuccessfully retired individuals. An effort should be made to ascertain whether or not there is a greater number of unsuccessfully retired persons than successfully retired persons and to determine just what facts attribute

to the success or lack of success. An experiment might be set up which will seek to ascertain whether or not the unsuccessfully retired person was free from maladjustment before retirement and just what factors later produced the maladjustment.

Likewise, it is desirable that a study be conducted to find out to what extent hypomania may be responsible for the occupationally competent person remaining in his work while participating in so many outside activities. The outstanding characteristic of this disorder is a restlessness which shows itself in all types of incessant activity without natural fatigue. The hypomanic individual resorts to incessant activity just as the alcoholic to intoxication as a means of escape from preoccupation with worldly unpleasantness. There is some possibility that hypomania may be the drive which keeps some older individuals at their jobs.

There may be other investigators who will wish to experiment with methods of changing attitudes toward age, planning courses for parents, and training adolescents.

Finally, it is hoped that individuals with far more training and experience in gerontology will study the data offered in this thesis and present additional interpretations and more definite conclusions. There is no doubt that the present study offers no absolute solution to the problem and that much more study is in order.

BIBLIOGRAPHY

Each of the references listed below has one or more of the relationships to this study mentioned in the Introduction and Chapter I.

In general, the references point out the need for this research, show what studies have already been accomplished so that duplication might be avoided, and demonstrate, by indicating various assets of the aged, that the cause for their rehabilitation is not a hopeless one and hence that this reasearch is not wasted effort.

One or two references are to tools used in evaluating the subjects.

Albrecht, R., "Personality and Social Roles in Old Age", in The American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 368.

This study compares the characteristics generally attributed to the aged such as cantankerousness, impulsiveness, interest in the past, mental lapses, and withdrawal, with degree of social adjustment as measured by the Cavan Scale of Ratings for Later Maturity. It finds significant correlation coefficients between the psychological and social factors studied.

Allen, Edward B., "Psychological Orientation in Geriatrics", in Geriatrics, Vol. 4, No. 2, issue of March-April 1949, p. 67-73.

Appeals to the geriatrician to regard the older patient as a human being with a personality rather than as merely a physiological entity. Explains how the feeling of these patients, which are no different from those of persons of other age groups, create problems which will yield to sympathetic consideration on the part of the practitioner. This article is of great value to anyone interested in problems of the senium.

Babcock, H., An Experiment in the Measurement of Mental Deterioration, New York, Archives of Psychology, Vol. 18, No. 117, 1930, 105 p.

The author explains that her Test of Mental Efficiency is based on the assumption that deterioration occurs first in new learning and last in the earliest formed material and that the discrepancy between the two yields a measure of the deterioration that has occurred. She uses Terman's vocabulary as a measure of intellectual level and various speed and learning tests for the efficiency level. This shows that vocabulary remains constant through life which is an important factor to realize in planning for the aged.

Barker, Lewellys F., "Physical Changes in Old Age and Their Effects upon Mental Attitudes", in New Goals for Old Age, edited by George Lawton, New York, Columbia University Press, 1943, p. 71-90.

This chapter outlines the physiological principles that underlie the mental characteristics often attributed to the aged. Included are suggestions for diet, exercise, and mental hygiene. These suggestions might be considered by those readers of this thesis who might wish to follow its recommendation that the teaching of mental hygiene be used as a solution to the problem that it presents.

Beeson, M. F., "Intelligence at Senescence", in the Journal of Applied Psychology, Vol. 4, Nos. 2 and 3, issue of June and September 1920, p. 219-234.

The author found, after a study in which he used the Stanford-Binet Scale on twenty subjects averaging seventy-five years in age, that there is no deterioration in advancing age although there is decline in mental processes at senescence. He assumes that the older half of his subjects performed better than the younger half because they were of the type that remained employed and avoided charity because of their intelligence. This study may justify the attempt to control intelligence as a factor in this thesis.

Bellis, C. J., "Reaction Time and Chronological Age", in Proceedings of the Society for Experimental Biology and Medicine, Vol. 30, No. 6, issue of March 1933, p. 801-803.

Bellis found the shortest reaction times to occur between the ages of 21 and 30 with a 75% increase to light and a 95% increase to sound for older males and a 70% increase to light and 110% increase to sound for older females. The study, although not all inclusive as far as various abilities are concerned, shows the need for considering reaction time in planning employment rehabilitation projects.

Berren, J. E., C. Fox, and J. Botwinick, "An Analysis of Age Changes in Rate of Performance of Simple Intellectual Tests", in The American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 365.

The investigators show that speed limits the performances of older persons and that one should take into consideration such factors as slow visual perception in evaluating the work of those persons.

Blake, W. B., "Attitudes towards Retirement and Old Age", in The American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 366-367.

This yet uncompleted study is attempting to measure the attitudes of persons of all ages towards retirement and age. Thus far it shows trends towards a fatalistic attitude, a lack of increase in religious attitude, and a desire to have one's spouse as one's closest companion. The present study showed attitude toward age to be a very important factor in considering occupational competency. It will be interesting to draw comparisons with Blake's study when it has been completed.

Botwinick, J., and J. E. Berren, "The Measurement of Intellectual Deterioration in Senile Psychoses and Psychoses with Cerebral Arteriosclerosis", in The American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 364-365.

Intellectual deterioration of senile patients in mental hospitals was compared with intellectual deterioration of normal individuals of the same age. Some differences that were significant and others that were not were found which may indicate that not all deterioration is due to psychosis or that psychoses are not caused by deterioration.

Bourliere, Francois, "Excitability and Aging", in the Journal of Gerontology, Vol. 3, No. 3, issue of July 1948, p. 191-195.

Bourliere presents data that show a remarkable constancy of neuromuscular and vestibular excitability from maturity to old age where no pathologic conditions of the nervous system exist. This is one of many studies that show that older persons have physical and mental qualities not often attributed to them.

Bowman, Earl M., "Types and Special Factors of Mental Illness in Old Age", in Mental Hygiene in Old Age, New York, Family Welfare Association of America, 1937, p. 32-38.

This treatment of the subject presents a very pessimistic approach to the problem. It states that a great

deal cannot be done for the aged. It limits service to the aged to the provision of circumstances that will enable them to lead a simple life free from strain with people who will be kind to them, who will treat them ~~kindly~~ with understanding, who will humor them, and who will refrain from actions that would irritate them. Only the last of these is acceptable to the findings of the experiment described in this thesis since it was learned that older people do not wish to be treated differently from others. This reference is included to demonstrate that the ambitious worker in the field of gerontology will not always receive optimistic encouragement.

Brody, M. B., "A Note on the Use of the 1937 Revision of the Stanford-Binet Vocabulary Test with Mental Hospital Patients", in the Journal of Mental Science, Vol. 86, No. 362 (New Series No. 3261), issue of May 1940, p. 532-533.

The study reports that performance in vocabulary is preserved until late maturity. The same author reported the same results with the 1916 Stanford-Binet Scale in a later issue of the same journal.

Carrell, Alexis, Man the Unknown, New York, Harper, 1935, xv-346 p.

The prominent French scientist gives his views on the aged in various sections of this important book. He advises against complete retirement, and emphasizes the need to appraise a man according to physiological age rather than chronological age. An attempt was made to observe the latter recommendation in selecting subjects for this study insofar as health and appearance were concerned.

Cavan, Ruth Schonle, "Index of Senility", in Social Adjustments in Old Age, New York, Social Science Research Council, 1946, p. 139-145.

The article lists the various personality and social characteristics of the older person. It makes a valuable check list for the worker in the field of gerontology.

Cavan, Ruth, Ernest W. Burgess, Robert J. Havighurst, and Herbert Goldhamer, Personal Adjustments in Old Age, Chicago, Science Research Associates, 1949, xiii-204 p.

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interesting conclusions.

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This is the result of a survey among residents of homes and frequenters of recreation centers. The survey showed that the center and home population differed more in extent of activities than in interests, that the center group was better adjusted in leisure activities than the home group, and that those of higher socio-economic status were more dependent upon themselves for activities while those of low status are dependent upon others for them.

Chandler, Albert R., "Aristotle on Mental Aging", in the Journal of Gerontology, Vol. 3, No. 3, issue of July 1948, p. 220-223.

This work is of historical interest to students of gerontology. It shows that Aristotle anticipated much of what modern gerontologists have disclosed about the characteristics of older people.

Cicero, Old Age, translated into English from the text of Hobbe by William Lewers, Dublin, Kelly, 1853, 35 p.

Also of historical interest to students of gerontology, Cicero's work indicates that people have always been concerned with this subject and had very much the same attitude toward it as people of today.

Clow, Hollis, and E. B. Allen, "Manifestations of Psychoneurosis Occurring in Later Life", in Geriatrics, Vol. 6, No. 1, issue of January-February 1951, p. 31-39.

This authority points out that it is uncommon for psychoneuroses to occur for the first time in later maturity, and enumerates some of the factors that he thinks account for psychogenic changes of some degree.

-----, "A Study of Depressive States in the Aging", in Geriatrics, Vol. 4, No. 1, issue of January-February 1949, p. 10-17.

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Crutcher, Hester B., Foster Home Care for Mental Patients, New York, Commonwealth Fund, 1949, vi-199 p.

The book describes how foster home care of mental patients has therapeutic value. It shows how isolation in a mental hospital, where nothing can be accomplished for the patient, is an economic loss and a sacrifice of human values. Much of what this report offers relates to the problems of oldsters. It shows the advisability of avoiding the type of dependency that deprives the person of the home life that is so essential to mental well-being.

Davidson, H. H., and L. P. Kruglov, "Personality Characteristics of the Institutionalized Aged", in The American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 367-368.

Another argument against institutionalization of the aged, this study shows that institutionalized oldsters possess characteristics that differentiate them from those who reside at home. Hence the need for finding a solution to the problem of dependency.

Dinkel, R. M., "Attitudes of Children towards Supporting Aged Parents", in the American Sociological Review, Vol. 9, No. 4, issue of August 1944, p. 370-379.

A study of the opinions of young people reveals that they no longer feel the responsibility of caring for their old parents. This revelation adds import to the present study in showing the need for sustaining the independent status of older persons.

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Doll reveals by means of this tentative study that social independence is a factor in the maintenance of usefulness and that the adult ceiling of attainment in social maturity is twenty-five years.

Donahue, Wilma, "Changes in Psychological Processes with Aging", in Living through the Older Years, edited by Clark Tibbitts, Ann Arbor, University of Michigan Press, 1949, p. 63-84.

The writer states that the central nervous system ages the most slowly of all body structures and that this phenomenon most likely occurs so that the older man might devote all his energies to the mental and spiritual aspects of living. This is an encouraging report.

Fisher, Gladys, "Mental Hygiene Problems as They Emerge in Old Age Security", in Mental Hygiene in Old Age, New York, Family Service Association of America, 1939, p. 27-31.

This chapter of an interesting book discusses the various problems encountered by older individuals. It includes those caused by dependency. For that reason, it is of value in a study of this kind which seeks to find the causes of dependency.

Folsom, J. K., "Old Age as a Sociological Problem", in the American Journal of Orthopsychiatry, Vol. 10, No. 1, issue of January 1940, p. 30-39.

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-----, and G. A. Taylor, "The Applicability of Mental Tests to Persons Up to 85 Years of Age", in the Journal of Applied Psychology, Vol. 4, No. 1, issue of March 1920, p. 39-57.

The authors found a need for better methods of evaluating the mental abilities of older persons than the tests existing at the time of the study. This is an indication that many of the studies carried on at the time may not be found to be valid if repeated with more up-to-date tools. Hence many findings must be interpreted with caution.

Fox, C. and J. E. Berren, "The Measurement of Intellectual Deterioration in the Aged", in The American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 364.

It is recommended, as a result of studies in which the Wechsler Bellevue and Babcock-Levy tests were used, that differentiation of individual on the basis of these instruments, not be attempted at present because there is some doubt about the validity of these measures

of deterioration at certain age levels. This is another indication of the need to be cautious about the interpretation of even the more recent studies reported in this report.

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This well-prepared article advocates family care of the aged mental patient. Such care is described as wholesome therapy for this type of patient who does not often do well in the environment of the hospital. This is still another argument to support research that seeks means of equipping older people with the capacity to live at home.

-----, Patients in Mental Hospitals in New Jersey, Trenton, Department of Institutions and Agencies, 1948, 8 p.

The compiler of figures for this report shows that the number of patients over the age generally set for retirement when admitted to mental hospitals in New Jersey has increased from 17.8% in 1930 to 31.5% in 1948. Such findings as this emphasize the need for studies of the kind that seek to discover the causes of such increases. Since this thesis reports that occupationally incompetent persons past the age referred to in Frankel's report possess certain mental liabilities, the statistics have some significance here.

Frolich, Moses, "Mental Hygiene in Old Age", in Living Through the Older Years, edited by Clark Tibbitts, Ann Arbor, University of Michigan Press, 1949, p. 85-97.

This part of text draws an analogy between the stresses encountered in adolescence and those encountered in later maturity. It advances the thesis that better mental hygiene in earlier life will minimize the problems of later maturity. This theory coincides somewhat with the findings of the present study. It does not go into the etiology of the stresses and their relationship to each other with any clarity, however.

Furman, Bess, "U. S. Parley to Help Aged Called at Truman Request, signed news dispatch in the New York Times, Vol. 909, No. 33738, issue of January 8, 1950, p. 1, cols. 2 and 3.

An announcement of the conference called by President Truman for August 13, 14, and 15, 1950, to "explore with all appropriate groups, both within and outside the Federal government the problems incident to our increasingly older population and to report to me on your findings

and recommendation" which shows the recognition given by the government to the problem which is the subject of this thesis. Articles such as this, which call the attention of the public to a problem which is taking on considerable proportions, appear regularly in the various periodicals.

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This article reports the rankings achieved in the intelligence tests administered to military personnel during World War I according to occupation. The information was used in equating the groups used in this study.

Gilbert, J. G., "Memory Loss in Senescence", in the Journal of Abnormal and Social Psychology, Vol. 36, No. 1, issue of January 1941, p. 73-86.

This is a report of a study which compared a younger and an older group in their performances with Babcock test items. It shows that vocabulary remained fairly stable for both groups while other items showed decreasing differences when the element of timing was eliminated.

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The study points out, among other findings, that the greater the individual's intellectual endowment, the longer he retains his full efficiency. Other findings substantiate, with some provisions, assertions concerning the stability of vocabulary, etc. It also stresses the fact that individual differences in efficiency exist, and age alone cannot be a reliable factor in determining vocational fitness.

Gitelson, Maxwell, "The Emotional Problems of Elderly People", in Geriatrics, Vol. 3, No. 3, issue of May-June 1948, p. 135-150.

Gitelson asserts that the emotional problems of the elderly are essentially problems of adaptation. He explains that the dulling of recent memories and the sharpening of remote memories may not be due to organic causes alone but to an effort to turn away from the painfulness of the present and return to the pleasantness of the past. The author claims also that a person who has possessed a flexible personality is less likely to experience difficulties in later maturity. The connotations of all this for the mental hygiene course recommended by the present study are apparent.

Grace, A. G., "Individual Differences in Adults", in the Journal of Educational Psychology, Vol. 23, No. 3, issue of March 1932, p. 179-196.

This is another of very many studies which report the preservation of vocabulary ability until very late maturity.

Griffin, Ben, and Associates, "Do Americans Believe in God?", in the Catholic Digest, Vol. 17, No. 1, issue of October 1952, p. 1-5.

In reporting that 99% of Americans believe in God, this account of a survey conducted under the auspices of Catholic Digest brings out the fact that those past retirement age are the most certain in their belief with 91%. Coupled with the findings of Margaret Mead (q. v. below) and joined with those of this thesis, these statistics may be useful in guiding those studying the needs of older persons.

Hall, G. Stanley, Senescence, New York, Appleton, 1922, xxvi-517 p.

Hall's book has been described as the most elaborate attempt on the part of a professional psychologist to view decline in its totality. It has been criticized as an armchair performance based on the literature. It has historical value as background material for the researcher.

Halstead, H., "A Psychometric Study of Senility", in the Journal of Mental Science, Vol. 89, Nos. 376 and 377, issue of July and August 1943, p. 363-373.

This is a report on an investigation of twenty less seriously demented patients in three London mental hospitals with twenty-five test items which revealed that most difficulty was experienced with those items which required the subject to break away from old mental habits and adapt himself to new situations.

Hartwell, Samuel W., "Mental Diseases of the Aged", in New Goals for Old Age, edited by George Lawton, New York, Columbia University Press, 1943, p. 132-143.

A speculative treatment of the subject, this section of a book calls attention to the need for research in the field of psychiatry as it applies to geriatrics. It offers some theories to account for some people growing physically older than others at younger ages, and makes the claim that mental diseases in older people have an organic basis.

Hebb, D. O., "Clinical Evidence Concerning the Nature of Normal Adult Test Performance", in the Psychological Bulletin, Vol. 38, No. 7, issue of July 1941, p. 593.

The writer presents evidence that demonstrates that adult deterioration is least in vocabulary, information, and verbal comprehension. It is greatest in speeded tasks, abstract problem solving, and unfamiliar operations.

Hinnan, Frank, "The Dawn of Gerontology", in the Journal of Gerontology, Vol. 1, No. 4, issue of October 1946, p. 411-417.

Here is presented some good background material of an inspirational nature.

Hollingworth, H. L., Mental Growth and Decline, New York, Appleton, 1927, Chapter 14.

After discussing the abilities that decline, the author points out that insurance statistics show that not over four per cent of older adults have achieved a competence sufficient to keep them independent of relatives or public philanthropy. He attributes this condition to the possibility that older people are seldom called upon to make new adjustments, and have consequently abandoned the learning attitude. The need for research to determine the reason for the high degree of dependency is made obvious by the author's remarks. However, his reason is highly speculative and in need of investigation.

Hunt, Wilson L., "The Relative Rates of Decline of Wechsler-Bellevue 'Hold' and 'Don't Hold' Tests", in the Journal of Consulting Psychology, Vol. 13, No. 6, issue of December 1949, p. 440-443.

Conclusions are drawn from the results of various studies made by the author that "Information" and "Comprehension" are the only valid "hold" tests of those so designated by Wechsler and that "Block Design" and "Digit Symbol" appear to be the only reliable "don't hold" tests. This is another indication that interpretations of results derived with certain instruments must be accepted with caution.

Jones, H. E., and H. S. Conrad, "The Growth and Decline of Intelligence", in Genetic Psychology Monograph, Vol. 13, No. 3, issue of March 1933, p. 223-298.

Jones and his collaborator report the results of an administration of the Army Alpha Test to 1191 persons over a wide range of ages. They conclude that the intellectual power of the adult is derived from accumulated stocks of knowledge.

-----, -----, and A. Horn, "Psychological Studies of Motion Pictures: Observation and Recall as a Function of Age", in the University of Colorado Publications in Psychology, Vol. 3, 1928, p. 225-243.

Scores on completion and multiple choice test items show continued improvement up to the twenties followed by a slight and then a marked decline. The investigators claim that the inferiority of the older groups is not due to speed handicap nor to factors involving interest in pictures, visual acuity, or education as other experimenters have maintained.

Kallmann, F., L. Feingold, and E. Bondy, "Comparative Adaptational, Social and Psychometric Data on the Life Histories of Senescent Twin Pairs", in The American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 365-366.

One hundred fifty twin pairs of monozygotic and dizygotic types were studied with the result that monozygotic twins were found to exceed the dizygotic pairs in biological adaptabilities, social histories, and test scores. The conclusion is drawn that the ability to adapt to the period of senescence appears to be part of the normal equipment of man and it displays variations within the limits of normality.

Kaplan, Oscar J., Editor, Mental Disorders in Later Years, California, Stanford University Press, 1945, vii-436p.

Various contributors to this book stress the observation that increasing narrowness of interest and rigidity are characteristics of the older individual that should be given attention.

Kardiner, A., "Psychological Factors in Old Age", in Mental Hygiene in Old Age, New York, Family Welfare Association of America, 1937, p. 14-26.

Kardiner contends that not all the aged have neuroses and that a large percentage of them have no problem of adaptation. He maintains that those who do have a neurosis have one characterized by a strong unconscious conviction of actual inadequacy resulting from the actual curtailment of executive capacities. This conclusion seems to agree somewhat with the findings of this study.

Kennedy, Foster, "Borderline Mental Problems in Later Maturity", Supplement No. 168, United States Government Public Health Reports, Washington, 1943, p. 64-72.

This writing recommends that the older person be made to understand the psychological factors that accompany physiological changes so that he might employ this knowledge in overcoming involuntional tendencies. The suggestion has implications for mental hygiene.

Kent, G., "Wechsler, D., The Measurement of Adult Intelligence (A Review)", in the Psychological Bulletin, Vol. 37, 1940, p. 251-254.

This review of a test designed for use with adults suggests that it places an undue strain on the visual capacity of older subjects and thus invalidates the results. For that reason, the Wechsler-Bellevue and other devices which were found to be invalid when used with older adults were avoided in this study.

Klopfer, Walter G., "Personality Patterns of Old Age", in the Rorschach Research Exchange, Vol. 10, No. 4, issue of December 1946, p. 155-166.

The author confirms Rorschach's statement that there are three signs characteristic of old age apparent in the results of this projective technique. These are a coarcted *erlebnistypus*, vaguely or inaccurately seen forms, and a highly restricted thought content. It would be interesting to administer the test to competent subjects to observe whether or not these signs are present.

Kubo, Y., "Mental and Physical Changes in Old Age", in the Journal of Genetic Psychology, Vol. 53, First Half, issue of September 1938, p. 101-108.

Kubo studied subjects ranging in age from seventy to one hundred years and learned that rote memory does not show a sudden decline until the age of eighty-two.

Kuhlen, Raymond G., "Psychological Trends and Problems in Later Maturity", in An Introduction to Clinical Psychology, edited by L. A. Pennington and Irwin A. Berg, New York, Ronald, 1948, p. 218-248.

The contributor to this volume stresses the need for psychological research with the aged, and proceeds to expound various theories regarding adjustments of the older personality.

-----, "Social Change: A Neglected Factor in Psychological Studies", in School and Society, Vol. 52, No. 1332, issue of July 6, 1940, p. 14-16.

Kuhlen, like Pegarski (q. v.), advances the important theory that differences in the culture in which the older individual has lived and which remain contrasted with the culture of the present day are often mistaken for age changes.

Landis, C., and J. D. Page, Modern Society and Mental Disease, New York, Farrar and Rinehart, 1938, p. 56-58.

The pages referred to report that mental hospital patients suffering from diseases of the senium come in

disproportionate numbers from those who were economically dependent, who were illiterate, or who had little formal education. This presents another good argument in favor of investigating dependency. The reference to "little formal education" concurs to a very slight degree with the report of this thesis that the incompetent subjects tended to attend school fewer years than the competent subjects.

Lansing, Albert I., "The General Physiology of Aging", in the Journal of Gerontology, Vol. 2, No. 4, issue of October 1947, p. 327-338.

The author has done an excellent job of surveying and correlating the greater part of the literature on this subject. He covered at least 104 studies, and concluded the data collected shows only a scratching of the surface. He indicates where additional research is necessary. This study provides a good background for the research worker in psychology who must not neglect physiological factors.

Lawton, George, "Aging Mental Abilities and Their Preservation", in New Goals for Old Age", New York, Columbia University Press, 1943, p. 11-33.

This prolific writer on the subject sums up findings in the general area of decline while emphasizing the fact that many exceptions to the findings exist. The present study bears out the latter assertion.

-----, "Concluding Remarks" (at a symposium on aging), in the American Journal of Orthopsychiatry, Vol. 10, No. 1, issue of January 1940, p. 85-87.

Lawton eloquently sums up the needs for studying the problems of older people. He shows how these problems are psychological rather than somatic and how, in the United States, senescence is more a cultural artifact than it is a biological reality. The significance of his statements for this study is great.

-----, "Mental Abilities at Senescence", in the Journal of Applied Psychology, Vol. 22, No. 6, issue of December 1938, p. 607-619.

An appeal for reliable data for use in planning for older people is made. The author shows how scientific research in this field had been neglected until the problems of older people began to force themselves upon the public. He states that no person is completely scrapped in a planned society.

-----, "Mental Decline and Its Retardation", in the Journal of General Psychology, Vol. 32, Second Half, issue of April 1945, p. 229-248.

This report considers the rates at which mental activities wane and determines to what extent this decline can be retarded and the abilities salvaged. It points out that psychological activities are dependent upon physiological activities.

-----, "Personality Adjustments in Old Age", in Social Adjustments in Old Age, New York, Social Science Research Council, 1946, p. 119-125.

Eighteen forms of maladjustment made by older persons are listed.

-----, "Psychological Guidance to Older People", in Mental Health in Later Maturity, Supplement No. 168, United States Government Public Health Reports, Washington, United States Printing Office, 1943, p. 73-87.

The author expresses the need for treating the older individual as a human being rather than as a separate animal. He shows how the attitude of the community affects the mental well-being of the older citizen. Much of the author's opinion is reflected in the findings of this study.

Lehman, H. C., "The Creative Years of Long-Lived versus Short-Lived Persons", in The American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 565.

A study of personalities engaged in creative work revealed the average out-put to be greater for the long-lived person and the mean age at the time of achievement also to be greater.

Levison, Boris M., A Comparative Study of Certain Homeless and Unattached Domiciled Men, Unpublished Doctoral Thesis, New York University, 1947, iii-272 p.

The investigator found certain significant differences between the two groups, but none that indicated that the homeless men as a group were less able to manage on a cash grant than domiciled men as a group. The study was conducted to determine whether or not the policy of the Department of Welfare in dispersing care to unattached men on the basis of the possession of a domicile was valid.

Lewis, A. J., and Goldschmidt, "Social Causes of Admissions to a Mental Hospital for the Aged", in Sociological Review, Vol. 35, Nos. 3 and 4, issue of July and October 1943, p. 86-98.

These authors draw attention to the fact that the increasing number of older people in the population is reflected in the rising total of elderly people admitted to mental hospitals. They find among the causes, deprivation of social contacts with less feeling of being a member of the community, rejection by the family, and not living with one's children or spouse. The authors give failure to retain an important place in the community as a preventable factor that leads to the admission of these people to the hospital. This is still another argument in favor of helping older people retain their independence.

Lewis, Nolan D. C., "Applying Mental Health Principles to Problems of the Aging", in New Goals for Old Age, New York, Columbia University Press, 1943, p. 91-105.

Nolan differs from other authors in his opinion that disorders of the senium are not directly related to problems of the earlier ages. However, he agrees that age is not a matter of chronology and that older persons might best be helped by being made useful.

Lorge, I., "The Influence of the Test Upon the Nature of Mental Decline as a Function of Age", in the Journal of Educational Psychology, Vol. 27, No. 2, issue of February 1936, p. 100-110.

The author demonstrates that time limits in mental testing place the older subject at a disadvantage.

-----, "Psychometry: The Evaluation of Mental Status as a Function of the Mental Test", in the American Journal of Orthopsychiatry, Vol. 10, No. 1, issue of January 1940, p. 56-61.

Lorge performed experiments which show that the speed requirements of mental tests obscure sheer mental power in older adults and that the fact that a high correlation exists between a power test of ability and a speed test of ability is no sufficient reason to indicate that each measures the same thing. The various studies on time tests indicate the need to control this factor in planning for the older population as far as occupation is concerned.

Madonick, M. J., and Marian Solomon, "The Wechsler-Bellevue Scale in Older Individuals", in Geriatrics, Vol. 2, No. 1, issue of January-February 1947, p. 34-39.

These authors believe with Kent (q. v.) that the results of the Wechsler-Bellevue test are invalidated when used with older adults by the undue strain it places on

visual capacity. They achieved better results than other investigators because of the more select group of subjects used.

Mead, Margaret, "Contexts of Aging", reported in Justice, Vol. 34, No. 3, Cols. 3 and 4, p. 12.

In a paper prepared for reading before the New York State Committee on Aging, Margaret Mead states that there is evidence to suggest that the way older people are able to learn is related to the manner in which children originally learn. She points out that, in cultures like that of Bali where old age is considered the preparation for a new life, people master new skills very late in life with ease and success. Both of these findings can be very useful in designing programs for older people.

Metropolitan Life Insurance Company, Old Age Dependency; Some Existing Good Plans for Its Relief or Prevention, New York, Metropolitan Life Insurance Co., 1931, 31 p.

This pamphlet analyzes the various voluntary and compulsory social insurance systems here and abroad. It is a good reference for those who wish a background in the trends in this direction throughout the world.

Miles, C. C., "Age and Certain Personality Traits of Adults", in the Psychological Bulletin, Vol. 30, No. 8, issue of October 1933, p. 570.

This author discovered that the four traits measured by the Bernreuter test, neurotic and introvert tendencies, self-sufficiency, and dominance, are independent of age in adults.

-----, "Influence of Speed and Age on Intelligence Scores of Adults", in the Journal of General Psychology, Vol. 10, 1934, p. 208-210.

C. C. Miles reports on an investigation which points to the need for a test of adult intelligence that eliminates the speed factor as much as possible and which has been standardized on adults.

-----, "The Otis S-A as a Fifteen Minute Intelligence Test", in Personality Journal, Vol. 10, No. 4, issue of December 1931, p. 246-249.

This is an earlier study than the above which shows a negative correlation between age and score.

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-----, and Miles, W. R., "The Correlation of Intelligence Scores and Chronological Age from Early to Late Maturity", in the American Journal of Psychology, Vol. 44, No. 1, issue of January 1932, p. 44-78.

The study demonstrates that decline in intellectual abilities with age is smaller in the more highly educated group.

Miles, W. R., "Abilities of Older Men", in the Personality Journal, Vol. 11, 1933, p. 352-357.

See note below.

-----, "Age and Human Ability", in the Psychological Review, Vol. 40, No. 2, issue of March 1933, p. 99-123.

See note below.

-----, "Age and Human Society", in A Handbook of Social Psychology, edited by Murchinson, Worcester, Massachusetts, Clark University Press, 1935, p. 596-682.

In a single section of a book, W. R. Miles summarizes rather comprehensively the research and observations made on the problems of later maturity. He gives historical and sociological implications, and describes the results of the major studies of senescence.

-----, "Age and the Kinephantom", in the Journal of General Psychology, Vol. 10, No. 1, issue of January 1934, p. 204-207.

This study reveals that creative imagination exists independent of age.

-----, "Change of Dexterity with Age", in Proceedings, Society for Experimental Biology and Medicine, Vol. 19, 1931, p. 136-138.

See note below.

-----, "Correlation of Reaction and Coordination Speed with Age in Adults", in the American Journal of Psychology, Vol. 43, No. 3, issue of July 1931, p. 377-391.

Sufficient individual difference was found among older subjects to be able to conclude that chronological age should not wholly determine readjustment or retirement which should be considered in the light of experimentally determined capacity.

-----, "The Maintenance of Our Mental Abilities", in Scientific Monographs, Vol. 34, 1933, p. 549-552.

See note below.

-----, "Measures of Certain Human Abilities", in the Proceedings of the National Academy of Science, Vol. 17, 1931, p. 627-633.
See note below.

-----, "Psychological Aspects of Aging", in Problems of Aging, Second Edition, edited by E. V. Cowdry, Baltimore, Williams and Wilkins, 1942, Chap. 28, p. 756-784.
This is another of many reports on the time element in testing.
See note below.

-----, "Training, Practice, and Mental Longevity", in Science, Vol. 81, No. 2091, issue of January 25, 1935, p. 79-87.

This is a valuable study for this thesis that indicates that the regular practice of skills tends to prolong their presence. This factor may have something to do with the maintenance of competency.

Note: W. R. Miles' investigations, which were part of the Stanford University Studies of Later Maturity conducted under his direction, have resulted in a number of important papers released for publication since 1931. They constitute the most extensive inquiry made thus far into the relationship between age and human abilities. They report the results of comparisons made on 2500 subjects from 7 to 94 years of age, two hundred of whom were over seventy, in perceptive ability, motor abilities including reaction time, motility and complex skills, learning ability of various types, imagination, comparison, and judgement, combination, and abstraction. The reports show where the greatest ability exists and where decline occurs for each of the above. They reveal that individual differences is an important factor, and that many older individuals do as well as or better than the younger.

Miller, Grace R., "City of Opportunity", in Magazine Digest, Vol. 40, No. 4, issue of April 1950, p. 96-98.

This article describes a project established at Orange Park, Florida, under the auspices of the Loyal Order of Moose. It is directed by Dr. Robert W. Kleemeir, formerly assistant professor of psychology at Northwestern University, for the purpose of studying the problems of older individuals. Experience with the project has revealed that the opportunity

to be useful has been the most important factor in the rehabilitation of residents. The research laboratory of the "city" is attempting to answer the questions, What is old age?, What happens to the abilities and aptitudes of people in the late maturity years?, and Does there have to be a general decline in their capabilities, or can their development be continued or even increased? The reference to the need to retain usefulness adds to the importance of this study.

Morgan, Christian Margaret, "The Attitudes and Adjustments of Recipients of Old Age Assistance in Upstate and Metropolitan New York", in Archives of Psychology, R. S. Woodward, Editor, No. 214, 1937, 131 p.

The author interviewed 396 persons receiving old age allowances to ascertain what factors make for happiness and contentment among these people. She found individual differences to be present among older people to the extent that they should not all be treated alike as they are at present. It was discovered that there are no traits characteristic of the older person and what traits they do possess are as varied as those found among younger people and are determined by the very same factors. The factors found to be necessary for happiness among older persons were good health; pleasant social and emotional relations with friends and members of the family; the possession of hobbies and outside interests; the quiet, privacy, and independency of action provided by living in one's own home; and some form of work or useful activity distinguishable from a hobby. The report has appended to it an excellent questionnaire for gathering information pertinent to a study of this kind.

Mursell, G. R., "Decrease in Intelligence with Increase in Age Among Inmates of Penal Institutions", in the Journal of Juvenile Research, Vol. 13, No. 3, issue of July 1929, p. 197-203.

Mursell used the Kuhlmann-Binet and the Kuhlmann-Anderson scales with reformatory inmates of a wide range of ages. He found a steady decrease in I. Q. from 90 to 67 beginning in the mid-twenties.

Nasher, I. L., Geriatrics, Philadelphia, Blakinston's Sons, 1914, p. v-viii.

This is one of the earlier books on the subject that calls attention to the need for more extensive research on the needs of the older members of the population.

National Industrial Conference Board, The Support of the Aged; A Review of Conditions and Proposals, New York, National Industrial Conference Board, 1931, xi-65 p.

This review attempts to answer the questions: Is there any specially urgent problems of the aged? and Would proposed remedies offer a new and more effective solution? Analysis of data indicates that there is much old age but little need for urgent social action since the majority of older people are independent in the sense that they are able to take care of them selves or are cared for by their families. Others are receiving adequate care from private charity or public relief. Newer laws are simply euphemistic labels for older charity provisions. It concludes that there are no new problems and no provisions that might be considered actual innovations.

Nicholson, T. F., The Increase and Decline and Speed and Control of Voluntary Motor Ability with Advancement in Age, Unpublished Doctors Thesis, Indiana, 1929.

The candidate tested the rate of tapping by finger movement, wrist, elbow, and shoulders in subjects seventeen to eighty. He found that the decline is slight and that it occurs earlier with the fingers and wrist than it does with the coarser movements.

Overholser, Winfred, "The Problems of Mental Disease in an Aging Population", in the Proceedings of the National Conference of Social Work, New York, Columbia University Press, 1941, p. 455-463.

The author reports the good news that studies of the brains of aging persons indicate that the mental symptoms manifested bear no relation to the extent of the structural damage to the organ. He believes that the type of personality of the individual and the variety of experiences to which he has been subjected are far more significant in determining mental disease. He concludes that it is necessary to look beyond pathology of the central nervous system for the full answer to the question of why persons in their later years require treatment in mental hospitals. He feels that psychological facts which may have had a direct bearing on hardening of the arteries and those mental changes traceable directly to cerebral-vascular accidents have been underestimated. Overholser's conclusions make more feasible the suggestions offered in this thesis.

Peabody, Francis G., The Privileges of Old Age, Boston, Houghton Mifflin, 1931, 29 p.

This book criticizes Cicero and other earl writers for their pessimistic attitude toward age. It shows how the oldster might enjoy a pleasant life through his memories if he has avoided mistakes (but keeps in mind that

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there still remain deeds that can be performed without the possibility of regrets occurring) and by recognizing his emancipation from the routine and complexities of existence. This book is of value in analyzing attitudes toward age.

Pegarski, Bernard, "Old Age", in The Oratory, issue of February 1952, p. 23-24.

Part of Father Pegarski's series on the home, this article presents a beautifully philosophical viewpoint on the subject. He suggests how a beautiful life can provide beautiful memories, and stresses the need for tendering every respect to the older person. His opinion coincides with other authors who contend that the habits of the aged are not the characteristics of older people but are the attitudes that were fashionable in their earlier years. This article is also of value in studying attitudes toward age.

Pintner, Rudolf, Intelligence Testing, New York, Holt, 1923, vii-406.

The author notes a gradual decrease in scores on the Army Alpha Test beginning after the twenties when this test was administered to army officers.

Pollak, Otto, Social Adjustments in Old Age; A Research Planning Report, New York, Social Science Research Council, 1948, xi-199 p.

The work advances a frame of reference upon which to base social research in gerontology so that such researches will complement each other. Pragmatic in its approach, the work stresses the happiness of the individual as a sociological goal.

Post, E., "Mental Aspects of Senescence", in the British Medical Bulletin, Vol. 6, Nos. 1 and 2, issue of December 1949, p. 54-56.

Post determined from a study of 477 individuals that the majority of older persons retain their mental faculties to the full. Over 81% of these persons were mentally normal. Of the remaining number, 14.4% showed borderline changes in their mental functions, and only 3.8% showed evidence of a definite psychiatric disability.

Prados, Miguel, and Edrita G. Fried, "Personality Structure of the Older Age Groups", in the Journal of Clinical Psychology, Vol. 3, No. 2, issue of April 1947, p. 114-121.

These workers found that persons within the same age group do not exhibit the same pattern of responses to the

Rorschach plates. Persons over seventy seemed better adapted to inadequacies than persons under that age who were beset by anxieties. These findings seem to refute those of Klopfer (q. v.) and confirm those of Clow. They are more optimistic for this study.

Rabin, A. I., "Psychometric Trends in Senility and Psychoses of the Senium", in the Journal of General Psychology, Vol. 32, First Half, issue of January 1945, p. 149.

In a study which used the Wechsler-Bellevue scale with one hundred patients in a state hospital, the writer found that the highest scores were achieved on the verbal and untimed power tests while the lowest were achieved on the timed performance tasks. He found no significant changes with age in patterns, and failed to confirm Wechsler's division of tests into "hold" and "don't hold" categories.

Reetz, Alfred, Jr., "Why Imprison Our Aged?", in R. N., A Journal for Nurses, Vol. 13, No. 6, issue of March 1950, p. 34-36, 78 and 80.

The author indicates how society has made few provisions for the indigent aged, either in the past or the present, and how this already serious problem will become more acute as the number of older persons increases. He deplores the fact that many of these older persons are sent to hospitals for mental diseases when they are not possessed of mental diseases. Reetz maintains that it is the duty of the offspring to care for these persons; and, if this cannot be arranged, then special institutions which provide occupational and recreational therapy should be established for them.

Rolleston, H., Some Medical Aspects of Old Age, London, Macmillan, 1922, ix-170 p.

This authority deplores enforced retirement of healthy vigorous men in their later years, and points to individual differences as a factor to be considered.

Ruch, Floyd L., "Adult Learning", in the Psychological Bulletin, Vol. 30, No. 6, issue of June 1933, p. 387-413.

Ruch cites many studies to prove his contention that decline of learning ability depends upon initial ability.

-----, "The Differentiative Effects of Age Upon Human Learning", in the Journal of General Psychology, Vol. 11, No. 2, issue of October 1936, p. 261-286.

The author studied a small number of older individuals up to the age of eighty-two and found that, in motor

tasks, the oldest subjects showed the greatest deficit in mirror vision. In verbal tasks, decline showed itself to increase in the following order: paired associates, nonsense materials, false products.

Shakow, D., and R. Goldman, "The Effect of Age on the Stanford-Binet Vocabulary Score of Adults", in the Journal of Educational Psychology, Vol. 29, No. 4, issue of April 1938, p. 240-256.

Shakow discovered that persons of very high intelligence maintain high vocabulary scores until the age of eighty while those of average intelligence show a decrease earlier.

Snoddy, G. S., "Learning and Stability", in the Journal of Applied Psychology, Vol. 10, No. 1, issue of January 1926, p. 1-26.

The investigator tested children, adolescents, young adults, and an older group on their ability to learn to follow a path seen in a mirror. Using rapid improvement as an index of stability, he found that adult stability is reached at eighteen. He concluded that the older years may be considered as characterized by lower adaptability rather than by lowered stability although the latter may be found there.

Sorenson, H., "Adult Ages as a Factor in Learning", in the Journal of Educational Psychology, Vol. 21, No. 6, issue of September 1930, p. 451-459.

Sorenson studied extramural classes of elementary school teachers and discovered that the slight disability that occurs after a certain age may be overcome by those who resume study after having discontinued it for a number of years.

-----, "Mental Ability Over a Wide Range of Adult Ages", in the Journal of Applied Psychology, Vol. 17, No. 6, issue of December 1933, p. 729-740.

The author studied a group of more than six hundred individuals who had equivalent years of schooling, equivalent occupational status, and who were attending college courses. He found that the curves for vocabulary ability ascended with age while that for paragraph-reading remained stationary.

Stanton, J. E., "Employment and Service Potentialities of Old People", in The American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 366.

Status and sense of usefulness are recognized by this author as needed for good adjustment of older people. He used college students to compile lists of occupations in which employment of older persons was common and successful.

Steward, Naomi, "AGCT Scores of Army Personnel Grouped by Occupations", in Occupations, Vol. 26, No. 1, issue of October 1947, p. 5-41.

The information offered in this article was used by the candidate in equating the subjects of this study. The data differ from that of Fryer (q. v.) in that it applies to personnel of World War II instead of World War I.

Stieglitz, Edward J., "Factors Contributing to Mental Disease in the Aged", in the Journal of Gerontology, Vol. 2, No. 4, issue of October 1947, p. 283-297.

The article stresses physiological changes as causes of mental changes in older persons. Emphasis is placed upon early diagnosis and treatment.

-----, Editor, Geriatric Medicine, Philadelphia, Saunders, 1943, xiii-887 p.

This book contains two valuable chapters on mental changes and mental diseases in older people, one by Walter R. Miles in collaboration with Catherine Miles (p. 99-117) and the other by Winfred Overholser (p. 263-278).

Tachibana, K., "On the Learning Process of the Aged", in the Japanese Journal of Psychology, Vol. 2, No. 4, issue of February 1927, p. 635-657, (from an abstract).

Insignificant because the results are based on experiments in which "groups" consisted of one subject each, this study is interesting because it shows that the problem of decline received some attention in Japan and that, even there, individual differences were reported.

Thorndike, E. L., et al., Adult Learning, New York, Macmillan, 1928, x-355 p.

Thorndike presents, together with his collaborators, elaborate reports on the quality and quantity of learning achieved at various ages. They believe that whatever is lost at various ages is compensated for in other ways.

Thorpe, Louis P., Willis W. Clark, and Ernest W. Tiegs, Manual of Directions, Mental Health Analysis - Adult Series, Los Angeles, California Test Bureau, 1946, 12 p.

This test was used in the present study.

Trumbull, R., C. R. Pace, and R. G. Kuhlen, "Expansion and Constriction of Life Activities During the Adult Life Span as Reflected in Civic and Political Participation", in The American Psychologist, Vol. 5, No. 7, issue of July 1950, p. 367.

These investigators studied, by means of a questionnaire, the activities of 9000 persons ranging in age from twenty to ninety. They discovered that the expansion of activities continues over a long period and continues to a late age. Political activities were maintained until a very late age while civic participation declined fairly early. *The latter decline occurred with more frequent subjects only in the present study.*

Wagner, Margaret W., "Mental Hazards in Old Age", in The Family, Vol. 25, No. 4, issue of June 1944, p. 132-137.

The writer laments the fact that the aged are so grossly misunderstood. She states that although there may be physical causes of senility, there are also causes that are not related to bodily changes. Many of these are intensified forms of similar manifestations in the person's youth. The author feels that it is necessary to investigate the individual's youth to understand his later years. This may have some meaning for the digressory part of this study. The writer also claims, like other authorities, that idleness and lack of responsibility are paramount causes of mental illness among older persons. Such lack of responsibility was found among the incompetent subjects of this study.

Waterman, Leroy, "Religion and Religious Observance in Old Age", in Living Through the Older Years, Clark Tibbitts, Editor, Ann Arbor, University of Michigan Press, 1949, p. 99-112.

The author shows how older people might find suitable activity in the church and how this activity might benefit them. He explains that these activities should not preclude the younger individual who should combine his efforts with the older group which has in it the wise men and women with valuable experience. The present study shows that competent subjects are favorably disposed toward religion. Proper participation in religious activity may aid the incompetent subject in changing his attitude toward life.

Watters, T. A., "The Neurotic Struggle in Senescence", in Geriatrics, Vol. 3, No. 5, issue of September-October 1948, p. 301-305.

Watters explains that the neuroses often ascribed to age may occur at younger ages. He proceeds to apply a

Freudian interpretation to these diseases by claiming that cosmetic art and plastic surgery have prolonged the years of allure and amatory experience with the result that reduced ability has lead to perversive acts.

Wechsler, D., The Measurement of Adult Intelligence, Baltimore, Williams and Wilkins, 1939, x-258 p.

The author studied the test performances of eighty-five older persons to derive his curve of learning. He lists on p. 66 those tests which hold up with age (information, comprehension, object assembly, and vocabulary) along with those that show a conspicuous decline (digit span, arithmetical reasoning, substitution, block design, and similarities).

Weisenburg, T., A. Roe, and K. E. McBride, Adult Intelligence: A Psychological Study of Test Performance, New York, The Commonwealth Fund, 1936, xiii-155 p.

These experimenters found little decline in vocabulary, reading, spelling, and arithmetic tests.

Werner, H. M., Some Psychological Tests of the Aged, Unpublished Masters Thesis, New York, Columbia University, Department of Psychology, 1932.

This student tested residents of a home on Knox Cubes, digit memory span, Porteus Mazes, substitution, and paired associates. He found that this group equaled the army group on the first two but showed a decline on the mazes, a marked decline on substitution, and complete failure on paired associates.

"What to Do About the Old Folks", feature article in Newsweek, Vol. 35, No. 12, issue of March 20, 1950, p. 58-64.

This is a survey of pension systems by the editors and staff writers who point out that the number of pensioners is becoming so great that industry will not be able to bear the burden and that rising prices will wipe out the purchasing power of pensions. It gives a rather hopeless picture of the situation of the older citizens of the community. The answer seems to lie in making these citizens independent.

Wiersma, E. D., "Psychology of Dementia", in the Journal of Mental Science, Vol. 76, No. 312 (New No. 276), issue of January 1930, p. 1-42.

Wiersma believes that mental functions remain unimpaired to a very advanced age in persons who possess lively interests in early life.

Willoughby, R. R., "Family Similarities in Mental Test Abilities", in Genetic Psychology Monographs, Vol. 2,

No. 4, issue of July 1927, p. 235-277.

Willoughby compares the performances of parents and grandparents with the performances of children and grandchildren on various tests. He finds a decline in completion, analogies, and opposites but not in arithmetic with increasing age.

Yocorzynski, G. K., "An Evaluation of the Postulates Underlying the Babcock Deterioration Test", in the Psychological Review, Vol. 48, No. 3, issue of May 1941, p. 261-267.

This author offers the hypothesis that vocabulary scores may seem to be maintained in later maturity because there are many different acceptable ways of defining words and deterioration may have eliminated some of the more difficult definitions without affecting the score. This is an interesting observation after so many investigations have lead to the accepted conclusion that vocabulary remains intact. It shows the need for more research with this possibility in mind, in spite of all that has been done.

APPENDIX XI

THE QUESTIONNAIRE

Dear Friend:¹

The increasing number of older persons in our population is creating problems that require scientific study and solution. Science has already brought about conditions that have prolonged the period of youth and that have diminished the death rate thus bringing about this increase in the number of older persons. It is now anxious to establish conditions that will provide for the mental and physical comfort of these persons and insure them a place of importance in the community. YOUR cooperation is needed. Will you please help by answering the following questions as simply as possible and also those in the accompanying personality analysis which are answered simply by encircling Yes or No. No name is required on any of these papers. There is no code number or any other manner in which you might be identified. Please return all papers in the enclosed envelope which bears postage. If you do not care to participate, please return the papers anyway. By taking part in this project, you will help in very important research.

WON'T YOU PLEASE COOPERATE?

Skip any of the questions you feel you cannot answer. Please return all papers within two weeks if possible.

Thank you for your kindness.

A. J. Orrico
43 Fulton Avenue
Jersey City 5, N. J.

Age _____ Male _____ Female _____ Married _____ Single _____

Widowed _____ Divorced _____

Former or present occupation _____

¹See page 65 of this thesis for the reason for including the letter and for details regarding change in procedure.

How long employed? _____

Are you still employed? Yes _____ No _____

Why did you discontinue working? _____

Was retirement compulsory? Yes _____ No _____

Did you retire unwillingly? Yes _____ No _____

Do you feel that you are still capable of working if provisions could be made for your employment? Yes _____ No _____

Education: (Check or indicate the number of years)
 Elementary school _____ High school _____ College _____
 Professional school _____

Do you now depend upon others for support? Yes _____ No _____

Do you have an independent income? Yes _____ No _____

Do you live on savings? Yes _____ No _____

Do you consider yourself independent? Yes _____ No _____

Would you rather be dependent or independent? Dependent _____
 Independent _____

Would you accept a position if one were offered to you?
 Yes _____ No _____

Were you ever afraid of old age? Yes _____ No _____

Does this fear date from: Early childhood? _____ Adolescence?
 _____ Early adulthood? _____ Other? _____

Do you still have this fear? Yes _____ No _____

Explain, if you can, what you believe caused this fear or how it began.

Have you a philosophy of life? Yes _____ No _____

If you have, please state it briefly on the other side of this sheet.

Do you wish you were young again? Yes _____ No _____

Why?

Have you any other fears? Yes _____ No _____

State what they are, if you can.

Did your parents or others frequently say to you when you were a child that they wished they were young like you again?
Yes _____ No _____

Did this affect you in any way? Yes _____ No _____

State how, if possible.

Do you often make that statement to children? Yes _____ No _____

Do you consider yourself a religious person? Yes _____ No _____

How long have you been religious? All life _____ Since
childhood _____ Lately _____ Other _____

Have you been trying to find employment lately? Yes _____ No _____

Check the items below that apply to you:

Faulty memory _____ Can remember things of the past better
than those of the present _____ Have a hobby _____

Take part in politics _____ Attend parties _____

Go to dances _____ Take long walks _____ Travel _____

Look younger than you are _____ Inclined to be cranky _____

Read a great deal _____ Like to associate with younger
people _____ Moody most of the time _____ Always happy _____

Work around the house _____ Belong to clubs _____

Like to talk _____ Play music _____ Sing _____ Fish _____
 Play golf or other sports _____ Good at arithmetic _____
 Like to dress up _____ Get tired easily _____ Like to
 keep busy _____ Like to keep to yourself _____ Shy _____
 Shy as a child _____ Worry over finances _____
 Worry over health _____ Feel unwanted _____ Feel lonely _____
 Others take advantage of you _____ Losing interest _____
 Sit and think a lot _____ Can't change ideas _____
 Getting stingy _____ Conservative (old fashioned) _____
 Day dream _____ Ambitious _____ Decided to give up after
 a certain age _____ Worry over a lot of things _____
 Nervous _____ Live alone _____ Support wife _____
 Support children _____

If retired, do you enjoy retirement? Yes _____ No _____

If not retired, would you like to retire? Yes _____ No _____

Do you dislike retirement very much? Yes _____ No _____

If the answer to the above is yes, please state why?

What do you like best about your present life?

What do you dislike about it?

List, if you will, some of your present activities:

(Please use the other side of this sheet for any other information that you would like to give.)

APPENDIX 12.

THE MENTAL HEALTH ANALYSIS

MENTAL HEALTH ANALYSIS—Adult Series, Form A

Devised by Louis P. Thorpe and Willis W. Clark
Ernest W. Tiegs, Consultant

Do not write on this booklet unless told to do so by the examiner.

Directions:

If you are to use a special answer sheet, the method of answering questions is explained on the answer sheet. If you are to mark your answers on this booklet, the questions will be answered by making a circle around the **YES** or **NO**. Do the following examples:

- | | | |
|---|--|--|
| <p>A. Have you ever been to a moving picture theater? YES NO</p> <p>B. Are you less than sixteen years of age? YES NO</p> | <p style="font-size: 2em; line-height: 1;">}</p> | <p>On some of them you will make a circle around YES, and on others you will make a circle around NO. When told to begin you are to go right on from one page to another until you have finished them all.</p> |
|---|--|--|
- On the following pages are more questions.

Name.....Occupation or Grade.....

Date.....Age.....Birthday.....Sex: M-F
month day

Examiner.....Organization.....

Score	Per- cent- ile	PERCENTILE (Chart percentile rank here)												
		1	5	10	20	30	40	50	60	70	80	90	95	99
1. Lib.	_____	----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
A. Beh. Im. (l) _____	_____	----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
(Freedom from)														
B. Em. Ins. (m) _____	_____	----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
(Freedom from)														
C. Fl. Ina. (n) _____	_____	----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
(Freedom from)														
D. Ph. Def. (o) _____	_____	----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
(Freedom from)														
E. Ner. Man. (p) _____	_____	----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
(Freedom from)														
2. Ast.	_____	----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
A. Cl. Per. Rel. (a) _____	_____	----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
B. Intp. Sk. (b) _____	_____	----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
C. Soc. Par. (c) _____	_____	----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
D. Sat. W. and R. (d) _____	_____	----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
E. Ot. and Gls. (e) _____	_____	----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
Total Score	_____	----- ----- ----- ----- ----- ----- ----- ----- ----- -----												

- | | | | |
|--|-----|----|---|
| 1. Do several people seem to think that you are making a success of your work? | YES | NO | |
| 2. Have you found that you can talk freely with one or more of the people with whom you are associated? | YES | NO | a |
| 3. Do you often have to start eating a meal before the others because they make you wait so long? | YES | NO | 1 |
| 4. Have you found that you can succeed better by getting tough when someone tries to take advantage of you? | YES | NO | 1 |
| 5. Is someone willing to help you in choosing clothes and other personal effects? | YES | NO | a |
| 6. Are conditions affecting you often so bad that you feel as though life is hardly worth living? | YES | NO | m |
| 7. Have you found that your feelings, or moods, about life frequently change? | YES | NO | m |
| 8. Are you often worried about possible dangers that you cannot control? | YES | NO | m |
| 9. Can you keep people from feeling too embarrassed when they make a mistake? | YES | NO | b |
| 10. Do you usually keep from showing that you dislike to lose in games or contests? | YES | NO | b |
| 11. Do people often expect so much of you that you are forced to make a good many excuses? | YES | NO | n |
| 12. Would you rather be with a group of people than find entertainment for yourself? | YES | NO | c |
| 13. Do you prefer activities requiring cooperation to those in which you work alone? | YES | NO | c |
| 14. Have you found it difficult to get acquainted with the people you would like to have as friends? | YES | NO | n |
| 15. Do you usually take part or have definite interest in one or more active sports? | YES | NO | c |
| 16. Do you find that the type of work you are doing is sufficiently interesting? | YES | NO | d |
| 17. Have you often felt less attractive than others because of the shape of your legs? | YES | NO | o |
| 18. Are you concerned because you are too tall to look right with most of your friends? | YES | NO | o |
| 19. Are you sensitive because of skin blemishes that detract from your appearance? | YES | NO | o |
| 20. Do you like to spend more than the required amount of time on your work? | YES | NO | d |
| 21. Do you usually refrain from doing the things you believe to be wrong? | YES | NO | e |
| 22. Do you believe that you should always be honest in your dealings with people? | YES | NO | e |
| 23. Do you have a difficult time sleeping? | YES | NO | p |
| 24. Do you believe that people have a right to do what they like so long as they do not interfere with the rights of others? | YES | NO | e |
| 25. Do you have the habit of biting your fingernails? | YES | NO | p |
| 26. Are you usually quick enough to get a good seat at a show or other gathering? | YES | NO | 1 |
| 27. Have you found it easy to get ahead of people in lines at games, theatres, or other places? | YES | NO | 1 |
| 28. Do you have one or more close friends of your own sex? | YES | NO | a |
| 29. Do you feel that some of your neighbors deserve your friendship? | YES | NO | a |

- | | | | |
|--|--------|---|--------|
| 30. Do you have a friend who will talk with you about your problems? | YES NO | 44. Are you satisfied with the type of work you are doing because it will lead to something better? | YES NO |
| | a | | d |
| 31. Do you often feel as though you are held back from doing things that you would like to do? | YES NO | 45. Have you been unhappy because you are not considered as good looking as you would like? | YES NO |
| | m | | o |
| 32. Do you usually make a point of finding out what your friends like to do? | YES NO | 46. Have you noticed that you hum a great deal of the time? | YES NO |
| | b | | p |
| 33. Do your friends seem to think that you have a good sense of humor? | YES NO | 47. Do you believe that everyone should have equal rights under the law? | YES NO |
| | b | | . |
| 34. Do you often become so concerned with your own problems that you fail to notice the people around you? | YES NO | 48. Do you believe that everyone has the opportunity of making an honest living? | YES NO |
| | m | | . |
| 35. Have you found it difficult to settle on definite beliefs concerning life? | YES NO | 49. Do you sometimes have dizzy spells? | YES NO |
| | m | | p |
| 36. Are you a member of a club or other group where people do interesting things together? | YES NO | 50. Do you find it hard to sit still for long? | YES NO |
| | c | | p |
| 37. Have you found that you get along best when people are willing to give you a loan from time to time? | YES NO | 51. Have you frequently been able to get even with people you dislike by ignoring them? | YES NO |
| | n | | i |
| 38. Do you usually take an active part in things rather than think or read about them? | YES NO | 52. Have you found that it pays to avoid people who try to prevent you from doing what you like? | YES NO |
| | e | | i |
| 39. Are you a working member of the Red Cross or some other organization which assists underprivileged people? | YES NO | 53. Do you know someone with whom you can talk over your business or other problems? | YES NO |
| | c | | . |
| 40. Does it seem to you that most people like to compete with others more than you do? | YES NO | 54. Have you found that someone else will usually get the things you want if you don't beat them to it? | YES NO |
| | n | | i |
| 41. Do you feel unattractive because you have a protruding or receding chin? | YES NO | 55. Have you found that it is usually better to stay away from home for awhile when someone has been unfair to you? | YES NO |
| | o | | i |
| 42. Do you feel that you have the opportunity of doing many of the things that make life interesting? | YES NO | 56. Do you make a practice of showing people that you recognize their abilities? | YES NO |
| | d | | b |
| 43. Do you usually feel good after you have worked hard? | YES NO | 57. Have you found that it is well to tell people when they show good judgment? | YES NO |
| | d | | b |
| | | 58. Do you often find it necessary to defend your beliefs in the face of strong opposition? | YES NO |
| | | | m |

- | | | | |
|---|-------------|--|-------------|
| 59. Do you usually find that it is much more pleasant to think about necessary activities than to engage in them? | YES NO
m | 72. Do you get a great deal of relief for your eyes by squinting? | YES NO
p |
| 60. Do you enjoy helping people out of their difficulties? | YES NO
b | 73. Do you believe that people who do what is right will eventually be rewarded? | YES NO
e |
| 61. Do you often feel that members of your family do not think as well of you as they should? | YES NO
n | 74. Do you believe that people have a right to decide things for themselves so long as they do not harm anyone else? | YES NO
e |
| 62. Do many of your associates seem to think that their ideas are better than yours? | YES NO
n | 75. Do you constantly make plans for carrying on a successful career? | YES NO
e |
| 63. Do people often claim that they are more competent in their work than you are? | YES NO
n | 76. Are you usually consulted concerning things members of your family are planning to do? | YES NO
a |
| 64. Do you sometimes travel or go camping with people of your own age? | YES NO
c | 77. Have you often found that by stirring up a little trouble you can get what you want without delay? | YES NO
i |
| 65. Does it seem that you are left out of things you would like very much to be in? | YES NO
n | 78. Do you have a number of friends among members of the opposite sex? | YES NO
a |
| 66. Is the kind of work you are doing easy enough so that you can do it well? | YES NO
d | 79. Do you frequently have good times with fellow members of some group or organization? | YES NO
a |
| 67. Do you prefer to keep your job or present kind of work to seeking employment that pays more money? | YES NO
d | 80. Have you found that it is surprisingly easy to hurt other people's feelings? | YES NO
i |
| 68. Are you worried about things that are said about you because you are too thin? | YES NO
o | 81. Do you make a practice of going out of your way to help people? | YES NO
b |
| 69. Are you concerned about comments made because you are overweight? | YES NO
o | 82. Are you frequently dissatisfied because your plans do not work out satisfactorily? | YES NO
m |
| 70. Are you troubled because people seem to notice that your teeth are uneven or otherwise unattractive? | YES NO
o | 83. Do you often feel depressed without knowing the reason for your feelings? | YES NO
m |
| 71. Do you believe that everyone should be loyal to his friends and associates? | YES NO
e | 84. Have you often become so absorbed in personal thoughts that you failed to notice what was going on around you? | YES NO
m |
| | | 85. Do you make a practice of giving people credit for the things they know? | YES NO
b |

- | | | | |
|--|--------|--|--------|
| 86. Do you take part in the programs of a service club, worker's organization, or other such group? | YES NO | 100. Are you frequently bothered by eyestrain? | YES NO |
| | c | | p |
| 87. Do you have a group of good friends in addition to the one or two persons you know best? | YES NO | 101. Do accidents or injuries seem to hurt you more than they do most people? | YES NO |
| | c | | 1 |
| 88. Are you often disturbed because people act as though they cannot depend on you? | YES NO | 102. Have you found that you usually get what you want most quickly by demanding it? | YES NO |
| | n | | 1 |
| 89. Do you go to dances or other socials when you have the chance? | YES NO | 103. Do you have some close friends among your relatives? | YES NO |
| | c | | a |
| 90. Have you found that you can do your best work when you have the help of friends? | YES NO | 104. Do you feel that most members of your family think as well of you as they should? | YES NO |
| | n | | a |
| 91. Are you troubled because people notice something wrong with your mouth or lips? | YES NO | 105. Do you have so many problems that you are often justified in stretching the truth a little in solving them? | YES NO |
| | o | | 1 |
| 92. Are you worried because there is something wrong with your feet or legs that it is difficult to conceal? | YES NO | 106. Do you enjoy letting people know when they have done something well? | YES NO |
| | o | | b |
| 93. Do you usually look forward with pleasure to the duties of the next day? | YES NO | 107. Can you usually stop a quarrel between two people without hurting their feelings? | YES NO |
| | d | | b |
| 94. Does it seem to you that you are making satisfactory progress in your work responsibilities? | YES NO | 108. Does it usually take you considerable time to get over disappointments? | YES NO |
| | d | | m |
| 95. Do you have as much time for play and recreation as you should? | YES NO | 109. Have you often had the feeling that you do not get what is coming to you in life? | YES NO |
| | d | | m |
| 96. Do you stutter some of the time? | YES NO | 110. Do you find it very difficult to relax and take things easier? | YES NO |
| | p | | m |
| 97. Have you found that you are tired much of the time? | YES NO | 111. Do you usually prefer working with a group rather than alone? | YES NO |
| | p | | c |
| 98. Do you believe that everyone should be kind to animals? | YES NO | 112. Have you usually found it difficult to get along with persons of the opposite sex? | YES NO |
| | e | | n |
| 99. Do you often find yourself "drumming" with your fingers or talking to yourself? | YES NO | 113. Have you found that you can get out of unpleasant responsibilities by appearing to be below par physically? | YES NO |
| | p | | n |

- | | | | |
|--|--------------|---|--------------|
| 114. Do you call on your friends when you have the time? | YES NO | 129. Have you found that it usually pays to tell people frankly about your likes and dislikes? | YES NO |
| | ^c | | ¹ |
| 115. Do your friends appear to think that you are good at getting things done in group activities? | YES NO | 130. Have you found that many people are unreasonable in expecting you to keep your feelings to yourself? | YES NO |
| | ^c | | ¹ |
| 116. Are you troubled because people notice that you have scars that show? | YES NO | 131. Are you often concerned about what the future may have in store for you? | YES NO |
| | ^o | | ^m |
| 117. Do you have the opportunity of seeing your favorite kinds of motion pictures? | YES NO | 132. Do you often help people have a good time at social affairs? | YES NO |
| | ^d | | ^b |
| 118. Do you listen regularly to some of your favorite radio programs? | YES NO | 133. Are you usually careful of what you say about your friends? | YES NO |
| | ^d | | ^b |
| 119. Are you troubled because your hair is either too thin, straight, or curly to be attractive? | YES NO | 134. Do you usually show an interest in the things your acquaintances are doing? | YES NO |
| | ^o | | ^b |
| 120. Have you been troubled because of things people say about the color of your hair? | YES NO | 135. Have you often felt that you have more than your share of bad luck? | YES NO |
| | ^o | | ^m |
| 121. Do you believe that everyone should receive enough free education to fit him for democratic living? | YES NO | 136. Do you engage in one or more hobbies in which some of your friends are interested? | YES NO |
| | ^e | | ^c |
| 122. Do you believe that people of other colors, races, and beliefs are entitled to their rights? | YES NO | 137. Does it seem to you that most of your associates are more attractive physically than you are? | YES NO |
| | ^o | | ⁿ |
| 123. Are you often troubled by a buzzing sound in your ears? | YES NO | 138. Does it seem to you that most people think about themselves and tend to forget others? | YES NO |
| | ^p | | ⁿ |
| 124. Are you sometimes troubled with nightmares? | YES NO | 139. Do you find it difficult to secure as much attention as most people do? | YES NO |
| | ^p | | ⁿ |
| 125. Do you believe that you should obey the laws even though you do not agree with them? | YES NO | 140. Do you sometimes go to concerts, lectures, or entertainments with a group of acquaintances? | YES NO |
| | ^e | | ^c |
| 126. Do you usually prefer to do things on the spur of the moment rather than after planning them? | YES NO | 141. Do you like to spend part of your time painting, drawing, or writing? | YES NO |
| | ¹ | | ^d |
| 127. Do the members of your family seem to believe in your honesty and truthfulness? | YES NO | 142. Are your duties often so interesting that you like to work hard? | YES NO |
| | ^a | | ^d |
| 128. Do you often have good times at social gatherings in your home? | YES NO | | |
| | ^a | | |

143. Are you concerned because of difficulty in controlling muscles of your hands or feet? YES NO
o
144. Do you feel discouraged because poor eyesight keeps you from doing your best work? YES NO
o
145. Do you feel your work is so important that you do it well? YES NO
d
146. Do you occasionally feel that your muscles are trembling? YES NO
p
147. Do you seem to catch cold easily? YES NO
p
148. Are certain of your religious beliefs so fundamental that you would not care to change them? YES NO
o
149. Do you consider good character as important as knowledge or skill? YES NO
o
150. Do you often feel a tension in your chest? YES NO
p
151. If you were in need of financial assistance, do you know of someone who would help you? YES NO
a
152. Are many people so unpleasant that you are justified in treating them with indifference? YES NO
1
153. Do you have any brothers, sisters, or other close relatives who are as friendly to you as they should be? YES NO
a
154. Do you know any people who can be trusted to keep your secrets? YES NO
a
155. Have you found that you get along best when you don't concern yourself much about other people's feelings? YES NO
1
156. Are you careful not to talk much about the things you can do? YES NO
b

157. Have you found that you often seem both to love and hate some one? YES NO
m
158. Have you found that it is usually inadvisable to tell people about their faults? YES NO
b
159. Are you often tempted to give up trying to solve your many problems? YES NO
m
160. Have you found ways of getting out of many of your unpleasant duties? YES NO
m
161. Do you sometimes take part in planning or in leading group activities? YES NO
e
162. Do you like to take an active part in civic or political matters? YES NO
e
163. Have you often felt that you need more courage than most people if you are to be successful? YES NO
n
164. Do you enjoy carrying on conversations at group gatherings? YES NO
c
165. Have you noticed that much good usually comes from your failures? YES NO
n
166. Do you like to spend part of your time working in a garden or similar outdoor activity? YES NO
d
167. Do you worry about what people think because you must wear eyeglasses? YES NO
o
168. Are you concerned because you are too stoop-shouldered to look well? YES NO
o
169. Do you often feel embarrassed because you believe your skin to be unsightly? YES NO
o
170. Do you get a great deal of pleasure from raising animals or spending time with pets? YES NO
d

- | | | | |
|--|-------------|--|-------------|
| 171. Do you believe in fulfilling your promises even if you dislike very much to do so? | YES NO
e | 187. Does it seem to you that most people can work harder or longer than you can? | YES NO
n |
| 172. Do you believe that there are some acts that are always right and some that are always wrong? | YES NO
e | 188. Have you found it almost impossible to be as successful as most of your acquaintances? | YES NO
n |
| 173. Do you frequently wake up with a stiff neck? | YES NO
p | 189. Have you found that it is usually someone else's fault when you are blamed for things? | YES NO
n |
| 174. Do you often have trouble with sneezing spells? | YES NO
p | 190. Do you usually like to be where there is much activity? | YES NO
c |
| 175. Do you often have shooting pains in your head? | YES NO
p | 191. Do you sometimes enjoy yourself by going fishing, camping, or hiking? | YES NO
d |
| 176. Do members of your family seem to like your friends? | YES NO
a | 192. Do you have good times collecting stamps, coins, or other objects? | YES NO
d |
| 177. Is there someone to whom you can go if you are in trouble? | YES NO
a | 193. Are you troubled because so many people notice how bow-legged or knock-kneed you are? | YES NO
o |
| 178. Do you often talk over personal matters with other people? | YES NO
a | 194. Do you often have an enjoyable time playing a musical instrument? | YES NO
d |
| 179. Have you found that if you want to be comfortable, you must look out for yourself? | YES NO
i | 195. Are you worried because something is wrong with your hands? | YES NO
o |
| 180. Have you found that if you let your work go, someone else will usually help you finish it? | YES NO
i | 196. Do you believe in spending part of your time or money in assisting worthy causes? | YES NO
e |
| 181. Have you found that it is better not to talk about people behind their backs? | YES NO
b | 197. Are your arms extremely tense much of the time? | YES NO
p |
| 182. As a rule, do you prefer having people do things for you to doing them yourself? | YES NO
m | 198. Do you frequently have sick headaches? | YES NO
p |
| 183. Do your friends appear to think that you are fair in your dealings with them? | YES NO
b | 199. Do you think that family life is essential to the welfare of society? | YES NO
e |
| 184. Is it easy for you to be friendly with people even when they disagree with you? | YES NO
b | 200. Do you feel that there is some great plan in the universe and that you have a part in it? | YES NO
e |
| 185. Do you make it a point to treat your friends when you have the opportunity of doing so? | YES NO
b | | |
| 186. Do you enjoy trading, buying, or selling things? | YES NO
c | | |

APPENDIX 3

PHILOSOPHIES OF LIFE OF THE COMPETENT SUBJECTS¹

A Banker: "Golden rule; service to others."

An Editor: "Every man has a place in the world. He, and society should help him, should find his place. No man liveth unto himself. He that would be greatest should be a servant of all. Virtue is its own reward."

A Mechanical Engineer and Executive: "My philosophy is to worship and revere the Creator. See all the good that is present in the Universe.

"Render a useful service to others and one need not worry about either the present or the future. It is wicked to worry for it only decreases one's efficiency.

"Remember only the important and useful things. A selective memory in the field of one's work is extremely important. This has cumulative usefulness as one reaches the later years of greatest opportunities.

"Always make best use of opportunities and time which are available to all in substantially equal degree."

A Judge: "Do my work well and be helpful and considerate toward others, wherever and whenever I can."

A General Manager: "Hard work, good exercise. Vocation, and plan to be fair to myself and others."

A Scientist: "Keep interested and busy. Be kind and tactful. Support church and good works. See the funny side. Play games."

A Physician: "What you have decided to do, do with your might."

An Engineer and College Professor: "Work hard, play hard, don't worry."

A School Supervisor and Cranberry Grower: "Life is a joy if one makes it a joy. No one can harm you except yourself. Those things which do not come out as we wish are as

¹See Appendix IV for the philosophies of incompetent subjects.

they are because of what we have done, therefore take what comes with poise. My answer to 'How are you?' always is 'Fine'. My hobby is people."

A Physician: "Christian religion when devoutly lived gives faith and there can be no fear."

An Engineer: "Do to others as you wish to be done by them. Charity."

A Clerk: "Trust in God and do not despair. Believe in a Provident God."

An Office Worker: "Always do what your conscience tells you is right, and leave the future in the hands of your Creator."

A Clerk: I believe we should live our lives with faith in God and a desire to cheer and help those in trouble if possible. Live every day the best possible. Guard our tongues; tell people the nice things about them, but do not spread ill of others."

A Dean: "The philosophy of a believing Christian."

A Secretary: "I try to keep well. I read newspapers thoroughly to keep my interest in world affairs. I am interested in anything that concerns my family and friends. I help out wherever I can. I believe in keeping old friends, and am not too critical knowing that everyone has faults. I love to entertain at home or outside as far as finances permit.

" I believe in God, attend no church regularly, but think the only thing that will save the world is a return to a belief in God and religion no matter what it is."

A Musician: "Endure what we must, improve what we can. Do unto others as we would be done by. I firmly believe in sincere prayer, and know that God knows our needs, and with Him nothing is impossible. Cast thy burden upon the Lord. Ask and it shall be given unto you. Living according to this philosophy, we can be happy and have nothing to fear."

A Photo Engraver: "My life is laid out for me. I take everything as it comes trusting in the Almighty."

A College Professor: "All we know in the world is that man is inherently social. Therefore, morality is a social need. I give myself to doing my full part as best I can. Equal rights for all; social privileges for none."

An Editor: "The more a man lives for his generation as well as for posterity, the more he lives for himself. 'They who joy would win must share it, Happiness was born a twin'. 'Happiness is beneficial for the body, but it is grief that develops the powers of the mind.' (Quotations from Modern Decalogues)"

Research Worker: "Decide what is right for me to do and be and then try to live up to it. Don't work for praise, but do things because I should. Try to do them surreptitiously. Don't bother about credit if you can help get a thing done. Not interested in contests, trying to beat someone else either mentally or physically.

"I live alone, enjoy it (no family but consider family life essential). Haven't time to find out if I am happy-too much to do.

"Life is too interesting to bother about aches and pains (I've had plenty).

"Separate mind from body - and enjoy the many fascinating things there are to do regardless of thinness, fatness, freckles, fat legs, thin legs, and the rest of one's anatomy whether ugly or beautiful.

"Develop a sense of humor."

(Note: The above subject is a woman.)

A Government Research Worker in Agriculture: "Have faith in the Almighty. He will direct and care for me."

A Geologist: "Treat others as you would like to be treated. Try to choose a profession that you would enjoy. Do not think that the world owes you a living, but that you owe your living to the world. Remember, your goal in research will not be reached by inspiration but by perspiration".

A Dentist: "To give myself to the limit of my ability for the benefit of the community, but humanity must make it possible for me to be independent of outside aid or help."

A Mining Engineer: "To be of service to my family, friends, and to the community including my country."

A Professor in a Theological Seminary: "God is over all, in all, and through all. The actual world is a personality producing process under personal control. All meaning is personal. The material order is instrumental only for the expression, the growth, the intercommunication, and the social cooperation of personality. Life is therefore stewardship demanding that each man use self and whatever he controls for the ends of God working in and over and beyond the interests of man. The present life should be the beginning stage of the eternal. Love is the law of life."

APPENDIX 4

PHILOSOPHIES OF LIFE OF THE INCOMPETENTS

A Physician: "Earn your own living by doing things other people will be benefited by. Do not expect anyone to give you any help."

A Clerk: "God will provide. He has taken care of me up until now and will continue to do so."

A Clerk: "I have done my duty by bringing up my children to be good Christians and good citizens and consider life's work well done".

A Writer: "To do my best to help others, to live unselfishly, to think not only of myself but others."

A College Professor: "Get most out of every day."

A College Professor: "Keep busy."

A Teacher: "To do my best daily; to see the best in people and situations."

A Clerk: "To live each day as best I can and do the best I can to make others happy".

A Clerk: "Do unto others less fortunate than I am, and love thy neighbor as well as thyself."

A Clerk: "I believe in doing the right thing at all times".

An Elementary School Teacher: "Try and make the best of conditions as they apply to me; don't worry."

A Headmaster: "I believe that a life of sincere service brings happiness and durable satisfaction."

A Clerk: "I don't believe I should let my ailments hold me back. In other words, I believe if I stop doing things the end is near."

A Clerk: "I believe in following the laws of my God and my country."

An Engineer: "I firmly believe in God and that the purpose of life is to know, love, and serve Him in this world that I may be happy with Him forever in the life to come."

A Teacher: "Do the task at hand to the best of your ability, be helpful to others, never make a statement nor perform an act without considering its effect on others. Following these rules, the future usually takes care of itself."

A Teacher: "Cooperation is preferable to competition. One may seek to excell one's own or another's record in the quality of work done, but not to succeed at another's cost."

A Federal Examiner: "Shed a light if you hold one. Share it with those who grope around in the darkness of superstition edited by ignorant pioneers who sought a solution to the mystery of existence. Prevent the spread of gossip which uses greed and inflation to advance its worthless hoard of mere money. Let brotherhood teach."

An Executive: "Hard work, good exercise, vacations. Plan to be fair to myself and others".

APPENDIX 5

ABSTRACT OF

A Comparison of Occupationally Incompetent Persons Over the Age of Seventy With Occupationally Competent Persons Over the Same Age¹

After a review of the literature which revealed that there was a need for a study of this kind, that a similar experiment had not already been conducted, and that older persons possessed qualities that made it possible to help them, a group of occupationally incompetent persons over the age of seventy was compared with a group of occupationally competent persons past that age by means of a standardized inventory, a questionnaire, and an interview. The two groups were equated as nearly as possible on physical ability to work and opportunity to find employment as well as other factors. The purpose of the study was to determine how the incompetent group differed from the competent group so that the former might be guided intelligently in attaining that usefulness that appears to be necessary for mental well-being and which seems to be a solution to the problems caused by the mounting number of older persons in the population.

¹Ph.D. Thesis presented by Alphonso J. Orrico in 1953, to the Faculty of Arts of the University of Ottawa, 236 pages.

The Mental Health Analysis showed that the incompetent group differed significantly from the competent group in that its members as a whole were more immature in their behavior, they felt more inadequate, they exhibited nervous manifestations, and they lacked the occupation and type of recreational activity that makes for mental health. The possible causes of these mental variations were mentioned.

The questionnaire-interview revealed various differences between the two groups but primarily that the incompetent subjects lacked a sense of responsibility that was traceable to an unwholesome attitude toward age which caused them to regress to a stage in life where the need to assume responsibilities was lacking. This led to the immaturity.

A digressory study involving young subjects indicated that the attitude that led to irresponsibility took form during adolescence and was attributable to the behavior of unthinking parents.

It was recommended that education be used to alter the attitude toward age which causes the lack of a sense of responsibility and which in turn appears to be chiefly responsible for occupational incompetency since the persons concerned feel themselves inadequate to meet the demands of the vocational world.

Since the attitude referred to appeared to take form during adolescence, it was suggested that emphasis be given

to the educated needed to develop proper attitudes in the secondary school but that it should also be extended to other groups.