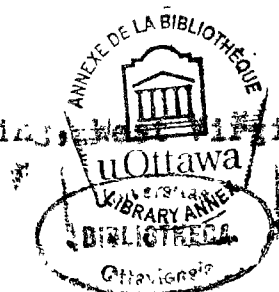


~~ANNEE DE LA BIBLIOTHEQUE~~
COMPONENT OF THE MATURITY CONCEPT OF STUDENT GROUPS
OF MIDDLE-CLASS AMERICAN CULTURE

by Albert F. Grau, S.J.

Thesis presented to the School of
Psychology and Education of the
University of Ottawa as partial
fulfillment of the requirements
for the degree of Doctor of
Philosophy

Wheeling, West Virginia, 1960



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ACKNOWLEDGMENTS

This thesis was prepared under the supervision of Professor Laurice Chagnon, Ph.D., of the School of Psychology and Education of the University of Ottawa.

The writer wishes to express his thanks to the principals and deans of the following schools for their kind cooperation in allowing their students to reply to the Inventory: Notre Dame Academy, Gonzaga High School, Petworth Senior High School, Trinity College, The Catholic University School of Nursing, all of Washington, D.C.; and Woodstock College of Woodstock, Maryland.

He is grateful also to his colleagues in psychology who acted as judges in classifying and categorizing the items of the Inventory.

Finally, the writer wishes to extend his deepest gratitude to the students who were willing to have their concept of maturity subjected to such close scrutiny.

CONVULSION STUDENTS

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INTRODUCTION

The concept of maturity as used in psychology today is not always clear-cut and precise. In current usage there seem to be as many meanings to "maturity" as there are authors using the term.

Etymologically the radical meaning of the term is, according to Webster, "the state or quality of being brought by natural process to completeness of growth or development". When its usage is restricted to the physical realm, the meaning of the term "maturity" is clear and univocal. It is when the usage is extended to psychological concepts that ambiguity sometimes arises, since the usage becomes analogous. When this analogous usage is applied to various areas such as the emotional, intellectual, religious, and so forth, the meaning of the term "maturity" becomes obscure. Applied in different ways to different fields, it means one thing for one author and another for a different author. For example, some writers use "maturity" as synonymous with "emotional maturity". Other authors use "maturity" to refer to "adjustment". Still others refer to "mental maturity".

Not only is the concept of maturity used analogously, but there are special difficulties in applying this concept

to those who are passing from physical childhood to adulthood. These youths are considered mature for some responsibilities, e.g., bearing arms, and yet are not considered sufficiently mature for others, e.g., voting. Besides this confusion of standards imposed by society, the standards of these young persons themselves are at this time shifting and changing. Most of them are reaching the fulness of their physical development, new mental horizons are opened by increased educational facilities, responsibilities and privileges have been added, and in general the world of the adolescent no longer has either that simplicity or clarity that characterized childhood.

As this period is, in reference to physical development, usually referred to as adolescence, it is suggested that in reference to psychological development it be termed "maturescence". Although the term "maturescence" is obsolete, it precisely expresses that stage of psychological development referred to above.¹ In the ideal order the young person should emerge from maturescence into maturity just as the adolescent emerges into adulthood.

¹ A New English Dictionary on Historical Principles, Oxford, Clarendon Press, 1933, Vol. 8.

If the attainment of maturity is to be held before the young adolescent as an ideal, his concept of maturity should be better understood. Does his maturity concept coincide with that of his peers? Does his concept of maturity differ from that, e.g., of his parents or teachers? What are the components of his concept of maturity?

This present research was undertaken in an attempt to understand better the non-adult generation's opinion of maturity. It has as its purpose, then, to delineate more clearly the maturity concept of a small segment of the maturing population.

CHAPTER I

REVIEW OF THE LITERATURE

In this chapter some of the more common usages of the concept of maturity will be reviewed. It will be seen that in general the use of the term "maturity" is variegated and, indeed, at times its application is almost contradictory. After this general over-view is presented, the more specific usages of the maturity concept will be reviewed. Following this, some of the currently used "tests of maturity" will be discussed. Finally, the specific hypotheses developing from this review of literature will be presented.

1. Over-view

The concept of maturity as frequently used is both unspecified and diffusive. Different areas of human activity have, as it were, their own proper maturity.

If we turn to society, its customs and practices in search of a definition of maturity we find a confused picture. In our own culture we do not have the fixed puberty rites of a primitive group, which announce that the boy, officially at least, has become a man. Some of our marks of adult status are quite out of step with each other. For example, the age of legal responsibility is twenty-one, but a boy can "bear arms" in defence of our country at age eighteen. School-leaving age is sixteen, but many churches

receive children into full membership at fourteen, and others at an earlier age. Economic dependence on one's family may last well into the twenties, particularly if specialized training in a profession is sought¹.

The same author reviews the various meanings of maturity in psychological literature and in clinical settings. It has been identified with "social maturity", "emotional maturity", "mental health", "effective-emotional development", "intellectual development", "moral maturity", "self-confidence", "religious orientation", and "adjustment".²

Another author underscores the vague character of maturity by pointing out that:

[...] a child is mature when its mental age has ceased to increase [...] Further consideration of the nature of mental maturity may cast much needed light upon the validity of the concept of "mental age" [...]. Here the concept of mental age overlaps with that of culture-pattern. Maturity is obviously related to individual temperament and character. It involves the growth of sentiments (especially master-sentiments) and their integration.

Obviously, maturity is an ethnocentric concept [...]³

1 Louise F. Welch, "The meaning of maturity", in Bulletin of the Maritime Psychological Association, (no vol.) December, 1954, p. 40.

2 Ibid., p. 40-46.

3 T. H. Pear, "The concept of mental maturity", in Bulletin of The John Rylands Library, Vol. 28, 1944, p. 404-405.

The implication of growth or aging is characteristic of the majority of these usages, but seldom is this growth or aging process specified consistently and unambiguously as relevant to a single area of development. As a matter of fact, criteria for maturity as proposed by some authors not infrequently appear to be in contradiction. For example, Landis states that one may rate as psychosexually immature a 15- to 17-year-old girl who does not both date and do "mild petting"⁴. Cole, on the other hand, says that "uncompromising ethical standards are [...] typical of the adolescent period"⁵.

2. Specific Usages of the Maturity Concept

a) The multidimensional concept.--Both Bear and Welch would consider that maturity has many aspects related to different areas of human behavior. Welch states, "There are many specific, concrete types of behaviour which could be cited as illustrations of what the mature person would or

⁴ L. A. Pennington and Irwin A. Berg, Introduction to Clinical Psychology, New York, Ronald Press, 1946, p. 206.

⁵ Luella Cole, Psychology of Adolescence, 5th ed., New York, Rinehart, 1959, p. 636.

would not do"⁶. Fear, on the other hand, settles for a review of the different usages of maturity employed by various authors and attempts to integrate them in such a way as to have maturity cut across all areas of psychological investigation⁷.

6. Stable Ego-ideal concept.--Gordon Allport postulates three requirements for the fully mature person. These are "extension of self", "self-objectification", and "a unifying philosophy of life". He believes that Freud's Super-ego may be a guarantee of conventionality but not of maturity. The genuinely mature person has an ego-ideal as well as a Super-ego. The former leads to a creative pattern of life, whereas the latter alone leads to a static and stupid conventionality⁸. In his explanation of the three basic requirements for maturity Allport insists that not only must there be a well-defined and idealized ego but that its strivings must be sublimated and integrated by a "philosophy". Although this philosophy need not be a religious one, Allport makes a firm case for the view that "religion as such is the most comprehensive of

6 Welch, op. cit., p. 45.

7 Fear, op. cit., p. 404-421.

8 Gordon W. Allport, Personality: A Psychological Interpretation, New York, Henry Holt and Co., 1937, 500 p.

all the possible philosophies of life"⁹. By religion,

Allport refers to a well-defined sentiment which is:

[...] 1) well differentiated, 2) dynamic in character, in spite of its derivative nature, 3) productive of a consistent morality, 4) comprehensive, 5) integral, and 6) fundamentally heuristic. It will be seen that the criteria are nothing else than the special applications in the religious sphere of the tests for the maturity of personality, namely, a widened range of interests, insight into oneself and the development of an adequately embracing philosophy of life¹⁰.

Allport makes the further point that we can find many personalities who seem to be fairly mature except in the development of the religious sentiment. They deal effectively with all phases of becoming except the final task of relating themselves meaningfully to creation. There are others whose religious aspiration is their cardinal characteristic:

For them the religious form of propiety striving alone seems worth while; it provides them with a synthesis of all that lies within experience and all that lies beyond, it monitors the growing edge of personality. [...] Intricate as the process is, it seems to be the way in which mature personalities adopt and validate the religious premise of their course of becoming.¹¹

In summary, according to Allport, the maturely developed religious sentiment is the underlying factor in best integrating

⁹ *Ibid.*, p. 227.

¹⁰ Gordon W. Allport, The Individual and His Religion, New York, Macmillan, 1950, p. 57.

¹¹ Gordon W. Allport, Becoming, New Haven, Yale University Press, 1955, p. 95.

the extension of self, the objectification of self, and the unifying philosophy of life.

Allport introduces the concept of "intentionality" by which he means the individual's primary mode of addressing himself to the future. His "intentionality" is similar to Bühler's "directionality" or Bestimmang and is critical in the development of the mature, well-rounded personality. "The mature person is one who has maintained throughout life directionality or Bestimmang or a stable goal"¹².

Bestimmang is a key concept in the development of maturity in the work of Bühler. Bühler and Renkel analyzed approximately four hundred biographies of individuals from various nations, social classes, and vocations¹³. These biographies were individually studied and compared with one another with the help of statistics.

The results revealed rather demarcated phases through which every person passed in the course of his life. Each of these phases is characterized by a set of concrete traits which seem to point to a fundamental tendency common to each phase¹⁴.

¹² Also Renkel, "Studies in Biographical Psychology", in Character and Personality, Vol. 5, No. 1, September, 1930, p. 1-34.

¹³ Ibid.

¹⁴ Ibid., p. 2.

A "phase" is not characterized by processes which periodically return but rather by incisive and permanent changes in the development which only occur a single time during the process of life.

The period of progressive [biological] growth is divided into two parts through the acquisition of the ability to reproduce around the fifteenth year of life. In the same way the period of restriction or regressive growth is cut in two, through the loss of the reproductive ability at fifty-five (which is the average for men and women). Thus five biological periods are formed, all of them marked off by a principal change in direction, such as an important acquisition or loss. The third and middle period, lasting roughly from twenty-five to forty-five, could be represented schematically by a horizontal line, surrounded symmetrically by the periods of ascent (first and second phase) and descent (fourth and fifth phase) of the "biological curve" of life¹⁵.

The authors suggest that the psychological data pertinent to the life of an individual parallel his biological development. In the psychological development we are again able to differentiate five periods or phases. The first period is one in which the child is at home and in which his life centers around a narrow group of interests, school and family. The second period begins around adolescence and is preparatory in character. It is at this time that the young person asks himself for what purpose he lives or what his

15 Ibid., p. 4.

design or calling or "objective" in life should be (Bestimmung). The third period begins well after the attainment of adulthood. Paralleling the corresponding biological period, this time of life contains the greatest number of "dimensions"¹⁶. This phase lasts from about the thirtieth to the fiftieth year. It begins in most cases with a final and definite choice of vocation and is representative of the most fruitful period of professionally creative work. Social activities are at a high point. This phase is the culmination period of psychological activity. The fourth period, beginning at about the fiftieth year, ushers in a number of "negative dimensions" such as sickness, loss of associates, decrease of activities and diminution of vital processes. The fifth phase, beginning on the average some time after the sixtieth year, is marked by an accentuation of the negative dimensions and is frequently introduced by complete retirement from one's profession and from any sort of work.

Our results have shown that just as in the biological structure, the psychological structure

¹⁶ According to these authors, the different fields of activity in which the individual takes an active part are called the "dimensions" of his behavior. Ibid., p. 7.

of the course of life can be divided into phases which are clearly marked off from one another through certain turning points in life. These turning points usher in, in very short time, parallel and permanent changes in many fields of life, all of which allow us to imply that a basic transposition takes place. During the course of each phase one finds in general only a further development of that which was laid out at the beginning of the given phase¹⁷.

That which stabilizes the individual is his Bestimmung and out of it grows his characteristic life-work. Adler's concept of Bestimmung seems to correspond to Allport's ego-ideal, the source of "intentionality".

Intelligent and perspicacious planning for the future is always a significant feature of any mature life. A very mature personality travels towards a port of destination selected in advance or to several related ports in succession, the ego-ideal holding the course in view¹⁸.

Frankel concludes her study with a presentation of her concept of psychological age:

It is possible to compute the average age at which the individuals pass through these phases. In this way our psychological portraits can be related to a certain chronological age, just as in childhood and adolescence a certain degree and type of intelligence is found to be characteristic for a certain chronological age level¹⁹.

17 Ibid., p. 9.

18 Allport, Personality, p. 219.

19 Frankel, op. cit., p. 33.

These "psychological portraits" would show the characteristic mental structure of the individual and would give his "psychological age".

Corresponding to the intelligence quotient, or IQ, referring to intelligence development, Frankel suggests the concept of a psychological quotient, or PQ, referring to the personal developmental status or general maturity of adult personality. This would be defined as the ratio between "psychological age on the one hand and chronological, or even "biological", age on the other.

c) Maturity as emotional development.--Saul treats maturity from a psychoanalytic orientation. Each of his patients, he states, has a more or less specific emotional problem.

[...] this usually arises from defects in his emotional development; and these defects can be partially resolved when his development is reopened and adaptation is improved [...]. The result of full, unrestrained development must be full maturity²⁰.

Saul then enumerates some of the characteristics of this "reopened" development which are interrelated but not all on the same level:

²⁰ Leon J. Saul, Emotional Maturity: The Development and Dynamics of Personality, Philadelphia, J. B. Lippincott Co., 1947, p. 7.

We have seen that when the development is fulfilled the adult is predominantly independent and responsible, with little need to regress, and also is giving and productive, although still able to relax and to receive normally; he is cooperative rather than egotistical and competitive; he is in relative harmony with his conscience, which easily integrates with his mature feelings and behavior; his sexuality is free and integrated with mating and responsible productive activity, both sexual and social; his hostility towards others and toward himself is minimal but is freely available for defense and constructive use; his grasp of reality is clear and unimpaired by the emotional stigmata of childhood; and freed from childhood patterns, he is discriminating and highly adaptable. And among the many results of such development, his anxiety is at a minimum²¹.

It can be seen from his summary of the characteristics of full emotional development that Saul considers maturity as a dynamic process.

Lindgren, in discussing emotional maturity, emphasizes the aspect of growth. For him, it is a) growth in ability to understand, tolerate, accept, and respect oneself and others; and b) growth in capacity for self-reliance, self-direction, responsibility and productivity²².

Symonds explicitly refers to "normality" as a goal of maturity, in terms similar to those of Saul.

Normality can be thought of as the goal to be achieved in adjustment in maturity. The common man thinks of pathological conditions in an individual as fixation,

21 *Ibid.*, pp. 16-17.

22 Quoted in Welch, *op. cit.*, p. 40.

regression, and immature functioning. The abnormal person is simply one who has not grown up. [...]

Normality as maturity has no upper level and hence cannot be a fixed concept. [...] No matter at what age he is in his adjustment, he can take steps towards achieving a more mature development, resolving infantile tendencies, and developing a more socialized and integrated personality²³.

d) Identity with adjustment.--Many authors consider maturity as synonymous with adjustment. Anderson, for example, states:

A mature person is one who has survived the pitfalls of development and comes out with a series of attitudes and a way of life which, coupled with his skills and knowledge, enables him to pursue an effective course from the standpoint of his own happiness and his contributions to society. In this sense, from this viewpoint, the definition and description of maturity is the definition and description of good adjustment²⁴.

Welch takes issue with this identity of maturity with adjustment but points out that much depends on one's definition of adjustment:

If we include in our definition that the person who is well-adjusted must be accepted and appreciated by his fellow men, and that he feel at home in this world, then it is obvious that some of the most mature personalities in history have been maladjusted. To feel at home in one's surroundings one must not experience too much discrepancy between conditions as they exist

²³ Percival M. Symonds, The Dynamics of Human Adjustment, New York, Appleton-Century-Crofts, Inc., 1946, p. 567.

²⁴ John Anderson, Psychology of Development and Personal Adjustment, New York, Henry Holt, 1950, p. 432.

and what one would like to see exist. This is exactly the point at which the reformer, or the man with great vision does not "adjust" to his surroundings. A less mature person living under the same conditions may be blissfully happy and may accommodate himself to the things of this world with far greater success and far more approval than his superior fellow-traveller. We cannot, then, use social adjustment or social approval as a criterion of maturity since the most mature personalities we know of--Jesus, Socrates, Bruno, to name a few--were not accepted in their own time²⁵.

3. Criteria and Definitions of Maturity

Since the analogical use of the concept of maturity makes its meaning elusive, few authors attempt a definition of maturity. Those who do usually prefer a descriptive or functional definition, e.g., Anderson²⁶. Beer suggests that:

A criterion of maturity is the possession of a self-regarding sentiment sufficiently integrated and powerful to prevent its possessor from being unduly influenced, in thought or action, by apprehension concerning the opinions of his which others may hold, and the possible change of functional attitude which they may display towards him as a result of his deliberate action in important though disputable matters²⁷.

As Smith states, it is difficult to disentangle the question of maturity from one of values, beliefs, and customs.

²⁵ Welch, op. cit., p. 46.

²⁶ Idem p. 12, supra.

²⁷ Beer, op. cit., p. 42.

He points out that ministers think of religious persons as mature, the artist thinks that those with strong esthetic values are mature, and the energetic businessman canonizes those who, like himself, have a drive towards material wealth.²⁸

An observation borrowed from Ausubel is not inappropriate here. In his critical examination of the criteria used by anthropologists such as Mead and Benedict in differentiating between shame and guilt, he says,

The problem [...] is illustrative of a major methodological hazard [...] namely of an ethnocentric tendency to define a given trait in terms of its specific attributes in one's own culture²⁹.

4. Standardized Tests of Maturity

Testing instruments in the area of maturity are few in number. Only two tests are specifically termed "maturity", the Willoughby Emotional Maturity Scale and the Vineland Social Maturity Scale. Inferences about maturity are drawn from a number of other tests, for example, the Allport-Vernon Study of Values and the Adjustment Inventory.

²⁸ H. Smith, Psychology of Industrial Behavior, New York, McGraw-Hill, 1955, p. 137.

²⁹ S. F. Ausubel, "Shame and Guilt", in Psychological Review, Vol. 62, No. 5, 1955, p. 378-390.

a) The Willoughby Emotional Maturity Scale.--This is a scale of sixty items. The norms for the scale are based on seventy students equally divided as to sex. The scale was developed to indicate the individual's degree of freedom from childish emotional attitudes and immature motives, and to reveal the extent to which he can make adjustment to his environment.

Because of the questionable techniques used in standardization of this scale, reliability and validity are of dubious professional quality. It is doubtful that this scale can be considered a reliable instrument for counseling³⁰.

b) The Vineland Social Maturity Scale.--This is a point and age scale combination of 117 items of performance "in which children show a progressive capacity for looking after themselves and for participating in those activities which lead toward ultimate independence as adults".³¹ The functions tested are self-help (general, eating, dressing), self-direction, locomotion, occupation, communication, and social relations.

³⁰ Lysle W. Croft, "The Willoughby Emotional Maturity Scale", in C. K. Buros, Ed., The Fourth Mental Measurements Yearbook, Highland Park, N.J., Gryphon Press, 1953, p. 164-165.

³¹ Florence Teegarden, "The Vineland Social Maturity Scale", in Buros, op. cit., p. 161-163.

The Vineland Scale has long been a favorite with clinicians, especially for those who work largely with children. Certain items of the scale have to be "juggled" for children living in city apartment houses and others living in residential districts or rural areas. The scoring is not always easy, especially in dealing with parents who wish to be scrupulously honest. One reviewer states:

In spite of these experiential difficulties, in spite of the clinician's reluctance to report social ages carried to the second decimal point, and in spite of his unwillingness to do much statistical handling of data of uncertain accuracy the scale has undoubted value particularly for interview and counseling purposes. When used wisely, the Vineland Social Maturity Scale adds greatly to our clinical insights³².

The categories of adequacy which the author has set up to facilitate evaluation reflect very well the processes involved in the maturation of social competence.

ci Study of Values.--This test was developed from Spranger's "Descriptive Types of Men" which specifies six types of persons: theoretical, economic, aesthetic, social, political, and religious. Assuming that personality is best shown through a study of values implied in these types, the test attempts to indicate in which of these classes a person most dominantly belongs.³³

32 Ibid.

33 Harrison G. Gough and William Stevenson, "Study of Values", in Buros, op. cit., p. 156-150.

This test has a definite, if questionable, theoretical basis. Its statistical properties are adequate and it yields scores which possess usefulness for both group and individual interpretation. The range of application of the test is somewhat limited and it is doubtful that the variables as structured in the test have wide relevance. However, within the appropriate context the test possesses considerable merit and utility, especially in the counseling process with adolescents.

d) The Adjustment Inventory.--The student form of this inventory was designed to measure adjustment in four areas: home, health, social, and emotional.

It has proved to be a valuable instrument in research, in schools, and in clinical work. It has been extremely popular in counseling centers in the United States. However, there is no sure indication in the literature that it can infallibly discriminate all maladjusted individuals in a group, or that all who are maladjusted--according to the test score--are actually "maladjusted". Its basic usefulness lies in its furnishing guide lines for interviewing and in developing better understanding of the counselee: ³⁴.

³⁴ Nelson G. Hanswalt, "The Adjustment Inventory", in Buros, op. cit., p. 69-72.

5. Summary

It is very seldom in the literature of psychology that maturity is treated from a specific or consistent point of view. Several aspects that are uniformly considered among the authors may be summarized by the description of Cole:

A true adult is, then, a person of adequate physical and mental development, controlled emotional reactions, and tolerant attitudes; he has the ability to treat others objectively; he is independent of parental control, reasonably satisfied with his point of view towards life, and reasonably happy in his job; he is economically independent; he is not dominated by the opinions of those about him; nor is he in revolt against social conventions; he can get along in ordinary social situations without attracting unfavorable attention; and, above all, he has learned to accept the truth about himself and to face reality instead of either running away from it or making believe it is not there³⁵.

It is clear from this review of the literature that the most frequently mentioned aspects of maturity are a) adaptiveness in social situations, b) understanding and tolerance of oneself and others joined with a sense of responsibility, c) intellectual development, and d) a philosophy of life, especially as expressed in a religious orientation.

Although it is apparent from the literature that not everyone would regard these aspects as all-inclusive,

³⁵ Cole, *op. cit.*, p. 692.

nonetheless, all would insist that the concept of maturity in current usage would include them in some form or other. In this study, these aspects will be termed the social, emotional, Moral, and Intellectual "components" of maturity.

It is the purpose of this study to investigate these aspects of maturity among those segments of our society to whom the concept of maturity is most frequently applied, namely, our maturing or "maturescent" youth. From the review of the literature emerges the basic question: Is the concept of maturity uniform among maturescents? Expressed in terms of the null hypothesis, the problem is stated as follows: The maturity concept is not the same among maturescents.

This basic problem permits the following threefold elaboration:

1. Are there any differences among maturescents in their maturity concept regarded as composed of social, emotional, moral, and intellectual aspects?
2. If differences exist, what kinds of differences are there. Does, for example, Group A tend to emphasize intellectual components of maturity more than Group B? Does, for example, Group C place more emphasis on Moral components than the other groups?
3. Finally, if it is possible to isolate the kinds of differences among the groups, can these differences be identified in terms of specific statements or propositions?

To investigate these problems an inventory of "maturity items" was administered to six student or maturescent groups. The next chapter describes the experimental procedures used in this investigation.

CHAPTER II

EXPERIMENTAL DESIGN

This chapter expounds the procedures used in investigating the maturity concept of six groups of students of the eastern part of the United States.

It explains first the formulation of an inventory of items, each one of which is to be rated as to its necessity for maturity. The administration of the inventory is then described. There follows a description of the student groups investigated, with particular reference to their status of "middle class". The procedures for sorting the items of the inventory into the four categories of social, emotional, moral, and intellectual are elaborated upon. Finally, both the general and the more specific aspects of our basic problem are propounded along with the required statistical procedures.

1. The Formulation of the Inventory

The seventy items used in the present inventory¹ are a revision resulting from an original inventory of eighty-seven

¹ Vide Appendix I, infra.

items. The original items were in part suggested by or adapted from current psychological tests, such as the following: a) the Willoughby Emotional Maturity Scale, b) the Vineland Social Maturity Scale, c) the Study of Values, and d) the Adjustment Inventory (Student Form). The selection of the original items was also somewhat determined by the various criteria which different authors have used in writing about maturity^{2,3}.

To eliminate ambiguity and vagueness of wording, the original group of items was administered to ten judges with the same instructions used for the present inventory. After the test was completed, the purpose of the inventory was explained. The judges were then asked to evaluate the original items in the light of this purpose and to suggest any changes deemed necessary to remove ambiguity and vagueness. As a result of their suggestions the present inventory was decided upon.

The judges were instructed that if they made no comment about an item it would be considered relevant to maturity

2 Louise I. Welch, "The Meaning of Maturity", in Bulletin of the American Psychological Association, (no vol.), 1954, p. 40-46.

3 T. H. Lear, "The Concept of Mental Maturity", in Bulletin of the John Rylands Library (Manchester, England), Vol. 26, 1944, p. 44-421.

in their judgment. In selecting the items to be dropped, changed or retained, the writer used these norms: 1) if even one negative statement was made about an item it was dropped; 2) if suggestions as to changes in wording, etc., were made, they were incorporated into the items providing the items seemed otherwise suitable; 3) if no comment was made about an item it was retained in its original form.

2. The Administration of the Inventory

The Inventory was administered to 454 subjects distributed among different student populations. These student populations are described in the following section. The administration of the Inventory followed simple procedures. Copies of the Inventory were distributed. After the distribution was completed, the students (Ss) were asked to read the instructions, and then to proceed immediately to the rating of the items. If questions were asked by the Ss about the meaning of an item, the reply was, "Give your opinion as to how necessary you think the item is for maturity by rating it according to the scale." The Ss were allowed to take as much time as they wished, but were encouraged to work rapidly⁴.

⁴ Most students completed the test in about twenty minutes.

The task of the Ss is best described in the opening words of the instruction sheet which accompanies the Inventory:

This is a study of your idea of MATURITY. As you will notice from the items listed, the inventory is not dealing with physical maturity.

The procedure is quite simply: read over each of the items, and then give it a rating or score from 0 to 10 according to your idea of its necessity for maturity. Do not try to express the degree in which you have these items, but rather, express the degree in which you think these items are necessary for maturity. It is most important that you give your sincere opinion. (Remember that since you have not signed your name, your answers will be anonymous.)

3. Description of Subjects

The inventory was administered to six student groups with different educational backgrounds. The groups were all located in or near the metropolitan area of Washington, D.C. The groups are referred to as A, G, I, J, N, and W. Group A was composed of high school seniors of Notre Dame Academy. Group G was made up of seniors from Gonzaga High School. Group I were seniors from Petworth Public School. Group J was comprised of junior college students from Trinity College. Group N consisted of students from the School of Nursing of The Catholic University of America. W group was formed by seminarians from Woodstock College, Woodstock, Maryland. The characteristics of these groups of interest to the study are summarized in Table 1.

Table 1.-

Description of Student Groups Responding to Inventory

Group	N	Sex	Median Age (Last Birthday)	Type of School	Educational Level
A	65	F	18	Catholic	4th yr. H.S.
G	90	M	18	Catholic	4th yr. H.S.
F ^a	42 46	M F	18	Public	4th yr. H.S.
T	105	F	21	Catholic	3d yr. college
N	35	F	23	Catholic	Nursing school
W	43	M	26	Catholic	Major seminary

^a All classes in the public school system in Washington, D.C., are coeducational.

On the Inventory form, the Ss were asked to supply information regarding their 1) sex, 2) age, 3) educational level, 4) religion, 5) principal residence during the past five years, and 6) Father's (or Mother's) occupation.

These data, particularly parental occupation, supplied normative information indicating that most of the Ss belonged either to the upper or lower "middle class", according to the classes differentiated as a result of studies conducted in the eastern cities of the United States⁵.

The class structure of the groups used in this study is further substantiated as "middle class" by the Index of Status Characteristics found in Tyler, particularly occupation, house type, and dwelling area⁶.

4. Distribution of Items into Categories

The problem immediately confronting the writer, in the light of the purpose of this investigation, was to secure some kind of an objective distribution of the Inventory items into categories that would be meaningful in a study of the

5 Leona Tyler, Psychology of Human Differences, 2d edition, New York, Appleton-Century Crofts, 1956, p. 311-312.

6 Ibid., pp. 312-313.

concept of maturity. The following method was used: Ten people who were engaged in clinical psychology or related fields were asked to classify each item of the Inventory into one of five categories, designated as Emotional, Intellectual, Moral, Social, and Other. Each item was to be classified into one of these five categories as follows: If an item belonged completely and unambiguously to, e.g., the category of Social, it was to receive an evaluation of 10 in that category. If the item seemed to belong partly to Social and partly to Moral, it was to receive an evaluation of 5 in the Social category and 5 in the Moral category. The evaluation for an item could in this way be proportioned among several categories. The individuals who classified the items all had graduate training in psychology and were occupationally engaged as follows:

1. Psychometrist (female).
2. Counselor (male).
3. Counselor and dean of women (female).
4. Candidate for the doctoral degree in clinical psychology who was also a trainee in child psychology (male).
5. Director of a Veterans Administration counseling center (male).
6. Child psychologist and therapist (female).
7. Occupational counselor (male).
8. Veterans Administration trainee in clinical psychology (male).
9. Child psychologist and therapist (male).
10. Candidate for the doctoral degree in clinical psychology and student-counselor (clergyman).

The numerical evaluations of these ten judges⁷ were then averaged for each item. An item was consequently categorized as Emotional, Intellectual, Moral, or Social, depending upon the average numerical evaluation it had thus been given⁸.

If an item received the mean evaluation of 5.0 or more in any one category and did not receive a mean evaluation of at least 3.0 in any other category, it was listed as belonging to that one category. All other items were classified as "ambiguous". Fifteen of the items have been classified as "ambiguous" according to this procedure. The mean evaluations of these ambiguous items is given in Appendix II.

⁷ It should be observed that very few of the categorizations submitted by these ten people were clear-cut and single. For example, Judge No. 3 categorized the item "to control anger" (Item c) in the following way: "Intellectual - 3, Emotional - 5, Moral - 2". Judge No. 6 evaluated the same item as: "Emotional - 7, Moral - 3".

⁸ It is interesting to note here that out of 3500 possible categorizations (70 items x 5 categories x 10 categorizers) only eight items received scores in the category of Other. Six of these classifications were made by Judge No. 7, whose evaluations in the other category were as follows: Item b - 2, Item d - 1, Item s - 10, Item 30 - 1, Item 31 - 1. The other two classifications are accounted for by Judge No. 6, who evaluated Item 44 as "Other - 4", with the observation, "perhaps special aptitudes!", and Judge No. 11, who evaluated Item g as "Other - 6!". The other category will not be considered further.

Since the experimental data was to be used to investigate not only if there were differences, but also in what areas or categories these differences existed, these ambiguous items were omitted from further consideration. It is only with the unambiguous items, then, that the presentation and discussion of results is concerned.

5. Analysis of the Data

With the items rated by the students and each item placed into one of four categories by the judges, the data were analyzed in three steps corresponding to the threefold elaboration of the basic problem under investigation.

The first step was concerned with the basic differences among the groups in their maturity concept regarded as composed of Social, Emotional, Moral, and Intellectual aspects. For this step a simple analysis of variance was used.

The second step was interested in the kind of differences between groups, e.g., differences between groups in a particular category. Here, critical ratios were applied to those categories which showed significant differences among the groups.

The third step dealt with the individual items in those categories which showed significant differences existing between certain groups. Chi-square values were found for these items.

6. Summary

In summary, this section of the research has been concerned with the experimental procedures used in investigating the maturity concept of the six groups of students. The procedure for obtaining the ratings by students for each item of the inventory has been explained. The method used for distributing these items into the Social, Emotional, Moral, and Intellectual categories has been described. Finally, the statistical procedures most suitable for analyzing the results have been indicated.

In the following chapter the results obtained by these procedures will be presented.

CHAPTER III

PRESENTATION OF RESULTS

In this chapter the data obtained by the statistical procedures indicated in the previous chapter will be presented.

First, the results pertinent to the basic differences in the maturity concept of the student groups will be given. These data include the mean ratings for both the individual items and the categories, as well as the tables of variance. Next, the results relevant to the kinds of differences will be cited in so far as these are indicated in the two categories in which the groups differed. Finally, the results obtained by comparing the individual items in these two categories are presented.

1. Differences Among the Groups

In tables II, III, IV, and V the mean ratings by the groups of the individual items in each of the four categories are presented. Immediately following, Table VI shows the mean ratings given by each group for each category, and also the standard deviations of these ratings.

Table II
 Mean ratings of Each Item in the
 Social Category

Items (N=19)	Student Groups					
	F	G	H	T	N	W
e	7.32	6.79	8.00	7.30	6.46	6.12
d	2.34	2.54	3.23	2.35	2.66	2.30
e	4.39	4.72	4.25	3.49	2.43	2.01
f	8.19	7.51	8.33	8.04	8.03	7.20
g	2.32	3.60	3.19	2.20	3.31	2.44
k	5.47	4.18	4.75	4.85	5.77	4.21
o	6.89	5.92	7.06	7.03	7.03	6.84
s	1.09	1.36	1.81	1.23	1.09	1.12
24	3.06	3.60	3.36	2.04	2.20	2.05
28	6.60	6.07	7.59	6.90	6.83	6.70
32	2.29	2.07	1.99	1.73	1.11	0.91
35	1.41	1.85	1.98	1.10	0.57	0.70
36	1.09	1.11	0.97	0.77	2.43	0.33
42	4.75	5.53	7.58	6.07	4.03	4.00
43	7.51	7.18	7.47	8.10	7.31	8.21
45	3.58	5.33	6.20	4.17	3.14	4.16
54	1.30	3.29	1.72	2.23	1.57	2.53
60	2.33	2.07	2.02	2.26	1.91	1.67
70	0.26	0.92	0.43	0.29	6.60	6.01

Table III.-
 Mean Ratings of Each Item in the
 Emotional Category

Items (N=5)	Student Groups					
	A	G	F	T	N	W
c	9.16	7.45	8.97	9.04	8.17	8.44
q	7.79	6.98	9.26	8.70	8.00	7.67
46	7.84	7.46	9.36	8.28	8.66	8.21
40	6.95	7.04	8.40	7.26	6.71	7.32
59	7.80	7.70	8.02	7.86	7.69	8.23

Table IV.-
Mean Ratings of Each Item in the
Moral Category

Items (N=9)	Student Groups					
	A	G	F	T	N	W
1	8.79	8.07	9.59	9.48	9.43	9.30
25	8.48	7.72	8.72	8.61	8.66	9.33
29	8.41	8.72	9.39	8.68	8.46	9.37
33	8.91	7.40	5.53	8.82	8.29	8.53
38	9.24	9.30	9.48	9.68	9.40	9.79
40	9.14	9.11	8.11	9.13	8.54	9.23
56	8.19	7.97	8.88	9.46	8.17	9.49
63	9.22	8.42	9.28	9.72	9.23	9.61
67	8.13	7.96	7.25	8.98	8.60	9.61

Table V.-

Mean Ratings of Each Item in the
Intellectual Category

Items (N=21)	Student Groups					
	J	G	I	L	D	W
b	4.00	4.46	5.35	5.50	5.23	4.04
h	1.51	1.54	0.00	1.16	0.49	0.50
j	2.66	3.15	3.00	2.69	3.11	4.49
m	0.46	7.26	8.48	7.80	7.40	7.05
n	3.73	4.37	4.43	4.17	4.60	4.65
r	5.02	4.50	5.12	5.39	5.23	5.40
s	2.93	2.03	3.43	2.29	1.06	2.26
30	2.30	3.00	3.50	3.10	2.97	3.50
31	4.50	5.03	6.55	6.42	6.00	5.77
34	3.00	3.63	4.12	4.06	4.71	4.65
37	4.49	3.70	4.69	4.92	3.74	5.60
41	5.42	7.15	7.14	6.49	6.37	6.39
44	0.56	2.69	1.81	1.22	1.26	2.09
49	3.67	3.64	5.24	4.95	4.57	4.47
51	2.16	3.50	3.20	3.85	3.34	3.35
52	5.60	6.00	6.40	5.40	5.34	4.47
57	6.50	7.04	6.90	6.70	7.09	6.40
60	6.75	6.03	7.23	5.50	5.66	6.16
62	0.21	6.00	0.07	7.30	5.23	6.35
66	6.67	5.05	6.30	5.40	4.71	4.26
69	5.20	5.36	6.90	6.57	6.03	5.53

Table VI.-
Mean Ratings and Standard Deviations for Each Category

Categories	Student Groups											
	M	S.D.	N	G	M	S.D.	N	I	M	S.D.	N	W
Social	4.24	2.44	4.30	2.05	4.02	2.62	4.23	2.63	3.96	2.42	3.75	2.46
Emotional	7.90	0.71	7.33	0.28	6.96	0.34	6.23	0.61	7.84	0.65	7.57	0.41
Moral	8.72	0.41	8.22	0.61	8.30	1.25	9.16	0.40	8.77	0.44	9.41	0.34
Intellectual	4.50	2.07	4.57	1.50	5.10	2.01	4.60	1.84	4.56	1.02	4.60	1.50

The fifty-four unambiguous items, as rated by each member of the six student groups and distributed among the four categories, were processed by a simple analysis of variance. The tables of variance for each of the four categories are presented in Tables VII, VIII, IX, and X¹

This analysis of variance among the groups showed no significant differences among the groups for ratings of items in either the Intellectual or the Social categories. There were differences, significant at the .01 level, however, for their ratings of items in the Moral and Emotional categories. These results will be discussed in the following chapter.

2. Differences in the Emotional and Moral Categories

The analysis of variance performed in the first step of this study showed that there were no differences among the groups in two of the categories, namely, the Social and Intellectual. On the other hand, the analysis of variance showed that there was a significant difference among the groups in the Moral and Emotional categories.

¹ Vide p. 37-40, infra.

Table VII.-

Table of Variance for Ratings by All Groups of
Items in Social Category

(1) Source of Variance	(2) Sum of Squares	(3) Degrees of Freedom	(4) Estimate of Variance
Variance between groups	12.43	5	2.49
Variance within groups	667.03	108	6.36
Total variance	699.46	113	

$$F = \frac{2.49}{6.36} = 0.39 \quad F > .05$$

Table VIII.-

Table of Variance for Ratings by All Groups of
Items in Emotional Category

(1) Source of Variance	(2) Sum of Squares	(3) Degrees of Freedom	(4) Estimate of Variance
Variance between groups	7.27	5	1.45
Variance within groups	0.44	24	0.35
Total variance	15.67	29	
$F = \frac{1.45}{0.35} = 4.14 \quad F < .01$			

Table IX.-

Table of Variance for Ratings by All Groups of
Items in Moral Category

(1) Source of Variance	(2) Sum of Squares	(3) Degrees of Freedom	(4) Estimate of Variance
Variance between groups	6.40	5	1.696
Variance within groups	23.55	40	0.4906
Total variance	32.03	53	
$F = \frac{1.696}{0.491} = 3.456 \quad P < .01$			

Table X.-

Table of Variance for Ratings by All Groups of
Items in Intellectual Category

(1) Source of Variance	(2) Sum of Squares	(3) Degrees of Freedom	(4) Estimate of Variance
Variance between groups	6.54	5	1.31
Variance within groups	420.16	120	3.50
Total variance	426.70	125	
$F = \frac{1.31}{3.50} = 0.37 \quad F > .05$			

Having found that significant differences existed among the groups in their ratings of items in the Emotional and Moral categories, critical ratios were used to isolate these differences more precisely. The mean ratings (of all items in each of these categories) given by each group was compared to the same mean ratings given by every other group.

It was found that in the rating of the items in the Emotional category the P group differed significantly from both the G group and the W group. This difference is significant at the .01 level.

It was further found that in the rating of the items in the Moral category the G group differed from the W group. This difference is significant at the .01 level.

These results will be discussed in the next chapter.

3. Item Differences in the Emotional and Moral Categories

The critical ratios found in the second step of this study showed that in the rating of items in the Emotional category the P group differed from both the G group and the W group. It was also found that in the rating of items in the Moral category the G group differed from the W group.

To compare each item of the Emotional and Moral categories, as rated by the relevant groups, Chi-squares were

used. In the rating of items in the Emotional category, the I group differed significantly from the J group on each item, with the probability level less than .05; on one item the probability level was less than .01. These data are presented in Table XI³. In the rating of the same items the I group differed from the W group on only one item, with the probability level less than .02. Table XII presents these data⁴.

In the rating of items in the Moral category, there was a significant difference between the W group and the J group on one item, with the probability level less than .05. These data are shown in Table XIII⁵.

The results obtained from the comparison of the items of the Emotional and moral categories will be discussed in the following chapter.

3 Vide p. 43, infra.

4 Vide p. 44, infra.

5 Vide p. 45, infra.

Table XI.-

Chi-square Values for Ratings by P and G Groups
of Items in Emotional Category

Items	Chi-square Values ^a
e	4.89 ^b
q	4.89 ^b
46	12.70 ^c
58	5.03 ^b
59	5.18 ^b

a Degrees of freedom = 1.

b Probability level less than .05.

c Probability level less than .01.

Table XII.-

Chi-square Values for Ratings by F and W Groups
of Items in Emotional Category

Items	Chi-square Values ^a
c	1.19
q	3.25
46	2.70
58	5.96 ^b
59	1.45

a Degrees of freedom = 1.

b Probability level less than .02.

Table XIII.-

Chi-square Values for Ratings by G and W Groups
of Items in Moral Category

Items	Chi-square Values ^a
1	0.90
25	3.22
29	0.11
33	0.67
30	2.26
40	0.31
56	4.49 ^b
63	0.50
67	1.70

a Degrees of freedom = 1.

b Probability level less than .05.

4. Summary

In this chapter the results obtained by the statistical analyses were presented. It was seen that the basic hypothesis of this investigation was upheld in part and in part had to be rejected. It was discovered that these groups in their rating of the items of the Inventory under study did not differ in their rating of items that pertained to the Intellectual and Social categories. On the other hand, there was a significant difference among the groups in the rating of items belonging to the Emotional and Moral categories.

Further investigation revealed that in the emotional category the F group differed from both the G and W groups. In the Moral category the G group differed from the W group.

The final step in this investigation indicated on which items the relevant groups differed.

In the next chapter these results will be discussed and an attempt will be made to interpret their meaning.

CHAPTER IV

DISCUSSION OF RESULTS

In this part of the study the results that have been presented in the preceding chapter will be discussed and interpreted.

First, the results pertinent to the basic hypothesis of the investigation will be discussed. This will be followed by an exposition of the differences found in the Emotional and Moral categories. Finally, the individual items of these two categories will be discussed in reference to the relevant student groups.

1. Differences among the Groups

The basic question of this study was: Are there differences among the student groups under investigation in their maturity concept? Expressed in terms of the null hypothesis, the basic proposition to be examined was: There are no differences among the student groups in their maturity concept.

Significant differences were found among the student groups in their rating of items belonging to the Emotional and Moral categories. No significant differences were found

among the groups in their rating of items in the Social or Intellectual categories. Consequently, the null hypothesis was in part rejected and in part upheld.

It has been observed previously in the review of the literature that maturity is multi-dimensional. The maturity concept, consequently, is composite and consists of social, emotional, moral, and intellectual aspects--in addition, perhaps, to other aspects not considered in this study¹.

From this viewpoint, the student groups under investigation differ considerably in their maturity concept. Here, there may be important implications for purposes of counseling, inculcating ideals, establishing standards, or suggesting life-principles in dealing with these kinds of student groups.

It may not be presumed, in dealing with groups comparable to those studied here, that emotional and moral attitudes toward maturity are uniform. As a result of this study, it may be said that not all maturescents think alike about maturity, in so far as the items of the Inventory can

¹ Allport, for example, would perhaps insist on the explicit inclusion of "insight" (or freedom from self-deception) and a "sense of humor" (not the crude sense of the comic). He subsumes both insight and a sense of humor under "self-objectification". Cf. Gordon W. Allport, Personality: A Psychological Interpretation, New York, Henry Holt and Co., 1937, p. 220 et passim.

be said to represent aspects of maturity.

On the other hand, no significant differences were found in the emphasis or lack of emphasis placed by these groups on the intellectual or social aspects of maturity, in so far as these were represented by the items of this Inventory.

2. Group Differences within the Emotional Category

In pursuing the analysis of the differences among the student groups, it was found that the F group, the public high school seniors, differed significantly from both the S group, the Gonzaga seniors, and the W group, the seminarians, in their mean ratings of items in the emotional category.

The students educated in the public school milieu tend to place significantly higher emphasis on emotional components of maturity as categorized in this Inventory than do those students with education in a Catholic school. This is true of the public school group as compared with both the Catholic high school male group and the seminary group.

While it may be questioned whether the particular items in this inventory do genuinely signify emotional aspects of maturity, it must be nonetheless kept in mind that the public

school group regarded these items as of greater necessity for maturity than the other groups. In general, this group rated items in the Emotional category in the direction of greater necessity than did the other groups².

In other words, a higher premium has been placed by the public school group on so-called "emotional maturity". In precisely what terms this may be further expounded will be clearer when we discuss the individual items of this category in the next section.

3. Group Differences within the Moral Category

Comparison of the mean ratings of items in the Moral category by the student groups showed that the Gonzaga seniors and the seminarians differed significantly.

In general, the seminarians tended to rate the items in the Moral category in the direction of greater necessity than did the other groups³. While this finding was not completely unexpected, it was not expected that the Gonzaga seniors would tend to rate items in this category in the direction of lesser necessity as compared with the other groups.

2 Vide Table VI, p. 35, supra.

3 Vide Table VI, p. 35, supra.

It may be that the higher ratings of the seminarians is due to the fact that those who are in the seminary are older, are living in a more sequestered atmosphere, and by vocation are dedicated to the pursuit of ascetical ideals.

The question may be legitimately posed here, viz., can these seminarians be considered a group of "maturescents"? The median age of this group is twenty-six years. Chronologically, this group has aged out of maturation. Experientially, the seminarians have had little opportunity for living through that variety of independent and self-sufficient decisions, responsibilities, and accomplishments that, according to Frenkel, characterize this phase of the development of the average person^{4,5}.

In any case, the seminarians furnish in this study a significant frame of comparison. Their points of difference are notably fewer than their points of apparent agreement: 1) they differ from the public school Es in their ratings of items in the Emotional category, 2) they differ from the Gonzaga students in their ratings of items in the Moral category.

⁴ Else Frenkel, "Studies in Biographical Psychology", in Character and Personality, Vol. 5, No. 1, September, 1936, p. 6 et passim.

⁵ See also: C. Curren, Counseling in Catholic Life and Education, New York, Macmillan, 1952, p. 102.

What is of noteworthy interest is the relatively fewer differences between the seminarians and the other groups.

4. Item Differences in the Emotional category⁶

This section will treat, first, of the item differences between the ratings of the F and the G groups; then it will consider the differences between the F and W groups.

a) Item differences between the F and G groups.--The ratings of five items of this category by the two groups differ significantly at the probability level of less than .05. Item 46, which reads, "to be able to live away from family or friends when work or study demands it", indicates a difference in rating at less than the .01 level between the public school and Conzege groups. Since both groups are at approximately the same age level, it is difficult to interpret this difference. According to its most simple and obvious meaning, the students educated in the public school are more adjusted to the possibility of living away from friends or family, which in turn might indicate a detachment or an independence in adjusting to the demands of reality.

⁶ The items in the Emotional category are presented in Appendix IV, infra.

Three of the items, c, q, and 59, refer directly to control over the emotions of anger, fear, and love. Item 46, discussed above, refers to independence or self-reliance. Item 50 refers to emotional poise. The public school group apparently regards these qualities as highly necessary for maturity.

b) Item differences between the F and W groups.---The chi-squares for the rating of the five items of the emotional category indicate that the differences between the F and W groups are not as striking, as the differences between the F and J groups.

Item 50, which reads, "to be able to recover quickly from unavoidable embarrassment", shows a difference in rating between the public school and seminary groups at a probability level less than .05. It is more important to the public school group than to the seminary group to be able to regain one's composure after an embarrassing incident. It is conceived that part of this difference can be accounted for by the Christian ascetical ideal of the seminary group, "to rejoice in humiliation".

5. Item Differences in the Moral Category⁷

In the moral category a significant difference in rating of the items exists only between the G group, the Gonzaga seniors, and the W group, the seminarians.

This difference, significant at the probability level of less than .05 refers to only one item, 56. This item reads, "to refuse to do a favor for someone when doing the favor would mean acting against my moral principles". Apparently the seminary group regards unswerving adherence to principle as relatively much more necessary for maturity than does the Gonzaga group. It may also be that the latter group sees in this item an occasional conflict between kindness and adherence to principle.

6. Summary

In this chapter the results presented in Chapter III have been discussed. The implications involved in the rejection of the null hypothesis were reviewed. Next, the kinds of differences found, viz., in the emotional and moral categories, were discussed. Particular reference was made to

⁷ The items in the moral category are presented in Appendix V, infra.

the differences existing between the F and G groups, and between the F and W groups in the rating of items in the Emotional category; reference was then made to the differences in the rating of items in the Moral category between the G and W groups. This part of the study concluded with a discussion of the item differences in the Emotional and Moral categories.

SUMMARY AND CONCLUSIONS

This dissertation was undertaken to explore the concept of maturity in current usage, particularly among maturescents.

The investigation was concerned with a study of the maturity concept of 454 Ss, divided into six student groups, who are termed maturescents, or "in the process of becoming mature". The null hypothesis proposed was that no differences exist among these groups in their concept of maturity.

The writings of those authors concerned with maturity were reviewed. An inventory of maturity items was administered to the six groups. The Ss rated each item from 0 to 10 as to its necessity for maturity. The items were distributed by judges into four categories, designated as Social, Emotional, Moral, and Intellectual.

The statistical analysis showed that the null hypothesis had to be rejected because the groups differed significantly in their rating of items in two categories--the Emotional and the Moral. It was shown that the public school group differed from both the Gonzaga group and the seminary

group in the rating of items in the Emotional category. It was shown also that the seminary group differed from the Gonzaga group in the rating of items in the Moral category.

The conclusions from this study suggest other areas of investigation, especially in reference to components or aspects of maturity, peer-groups of maturescents, developmental stages in maturation, and different social and chronological levels of maturation.

Future avenues of research are indicated especially by the two categories which discriminated among the groups, viz., the Emotional and Moral categories. It is suggested that the number of items in each of these categories could be expanded. In the writer's hypothesis these two categories represent components of maturity. Is it possible that the emotional and moral components are especially sensitive to differences in the maturity concept?

It would be worthwhile considering also the comparison of several public school groups to see if the emotional components of maturity would indicate differences among these groups. It is known from the present study that the differences obtained between the Catholic and public school

Ss used in this study were not due to chance. Is this because of the peculiar nature of either the public school group or the Catholic school group studied in this investigation?

Interesting also is the difference found between the Catholic high school Ss and the seminary Ss in their ratings of the items in the Moral category. To what is this difference precisely due? It is suggested that it is due to both a combination of age and the seminary atmosphere. But on the other hand, could there be some other factor in operation which is too subtle and elusive to be detected in the course of the present study?

A promising possibility lies in administering the same Inventory to the same groups at regular intervals of educational and social development, e.g., after eight years of elementary school, after four years of high school, and after four years of college. Perhaps also the Inventory could be administered to the same groups after an interval of ten years.

Another area of comparison which suggests itself is the possible difference between adult groups and student groups, or between Catholic and non-Catholic students in the public school.

It is suggested that a practical conclusion to be drawn from this study lies not only in the differences found among these groups but in the further implication that there may be basic differences in the maturity concept of these matrescents and the adults who deal with them. It is hoped that a consciousness of these basic differences will make both the mature and the matrescent more understanding and appreciative of the attitudes of each other.

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This long article, translated from the German, is a report and discussion on a monumental work executed by the author in collaboration with Charlotte Bühler. Its broad, sweeping observations contain interesting and stimulating concepts, but the apparent lack of statistical refinement may not appeal to the American scientist.

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An excellent review of the treatment of maturity not only in psychology but in related fields as well.

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This work deals with "emotional maturity" from the viewpoint of psychotherapeutic dynamics. The use of the concept of "emotional" may be too diffusive and too much a "catch-all", but the work contains much insightful theorizing.

Welch, Louise T., "The Meaning of Maturity", in Bulletin of the Maritime Psychological Association, (no vol.) December, 1954, p. 40-46.

Contains an excellent review of the usages of the concept of maturity current among psychologists.

APPENDIX 1¹

THE INVENTORY

¹ The original copies of the Inventory were mimeographed in elite type and included a set of instructions complete on the first page, followed by five pages of items.

1. Sex:
2. Age:
3. Educational level:
4. Religion:
5. Principal residence during the past 5 years: (City and State only)
6. Father's (or Mother's) Occupation:

This is a study of your idea of MATURITY. As you will notice from the items listed, the inventory is not dealing with physical maturity.

The procedure is quite simple: read over each of the items, and then give it a rating or score from 0 to 10 according to your idea of its necessity for maturity. Do not try to express the degree in which you have these items, but rather, express the degree in which you think these items are necessary for maturity. It is most important that you give your sincere opinion. (remember that since you have not signed your name, your answers will be anonymous.)

For example,

to know how to drive an automobile

0 1 2 3 4 5 6 7 8 9 10

If you think it is not all necessary to know how to drive an automobile in order to be mature, you would rate this item 0 by drawing a line down through 0. If you think it is absolutely necessary for maturity to know how to drive an automobile, you would rate it 10 by drawing a line through 10. The numbers in between 0 and 10 can be used to express varying degrees of necessity. What the evenly-numbered degrees mean is described below; the odd-numbered degrees can be used to express shades of differences in between these described degrees.

<u>DEGREES OF NECESSITY</u>	<u>MEANING</u>
0:	not at all necessary
1:	
2:	necessary only in a negligible degree
3:	
4:	somewhat necessary, but not very important
5:	
6:	necessary
7:	
8:	highly necessary
9:	
10:	absolutely necessary

Please do not omit any of the items. If you are not sure how necessary for maturity you consider a particular item, take a guess. An item not scored will be interpreted as being scored 0. By filling out the inventory honestly and carefully, in accordance with your opinion of what is necessary for maturity, you are helping us understand better your way of thinking.

<u>DEGREES</u>	<u>MEANING</u>
0:	not at all necessary
1:	
2:	necessary only in a negligible degree
3:	
4:	somewhat necessary, but not very important
5:	
6:	necessary
7:	
8:	highly necessary
9:	
10:	absolutely necessary

<u>NECESSARY FOR MATURITY?</u>	<u>DEGREE OF NECESSITY</u>
a) to know how to make an introduction gracefully.	0 1 2 3 4 5 6 7 8 9 10
b) to read editorials	0 1 2 3 4 5 6 7 8 9 10
c) to control anger	0 1 2 3 4 5 6 7 8 9 10
d) to read the latest novels	0 1 2 3 4 5 6 7 8 9 10
e) to be able to dance	0 1 2 3 4 5 6 7 8 9 10
f) to be able to maintain a neat appearance	0 1 2 3 4 5 6 7 8 9 10
g) to have money to spend as I wish	0 1 2 3 4 5 6 7 8 9 10
h) to like to do puzzles	0 1 2 3 4 5 6 7 8 9 10
i) to know moral right from wrong	0 1 2 3 4 5 6 7 8 9 10
j) to read biographies	0 1 2 3 4 5 6 7 8 9 10
k) to be able to help run a dance or a party	0 1 2 3 4 5 6 7 8 9 10
l) to be fully instructed in all details pertaining to sex	0 1 2 3 4 5 6 7 8 9 10
m) to know how to manage a small household (budgeting money, buying, etc.)	0 1 2 3 4 5 6 7 8 9 10
n) to be able to compose a telegram	0 1 2 3 4 5 6 7 8 9 10
o) to be able to carry on a conversation with a newly-introduced friend	0 1 2 3 4 5 6 7 8 9 10

<u>DEGREE</u>	<u>MEANING</u>
0:	not at all necessary
1:	
2:	necessary only in a negligible degree
3:	
4:	somewhat necessary, but not very important
5:	
6:	necessary
7:	
8:	highly necessary
9:	
10:	absolutely necessary

<u>NECESSARY FOR MATURITY</u>	<u>DEGREE OF NECESSITY</u>
p) to know how to use a bus- or train-schedule	0 1 2 3 4 5 6 7 8 9 10
q) to keep calm in a crisis (e.g. fire in a theatre)	0 1 2 3 4 5 6 7 8 9 10
r) to know how to kiss	0 1 2 3 4 5 6 7 8 9 10
s) to see most of the 'big' movies	0 1 2 3 4 5 6 7 8 9 10
t) to know something about mathematics so as to be able to discuss it with a student of mathematics	0 1 2 3 4 5 6 7 8 9 10
21) to know how to order an enjoyable dinner for someone else	0 1 2 3 4 5 6 7 8 9 10
22) to be able to talk before a group of people larger than ten	0 1 2 3 4 5 6 7 8 9 10
23) to know how to select and buy one's own clothes	0 1 2 3 4 5 6 7 8 9 10
24) to have socially important friends	0 1 2 3 4 5 6 7 8 9 10
25) to ignore likes and dislikes in the face of duty	0 1 2 3 4 5 6 7 8 9 10
26) to have an appreciation of classical music	0 1 2 3 4 5 6 7 8 9 10
27) to avoid interrupting others when they are presenting their side of an argument	0 1 2 3 4 5 6 7 8 9 10

<u>DEGREE</u>	<u>MEANING</u>
0:	not at all necessary
1:	
2:	necessary only in a negligible degree
3:	
4:	somewhat necessary, but not very important
5:	
6:	necessary
7:	
8:	highly necessary
9:	
10:	absolutely necessary

<u>NECESSARY FOR MATURITY?</u>	<u>DEGREE OF NECESSITY</u>
28) to be willing to take part in group activities or social games	0 1 2 3 4 5 6 7 8 9 10
29) to restrain sexual inclinations in the presence of strong attraction	0 1 2 3 4 5 6 7 8 9 10
30) to know something about sociology so as to be able to discuss it with a student of sociology	0 1 2 3 4 5 6 7 8 9 10
31) to be familiar with news topics of international interest	0 1 2 3 4 5 6 7 8 9 10
32) to know how to mix a cocktail	0 1 2 3 4 5 6 7 8 9 10
33) to be a regular church-goer (e.g. once a week)	0 1 2 3 4 5 6 7 8 9 10
34) to know how to interpret simple graphs and charts	0 1 2 3 4 5 6 7 8 9 10
35) to know the words and melody of the most recent song-hits	0 1 2 3 4 5 6 7 8 9 10
36) to read the daily comics	0 1 2 3 4 5 6 7 8 9 10
37) to know something about literature so as to be able to discuss it with a student of literature	0 1 2 3 4 5 6 7 8 9 10
38) to do what I know to be morally right even when others disagree	0 1 2 3 4 5 6 7 8 9 10

<u>DEGREES</u>	<u>MEANING</u>
0:	not at all necessary
1:	
2:	necessary only in a negligible degree
3:	
4:	somewhat necessary, but not very important
5:	
6:	necessary
7:	
8:	highly necessary
9:	
10:	absolutely necessary

<u>NECESSARY FOR MATURITY?</u>	<u>DEGREE OF NECESSITY</u>
39) to be able to listen to the problems of others	0 1 2 3 4 5 6 7 8 9 10
40) to have some religious education	0 1 2 3 4 5 6 7 8 9 10
41) to know how to gather reading material on an unfamiliar subject.	0 1 2 3 4 5 6 7 8 9 10
42) to have many friends among the opposite sex	0 1 2 3 4 5 6 7 8 9 10
43) to be willing to do ordinary favors for others	0 1 2 3 4 5 6 7 8 9 10
44) to be interested in mechanics	0 1 2 3 4 5 6 7 8 9 10
45) to know how to arrange a date with one of the opposite sex whom I have just met	0 1 2 3 4 5 6 7 8 9 10
46) to be able to live away from family or friends when work or study demands it	0 1 2 3 4 5 6 7 8 9 10
47) to compromise on moral principles at times	0 1 2 3 4 5 6 7 8 9 10
48) to be able to accept failure without excusing myself	0 1 2 3 4 5 6 7 8 9 10
49) to be somewhat familiar with the writings of contemporary American authors	0 1 2 3 4 5 6 7 8 9 10

<u>DEGREES</u>	<u>MEANING</u>
0:	not at all necessary
1:	
2:	necessary only in a negligible degree
3:	
4:	somewhat necessary, but not very important
5:	
6:	necessary
7:	
8:	highly necessary
9:	
10:	absolutely necessary

<u>NECESSARY FOR MATURITY?</u>	<u>DEGREE OF NECESSITY</u>
50) to be tolerant of others' religious beliefs	0 1 2 3 4 5 6 7 8 9 10
51) to know something about modern psychology so as to be able to discuss it with a student of psychology	0 1 2 3 4 5 6 7 8 9 10
52) to know how to report a theft to the police	0 1 2 3 4 5 6 7 8 9 10
53) to earn part of my support	0 1 2 3 4 5 6 7 8 9 10
54) to engage in 'social' drinking at times	0 1 2 3 4 5 6 7 8 9 10
55) to be able to enjoy a stage production of modern drama	0 1 2 3 4 5 6 7 8 9 10
56) to refuse to do a favor for someone when doing the favor would mean acting against my moral principles	0 1 2 3 4 5 6 7 8 9 10
57) to be able to write a business letter requesting information	0 1 2 3 4 5 6 7 8 9 10
58) to be able to recover quickly from unavoidable embarrassment	0 1 2 3 4 5 6 7 8 9 10
59) to control the manifestation of my affection for one of the opposite sex	0 1 2 3 4 5 6 7 8 9 10
60) to know how to prepare for an exam in a subject never studied in school	0 1 2 3 4 5 6 7 8 9 10

<u>DEGREES</u>	<u>MEANING</u>
0:	not at all necessary
1:	
2:	necessary only in a negligible degree
3:	
4:	somewhat necessary, but not very important
5:	
6:	necessary
7:	
8:	highly necessary
9:	
10:	absolutely necessary

<u>NECESSARY FOR MATURITY</u>	<u>DEGREE OF NECESSITY</u>
61) to like other people	0 1 2 3 4 5 6 7 8 9 10
62) to know how to summon medical aid in an emergency	0 1 2 3 4 5 6 7 8 9 10
63) to maintain a high moral standard in matters of sex	0 1 2 3 4 5 6 7 8 9 10
64) to be able to prepare my own meals	0 1 2 3 4 5 6 7 8 9 10
65) to know how 'to put others in their place' when they offend me	0 1 2 3 4 5 6 7 8 9 10
66) to know how to summon the police to the scene of a disturbance	0 1 2 3 4 5 6 7 8 9 10
67) to obey my conscience most of the time	0 1 2 3 4 5 6 7 8 9 10
68) to go away (e.g. to the beach or the mountains) for vacations	0 1 2 3 4 5 6 7 8 9 10
69) to be able to make travel arrangements (purchase of tickets, checking baggage, etc.) and go on a long journey by myself	0 1 2 3 4 5 6 7 8 9 10
70) to have many friends among my own sex	0 1 2 3 4 5 6 7 8 9 10

NB: Please use this space below and the reverse side for any remarks you may wish to make. You might wish, for example, to list other items you think should have been included, or you may wish to jot down your criticisms of this inventory. Thank you for your interest and cooperation!

Remarks:

APPENDIX 2

MEAN EVALUATIONS OF "AMBIGUOUS" ITEMS AS CATEGORIZED BY TEN JUDGES

Items	Categories			
	Emotional	Intellectual	Moral	Social
1 to be fully instructed in all details pertaining to sex.	1.7	3.6	3.3	1.4
r ^a to know how to kiss.	4.6	0.5	1.1	2.0
21 to know how to order an enjoyable dinner for someone else.		3.4	6.6	
22 to be able to talk before a group of people larger than ten.	4.0	3.6		2.4
23 to know how to select and buy one's own clothes.	1.4	4.7	0.2	3.7
26 to have an appreciation of classical music.	3.6	5.5		0.9
27 to avoid interrupting others when they are presenting their side of an argument.	2.6	3.4		4.0

^a This item also received an evaluation of 1.0 in category "Other".

Items	Categories			
	Emotional	Intellectual	Moral	Social
39 to be able to listen to the problems of others.	4.4	1.7	0.3	3.6
47 ^a to compromise on moral principles at times.	0.9	1.1	4.2	1.0
40 to be able to accept failure without excusing myself.	5.0	3.2	0.0	0.2
50 to be tolerant of others' religious beliefs.	3.1	1.6	2.9	2.4
53 to earn part of my support.	2.0	2.3	1.9	3.0
55 to be able to enjoy a stage production of modern drama.	1.5	3.9	0.2	4.4
61 to like other people.	4.4	1.0	1.6	3.0
64 to be able to prepare my own meals.	0.2	5.2		4.6
65 to know how to 'put others in their place' when they offend me.	3.0	2.2	0.6	3.0

^a This item also received an valuation of 2.0 in category "other".

APPENDIX 3

ITEMS IN SOCIAL CATEGORY

- a) to know how to make an introduction gracefully.
- d) to read the latest novels.
- e) to be able to dance.
- f) to be able to maintain a neat appearance.
- g) to have money to spend as I wish.
- k) to be able to run a dance or a party.
- o) to be able to carry on a conversation with a newly introduced friend.
- s) to see most of the 'big' movies.
- 24) to have socially important friends.
- 28) to be willing to take part in group activities or social games.
- 32) to know how to mix a cocktail.
- 35) to know the words and melody of the most recent song-hits.
- 36) to read the daily comics.
- 42) to have many friends among the opposite sex.
- 43) to be willing to do ordinary favors for others.
- 45) to know how to arrange a date with one of the opposite sex whom I have just met.
- 54) to engage in 'social' drinking at times.
- 68) to go away (e.g. to the beach or the mountains) for vacations.
- 70) to have many friends among my own sex.

APPENDIX 4

ITEMS IN EMOTIONAL CATEGORY

- c) to control anger.
- q) to keep calm in a crisis (e.g. fire in a theatre)
- 46) to be able to live away from family or friends when work or study demands it.
- 58) to be able to recover quickly from unavoidable embarrassment.
- 59) to control the manifestation of affection for one of the opposite sex.

APPENDIX 5

ITEMS IN MORAL CATEGORY

- 1) to know moral right from wrong.
- 25) to ignore likes and dislikes in the face of duty
- 29) to restrain sexual inclinations in the presence of strong attraction.
- 33) to be a regular church-goer (e.g. once a week).
- 35) to do what I know to be morally right even when others disagree.
- 40) to have some religious education.
- 56) to refuse to do a favor for someone when doing the favor would mean acting against my moral principles.
- 63) to maintain a high moral standard in matters of sex.
- 67) to obey my conscience most of the time.

APPENDIX 6

ITEMS IN INTELLECTUAL CATEGORY

- b) to read editorials.
- h) to like to do puzzles.
- j) to read biographies.
- m) to know how to manage a small household
(budgeting money, buying, etc.)
- n) to be able to compose a telegram.
- p) to know how to use a bus or train schedule.
- t) to know something about mathematics so as to be
able to discuss it with a student of mathematics.
- 30) to know something about sociology so as to be able
to discuss it with a student of sociology.
- 31) to be familiar with news topics of international
interest.
- 34) to know how to interpret simple graphs and charts.
- 37) to know something about literature so as to be able
to discuss it with a student of literature.
- 41) to know how to gather reading material on an
unfamiliar subject.
- 44) to be interested in mechanics.
- 49) to be somewhat familiar with the writings of
contemporary American authors.
- 51) to know something about modern psychology so as to
be able to discuss it with a student of psychology.
- 52) to know how to report a theft to the police.

- 57) to be able to write a business letter requesting information.
- 60) to know how to prepare for an exam in a subject never studied in school.
- 62) to know how to summon medical aid in an emergency.
- 66) to know how to summon the police to the scene of a disturbance.
- 69) to be able to make travel arrangements (purchase of tickets, checking of baggage, etc.) and go on a long journey by myself.

APPENDIX 7

ABSTRACT of

A Study Based on Ratings of Some of the Components of the Maturity Concept by Student Groups of Middle-Class American Culture¹

In current usage, the concept of maturity has many meanings, and consequently is variously applied.

In this opinion-study the maturity concept of six groups of "maturescents" was investigated. An inventory of seventy items was administered to the six student groups (total n = 454) differing in at least one of three variables: sex, age, educational atmosphere. Each item was rated from 0 to 10 as to its necessity in the opinion of the student-rater. The items were categorized by ten judges into four categories representing four aspects of maturity--social, emotional, moral, and intellectual. Items not receiving a clear-cut categorization in any one category were eliminated as ambiguous.

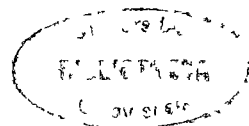
The ratings of the remaining fifty-four categorized items were analyzed in three steps: 1) A simple analysis

¹ Albert F. Aren, S.J., doctoral thesis presented to the School of Psychology and Education of the University of Ottawa, Ontario, September 1960, ix-70 p.

of variance was applied to the between-the-group differences within the categories. There were significant differences found between the groups in the rating of items in the Emotional and Moral categories. 2) Critical ratios showed significant differences in the rating of items in the Emotional category between the public school seniors and the Catholic high school seniors, and between the public school seniors and the seminary Ss. Likewise, significant differences were found between the seminary Cs and the Catholic high school seniors in the mean rating of items in the Moral category. 3) Chi-squares applied to the rating of individual items by the relevant groups in the two discriminatory categories showed more precisely where these differences existed.

The conclusion was reached that not only do the maturescents studied differ significantly in their maturity concept, but that these differences can be isolated in terms of the rating of the items of the Inventory.

Further research, especially in the "emotional" and "moral" aspects of the maturity concept is indicated for different groups, developmental stages, and social levels.



Supplement to
~~A STUDY OF THE MATURITY CONCEPT OF~~
~~SOME OF THE COMPONENTS OF THE~~
MATURITY CONCEPT OF STUDENT GROUPS
OF MIDDLE-CLASS AMERICAN CULTURE
by
Albert F. Grau, S.J.

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SUPPLEMENT

1. Introduction

This supplement has been added because of questionable statistical procedures used in the main body of the thesis. In the original study: (1) / simple analysis of variance was used to determine the basic differences among the groups in their maturity concept regarded as composed of social, emotional, moral, and intellectual aspects. These aspects are represented by items distributed into the social, emotional, moral, and intellectual categories. (2) Critical ratios were then applied to those categories which showed significant differences among the groups. (3) Chi-square values were found for the individual items which showed significant differences existing between certain groups.

Among other things, these statistical procedures were based upon the mean of means¹, and the tables of variance used disputable degrees of freedom².

In this supplement an attempt has been made to discover inter-group differences for individual items in each category.

1 Vide Table VI, p. 35, supra.

2 Vide Tables VII-X, pp. 37-40, supra.

2. Statistical Procedures

To discover inter-group differences for individual items in each category, Chi-square were used. The basic paradigm uses a 2 x 2 contingency table based on Dayhaw's model³. The .01 level of confidence was used for determining significant differences. The entries for the contingency tables were found by the "median test"⁴.

3. Special Terminology and Concepts

It is necessary to explain the nomenclature that will be used for this discussion. A group is called a "discrepant group" in reference to another group from whose rating it differs significantly. For example, if Group T differs significantly from Group G on the rating of item 2⁴, Group T is termed a discrepant group in reference to Group G, and vice versa.

A "discrimination" is the rating given an item by one group which (rating) differs significantly from the rating given that item by another group. Not every item

³ Lawrence-T. Dayhaw, Manuel de statistique, Ottawa, Editions de l'Universite d'Ottawa, 1958, p. 307.

⁴ E. Hosteller and W. Bush, "Selected Quantitative Techniques," in G. Lindsey, Ed., Handbook of Social Psychology, Cambridge, Mass., Addison-Wesley Publishing Co. Inc., 1954, vol. 1, p. 314.

was capable of discrimination, i.e., not every item in every category could discriminate at the .01 level between one group and another. Items that could so discriminate will be called "discriminatory".

Theoretically the number of discriminations possible to any one group in any one category is the number of groups it can be compared with (i.e., five), times the number of discriminatory items in that category. For example, the number of discriminations possible to group A in the Emotional category, which has 9 discriminatory items, is 45.

Not every item in every category was discriminatory at the .01 level. In the Social category five items failed to discriminate at all among the groups. In the Emotional category one item did not discriminate, and in the Intellectual category five items did not discriminate. In the Moral category each item discriminated between at least two groups. The non-discriminatory items are as follows:

Social category	- Items d, l, s, 43, 60
Emotional category	- Item 57
Intellectual category	- Items h, n, o, t, 57

4. Presentation and Discussion of Results

In this section the results obtained will be presented and discussed. First, the discriminatory items in each category will be presented. Then the number of discriminations and discrepant groups will be indicated for each group. Finally, the discrepant groups identified by each item will be tabulated.

a) Discriminatory items in the categories.--As has been mentioned, it was found that not all items were discriminatory. Those which were discriminatory are indicated in the inter-group comparisons for each category. These are found in Tables XIV to XVII.

Although few items were discriminatory to the extent of differentiating one group from all other groups, most items were discriminatory to the extent of differentiating between more than two groups.

The greatest difference on ratings occurred between the P group and the G group. This difference appeared on the rating of seven of the fourteen discriminatory items. The comparisons between the A and T groups, between the T and N groups, and between the N and W groups showed a significant difference on only one item (different in each comparison) in this category.

Table XIV.-

Inter-Group Comparison Indicating
Discriminatory Items in Social Category
(N items = 19)^a

Group	A	G	P	T	N	W
A		e, k, 45, 54	e, 42, 45	e	f, 32, 70	f, k, 42, 54, 70
G			a, o, 28, 42, 54	k, 24, 45	3, 32, 35, 45, 54	3, 24, 36, 42, 45
P				a, o, 24, 42, 45	q, o, 42, 45, 70	a, e, f, 24, 42, 45, 70
T					70	42, 70
N						42
W						

^a Five of these 19 items were non-discriminatory.

SUPPLEMENT

Table XV.-

Inter-Group Comparison Indicating
Discriminatory Items in Emotional Category
(N items = 5)^a

Group	A	G	F	T	R	W
A		c	q			
G			q, 46, 50	c, q		
F				46, 50	50	q, 46
T						
R						
W						

^a One of the 5 items was non-discriminatory.

APPENDIX

Table XVI.-
 Inter-Group Comparison Indicating
 Discriminatory Items in Moral Category
 (N items = 9)

Group	A	J	I	T	N	W
1			33, 40, 67	30, 56		29, 67
2			33, 40, 67	1, 63		25, 56, 67
3				33, 30, 40, 56, 67	67	33, 30, 56, 67
4					30	
5						30
6						

Table XVII.-
 Inter-Group Comparison Indicating
 Discriminatory Items in Intellectual Category
 (N items = 21)^a

Group	F	G	I	T	N	W
A		m, 34, 41, 44, 62, 66	31, 34, 44, 49	a, 31, 37, 44, 49, 51, 60, 62	m, 31, 34, 62, 66	j, m, 30, 37, 44, 52, 62, 66
J			31, 49, 62, 66	6, 31, 49, 51, 60	31, 44, 62	j, 52
I				m, 60, 62	m, 62	j, m, 52, 62, 66
L					62	j, 52, 66, 69
B						j, 44, 52
C						

^a Five of the 21 items were non-discriminatory.

SUPPLEMENT

In the Emotional category, the ratings of the C and G groups differed on three of the four discriminatory items. The ratings of the A and I groups, of the A and F groups, and of the F and N groups differed on only one Emotional item (different in each comparison).

In the Moral category, the greatest number of differences in rating occurred between the C and I groups. This difference in rating appeared in five of the nine discriminatory items. The ratings of N group differed from the C, I and W group on only one item of this category.

Finally in the Intellectual category the greatest number of differences appeared in the ratings of the A and I groups, involving eight of the sixteen discriminatory items. The A group also differed from the W group in seven of the discriminatory items. The I and N groups differed from each other in their rating of only one item of this category.

b) Number of discriminations and discrepant groups.--Each group differed from all other five groups in the rating of at least one item in the Social category, i.e., each group had five discrepant groups. The P group had the greatest number of discriminations, and the I group the smallest number of discriminations in this category.

In the rating of items in the Moral category the P group alone differed from all other five groups and had nine discriminations. The K group had the smallest number of discriminations, one, which differentiated it from the L group.

In the rating of items in the Moral category the C group alone differed from all other five groups and had the greatest number of discriminations. The D group had the smallest number of discriminations, three, differentiating it from three groups.

Each group differed from all other five groups in the rating of at least one item in the Intellectual category. The A group had the greatest number of discriminations, and the N group the smallest number of discriminations in the category.

The list of discriminations and discrepant groups for each group is found in Tables XV.II to XVI.

c) Discrepant groups identified by items.--A study of the rating of the items reveals that the discriminatory items are capable of identifying discrepant groups, i.e., of identifying a group in reference to another group or other groups from whose rating it differs significantly.

Further, the difference of rating can be identified in terms of higher or lower ratings.

SUPPLEMENT

Table XVIII.-

Inter-Group Comparison Showing Number of
Discriminations and Discrepant Groups
for Each Group for Items in the
Social Category

Group	No. of Discriminations	Discrepant Groups
A	16	G, F, T, N, W
G	22	A, P, T, N, W
P	25	A, G, T, N, W
T	12	A, G, P, N, W
N	15	A, G, P, T, W
W	20	A, G, P, T, N

Table XIX.-

Inter-Group Comparison Showing Number of
Discriminations and Discrepant Groups
for Each Group for Items in the
Emotional Category

Group	No. of Discriminations	Discrepant Groups
A	2	G, F
G	6	A, F, T
F	9	A, G, T, N, W
T	2	J, P
N	1	P
W	2	F

Table XX.-

Inter-Group Comparison Showing Number of
Discriminations and Discrepant Groups
for Each Group for Items in the
Moral Category

Group	No. of Discriminations	Discrepant Groups
A	7	P, T, W
G	8	F, T, W
P	16	A, G, T, N, W
T	10	A, G, F, N
N	3	P, T, W
W	10	A, G, F, N

Table XXI.-

Inter-Group Comparison showing Number of
Discriminations and Discrepant Groups
For Each Group for Items in the
Intellectual Category

Group	No. of Discriminations	Discrepant Groups
A	31	G, F, T, u, w
u	20	A, F, T, H, w
F	10	u, G, T, P, B
T	21	u, G, P, A, B
u	14	A, G, F, T, w
w	22	A, G, P, T, B

In the Social category, for example, the F group rated item a, which reads, "to know how to make an introduction gracefully" higher than its four discrepant groups. The same group rated item 42, which reads, "to have many friends among the opposite sex" higher than its discrepant groups, while the W group rated the same item lower than its discrepant groups. Both the J and I groups rated item 45, "to know how to arrange a date with one of the opposite sex whom I have just met," higher than their respective discrepant groups.

On three of the four discriminatory items of the Emotional category, the I group had the greatest number of discrepant groups. On all these, the F group rated the items higher.

In the rating of items in the Moral category the F group had the greatest number of discrepant groups (five). On item 33 "to be a regular church-goer (e.g. once a week)" the F group tended to rate lower with one noteworthy exception: the F group rated the item higher than the W group which is a seminary group. The I group also rated item 67 "to obey my conscience most of the time" lower than its discrepant groups with the exception of the N group.

In the Intellectual category, it was found that the F group rated item j "to read biographies" lower than

all its five discrepant groups except one, the N group. The A group rated item m, "to know how to manage a small household (budgeting money, buying, etc.)" higher than its four discrepant groups. The same group rated item 44, "to be interested in mechanics" lower than the four discrepant groups. Item 52, "to know how to report a theft to the police" was rated lower by the N group than all its five discrepant groups. The A and V groups rated item 62 higher than their respective discrepant groups.

The identification of discrepant groups by items is tabulated in Tables III to XV.

5. Summary and Conclusions

In terms of very general trends, the supplementary statistical procedures indicate that the items in the Social, Emotional and Moral categories tend to differentiate the $\overset{P}{A}$ group from all the other groups. The items in the Intellectual category tend to differentiate the A group from all the other groups.

In terms of more precise trends, it has been shown in this supplement that each group differed from all the other groups on the rating of at least some items in both the Social and Intellectual categories. In the rating of items in the Moral category each group differed from at

Table XXII.-
Discrepant Groups Identified by
Items of social Category^a

Items	Groups					
	A	G	P	T	N	W
a		P	G,T,N,W	P	F	F
e	G,P,T	A,N,W	A,W	/	G	G,P
f	N,W		W	A	A	A,P
k	G,W	A,T		G		A
o		F	G,T,N	F	P	
24		T,W	T,W	G,P		G,P
28		P	J			
32	N	N			A,G	
35		N			G	
36		W				G
42	P,W	W,P	A,G,T, N,W	P,W	P,W	A,G,P, T,N
45	G,P	A,T, N,W	A,T, N,W	G,P	J,I	G,P
54	W,G	A,F,N	G		G	/
70	N,W		N,W	N,W	A,P,T	A,I,T

^a Items d, g, s, 43, and 68 were non-discriminatory.

Table XXIII.-
 Discrepant Groups Identified by Items of
 Emotional Category^a

Items	Groups					
	F	G	P	T	N	W
c	J	A, T		J		
q	P	F, T	A, G, W	G		P
46		F	G, T, W	F		F
58		F	J, T, L	F	F	

^a Item 59 was non-discriminatory.

Table XXIV.-
Discrepant Groups Identified by
Items of Moral Category

Items	Groups					
	A	G	P	T	N	W
1		T		G		
25		W				G
29	W					F
33	F	F	F, G, T, W	F		F
38	T		T, W	A, F, N	T, W	N, F
40	P	F	A, G, T	F		
56	T	A, W	W	A	G	G, F
63		T		G		
67	,W	F, W	A, G, T, N, W	P	P	A, G, P

Table XXV.-

Discrepant Groups Identified by Items of Intellectual Category^a

Items	Groups					
	A	G	P	T	N	W
b		F		G		
j	W	W	W	W	W	A, G, P, T, N
m	G, T, N, W	A	T, N, W	A, F	A, F	P, A
30	W					A
31	P, T, R	F, T, A	A, G	A, G	A, G	
34	G, F, N	A	A		A	
37	T, W			A		A
41	G	A				
44	G, P, T, W	A, N	A	A	G, W	A, N
49	F, T	P, T	A, G	A, G		
51	T	T		A, G		
52	W	W	W	W	W	A, G, F, T, N
60	T	T	T	A, G, P		
62	G, T, N, W	A, P, F	G, T, N, W	A, F, N,	A, G, P, T	A, P
66	G, R, W	A, F	G, W	A	A	A, I, F
69				W		T

^a Items h, n, p, t, and 57 were non-discriminatory.

least three other groups. In the rating of items in the Emotional category, the number of discrepant groups ranges from one for the N group and the W group to five for the P group.

These results differ notably from those found in the original study. In the original study no significant differences were found among the groups in their ratings of items in the Social and Intellectual categories, while in the present supplement, each group was found to differ from every other group in the rating of at least some of the items of these two categories.

In the original study, the conclusion was reached that there were significant differences among the groups in their ratings of items in the Emotional and Moral categories. These differences were ultimately specified 1) as differences between the G and H groups in the Moral category; 2) as differences between the V and J groups, and differences between the L and W groups, in the Emotional category. While these conclusions of the original study have not been found to be untrue, they have been found to be incomplete. Many more differences than these were found by these supplementary procedures.

In general this supplementary study has uncovered far more extensive and more specific differences than the original study.

These results suggest some new possibilities for future investigation. It would now appear to be possible to arrange several sub-scales of items designed specifically to discriminate between two or three or more groups. The proper design of such scales could yield much clearer and more definitive delineation of the maturity concept of various groups.

By such refinement, it may be possible to arrive at several empirical definitions of the maturity concept, each one characteristic of a different group. It is suggested that such definitions would be of invaluable assistance as subsidiary implementations of guidance, counseling and therapy. Possibly, such objective evidence of the ambiguity of the maturity concept would provide a meeting place for the minds of those dealing with various groups of maturing persons.

