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Identity Status and Its Relationship to Identification [Sic] and Decision-Making Style in College Students

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IDENTITY STATUS AND ITS RELATIONSHIP TO
IDENTIFICATION AND DECISION-MAKING STYLE IN COLLEGE STUDENTS

by
David F. Cella

A Thesis Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
Master of Arts

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1980

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LIFE

The author, David Fitzgibbon Cella, is the son of Paul J. Cella and Barbara (Mason) Cella. He was born in Evergreen Park, Illinois, on March 29, 1955.

After elementary education within Queen of Martyrs grammar school, his secondary education was obtained at Brother Rice High School, Chicago, Illinois, where he graduated in 1972.

He entered Northwestern University as a Chick Evans Scholar in September, 1972. In 1976, after three years of study at Northwestern and one year of study abroad at the Loyola University Rome Center, he was awarded a Bachelor of Science degree in Psychology. The Northwestern diploma was awarded with highest honors.

After one year of post-baccalaureate field work, he entered the Ph.D. program in clinical psychology at Loyola University in September, 1977. He was awarded an assistantship in that academic year, and a USPH fellowship in the following year for the purpose of self-directed study.

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CHAPTER I

INTRODUCTION

The research work that will be presented and discussed here derives its impetus from the work of James Marcia and his colleagues on ego-identity formation in late adolescence, and from the work of A.S. DeWolfe and others on the measurement of identification. Ego-identity theory, as put forth by Erikson (1950, 1959), has emerged as a viable and testable sub-theory of ego-psychology. Ego psychology, in turn, has its roots in psychoanalytic theory. In order to clarify the extent of the relationship between psychoanalytic theory and ego-identity theory, an introductory chapter on the history of ego psychology and identity theory is presented here. It is hoped that such an introduction will both clarify the rationale behind the hypotheses of this study and demonstrate that certain elements of psychology's more "psychodynamically" oriented theories are in fact quite amenable to scientific study and scrutiny.

A HISTORY OF EGO PSYCHOLOGY AND IDENTITY THEORY

Ego psychology or, as some prefer, "psychoanalytic developmental psychology" represents, in a global sense, the synthesis of Freudian psychoanalytical theory with some of the more current findings in developmental and social psychology. Motivation for this relatively

recent trend in personality theory was initiated in 1939 by Heinz Hartmann, in his classic volume, Ego Psychology and the Problem of Adaptation. Hartmann, in response to widespread discontent with Freudian "id psychology," set out to demonstrate that psychoanalysis was not a narrow-minded instinct theory that could not account for environmental and developmental factors in personality. He urged that psychoanalysts redefine their priorities to accommodate the discontented: "If we take seriously the claim of psychoanalysis to be a general theory of mental development, we must study this area (i.e., "extra-analytic" areas) of psychology too, from our points of view and with our methods, both by analysis and direct observation of development" (Hartmann, 1958, p. 9). Thus, ego psychology has come to be known as "a term used in contrast to and complementary to id psychology" (Rapaport, 1967, p. 9). The development of the ego, and theories surrounding this, have become an integral part of today's personality theorizing. Indeed, many theorists describe the same phenomena under different labels. Erikson (1950), Ausubel (1952), and Loevinger (1976) speak of "ego development," but in different ways. Sullivan, Grant, and Grant (1957) refer to "interpersonal integration." Peck and Havighurst (1960) describe "character development" and Kohlberg (1964) speaks of moral development, while Super (1953) outlines stages of "vocational development." Each author makes different formal definitions of the phenomena in question, but the underlying sequences are strikingly similar.

This chapter will review the topic of ego development as it has

come to be formulated in the field of psychoanalytic developmental psychology. There will be a particular emphasis on ego development during the college years, or late adolescence. Erikson's concept of identity formation will be central to the discussion.

In his historical survey of psychoanalytic ego psychology, Rapaport (1958) outlined four phases of its development. The first phase, pre-psychoanalytic theory, is marked by Freud's introduction of the concept of defense. This was a primitive, pre-drive-cathexis type of defense which could block awareness of affect but could not dissipate anxiety. During this period before 1897, external reality was given a central role, but only in terms of the concept of defense. Freud equated the ego with consciousness, or self, with no specified function other than to use id energy in repressing uncomfortable memories into the unconscious. External reality was considered only in relation to intrapsychic reality. Some of the early influences on Freud's thinking at this time included nineteenth century deterministic logic, Darwin's theory of evolution, his own clinical psychiatric work with Mynert, Breuer, Charcot, and Bernheim, Brentano's "act psychology," Kant's philosophical views in opposition to Hume, and the Helmholtz concept of entropy.

Freud's self analysis and the 1900 publication of The Interpretation of Dreams marked the beginning of the second phase of ego psychology. During the period from 1897 to 1923, the ego generally continued to be viewed as the mediator of conflict between drives and censorship. The topographic view of the psyche: that it is comprised

of unconscious, preconscious, and conscious elements, dominated Freud's thinking, and he invested most of his energy in exploring the unconscious id and instinctual drives. Freud's interest in defense declined. The general conception of the ego was that it emerged primarily in response to the frustration of id impulses and was dependent on the id for both its energy and content. It existed solely for the id and was punished by the id if it did not serve its needs. The 1900 contribution of the secondary process (Freud, 1938) and the 1911 addition of the reality principle (Freud, 1948a) were significant in that they gave the concept of ego a meaning which at least paralleled the earlier understandings of the id (namely, primary process and pleasure principle). Although Freud did not vigorously pursue the study of ego function along these lines, these contributions were seminal to later thinkers' considerations about ego independence. In his 1911 paper on metapsychology (Freud, 1948a), he introduced the idea of "ego-instincts" as well as id-instincts.

In 1915, Freud outlined three aspects according to which mental processes were to be studied: dynamic, economic, and topographic (Freud, 1948b). His topographic analysis of the processes of repression revealed that the withdrawal of threatening hypercathexes led to the establishment of permanent ego countercathexes in the unconscious. This finding was revolutionary, as it pointed out that defenses (and perhaps other ego mechanisms) abided in the unconscious. Therefore, Freud published, in 1923, The Ego and the Id, redirecting psychoanalytic thought at that time. Freud dismissed topographic psychic divisions

and introduced the structural divisions of id, ego, and superego as a more viable replacement. The ego was no longer to be viewed synonymously with "self" or "consciousness." It was considered to be one of a tripartite personality structure, with both conscious and unconscious elements. Its energy, however, was still considered to be borrowed from the id. From this point on, instead of being considered connected to one another, the concepts of instinctual drives and psychic structures were juxtaposed. Thus, psychoanalysts were given license by Freud, in 1923, to consider psychic structures, including the ego, separately from the unconscious instinctual drives. Indeed, Blanck and Blanck (1974) refer to The Ego and the Id as the foundation for contemporary ego psychology. Rapaport (1958) marks it as the beginning of the third phase of ego psychology. Fine (1979) characterizes the period from 1923 to 1960 as "the uncovering of a variety of ego mechanisms. . . which explain how the drives are molded into the personality structure" (p. 199).

Freud's 1923 structural revision of the concept of ego opened up numerous questions as to its development and function. Although still viewed by Freud as "the helpless rider of the id horse" (Freud, 1938), the ego had now gained genetic roots and certain (albeit borrowed) energies of its own. Up until this time, such dissident thinkers as Alfred Adler, who maintained that Freud unduly subordinated the psychology of the ego, found no compromise on Freud's stand. As the evidence for autonomous ego development mounted, and as Freud watched numerous colleagues take strong issue with his narrow instinct

theory, he began to deemphasize id psychology and revive his initial goal of developing a comprehensive psychology of personality. For this reason, Rapaport sees ego psychology as the convergence of psychoanalysis and general psychology. He cites the academic works of Murray, Piaget and Werner, Spitz, Kris, and more recently Dollard and Miller, as examples of this (Rapaport, 1960).

It was left to Freud's daughter Anna, in 1936, to broaden the foundations of ego psychology by integrating the earlier concept of defense and the more recent focus on reality relations (A. Freud, 1946). She rejected the earlier concept of repression as a dissociation from consciousness, and redefined it as an unconscious ego activity in response to id-ego conflict anxiety. Hers is the concept of defense commonly held today. The significance of this alteration is that it completed Freud's opening of the door to anyone who wanted to pursue study of the ego as an "adaptor." For example, fantasy may begin as an ego mechanism of defense, but turn into a method of problem solving outside the sphere of conflict anxiety.

In 1939, Heinz Hartmann generalized the concept of reality relations in terms of the secondary process into a formalized concept of adaptation. This began to fill the gap between the emerging theories of object relations and traditional psychoanalysis. Hartmann was a synthesizer who integrated the earlier theory of secondary process with the more recent concept of autonomous defense into a new concept of ego adaptation and reality relationships (Hartmann, 1958). This marked the beginning of Rapaport's fourth and final phase of ego

psychology. Fine (1979) refers to Hartmann's classic Ego Psychology and the Problem of Adaptation (1958) as "one of the two most significant steps forward in ego psychology since Freud" (p. 337).

Hartmann believed that in the animal, adaptation is guaranteed by the instincts, but that man's instincts are alienated from the environment. Thus it is the ego, or that organ which is in contact with the environment, that guarantees adaptation in man.

Though the ego does grow on conflicts, these are not the only roots of ego development. . . I refer to the development outside of conflict of perception, intention, object comprehension, thinking, language, recall-phenomena, productivity, motor development, grasping, crawling, walking. . . (Hartmann, 1958, p. 8).

Hartmann saw the above ego functions as arising, not from a conflict with the id, but from what he termed the "conflict-free sphere" of the ego. These functions are innate and present regardless of conflict. They possess a "primary autonomy." Those ego functions which develop as a result of defensive processes are said to have "secondary autonomy." So, the ego is autonomous, according to Hartmann, in two ways. Primary autonomy adheres to what he termed the "epigenetic principle"; that the ego, separate from the id, possesses its own underlying pattern for development. The implication here is that the ego also has an independent energy source. Indeed, Hartmann concluded the ego does not emerge from the id as Freud had postulated in 1923. He states: "strictly speaking, there is no ego before the differentiation of the ego and the id, but there is no id either, since both are a product of differentiation" (pp. 102-103). Both id and ego emerge

independently from a common, "undifferentiated matrix."

Hartmann's concept of secondary ego autonomy, similar to Allport's "functional autonomy" (Allport, 1961), refers to those ego mechanisms (usually defenses) which were inspired by conflict but have taken on their own function even in the absence of conflict. Hartmann labelled this process "automatization," and considered it to be a means of secondary structure formation. Now the ego is considered to have at its disposal conflict-free energy as well as neutralized id energy. According to Hartmann, the undifferentiated psychic structure of the infant enters an "average expectable environment," preadapted to grow as well as deal with conflict.

The subsequent studies of Hartmann, Kris, and Loewenstein (Hartmann, 1948, 1950, 1952; Hartmann, Kris, & Loewenstein, 1946, 1949; Kris, 1950), Rapaport and Gill (Rapaport, 1951a, 1951b; Rapaport & Gill, 1959), Jacobson (1954), and Erikson (1937, 1939, 1940, 1946) continued to systematize the expanding frame of reference of ego psychology. Reality relationships and adaptation were understood by these theorists in terms of an autonomous ego system developing separately from, and only partially in conflict with, the instinctual drive system.

This formalized juxtaposition of instinctual drives and psychic structures was enacted by the early psychoanalytic ego theorists largely in response to findings of the so-called "neo-Freudians" in areas of social psychology. The concepts of adaptation and reality relations were crucial to the theories of revisionists such as Adler, Horney,

Fromm, Sullivan, and Kardiner (see Munroe, 1955). Hartmann, in his 1939 volume, laid the metapsychological groundwork for the unification of the off-shooting neo-Freudian theories with psychoanalytic ego psychology. Metaphysically speaking, reality was not considered to be "that which should be adapted to" (Hartmann, 1958, p. 60). The neo-Freudians, for the most part, abandoned the concept of an ego autonomous from social reality and ignored previously learned intrapsychic phenomena, to posit theories relating behavior to environment alone. Hartmann, for his part, saw behavior more dualistically: "the structure of society, the process of division of labor, and the social locus of the individual codetermine the possibilities of adaptation and also regulate in part the elaboration of instinctual drives and the development of the ego" (Hartmann, 1958, p. 31).

Although Hartmann, Kris, and Loewenstein did outline a three-stage development of object relations and a subsequent notion that "identity" is maintained by a continuous cathexis of object and self representations, they never formulated a specific theory of ego development. They did stress, however, the theoretical necessity for such a theory. Likewise, although they stressed the importance of reality relationships in general and social relationships in particular, they never divulged any psychosocial theory of the ego. Their emphasis on the genetic, as well as dynamic, structural, and economic aspects of theory, caused a shift in emphasis to the direct observation of childhood development and formulation of ego development.

These systematic but general formulations of Hartmann, Kris, and

Loewenstein were concretized and elaborated upon by Erik H. Erikson (1950, 1959). Erikson particularized Hartmann's concepts of autonomous ego development and reality relationships. He combined contributions from G. Stanley Hall on "adolescence" (Hall, 1904), Else Frenkel-Brunswik's five stages of development from sociology in the 1930's, new findings in cultural anthropology, neo-Freudian thought, and, of course, Hartmann's theoretical formulations. Erikson was truly "the first to offer a full view of the life cycle which made sense to the analytic community" (Fine, 1979, p. 172). He did this by explaining new-found anthropological and social findings in an ego-analytic framework, giving full credit to the impact of external reality on behavior without compromising the rich understanding of inner determinants. He considered his work to be an extension, not a revision, of psychoanalytic thought. Erikson (1959) stated that basic social and cultural processes can only be viewed as "the joint endeavor of conflict-free energy in a mutually supportive psychosocial equilibrium" (p. 154). Thus, Erikson advanced the status of ego psychology by systematizing the relationship between ego and environment. Hartmann's influence on some of his formulations is quite clear. First, Erikson's epigenetic conception of ego development derives from a synthesis of Freud's psychosexual developmental stages and Hartmann's introduction of the genetic aspect of ego theory. Erikson (1939) states:

The fetus undergoes an epigenetic development, i.e., a step-by-step growth of organ systems, each of which dominates the organization of a particular stage: only the proper rate of growth and the proper sequence of such differently organized states guarantee the birth of a being properly adaptable to the extrauterine world (pp. 131-132).

The child "can be trusted to obey inner laws of development" according to a "maturational/epigenetic concept of both libido development and organ/behavioral development" (Erikson, 1940, p. 717). Like Hartmann, Erikson believed the child's right to an "average expectable environment," but he felt this environment was flexible. Erikson also believed that "man, to take his place in society, must acquire a 'conflict-free' habituated use of a dominant faculty" (Erikson, 1959, p. 111). According to Erikson, the individual does not adapt to society nor is society molded by individuals. Rather, the two unite in mutual regulation. Ego development and societal reality, then, are interdependent.

Hartmann and Erikson did for the ego what Freud had done for the id. Erikson's eight stages of psychosocial development outline those psychosocial crises which must be solved in relation to significant persons in the environment. Successful resolution of these crises equips the individual for coping with future developmental crises. Each stage of development has a germinal element present in the undifferentiated matrix from birth, but it does not rise into ascendancy until the appropriate age. Erikson is best known for his work in the fifth of these eight stages, the formation of ego identity. Identity formation is the psychosocial task of adolescence, yet the epigenetic concept reminds us that identity exists in "sub-forms" before adolescence. During adolescence, these sub-forms emerge into the psychosocial foreground and generate a "crisis" demanding self-definition and eventual identity formation.

The sub-forms of identity are the childhood identifications. The

development and refinement of the concept of identification "has historically served as a vehicle through which to conceptualize the interface between object relationships and individual psychic structure" (Ogden, 1979, p. 486). Schafer (1948) sees identification as one way of internalizing unconsciously those part-objects of significant figures which acquire meaning to the subject. The process of identification has two purposes. Hartmann, Kris, and Loewenstein (1946) describe identification as both a defense, which is the more common conception, and as a sign of normal development. It was left to Erikson to clarify this second conception. Freud (1947) described the ego as "the precipitate of identifications with abandoned objects." According to Erikson, at adolescence the synthetic functions of the ego combine all prior identifications into one unified identity. He was able to show clearly that adolescence not only stirred up various impulses of earlier libido-developmental phases, but also revived identifications which were made in the periods in which they were prevalent. After reviewing past identifications, the adolescent combines acceptable ones with new ones to form one "identity." Ideally, this identity is geared to allow the emerging young adult to find a place in society.

Ego identity, then, develops out of a gradual integration of all identifications, where the whole has a different quality than the sum of its parts. As Erikson (1959) put it: "identity formation begins where the usefulness of identifications ends" (p. 113). It is now clear that Erikson perceived identity as more than an entity or task to be achieved. He saw it as an ego state from which action and behavior is controlled. Ultimately, ego identity is "the accrued confidence

that one's ability to maintain inner sameness and continuity. . . is matched by the sameness and continuity of one's meaning for others" (Ibid., p. 89). This concept is not unlike what others have referred to as the "self" (e.g., Mead, 1934; Sullivan, 1946-7).

To summarize, Erikson's contribution to the development of ego psychology is unmatched with respect to his synthesizing ability. As Hall and Lindzey (1978) have stated: "no other person since the death of Sigmund Freud has worked so conscientiously to elaborate and extend the structure of psychoanalysis laid down by Freud" (p. 87). His formulation of ego identity (Erikson, 1959, 1968) exemplified the threefold synthesis which is perhaps his greatest achievement in the field. Specifically, he integrated the dynamics of identification from id psychology and the dynamics of synthesis from ego psychology with the dynamics of social role and position from social psychology. He capsulized all this in the single term "ego identity."

Until this point in time, the adaptive coordination with the organism's environment had been described in terms of dynamic (ego instincts of primary and secondary autonomy), structural (the ego's substructures), and genetic (psychosocial development of the ego) constructs. Where the id once ruled supreme, the ego is now seen to hold determinant roles. Creativity and integrative capacity have come to be seen as necessary for psychological health, and the ego has come to be regarded as "a system defined by its functions" (Schafer, 1968, p. 10). However, there has been little agreement as to what these functions are. Subsequent research (e.g., Redl & Wineman, 1957) led

Rapaport and Gill (1959) to conclude that the current state of psychoanalytic theory must extend its dogma to incorporate the adaptive point of view into its metapsychological constructs. From the influence of Hartmann, Kris, and Loewenstein, they cited the "adaptive" construct as the fifth metapsychological viewpoint in psychoanalysis, to be added to the dynamic, structural, genetic, and economic constructs. The influence of this movement expanded to the whole of psychology (see Murray, 1943), then into experimental clinical psychology (e.g., Sears, 1943) and finally into experimental psychology proper (e.g., Dollard & Miller, 1950).

The seminal works of Hartmann and his followers, and of Erikson, have inspired theoretical, clinical, and experimental pursuits in the field of ego psychology. On a theoretical level, Robert White (1959, 1960) outlined a psychoanalytic account of "competence" in the human organism. In response to recent "anti-analytic" experimental findings that operational learning does take place without drive reduction, White postulated the existence of "ego drives" which are autonomous from id drives (White, 1959). These drives: exploration, manipulation, and activity combine in development and result, ideally, in a "sense of effectance," or competence. White borrowed the concept of ego identity from Erikson and defined it as "the self one feels oneself to be."

White outlined four growth trends in late adolescence: stabilizing of ego identity, deepening of interests, freedom in personal relationships, and humanizing of values. To these four trends, Sanford

(1966) added a fifth: general development and strengthening of the ego. Erikson's writings are given as support for the existence of these trends. Sanford (1962, 1966) studied development through college and concluded that "there is a developmental phase, marked primarily by increasing stabilization of personality, that begins in about the junior year in college and extends well into the alumni years" (1962, p. 808). Sanford also concluded that the early college years are marked by vulnerability to peer influence, and therefore the college years as a whole coincide with the stabilization of ego identity, personal security, and self-confidence. The college senior has more "conflict-free energy" to use in personal growth. This developmental theory views college as a "psychosocial moratorium" during which "extremes of subjective experience, alternatives of ideological choice, and potentialities of realistic commitment can become the subject of social play and joint mastery" (Erikson, 1959, p. 119).

Perhaps the most influential theoretical follow-up of Erikson's ideas on adolescence and identity formation is Kenneth Keniston's. His formulation of a new stage of life called "youth" has received wide acclaim. Keniston (1970) likens his label of "youth" as a stage of life to G.S. Hall's label of "adolescence." Like Hall, Keniston did not "discover" the phenomena, but rather he described it and gave it a name. Keniston himself credits Erikson for laying the groundwork for his theorizing (Keniston, 1975):

We have no psychology apart from the work of Erik Erikson adequate to understand the feelings and behavior of today's American youth. Millions of young people are

neither psychological adolescents nor sociological adults; they fall into a psychological no-man's land, a stage of life that lacks any clear definition (p. 3).

Keniston labelled this stage, approximately between the ages of 16 and 21, as youth. The central task of this stage is the resolution of tension between the self and the existing social order. This stage coincides conceptually with Blos' (1962) seventh and final stage of adolescence. Blos, an ego psychologist, referred to this final sub-stage of adolescence as "post-adolescence," because the psychic structures have already attained the fixity they need for adulthood, but they still lack integration into a harmonious state. According to Blos, this stage coincides with the need to formulate an occupational and ideological choice in one's life. This is where the benefit of the psychosocial moratorium that college offers is experienced.

The next chapter will address this conception of college as a period of psychosocial moratorium; a period where the young adult experiences occupational and ideological crises and moves toward making ego-invested commitments to resolve these crises. The ensuing discussion will be organized around empirical study which has been done in this area.

CHAPTER II

INTRODUCTION

This chapter will present a review of experimental research. The area of focus will be that area of ego psychology which was discussed at the end of Chapter I. After summarizing the literature on the measurement of ego-identity, on James Marcia's identity status research, on the relationship between identity status and cognitive style, and on the relationship between identity status and identification, the hypotheses for this study will be presented.

REVIEW OF THE RELATED LITERATURE

The Measurement of Ego-Identity

In general, researchers have given relatively little attention to developmental changes during late adolescence and early adulthood. Childhood, adolescence, old age, and, more recently, middle adulthood, have been the focus of most developmental study. Over the past 15 years, however, in response to contributions from ego psychology (Erikson, 1959, 1959; White, 1960) and some of the more "cognitive" theories of personality development (Heath, 1965; Nixon, 1966; Sanford, 1966), the notion that configurational changes in personality during late adolescence and early adulthood can and do occur has become widely accepted. According to Hurlock (1968) "the young adult is expected to play new roles such as that of spouse, parent, and breadwinner, and to

develop new attitudes, interests, and values in keeping with these new roles" (p. 530). To prepare for these changes, late adolescents begin to feel a renewed pressure for mastery of their environment. Their sense of autonomy and competence is vitalized as it begins to increase and as they stabilize in their social role. Neugarten (1964) observed that "there is probably more equilibrium in mood, more integration of ego processes with impulse life, and a relative stabilization of ego identity" in the young adult as compared to the late adolescent (p. 194).

It was Erikson (1950) who first coined the term "ego identity" to describe certain gains which late adolescents must have derived from their pre-adult experiences in order to be prepared for the new tasks of adulthood (namely intimacy, generativity, and integrity). The adolescent's effort to achieve this identity or, "to be oneself," marks the transition from adolescence into adulthood. Theoretically speaking, then, the formation of ego identity refers to the successful resolution of a stage of ego development which is hypothesized to occur during late adolescence, or in the college years. The polar state of identity diffusion is considered by Erikson to be a result of the unsuccessful resolution of this same crisis. Erikson's epigenetic principle would imply that one's identity is in some form present in the ego from birth but does not become the focal concern of development until late adolescence.

Erikson's theoretical contribution has stimulated experimental investigations of ego identity on many fronts. Bronson (1959) explored

identity diffusion in late adolescents with semantic differential and structured interview techniques. His findings suggested that identity diffuse adolescents displayed: 1) self-concepts less rooted in past identifications, 2) a greater variability in self-concept over time, 3) less temporal stability of self-ratings, and 4) a higher level of anxiety. Gruen (1960) used a real-ideal self Q-sort along with a subsidiary 14-item questionnaire to measure ego identity. He found that those who scored low on his measure displayed more susceptibility to personality descriptions of themselves given to them by strangers. Block (1961) advanced the notion that role variability plays a significant part in the "identity achieved/identity diffused" distinction. In this study, subjects were asked to rank their behavior with eight "relevant others" according to 20 adjectives. On the basis of these ratings, Block classified subjects as either "role rigid" or "role diffuse," and compared these groups to each other on a measure of "susceptibility to anxiety" as gauged on the California Psychological Inventory. Role rigid subjects were found to be low in susceptibility to anxiety while role diffuse subjects were high.

Rasmussen (1964) devised the "Ego Identity Scale" (EIS), a compilation of statements which reflect Erikson's descriptions of successful and unsuccessful resolutions of each of the first six of his life stages. Subjects responded to the 72 items in terms of general agreement or disagreement. A total ego identity score, as well as six individual stage scores, was obtained. In an effort to advance construct validity of the concept of ego identity, Rasmussen found a

significant relationship between high EIS scores and both high self concept scores (as measured by Gough's Adjective Checklist) and high peer nomination ratings.

An even more ambitious project was undertaken by Constantinople (1969), who developed a questionnaire derived from a Q-sort created by Wessman and Ricks (1966) which reflected successful and unsuccessful resolutions of Erikson's first six stages of psychosocial development. The intention of Wessman and Ricks was to measure changes in self concept during periods of elation and depression among college students. Constantinople, on the other hand, developed her "Inventory of Psychosocial Development" (IPD) from this Q-sort in order to measure the level of ego development achieved by those who complete it. Given the test-retest reliability of her instrument ($r = .70$), her use of 950 subjects made this project unique in its normative potential.

More recently, there have been efforts to construct "short-form" measures of ego identity. Tan, Kendis, Fine, and Porac (1977), for example, have devised a 12-item forced-choice questionnaire which attempts to measure the level of ego identity in its respondents. However, its split-half reliability ($r = .68$; $N = 95$) does not seem satisfactory for the needs of this particular study.

There has been some criticism regarding the assessment of the construct of ego identity by means of a single score as the EIS, IPD, and EIS short-form do. The strongest criticism is that such inventories do not completely discriminate between those who have attained

ego identity and those who falsely appear to have done so. Bach and Verdile (1975) identify this problem of subject misclassification with single score inventories. Their comparison of the EIS and the IPD indicated that both measured similar constructs, but they cautioned against the ignoring of "response patterns" in subjects' records which are typically hidden by the total-score method of classification.

The technique for measuring ego identity which has received the most research attention to date controls for this risk of misclassification. James Marcia's (1964) semi-structured interview technique has generally been considered to be the most reliable and construct valid measure of ego identity which is currently available (Waterman & Waterman, 1974). In 1964, Marcia introduced the concept of "identity status" as well as the "Identity Status Interview" (ISI), a "methodological device by means of which Erikson's theoretical notions about identity might be subjected to empirical study" (Marcia, 1979, p. 161). The identity statuses are "operationally defined referents" to the theory of ego identity development (Marcia, 1964). They refer to four basic styles of meeting the adolescent identity crisis. These four styles will be outlined later.

According to Erikson (1950), "it is the inability to settle on an occupational identity which disturbs individual young people" (p. 262). Thus, a firm sense of identity is evidenced, according to Erikson, by a person's occupational commitments. If a person presents a tangible promise of a career, as well as the development of an "ideological mind" (p. 263), then he or she is considered to have

established a firm sense of identity. Erikson described one's ideology as "something between a theory and a religion," and considered its development to be a part of the development of the growing ego. Theoretically, according to Erikson, the task of identity formation essentially involves the integration of childhood mores and beliefs into adult ego structures. In his Identity Status Interview (ISI), Marcia examined the contributions which the interviewees demonstrated themselves to have made toward their well-being and toward the well-being of society. This was assessed by an examination of the areas of occupational and ideological crisis and commitment. In this way, he determined the extent to which each interviewee was able to successfully integrate childhood beliefs and fantasies into adult (productive) ego structures.

"Crisis" refers to a period of uncertainty and active questioning of oneself regarding one's values (ideology) and career plans (occupation). "Commitment" refers to the act of making a firm decision and course of action regarding one's belief systems and occupational plans. Marcia's four identity statuses refer to the four possible combinations of the crisis/commitment matrix (see Figure 1). An "identity achieved" individual has experienced a crisis and has made firm commitments in line with the resolution of that crisis. An "identity foreclosed" person has made firm commitments without having gone through a crisis period. The person's values and occupational plans tend to reflect the values and plans of the parents. An individual in the "moratorium" status is currently in crisis and because of

		COMMITMENT	
		YES	NO
CRISIS	YES	Identity Achieved	Moratorium
	NO	Identity Foreclosed	Identity Diffused

Figure 1. A crisis/commitment grid to explain the four identity statuses (from Egan & Cowan, in press).

this is putting off, or placing a moratorium upon, any major occupational or ideological commitments. Finally, the "identity diffused" individual has neither experienced crisis nor engaged in any commitments. This person is characteristically confused and unmotivated about the future.

In Marcia's semi-structured interview, the presence or absence of crisis and commitment were assessed regarding occupational plans as well as political and religious ideology. As Figure 1 indicates, the presence of commitment in these areas was considered to be a necessary but not sufficient condition for a rating of "identity achieved." Those interviewees who displayed no crisis prior to their commitments were considered to have "foreclosed" on their identity formation. The distinction that Marcia makes between a foreclosed and an achieved identity appears to account for the problem of misclassification identified by Bach and Verdile (1975). The interview technique, from its inception, possessed an a priori face validity, as it represented an operationalized extrapolation of Erikson's theoretical writings (see Appendix B for a copy of the ISI). The next section will review the reliability and validity research related to the ISI.

Research Related to Marcia's Identity Status Interview

Using three independent raters and a reliability criterion of 100% agreement, Marcia achieved 70% inter-scorer reliability from his original scoring manual (Marcia, 1964). After slight revision of the manual, the same criterion yielded 75% agreement. Subsequent

inter-rater reliability studies, all using either unanimity or two-thirds agreement as the criterion, have achieved inter-rater reliability figures ranging from 72 and 73% (Waterman & Waterman, 1970; Podd, Marcia, & Rubin, 1970; Marcia & Friedman, 1970) to 90% (Schenkel & Marcia, 1972; Josselson, 1972), with an average of 80% agreement.

After developing this interview with a priori face validity and a scoring system with satisfactory inter-rater reliability, a determination of predictive and construct validity followed. Marcia (1964) constructed an "Ego Identity-Incomplete Sentences Blank" (EI-ISB) of 23 sentence stems relevant to Erikson's theory (e.g., "If one commits oneself, then. . ."). Each response was scored 1, 2, or 3 according to the levels of choice and commitment reflected in each response. Using three independent scorers, an item-by-item analysis yielded as \bar{r} of .76 ($p < .0005$, $N = 440$ items). Total score reliability testing on the EI-ISB across 31 subjects determined an \bar{r} of .90 ($p < .0005$). Overall item-by-item agreement was 77.2%. Additionally, it was found that scores on the EI-ISB increased with college year. When compared to the ISI results, it was found that identity achieved subjects received significantly higher EI-ISB scores than identity diffused subjects, $t(37) = 3.89$, $p < .001$, and that the first three statuses taken together (achieved, moratorium, and foreclosed) had higher scores than the diffused group, $t(84) = 3.62$, $p < .001$. However, further differentiation between achieved, moratorium, and foreclosed groups was not possible. This supported the notion that the more sensitive clinical interview (the ISI) is needed to separate

all four groups cleanly. According to Marcia (1964), use of the ISI represents a loss in both time and inter-scorer reliability but a gain in validity and experimental sophistication.

The early research on identity and identity status was concerned primarily with construct validity. A number of personality correlates to identity status have emerged from these studies. Marcia (1966) found that subjects higher in ego identity (achieved and moratorium) performed better in a concept attainment task, especially when under stress, and were less susceptible to authoritarian values imposed upon them. Mahler (1969) found moratoriums to be sensitizers and foreclosures to be repressors on Byrne's (1961) Repression-Sensitization Scale. Marcia (1967) found that foreclosures and diffusions were more likely to change self-evaluations, in both positive and negative directions, in response to external feedback, than were moratoriums and achievers. In agreement with Gruen's (1960) finding that low identity scorers are more susceptible to false feedback about self, Marcia showed that foreclosures are more susceptible to self-esteem change in line with experimenter demands, and also more likely to incorporate authoritarian values. This finding was supported by the work of Marcia and Friedman (1970), Schenkel and Marcia (1972), and Matteson (1974).

Podd (1972) found identity achievers and moratoriums to be functioning at a post-conventional level of moral reasoning, while foreclosures and diffusions were found to be at pre-conventional and conventional levels (see Kohlberg, 1964). This suggested that ego

identity development parallels moral development. In a rather extensive study, Orlofsky, Marcia, and Lesser (1973) compared identity status ratings to measures of intimacy, isolation, social desirability, autonomy, affiliation, and heterosexuality. Identity achieved subjects, as well as "alienated achieved" subjects (a new status created by these authors) appeared to have the greatest capacity for interpersonal intimacy, autonomy, and affiliation. Foreclosure and diffusion subjects were seen as stereotyped and superficial in interpersonal relationships. Diffusions were the least intimate and most isolated, while moratoriums were the most variable. Foreclosures were lowest in ratings of autonomy and highest in ratings of social desirability. The results supported Erikson's epigenetic notion of identity achievement as a precursor to intimacy. Waterman and Waterman (1971) and Waterman, Geary, and Waterman (1974) have traced the development of ego identity through the freshman year and also from freshman year to senior year of college. They found the achievement status to be the most stable and the moratorium status to be the least stable of the statuses. Significant increases in the frequency of the number of achieved subjects were observed for both occupational and ideological identity across the four year span, again supporting the notion of a developmental progression from diffusion through moratorium and into identity achievement. This finding also provided supplementary construct validity to the ISI.

Identity Status and Cognitive Style

The placement of a person into one of four identity statuses

depends upon the process by which that person establishes, or fails to establish, certain occupational and ideological commitments. This fact suggests that the decision process, or cognitive style, used by a person in establishing an identity status could be indicative of a more general decision style. That is, the identity statuses can be seen as "individual styles of coping with the psychosocial task of forming an ego identity" (Marcia, 1966, p. 558). If this were the case, it might be possible to predict successful resolution of the identity crisis by assessing cognitive style prior to adolescence.

Attempts to correlate certain cognitive dimensions to identity status have yielded mixed results. Marcia (1966), Bob (1969), Cross and Allen (1970), and Schenkel (1975), among others, found no relationship between intelligence and identity status. Marcia (1964), however, found that achievers performed better than all other statuses on a stressful concept attainment task. The integration of external demand (completion of the task) with internal stimulus (stress-produced anxiety) is an activity considered necessary for successful completion of the task. This integrative task was felt to be strikingly similar to the theoretical notion of the construct of ego and its integrative formation of an identity (see Chapter 1). Thus, the relationship between identity achievement as an integrative ego function (and as measured on the ISI) and stressful concept attainment as an integrative cognitive function was considered to represent further concurrent (predictive) validity of the ISI. Marcia's ancillary finding that foreclosures performed most poorly on the same task suggested that

cognitive rigidity under stress is predictive of ego rigidity in the resolution of the identity crisis.

Bob (1969), although unable to replicate Marcia's findings, discovered that diffusions and foreclosures became more cognitively constricted than moratoriums and achievers when under "ego-threat" (Bob's term for experimentally induced stress). The type of constriction differed for either status. Foreclosures became more constricted and focused, then tried even harder at the task. Diffusions, on the other hand, became constricted then tended to withdraw. The moratoriums' performance deteriorated under ego-threat, and although the achievers improved under ego-threat, the improvement was not as marked as in the Marcia study.

Another cognitive style dimension which has been associated with identity status is the impulsivity-reflectivity dimension of Kagan, Rosman, Day, Albert, and Phillips (1964). According to Kagan (1965), "the reflection-impulsivity dimension describes the child's consistent tendency to display slow or fast response times in problem situations with high response uncertainty" (p. 134). It is believed that the major determinant of a person's position on this bipolar dimension involves the differential value placed upon two opposing standards: 1) getting the answer quickly, and 2) not making a mistake. When a person is confronted with a difficult decision which has many options (as is the case in identity formation), he or she will tend to be dominated by one or the other standard. Each person is in an approach-avoidant type conflict situation. If the strength of the approach

gradient (ie. to see quick success) is stronger, the person will tend to be "impulsive." If the strength of the avoidant gradient (i.e., anxiety over making a mistake) is stronger, the person will tend to be "reflective." The impulsive person prefers a high-risk-of-failure orientation whereas the reflective person prefers a low-risk-of-failure orientation in which potentially dangerous or humiliating situations are avoided.

The best index of the reflection-impulsivity dimension is the Matching Familiar Figures test (MFF). Although first designed for use with children (Kagan, et al. 1964), an adult form has been designed because of the finding that the cognitive dimension measured by the MFF is stable over periods as long as 20 months (test-retest $r = .64$). Additionally, this dimension, as measured by the MFF, does not appear to be related to measures of verbal skills ($r = .17$) or verbal ability ($r = .19$) (see Kagan, 1965). According to Kagan (1966), reflection and impulsivity are "fundamental cognitive dispositions" independent of language repertoire and visual analysis style. The reflective person considers all options carefully before making a committed decision, whereas the impulsive person makes quick decisions before a comprehensive analysis of options.

Waterman and Waterman (1974) made note of the similarities between the description of reflective individuals and the descriptions of moratoriums and achievers, as well as the similarity between the description of impulsive individuals and that of foreclosures. Although both achieved and foreclosed individuals have attained stable

identities, only the achieved have passed through a "reflective" period, or identity crisis. Moratoriums, currently in crisis, are engaged in reflective considerations of occupational and ideological choices. Therefore, Waterman and Waterman hypothesized that achievers and moratoriums would score as reflective individuals while foreclosures would score as impulsive. Their study of 92 male psychology students supported this hypothesis, $\chi^2(3) = 19.06$, $p < .001$. A post-hoc analysis found that diffusions were significantly less reflective than achievers, $t(47) = 3.21$, $p < .01$. It was concluded that the failure of foreclosures to undergo an identity crisis "may be a function of their use of a cognitive style characterized by rapid exclusion of alternatives after superficial investigation" (p. 5). If it can be assumed (as Kagan's research has suggested) that the reflection-impulsivity dimension remains stable across adolescence, then perhaps the resolution of the identity crisis is largely determined by the cognitive decision-making style of the individual concerned.

Identity-Status and Identification

According to Erikson (1968), identity and identification have common psychological roots. In theory, developing children identify with those part-aspects of the people by whom they are most immediately affected, either in fantasy or reality. Whether or not these childhood identifications are incorporated into a child's emerging ego identity depends upon the psychosocial "fittedness" of each identification for the individual. The adolescent experiments with various accrued identifications, selectively rejecting or accepting

them into a new, idiosyncratic configuration. This configuration, or ego identity, is said to pick up "where the usefulness of identification ends" for the child (Erikson, 1959, p. 113), and carry the adolescent into adulthood equipped with a more resilient sense of self. Thus, one must strike a tenuous balance in the formation of identity: a balance between one's solid parental and significant other identifications, and one's integrity for the uniqueness of oneself. Blos (1962) and Schafer (1968) agree with Erikson that the period between adolescence and young adulthood marks a rapprochement and re-identification with primary object representations. They also agree that the individual's identity should not be limited to these past identifications. The adolescent must accept previous identifications which foster identity formation, then integrate these identifications with the emerging sense of a unique self. "Overidentification" with significant models can lead to a denial of one's individuality and, in Marcia's terminology, a "foreclosed" identity status. This young adult has never integrated external influences upon the self with internal motives. "Underidentification" with significant models can lead to a confused and unguided state of hypersensitized ego integrity, or "identity diffusion." The "moratorium" status, as described by Marcia, appears to reflect an ongoing process of integration of early identifications with the emerging sense of individuality. The end result is an acquired sense of ego identity, or "identity achievement." Identification, then, is ideal in moderate doses.

Empirical efforts to validate this theoretical account of identification in relation to identity status have been promising. A number of studies have suggested that it is primarily identification with the same-sexed parent which is significant in identity formation (Podd, Marcia, & Rubin, 1970; Kirsch, Shore, & Kyle, 1976; Matteson, 1974, 1977; Hopkins, 1977).

Jordan (1971) found parents of foreclosures to be exceptionally close to, and over-solicitous with, their children. He suggested that this caused a foreclosed style of identity formation because the risk involved in rejecting a parental introject was too great. Jordan also found moratoriums to be ambivalent in their relationships with their parents. In a study based upon extensive semi-structured interviewing, Josselson (1972) found moratoriums to be caught in the web of rejecting the same-sexed parent while identifying with the opposite-sexed parent, setting up an ambivalent "oedipal" struggle. While moratoriums have been found to experience ambivalence and foreclosures have been found to experience oversolicitousness, diffusions appeared to have experienced parental hostility and rejection from the same-sexed parent (Jordan, 1971; Matteson, 1974). This was hypothesized to lead to "irreconcilable differences in identifications" (Marcia, 1976).

Marcia (1976), through the use of projective testing and the ISI, compared identity status to object relatedness (or level of identification). He concluded that: 1) identity diffused subjects seemed to be at two different levels of object relatedness

simultaneously. These were the oedipal and "primitive" levels; 2) foreclosures overidentified with parents in an attempt to recreate the safe environment they had as children. That is, they were fixed at an oedipal level of object relations; 3) moratoriums were also involved in oedipal level struggles, but in a more narcissistic and self-assertive way. They were found to be attempting to actively differentiate themselves from their parental introjects; and 4) identity achieved subjects (of which there were only two) were difficult to classify and describe in terms of object relations. Marcia added a fifth identity status, which he called the "moratorium-diffusion" status. These subjects felt that they were highly similar to their same-sexed parents, but were troubled by this and consciously fought this identification.

The Measurement of Identification

Osgood's Semantic Differential Technique (Form II) will be used in this study to measure the level of identification in each of the participants. A semantic differential is not a "test" of identification per se, but a technique of measurement in which the concept measured is determined by the words and concepts rated. Osgood, Suci, and Tannenbaum (1957) postulated a "semantic space" which is of unknown dimension and Euclidean in character. Each scale in the technique is defined by a set of polar adjectives assumed to represent a straight line function that passes through the origin of this space. Therefore, any sample of such scales represents multidimensional space. Semantic differentiation, then, refers to "the successive allocation of a

concept to a point in the multidimensional semantic space by selection from among a set of given scaled semantic alternatives" (p. 25).

Once a participant selects the proper point in space, that individual has identified the polar dimension involved with quality and intensity of meaning. The content of these dimensions depends upon what the investigator considers to be the appropriate standards for subject judgment. Interest in the concept of identification, therefore, would suggest the use of significant others as standards for comparison to self ratings.

Standardizations of the Semantic Differential Technique lies in the allocation of concepts to a common semantic space defined by a set of common general factors. These "common factors" are: 1) evaluative (good/bad, beautiful/ugly, etc.); 2) potency (strong/weak, masculine/feminine, etc.); and 3) activity (fast/slow, active/passive, etc.). Each of the dimensions falls within one of these three general factors (Osgood, Suci, & Tannenbaum, 1957).

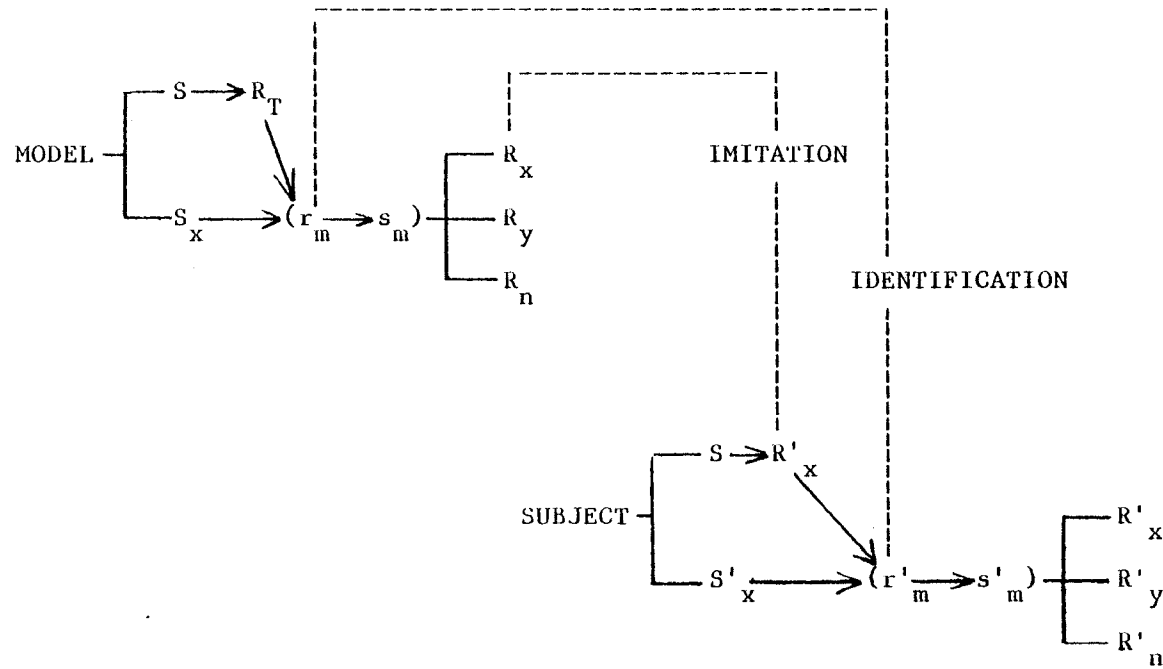
The use of the semantic differential as a valid measure of identification emerged from the work of Lazowick (1955). In his paper on identification, Lazowick laid out a theoretical analysis of identification in terms of mediation learning theory (Miller & Dollard, 1941). He defined identification as "the sharing of common 'meanings' between parent and child." Lazowick differentiated identification from imitation by pointing out that whereas identification refers to common "meaning," imitation refers to similarities of overt behaviors between the model (parent) and the subject (child). Lazowick extended the

matched dependency notion of mediation learning theory as it had been used to explain imitation, to explain the more stable and lasting mechanism of identification. As Figure 2 indicates, the parent (model) reacts to various stimuli (S_X) with various adaptive responses (R_X, R_Y, R_N), and this is mediated by personal representation processes ($r_m \rightarrow s_m$). The child, unaware of the personal significance of these stimuli to the model, responds to the model's actual behaviors as stimuli themselves and makes imitative responses ($S \rightarrow R'_X$). Simultaneously, this imitative behavior becomes in part associated with the same stimulus experienced by the model (S'_X). The child's own representational processes ($r'_m \rightarrow s'_m$) are triggered by both the imitative act (R'_X) and the external stimulus (S'_X), and they represent to the child his or her interpretation of the processes (or "meanings") which were present in the mediation of the model's behavior. The final behaviors (R'_X, R'_Y, R'_N) or future adaptive acts, are therefore mediated by the child's identifications with significant models.

As seen in Figure 2, then, "imitation" refers to similarities of overt behaviors between the model and subject, while "identification" refers to similarities of meanings between the two.

In general, there are two ways to measure identification: directly and indirectly. A profile of similarities between the child's concepts and the parent's concepts would measure identification directly. An examination of the profile of similarities between the child's ratings of "me" and the child's ratings of "mother," "father," etc., would measure identification indirectly. The present study deals

Figure 2. Mediation Learning Theory explanation of the difference between imitation and identification (Lazowick, 1955).



exclusively with inferred measures of identification, since parents and other models were not accessible for assessment. Lazowick has compared the two measures and found that measures of inferred identification are highly correlated to measures of direct identification. Correlation coefficients ranged from .60 to .80 (Lazowick, 1955). Additionally, Osgood et al. (1957) reported on the work of two other investigators, Martin Capell and James Dyal, which demonstrated the semantic differential measurement of inferred identification to be a reliable predictor of direct identification measures.

The idea, begun by Lazowick, that identification can be assessed by looking at perceived similarity in a semantic differential measure, and computed by the sum of squared deviations of the subject's ratings of the self and the identified model, was also used by Anisfeld, Munoz, and Lambert (1963), and by DeWolfe and others (DeWolfe, 1967; DeWolfe, DeWolfe, & McNulty, 1972). Breuer (1973), as a part of his doctoral dissertation, compared identity status as measured by the ISI to inferred identification with authority figures as measured on a modified form of the semantic differential scale. He hypothesized that foreclosures would score significantly higher on his measure of inferred identification than the other statuses combined. This hypothesis was confirmed.

This study will attempt to extend the initial groundwork that Breuer has laid in the area of identity status and inferred identification. DeWolfe's (1967) modification of the semantic differential

scale will be used here to measure inferred identification with parents and other potentially significant models.

In summary of this chapter, the research literature on the measurement of ego identity has indicated that Marcia's Identity Status Interview is the only available instrument which has been found to be flexible enough to make the finer distinctions necessary to validly determine identity status and consistent enough to attain satisfactory reliability. From this point on, the reader should consider ego identity status to be operationally defined as how one scored on the ISI. That is, the purpose of this investigation is not to test the psychometric rigor of the interview technique, but rather to use the technique in the determination of experimental groups. The difficulty with and consequences of using such a technique to differentiate one of the independent variables of the study will be discussed in Chapter V.

Once the ISI was established as the instrument of choice, the research literature relative to the ISI was presented from two angles. First, cognitive and decision-making correlates to identity status were reported and the MFF test of reflection-impulsivity was described. Second, the relationship between parental identification and identity status was discussed, with a subsequent description of the semantic differential measure of inferred identification. These two angles of approach to the topic of ego identity status reflect the two aims of this study. The purpose of this particular investigation is to

explore the relationships that identity status and sex have to decision-making style and strength of identification with parents.

The topic of sex differences has not been addressed heretofore because it is a topic which has, for the most part, been avoided by researchers in this area. Most of the studies reported in this chapter used only males as subjects. When females were investigated, those particular studies were usually limited to females. Rarely have both sexes been investigated simultaneously. Therefore, little is known about any sex differences in these areas. Because sex differences appear to be diminishing in these times, and in the interest of exploring possible sex differences that are as yet unknown in this area, it was decided to add sex to identity status as an independent variable, and look for differences in the analysis of the data. The hypotheses of the study, which follow immediately, pertain only to identity status as an independent variable, but separate post-hoc analyses of sex differences will be performed on the data.

The Hypotheses of the Study

In regard to the reflection-impulsivity dimension as measured by the MFF:

- 1) Achievers and moratoriums will display generally reflective conceptual tempos. The description offered for these two statuses, i.e., individuals who are experiencing (or have experienced) a "crisis" period of questioning and considering of numerous occupational and ideological options, has very much in common with Kagan's

description of the reflective character.

2) Foreclosures and diffusions will display generally impulsive conceptual tempos. The decision process used by one with a foreclosed identity can be described as an impulsive and premature commitment to an occupation or ideology in an effort to avoid crisis. Also, Kagan's hypothesis that impulsivity may represent a mechanism by which the person attempts to avoid possible failure is consistent with the conceptualization of the identity diffuse individual as someone who prefers to avoid risks in identity formation. Although Waterman and Waterman had not predicted that diffusions would score impulsivity, their results would have supported such a prediction.

In regard to the inferred identification dimension as measured by DeWolfe's modification of the Osgood Semantic Differential Technique:

3) Identity foreclosed subjects (foreclosures) will demonstrate the greatest degree of parental identification among the four groups. This is consistent both with the notion that foreclosures "over-identify," and with the findings of Breuer (1973).

4) Identity achieved subjects (achievers) will manifest a high degree of parental identification, but not as high as that of foreclosures. Achievers are thought to have attained the optimal level of identification, a level which lies between foreclosures and the other statuses.

5) Identity moratorium subjects (moratoriums) will reflect a wider variance of identification scores. Caught between drives to

rebel against and identify with parental models, the moratorium subjects would be expected to demonstrate ambivalence over specific identifications, and therefore vary between under- and over-identifying.

6) Identity diffused subjects (diffusions) will display the lowest level of parental identifications. Lacking a clear sense of modelling behavior and parental meanings, the diffused subject would be expected to express only vague or coincidental similarities to parental models.

CHAPTER III

METHODS

Subjects

All 60 subjects for this experiment were recruited through the "subject pool" of introductory psychology students at Loyola University of Chicago, in the fashion which has been standardized at that University. Each week in the fall, 1979 semester, seven available one-hour time slots were posted for any student who chose to fulfill his or her laboratory requirement by participation in departmental research. Other options besides participation in departmental research were available to each student, so participation was partially voluntary.

In order to achieve a balance of 30 males and 30 females, and because there were more female participants early in the semester, registration was restricted to males after 54 participants were seen. Students in the study were primarily pre-professional, and this was representative of the overall student population. Among the women, there were 17 freshmen, 11 sophomores, 1 junior, and 1 senior. Of the men, 11 were freshmen, 15 were sophomores, 4 were juniors, and there were no seniors. Analysis of the data by year in school showed no significant differences across years. There were five subjects (four males and one female) who registered for participation

but did not keep their appointments. None of the participants who did attend opted to withdraw from the study even though all were given the option to do so without penalty in a consent form which they signed before beginning (see Appendix A).

Materials

All of the interviews and testing took place in one of two small offices at the Loyola University Counseling Center. There was one experimenter throughout the data collection period. The experimenter was equipped with three measures: The Identity Status Interview (Appendix B), the Matching Familiar Figures test, and a semantic differential scale of inferred identification, as modified by DeWolfe (Appendix C).

The Identity Status Interview (ISI) is a 15-30 minute semi-structured interview technique. The interviewer is encouraged in this interview to feel free to ask tangential questions which might be important in determining identity status. Although every question on the interview sheet (Appendix B) should be asked in one way or another, the interviewer is instructed to keep in mind the "spirit" of the interview; that is, to assess whether or not the student has experienced crisis and/or commitment in the areas of occupation and ideology. A status assessment for each area, occupation and ideology, along with a composite assessment of the overall identity status, was performed by two independent raters. Each interview was tape-recorded, and the participants were informed that two other people

besides the experimenter might listen to the tape, after which the tape would be erased.

The Matching Familiar Figures test (MFF) was used to assess the cognitive dimension of reflection-impulsivity in each subject. Placement on the reflective-impulsive continuum is based upon two variables in the MFF test: latency to first response, and accuracy of choices, or the total number of errors. The standard format of the test has the subject presented with a picture of a familiar object (the standard) and a set of highly similar variants, where only one of the variants is exactly the same as the standard. The subject was instructed to point to that variant which was exactly the same as the standard. A stopwatch was started with the end of these instructions, and again for each new standard-variant presentation. For each standard, the watch was stopped with the first guess and the time (latency to first response) was recorded. If the subject's guess was correct, a score of no errors was recorded and the subject went on to the next standard. If incorrect, the subject was asked to select another item. This was repeated until the subject selected the correct item. The two dependent measures were the mean time taken until the first response (mean latency), and the total number of errors for the entire 12 standard-variant presentations. Those subjects whose scores fell below the sample median for latency and above the sample median for number of errors (fast/inaccurate, or F/I) were scored impulsive, while those whose scores fell above the sample median for latency and below the sample median for number of

errors (slow/accurate, or S/A) were scored reflective. Subjects who fell in the other two cells, fast/accurate (F/A) and slow/inaccurate (S/I), were not classified as either impulsive or reflective, and therefore were not used for this part of the analysis.

Form II of the semantic differential technique, as used by DeWolfe (1967) to measure inferred identification in nursing students, was used in this study. Although the block-rotated form I of the technique controls for possible halo effects by mixing up the referents and dimensions in block fashion, form II carries with it the advantages of greater subject ease and satisfaction, greater constancy of meaning for the referent being judged, and facilitated scoring. Additionally, Osgood et al. (1957) compared the scores of 50 subjects across 80 tests, using both forms. Of all 80 tests, only three yielded significantly different scores across forms. This represented fewer differences than would have been expected by chance alone (at $p < .05$, four significant t -values would have been expected by chance). Therefore, form II has demonstrated satisfactory alternate-form reliability and is preferable to use because of its simplicity.

Identification was numerically measured by scores of perceived similarity between the participants and the models whom they rated on the same dimensions. The differences between the subjects' ratings of themselves and their ratings of the models, as computed in Osgood D scores (Osgood et al., 1957) were the numerical measures

of identification. In order to allow the identification measure to be more easily compared to other measures in the study, and because a high degree of perceived similarity (i.e., high inferred identification) would normally be indicated by a low D score, the identification scores were "reflected," so that a high score would indicate a high level of identification. Beside rating the self ("me") and parents ("father," "mother"), each participant rated other potentially significant models ("favorite teacher," "best friend," etc.). This was done so that a post-hoc exploration of other possible relationships between identity status and identification with significant others could be explored.

Procedure

All subjects were recruited and tested during the fall, 1979 semester at Loyola University. Each week, seven subjects were tested. When a participant arrived at the testing office, he or she was briefed by means of a typed consent form as well as verbal interchange after the form was read. All subjects were informed of their right to discontinue without penalty at any time during the session. No participant exercised this right. All 60 subjects were seen one time only, and the total time for all testing and interviewing ranged from 40 to 60 minutes.

Assessment was done in the following order for all participants: ISI, MFF, then semantic differential. Only the ISI was tape recorded. At the end of each session, participants were debriefed regarding

any questions they might have relative to the study. Participants were also asked to avoid speaking about their experience with friends who might participate in the future.

Once collected, the data were analyzed in the following manner. The ISI tapes were listened to and scored independently by the experimenter and by a second trained rater. Ratings were based upon the data and examples presented in Marcia's scoring manual (Marcia, 1964). Each subject was rated as either foreclosed, diffused, moratorium, or achieved according to Marcia's criteria and the rater's own clinical judgment. In those cases where there was not inter-judge agreement (16 of 60), a third judge was asked to make an independent judgment. If this tactic did not reach two-thirds agreement for any given subject, then that subject was deemed unscorable and discarded from any analysis requiring an identity status rating. Three subjects were discarded from the study for this reason.

Regarding the MFF test, the median time (latency to first response) and median number of errors were calculated for all subjects who were deemed scorable on the ISI. Subjects in the slow/inaccurate and fast/accurate cells were discarded, and the remaining subjects were classified as either impulsive or reflective. The slow/accurate group was scored reflective, and the fast/inaccurate group was scored impulsive. A chi-square analysis of the resulting cognitive style (2) by identity status (4) table (see Table 1 in Results section) tested the hypothesis that achievers and moratoriums were reflective and foreclosures and diffusions were impulsive. Separate single-

classification analyses of variance were also conducted on response latencies and number of errors, as Waterman and Waterman (1974) did.

Differences between subjects' ratings of themselves and the subjects' ratings of parental models (as well as other potential models) were computed in terms of Osgood D scores which were "reflected," or reversed, so as to indicate more clearly the strength of various identifications. Specifically, the Osgood D score is the square root of the sum of squared differences in ratings between self and model. The computed score was then "reflected" by subtracting it from the highest D score obtained by any subject (in this case, 200).

The participants' strength of identification with same-sexed parents and opposite-sexed parents were summed across each identity status. A two-way (sex by status) analysis of variance was then performed to test each hypothesis made in relation to parental identification and identity status. In light of the conflicting findings related to identity formation for males versus that for females, sex differences in the area of cognitive style and inferred identification were examined in the ANOVA to account for sex as a source of variance.

An informal post-hoc examination of extraneous data on inferred identification to other models and cognitive style was also conducted in relation to the identity statuses.

CHAPTER IV

RESULTS

Inter-Rater Reliability

Sixty Identity Status Interviews were rated independently by two judges, one of whom was the interviewer. Agreement was reached on 44 of the 50 cases, or 73.3% of the time. Cohen's Kappa, a reliability coefficient which corrects for chance agreement, was .661.

Of the remaining 16 cases, 13 were added to the analysis by the arbitration of a third judge. To insure that this addition of 13 cases to the study on the basis of two-thirds agreement rather than unanimity did not alter the findings of the study in any way other than to increase the sample size, separate analyses were performed on the 44 original cases as well as on the 57 total cases. Although the coefficients and statistical values obtained in each analysis varied slightly, the direction and strength of the findings were virtually the same in all of the major analyses. Therefore, only the results from an N of 57 will be reported.

Main Analyses

The main analyses of this study are those which test the six hypotheses of the investigation and examine the relationships between the variables of the hypotheses. In general, the hypotheses can be

broken down into two areas: those reflecting the relationship between identity status and decision-making style; and those concerning the relationship between identity status and parental identification. Each area will be discussed separately in this section.

Identity-status and decision-making style. Regarding the first two hypotheses of the study, the data were analyzed in two ways. The hypotheses were directly tested by a χ^2 analysis of the identity status (4) by decision-making style (2) table (see Table 1), and by follow-up Tests for Significance of Difference Between Two Proportions (Bruning & Kintz, 1968). Additionally, separate single-classification analyses of variance as well as an overall two-way (sex by status) analysis of variance was performed on the decision-making style data.

After determining that the cell differences presented in Table 1 were significant, with $\chi^2(3) = 8.94$, $p < .05$, some more specific relationships were explored. Tests for Significance of Difference Between Two Proportions found foreclosures to be more impulsive than reflective, $z = 2.90$, $p < .01$, and more impulsive as a group than the other three statuses combined, $z = 2.46$, $p < .01$. Diffused subjects were significantly more reflective than they were impulsive, $z = 2.99$, $p < .01$, a finding that reverses that of Waterman and Waterman (1974). Although there were no significant differences within either the moratorium or achieved groups, one point deserves note: within the moratorium group, all five impulsive subjects were women, and five

TABLE 1
 Number of Subjects in Each Cell of the
 Identity Status (4) by Decision-Making Style (2) Table

		DECISION-MAKING STYLE	
		<u>Impulsive</u>	<u>Reflective</u>
IDENTITY STATUS	Foreclosed	14	5
	Diffused	2	9
	Moratorium	5	6
	Achieved	3	2

Note. $\chi^2(3) = 8.94, p < .05.$

of the six reflective subjects were men. A Fisher's Exact Probability Test on the resulting two (sex) by two (decision style) table showed this difference to be a significant one (two-tailed $p = .026$).

To help elaborate upon the relationship between identity status and conceptual tempo, single classification analyses of variance were conducted on response latencies and number of errors. These analyses were based on the data from all subjects, including those who were as neither impulsive nor reflective (that is, the S/I and F/A subjects). Table 2 presents the time latency to first response data broken down by status and sex. Although neither status nor sex constituted a significant main effect in the two-way analysis, there was a significant status-by-sex interaction, $F(2,49) = 2.92$, $p < .05$. Subsequent multiple t -tests revealed that none of the mean time differences across statuses achieved significance. Differences within-status and across-sex were also examined, and the only status which demonstrated a sex difference was the moratorium status. Within this status, males were found to have longer time latencies to first response than females (see Table 2).

The data on total number of errors across status and sex are presented in Table 3. A two-way ANOVA on these data again revealed a status-by-sex interaction, $F(3,49) = 4.37$, $p < .01$, as well as a significant status main effect, $F(3,49) = 3.03$, $p < .05$. A closer look at the data showed that the diffused subjects made fewer errors overall than both the foreclosed and the achieved subjects. The

TABLE 2

Mean Number of Seconds to First Response on the MFF
by Identity Status and Sex

		IDENTITY STATUS							
		<u>Foreclosed</u>		<u>Diffused</u>		<u>Moratorium</u>		<u>Achieved</u>	
		<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
MEAN LATENCY TO FIRST RESPONSE (In Seconds)	\bar{X}	42.55	36.90	50.22	59.89	70.13 ¹	32.82 ¹	36.97	45.67
	n	10	12	8	6	5	7	5	4
\bar{X}_{tot}		39.47		54.36		48.37		40.83	
n_{tot}		22		14		12		9	

¹ $t_{(10)} = 2.74, p < .05.$

TABLE 3

Mean Number of Total Errors on the MFF
by Identity Status and Sex

		IDENTITY STATUS							
		<u>Foreclosed</u>		<u>Diffused</u>		<u>Moratorium</u>		<u>Achieved</u>	
		<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
MEAN NUMBER	\bar{X}	10.60 ⁴	11.58	8.13	6.67 ³	5.60 ^{4,6}	12.14 ^{3,6}	15.40 ⁵	8.50 ⁵
OF ERRORS	n	10	12	8	6	5	7	5	4
	\bar{X}_{tot}	11.13 ¹		7.50 ^{1,2}		9.42		12.33 ²	
	n_{tot}	22		14		12		9	

$${}^1t(34) = 2.26, p < .05.$$

$${}^4t(est)(10.42)^* = 3.49, p < .01.$$

$${}^2t(21) = -2.46, p < .05.$$

$${}^5t(7) = 2.67, p < .05.$$

$${}^3t(11) = -3.74, p < .01.$$

$${}^6t(est)(7.35)^* = -5.32, p < .001.$$

*Note: in cases where sample variances were found to be heterogeneous, an estimate of Student's t , as well as degrees of freedom, is provided.

difference between diffused and moratorium subjects, as well as that between achieved and moratorium subjects, did not reach significance (see Table 3).

Same-sexed comparisons of the data in Table 3 revealed that diffused females made fewer errors than moratorium females, while diffused males made more errors than moratorium males, though not significantly so. Within the male subgroup, the foreclosed subjects made more errors than the moratorium subjects, which is a difference in the predicted direction. The t -value here had to be estimated due to the heterogeneity of variance between groups (see Table 3). The difference between male foreclosed and male achieved subjects did not reach significance.

The within-status analysis of sex differences found the achieved males making more errors, on the average, than the achieved females. The moratorium status presented a picture different from the others. In many comparisons involving the moratorium status (like the last one in the previous paragraph), the extreme within-sex variance and cross-sex heterogeneity of variance of the moratorium group, $F(4,16) = 11.85$, $p < .05$, did not permit a pooled-variance estimate of Student's t . Therefore, a separate-variance estimate of t was required (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975). According to this estimate, female moratoriums were found to make more errors than male moratoriums. Thus, as was the case with latency time (Table 2), the moratorium group presented itself as quite mixed and varied in both within- and between-sex comparisons.

Identity status and identification. To test the remaining four hypotheses of the study, a two-way (sex-by-status) ANOVA was performed on the semantic differential data. Although the mean-identification-with-same-sexed-parent scores differed across statuses in the direction predicted, none of the differences was statistically significant (see Table 4 for means). There was also no overall sex difference on the same-sexed identification scores. There was, however, a significant status-by-sex interaction effect on the Table 4 data, $F(3,48) = 2.88, p < .05$. A t-test analysis of the mean breakdowns indicated that diffused males identified more with their fathers than diffused females did with their mothers. The extreme heterogeneity of variance between achieved male and achieved female groups, $F(4,3) = 39.42, p < .05$, did not permit a t-test across sexes within the achieved group. The difference in means, however, is striking (see Table 4).

Analysis of within-sex differences revealed that achieved women identified more strongly with their mothers than both moratorium and diffused women (see Table 4). There was no statistical difference between achieved and foreclosed women in same-sexed parent identification scores, nor were any of the other planned comparisons significant. Both significant findings reported above for women in the area of identification with same-sexed parent were in the predicted direction.

The identification data for males presented a much narrower

TABLE 4

Mean Identification-With-Same-Sexed-Parent Score
by Identity Status and Sex

		IDENTITY STATUS							
		<u>Foreclosed</u>		<u>Diffused</u>		<u>Moratorium</u>		<u>Achieved</u>	
		<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
MEAN IDENTIFICATION SCORE	\bar{X}	173.80	161.17	170.13 ¹	140.17 ^{1,4}	145.80	145.29 ³	149.60 ²	189.00 ^{2,3,4}
	n	10	12	8	6	5	7	5	4
\bar{X}_{tot}		166.91		157.29		145.50		167.11	
n		22		14		12		9	

¹ $t(12) = 2.33, p < .05.$

³ $t_{(est)}(6.67)^* = 2.69, p < .05.$

²untestable

⁴ $t_{(est)}(5.68)^* = -3.32, p < .05.$

*NOTE. Again, the t -value in these cases are adjusted due to a significant heterogeneity of variance.

range of scores across statuses. As Table 4 indicates, the mean female identification scores ranged from 140.17 (diffused) to 189.00 (achieved), while the range of mean scores for males was from 145.80 (moratorium) to 173.80 (foreclosed). Although the trend with males was also in the predicted direction, that is, from moratorium (low) to foreclosed (high), none of the individual comparisons reached statistical significance.

Post-Hoc Analyses

In the spirit of exploration, a number of additional measures tangentially related to the hypotheses of the study were obtained on each subject. For instance, inferred identification scores were also computed on subjects' ratings of "opposite-sexed parent," "favorite teacher," and "best friend," to determine any possible correlations to identity status. Additionally, semantic differential ratings of "me as I am" were compared to ratings of "me as I would like to be," in order to look at differences in real/ideal self ratings across statuses. "Me as I am" ratings were also compared to ratings of "me" to assess differences in consistency of self ratings across statuses.

Regarding identification with the opposite-sexed parent, post hoc analysis revealed a sex-by-status interaction effect, $F(3,48) = 3.15$, $p < .05$, which, upon examination of Table 5, appears to be almost completely explained by the remarkably low identification scores of identity diffuse women. All other sex-by-status cells fall within

TABLE 5

Mean Identification-With-Opposite-Sexed-Parent Score
by Identity Status and Sex

		IDENTITY STATUS							
		<u>Foreclosed</u>		<u>Diffused</u>		<u>Moratorium</u>		<u>Achieved</u>	
		<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
MEAN IDENTIFICATION SCORE	\bar{X}	131.70 ²	128.92 ¹	131.13 ²	68.40 ^{1,2}	126.00 ²	125.00 ¹	122.60 ²	127.25 ¹
	n	10	12	8	5	5	7	5	4
\bar{X}_{tot}		130.18		107.00		125.42		124.67	
n		22		13		12		9	

$${}^1t(26) = 3.35, p < .01.$$

$${}^2t(31) = 5.01, p < .001.$$

a 10-point range (from 122.60 to 131.70), and the identity diffuse women's scores averaged only 68.40. Statistical comparisons on this data showed identity diffuse women to identify far less with their fathers than all other women combined did with their fathers and much less than all men combined did with their mothers (see Table 5). There were no overall differences computed on the main effects of status or sex.

There is one last finding of interest. Analysis of variance on the identification with "favorite teacher" data indicated that male subjects identified more strongly with their favorite teacher than did female subjects, $F(1,48) = 4.98$, $p < .05$. Means are reported in Table 6. There were no noteworthy findings relative to the "best friend" identification score, nor were there any significant differences across status for either the real/ideal self dimension or the consistency of self rating dimension.

A discussion of the significance and implications of these findings will follow in Chapter V.

TABLE 6

Mean Identification-With-Favorite-Teacher Score
by Sex and Status

		MALE				FEMALE			
		Foreclosed	Diffused	Moratorium	Achieved	Foreclosed	Diffused	Moratorium	Achieved
MEAN IDENTIFICATION SCORE	\bar{X}	163.00	153.75	162.20	143.00	141.00	135.50	135.14	145.50
	n	10	8	5	5	12	6	7	4
\bar{X}_{tot}		156.64 ¹				139.07 ¹			
n		28				29			

¹ $F(1,48) = 4.98, p < .05.$

CHAPTER V

DISCUSSION

This chapter will elaborate on some of the findings reported in Chapter IV. It is divided into two sections. The first deals with the experimental findings per se and their significance with regard to previous research and related theory. The second section addresses methodological concerns and offers suggestions for future research.

EXPERIMENTAL FINDINGS

Identity Status and Decision-Making Style

The hypothesis that foreclosed subjects would be more cognitively impulsive than other statuses in a decision-making task such as the MFF test was confirmed in the present study. This finding, which replicates that of Waterman and Waterman (1974), adds authority to the statement that cognitive disposition is a trait which determines both decision-making style on a short-term task and ego-identity formation on a broader, more long-term scale. Although causality has not been determined in this study, due to the correlational nature of its method, the ability to predict has. Therefore, it can at least be said that in the case of foreclosed subjects, conceptual tempo appears to be more impulsive than reflective. The establishment of a causal relationship at this stage of the research is premature, and the establishment of a predictable correlation between decision-

making style and identity status is the first order of business.

In the Identity Status Interview (ISI), foreclosures were separated from the other statuses when it was established that they had committed themselves to occupational and/or ideological courses of action prior to considering their options carefully. They evidenced more of a concern with success in their first career choice, for example, rather than a concern for selecting the most fitting career for themselves. In comparing the foreclosed group to the other statuses, it is interesting to note that the entire sample consisted of 51% "pre-medical" students. The foreclosed group was comprised of 82% pre-medical students while only 32% of the remaining participants were pre-medical students. This fact is simultaneously enlightening and problematic when it comes to interpreting the data. Some interpretations that might be made relevant to this finding include: 1) Pre-medical students tend to be "impulsive" in their choice of a career, using success rather than personal satisfaction as the standard of judgment; or 2) perhaps an individual's field of study (medicine, art, English, etc.) is itself a confounding variable in relation to decision-making style. In other words, it is conceivable, in light of the heavy distribution of health science students in the foreclosed group, that the determining variable in the impulsive-reflective dimension in this study was actually the student's field of study and not his or her identity status.

Foreclosures demonstrated, on the MFF test, a significant

tendency to rush into a guess which appeared to be correct, rather than to carefully consider all other alternatives. As Waterman and Waterman (1974) have noted: "the failure of some foreclosures to undergo a crisis may be a function of their use of a cognitive style characterized by rapid exclusion of alternatives after superficial investigation" (p. 1). Waterman and Waterman liken this cognitive style to a cognitive pattern which Henry and Renaud (1972) have termed "psychically foreclosed." Henry and Renaud differentiate between "psychically" and "situationally" foreclosed patterns, with the former being more like a trait (which would be present for life in foreclosed individuals) and the latter being under environmental control (for example, high school students may be "situationally foreclosed" in their career choice because they have not yet been exposed to the career options that the college experience affords). The situationally foreclosed individual is not necessarily headed for a psychically foreclosed cognitive style. If this relationship between the MFF test and the ISI is indeed a valid one, then the MFF test could conceivably be used to pinpoint reflective individuals who are currently only situationally foreclosed. These individuals would normally score as "foreclosed" on the ISI. By identifying this subpopulation of foreclosed subjects, one could predict those foreclosed individuals most likely to move into the moratorium status after their environment changes to support a psychosocial moratorium and a search for identity.

For the males in the study, the hypothesis that moratoriums

would be reflective was also confirmed. The theoretical notion that the moratorium stage of ego-identity development in men involves a postponement of commitments until such time as the individual feels certain of his occupational and ideological values is consistent with the rationale behind the reflective conceptual tempo. In both cases, the individual prefers to be sure of his decision rather than risk making a premature and inaccurate judgment. The moratorium males in this study demonstrated a reflective approach to both identity formation and the simpler matching task of the MFF test.

There is no theoretical explanation for why the moratorium females did not also score as reflective. Indeed, they scored in the impulsive direction. It will suffice to say at this point that the theoretical explanation for identity formation reviewed in this paper has long been recognized as a male-oriented one. Here is at least one case that suggests that this theory of identity development should broaden its scope in order to accommodate both sexes. Far too little is known about the dynamics of female development as it is depicted in psychoanalytically oriented theories. Whereas ego psychology has succeeded to some extent in broadening the scope of psychoanalytic theory, it appears not to be sufficient in this particular case. The finding (as predicted) that moratorium participants were more variable in terms of MFF latency time in within- and between-sex comparisons did, however, lend additional support to the theoretical notion that the moratorium status is most variable and unpredictable when it comes to correlating personality variables.

The data on achieved participants yielded no dominant conceptual tempo for either sex. Considering the small sample size for this status ($N = 5$), it is difficult to speculate about this.

The MFF test data on diffuse subjects was quite surprising. Unlike Marcia, who found the diffused status to be "low status on the totem pole" when it came to correlated measures (Marcia, 1964); and unlike Waterman and Waterman (1974), who found diffused subjects to be impulsive on the MFF test, this study found the diffused subjects to be the most reflective of all the statuses. As was the case with female moratorium subjects, there is no theoretical accounting for this finding within the ego psychological framework. It should be remembered, however, that the hypothesis that diffused subjects would score as impulsive (hypothesis 2) was based upon Waterman and Waterman's post hoc finding to this effect. That is, the hypothesis was not based upon any theoretical, a priori, reasoning. Therefore, such a finding in this study should not be considered a negation of the ego psychological theory of identity formation, but instead should be seen for what it is: a failure to replicate a finding from a previous study (Waterman & Waterman, 1974). However, not only was the previous finding not replicated, it was reversed.

Identity Status and Identification

Hypotheses 3 through 6 of this study essentially stated that the order of strength of identification with same-sexed parent would be, from greatest to least, foreclosed, achieved, diffused, moratorium, and that the moratorium group would display the most variance in

scores. Although the means (Table 4) differed in the direction predicted, this difference did not achieve significance (perhaps due to the relatively small sample size). This represents a failure to replicate Breuer's (1973) finding that foreclosed subjects identified more strongly with their same-sexed parents than the other three statuses combined. One possible explanation for the lack of any status main effect in the ANOVA could be the loss of power due to the small sample size and the great variance in the identification scores (especially, as predicted, in the moratorium group). The fact that the differences, although not significant, were in the predicted direction would support the notion that an increased sample size together with a more homogenous sample could yield significant results.

The status-by-sex interaction effect upon identification with same-sexed parent deserves some comment. The only within-status (across sex) difference was that diffused males were found to identify more with their fathers than diffused females did with their mothers. The mean identification score for diffused women was lower than that for any other status-by-sex cell (see Table 4). Of the six identity diffused women in the study, five had mothers who were full-time housewives. This percentage is greater than that of the rest of the sample or within any other status. Therefore, one possible but admittedly speculative explanation for the depressed identification score in diffused women might be that diffused (confused) women who are in college have more pronounced difficulty with same-sexed

parental identification because they are rebelling against identifying with a mother who has been in a housewife role.

There were no significant within-sex (across-status) differences for males. Considering that the differences here were also in the predicted direction, the same explanation given for the overall sample (N too small, variance too large) would hold true for the male subgroup as well.

In regard to the women, there were some significant within-sex (across-status) differences. Same-sexed identification was significantly stronger in achieved women than it was in either diffused or moratorium women. One possible reason for this finding, in addition to the fact that the ego-identity theory would predict such a difference, is that three of the four achieved women had mothers who themselves were career women. Perhaps it is easier for college women to identify with mothers who are working. And, as identity theory predicts, perhaps this ease of identification helps these college females establish a firmer sense of identity. More research would need to be done in the area of identity formation in college women with working mothers versus women in college with non-working mothers to substantiate such a speculation.

Post-Hoc Analyses

The most salient post-hoc discovery in this study was the fact that the identity diffuse women scored remarkably low identification-with-father scores. These were the same women who scored

significantly lower than achieved women in identification with mothers. Therefore, the diffused women seemed to be the worst off, in terms of identification, of all other statuses of either sex. Whatever benefits come with strong parental identification would surely be lacking in this group. Curiously, one characteristic that was far from lacking in this same group was reflectivity. Five of the six diffused women in this study scored as reflective on the MFF test, and the sixth was classified in the slow/inaccurate group. Thus, all of them were far from being impulsive. This would support the idea that identity diffusion in women is different from identity diffusion in men, and that part of the difference is related to the difficulty that diffused women have in identifying with non-working mothers (at least in this sample) and with fathers.

The very low identification scores, combined with the reflective conceptual tempo, however, could lead one to challenge the fact that these women were indeed identity diffuse. The identification/decision making style described above (low/reflective) is clearly a closer fit to the description of the moratorium, not diffuse, status. For an alternate accounting for this discrepancy, the reader should refer to Marcia's recent description of a certain type of person who could be classified as neither moratorium nor diffuse (Marcia, 1976). Because of his finding that certain subjects were unclassifiable and seemed to belong somewhere between a moratorium and diffused rating, Marcia added a fifth status to his original four: the "moratorium-diffuse" status. There is no substantial empirical data on this status, but

Marcia's premise at the time was that this status would be very likely to demonstrate characteristics of both the diffused and moratorium statuses. It is conceivable, then, that the diffused women in this study were actually moratorium-diffuse in status. This would explain the reflective cognitive style found in combination with low parental (same- and opposite-sex) identification scores.

The finding that males identified more strongly with their favorite teacher than did females should be interpreted with caution. The questionnaire's failure to ask the participants to rate their favorite teacher of their own sex could have introduced a bias for sex of the teacher. It is possible that the difference in ratings was due to the fact that female subjects rated more men than male subjects rated women as favorite teachers. This would deflate women's identification scores because they would be scoring large differences on sex-related ratings such as "masculine. . . .feminine." In other words, this measurement of identification did not take into account differences in identification that would result from sex-role differences which would arise when rating someone of the opposite sex. It is not certain whether or not this was the case in this particular study. A follow-up attempt to replicate this finding with same-sexed teachers would be a valuable study.

This concludes the discussion of the actual experimental findings. A consideration of methodological difficulties and future research proposals follows.

METHODOLOGICAL CONCERNS AND SUGGESTIONS
FOR FUTURE RESEARCH

Identity Status Interview (ISI)

Throughout this study, the ISI, used to determine experimental groups, has been uncontested as a reliable and valid measure of ego-identity status. There is no question that Marcia's technique is the most sophisticated measure of identity status available, but it still should not be used without scrutiny. The inter-scorer reliability obtained in this study (73.3%) is comparable to the reliability achieved by other investigators (range = 70% to 90%; mean = 76%). Marcia explained these slightly depressed reliability ratings as a consequence of using a subjective interview technique. In Marcia's opinion, it is worthwhile to sacrifice some scoring reliability in order to obtain greater psychometric validity. This reasoning holds true on an a priori basis. That is, one would rather be certain of measuring a valid construct called identity status than be sure of measuring something uncertain but with greater reliability. In the case of the measurement of ego-identity, one is required to choose between the two. The decision to sacrifice reliability for greater validity in this particular study was based upon the fact that past investigators have found this alternative to be more beneficial. However, it should be remembered that when one lowers the reliability of ratings, one is by definition lowering the maximum possible measurement validity to some extent.

In conclusion, although this investigator believes that Marica's

ISI is the best measure of ego-identity available, the need for a psychometrically improved measure is clear. Perhaps something as simple as an improved ISI would fill this need.

On the more positive side, the fact that the best known measure of ego-identity status has significant psychometric flaws is not sufficient reason to argue that the theory of identity formation itself is invalid or needs to be challenged. At this stage of investigation, it would be going beyond the evidence to point to any success of the ISI as an indication of support for the theory of ego-identity. What is first needed is greater psychometric sophistication of the ISI. If this is obtained, then more direct testing of identity theory can be undertaken. Despite its wide clinical acceptance, the ego psychological theory of identity formation is not yet amenable to direct empirical analysis and study. However, predictions such as those made, and in some cases verified, in this study do serve to approach a test of the theory in that they enhance the capacity of the ego psychological framework to help understand behavior and predict cause-effect relationships.

Another methodological concern in this study regarded the procedure whereby subjects who were not classified by two-judge agreement (14 of 60) were subsequently assigned to statuses. Rather than dismiss these subjects from the study, a third arbitrating judge was used. The risk involved here was that an additional source of variance would be introduced by the use of a third judge. To account for this possibility, the data for two-judge placements as well as that

for three-judge placements were analyzed separately. No significant differences were found between the two in these comparisons. It can be concluded, therefore, at least in this case, that the addition of a third arbitrating judge was beneficial in that it increased the statistical power of this study (by elevating the sample size) without affecting the validity of the ratings.

Use of the Subject Pool

One final methodological concern involves the composition of subjects used in this study. As is the case in a great deal of psychological research, these participants were taken from a population of college students who for all practical purposes have no choice but to participate. Speculation as to how attitude is affected by such a situation, and how this attitude in turn affects the experimental results has not been determined in this investigation. It has occurred to the investigator that many students in this position are primarily interested in completing the tasks as quickly as possible. This could have a significant effect on the results of the MFF test. An individual who is usually reflective, for example, might score as impulsive because of his or her desire to complete the task quickly. This contamination of results could also hold true for the semantic differential measure, but the direction of the error is not as clear in this case.

There are two possible solutions for such a methodological difficulty. The first, of course, would be to use voluntary participants who would therefore be far less likely to be in a hurry to

finish. The second might be to begin testing with the MFF test rather than the ISI, thereby minimizing the likelihood that a subject might hurry his or her performance because of fatigue or an increased desire to complete testing quickly.

Suggestions for Future Research

This investigation explored relationships which ego-identity bears to identification with parents and to individual decision-making style. In so doing, an attempt was made to bridge the gap in ego psychology between theory and hypothesis testing, and to examine sex differences, if any. A number of interesting and at times unusual findings merit further study. Some suggestions for future exploration include:

1. Further development and refining of the ISI, especially in the areas of determining the extent of crisis that a person has experienced (to better differentiate foreclosures from achievers), and differentiating the confused (diffused) subject from the "in crisis" (moratorium) subject. Such improvements should greatly increase inter-rater reliability of the ISI and thereby lend further support to the construct and predictive validity of the technique.

2. The gathering of test-retest data on the ISI, in a manner similar to Waterman and Waterman's (1971) and Waterman, Geary, and Waterman's (1974) efforts, would enhance the validity of the technique. If subjects are found to move from diffused and foreclosed statuses into moratorium, then achieved, statuses, then the construct

validity of identity theory would receive support.

3. An attempt should be made to differentiate psychically from situationally foreclosed subjects, so one could see if this process would increase the capacity to predict those foreclosed subjects who will score as impulsive and those who will score as reflective. Theoretically, psychically foreclosed subjects should be impulsive and situationally foreclosed subjects should be reflective.

4. More research on identity formation in women is especially called for. The curious findings that moratorium women were impulsive and the diffused women scored remarkably low identification scores with both parents merit further examination. A significant variable which was stumbled upon in this study was the effect that maternal occupation may have upon female identity formation in college. More research comparing daughters of working mothers to daughters of non-working mothers on some of the measures used in this study is needed in order to clear up the current state of confusion in this area.

5. A wider variety of late adolescents and early adults should be studied to increase the external validity (generalizability) of the positive findings in this investigation.

6. Students with health science majors should be compared to students with liberal arts majors on the MFF test in order to see if one's chosen field of study is indeed a confounding variable in the impulsivity-reflectivity dimension. A cross-legged panel analysis on

the impulsive-reflective and vocational choice dimensions as predictors of identity status could study such a relationship.

In summary, the present study explored the relationship between identity status and both parental identification and decision-making style. While it has replicated some previous findings and clarified the significance of the field of study as it exists now, it has also introduced new and at times confusing findings that merit further study.

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*NOTE. Many of the references indicate the date of translation. Where this is the case, the original publication date (if different) is indicated in parentheses just after the author's name, e.g., "Freud, S. (1900). . . 1938."

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APPENDIX A

CONSENT FORM

Thank you for agreeing to participate in this research project. Your name will not be used on any of the forms you fill out for this project, for the purpose of retaining your anonymity. The project will also involve a brief (15-30 minutes) interview in which you will be asked simple questions about your occupational plans (if any), and your political and religious views. These interviews will be taped, so that one other person besides myself can listen to them and make ratings relevant to this project. The tapes will be erased after completion of the project.

Of course, if at any point during the interview you should feel like terminating for some reason, this desire will be respected without penalty to you (i.e., you will receive laboratory credit).

I will be happy to answer any questions about the investigation after it is completed. Thank you again.

I, _____, understand the above statements, and with that in mind, waive my rights to any of the material (taped or written) accumulated on me in this project.

SIGNATURE

DATE

APPENDIX B

I.S.I.

ID #: _____

AGE: _____yr. _____mo.

DATE: _____

Introduction:

What year are you in?

Where are you from?

How did you happen to come to Loyola?

Did your father go to school? Where?

What does he do now?

Did your mother go to school? Where?

What does she do now?

Occupation:

What's your major?

What do you plan to do with it?

When did you come to decide on _____?

Ever consider anything else? When?

What seems attractive about _____?

Most parents have plans for their children, things they'd like them to go into or do. Did yours have any plans like that?

How do your parents feel about your plans now?

How willing do you think you'd be to change this if something better came along? (If S responds, "What do you mean by 'better?'")

Well, what might be better in your terms?

Religion:

Do you have any particular religious preference?

How about your folks?

Ever very active in church? How about now?

Ever get into many religious discussions?

How do your parents feel about your beliefs now?

Are yours any different from theirs?

Was there any time when you came to doubt any of your religious beliefs? When?

How did it happen?
How are things for you now?

Politics:

Do you have any particular political preference?
How about your parents?
Ever take any kind of political action--join groups, write letters,
carry signs?

Any issues you feel pretty strongly about? Parents?
Any particular time when you decided on your political beliefs?
Whom would you like to see president?

Do you have any questions for me?

APPENDIX C

SEMANTIC DIFFERENTIAL SCALEInstructions

The purpose of this study is to measure the meanings of certain things to people. At the top of each page of this booklet you will find a different thing to be judged, and beneath it seventeen sets of words which we would like you to use in making your judgments. For an example, look at the next page. The thing which we would like you to judge here is a "SWAN." This word appears at the top of the page.

If you think that a SWAN is very happy, or very sad, place a check mark directly above the short line closest to the word HAPPY or the word SAD.

1. HAPPY X _____ OR _____ SAD
 1. HAPPY _____ OR _____ X SAD

If you think that a swan is somewhat happy, or somewhat sad, place your check mark above one of the lines closer to the center, as follows:

1. HAPPY _____ X _____ OR _____ SAD
 1. HAPPY _____ OR _____ X _____ SAD

If you think that a swan is only slightly happy or slightly sad, you would put your check mark in one of the following positions:

1. HAPPY _____ X _____ OR _____ SAD
 1. HAPPY _____ OR _____ X _____ SAD

If you think that a swan is neither happy nor sad, or that a swan is as happy as it is sad, you would place your check mark above the middle short line:

1. HAPPY _____ X _____ SAD

In this same way we would like you to give us your judgments on SWAN using the remaining 16 pairs of words: GOOD...BAD, UNPREDICTABLE...PREDICTABLE, and so on, until you have completed the page.

If you have any questions as you do this first page, ask them. If not, continue on through the booklet giving your opinions about each of the things listed at the top of each page. Please do the pages in order, and in each case complete the entire page.

On all of these we are interested mainly in your FIRST OPINIONS. Therefore, we ask you to work as rapidly as possible.

SWAN*

1. HAPPY	_____	_____	_____	_____	_____	_____	SAD
2. GOOD	_____	_____	_____	_____	_____	_____	BAD
3. UNPREDICTABLE	_____	_____	_____	_____	_____	_____	PREDICTABLE
4. SOCIABLE	_____	_____	_____	_____	_____	_____	UNSOCIABLE
5. INEFFECTIVE	_____	_____	_____	_____	_____	_____	EFFECTIVE
6. CRUEL	_____	_____	_____	_____	_____	_____	KIND
7. FOOLISH	_____	_____	_____	_____	_____	_____	WISE
8. BEAUTIFUL	_____	_____	_____	_____	_____	_____	UGLY
9. PLEASANT	_____	_____	_____	_____	_____	_____	UNPLEASANT
10. WORTHLESS	_____	_____	_____	_____	_____	_____	VALUABLE
11. SOFT	_____	_____	_____	_____	_____	_____	HARD
12. DANGEROUS	_____	_____	_____	_____	_____	_____	SAFE
13. MASCULINE	_____	_____	_____	_____	_____	_____	FEMININE
14. STRONG	_____	_____	_____	_____	_____	_____	WEAK
15. TENSE	_____	_____	_____	_____	_____	_____	RELAXED
16. SLOW	_____	_____	_____	_____	_____	_____	FAST
17. ACTIVE	_____	_____	_____	_____	_____	_____	PASSIVE

*Using the same 17 polar adjective pairs (happy. . .sad, good. . . bad, etc.), the first four referents, "SWAN," "SNAKE," "TIGER," and "DEER," were used to acclimate the subject to the task. These four neutral referents were then followed with similar sheets for subjects to judge "FATHER," "MOTHER," "ME," "BEST FRIEND," "FAVORITE TEACHER," "FAVORITE AUNT/UNCLE," "ME AS I WOULD LIKE TO BE," and "ME AS I AM."

APPROVAL SHEET

The thesis submitted by David F. Cella has been read and approved by the following Committee:

Dr. Alan S. DeWolfe, Director
Professor, Psychology, Loyola

Rev. Gerard Egan
Professor, Psychology, Loyola

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and the thesis is now given final approval by the Committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

10/10/80
Date

Alan S. DeWolfe
Director's Signature