

The Objective Measure of Ego Identity Status:

A Reference Manual

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## Preface

The original version of the Objective Measure of Ego-Identity Status was published in 1979. Two decades later the instrument is still being widely used in North America, Europe, Australia, and beyond.

After twenty years of development, there have been numerous studies focusing on the estimation of the reliability and validity of items. Several modifications and revision of this measure of identity formation, based on an Eriksonian framework, and our own theoretical notions, and a multitude of studies investigating the ego-identity status paradigm, have contributed to the preparation of a revised reference manual to provide information on the psychometric qualities of this instrument. This manual is developed with the intention of introducing the user to the framework of the test, an overview of its various stages of construction, and a summary of information that has been provided over several years in various publications. The versions of the tests included in this manual reflect our efforts in test construction and provide information of our publications regarding available instrumentation. In certain cases it may be useful to refer to the publications for further elaboration of tabled data.

The Objective Measure of Ego-Identity Status is a self-report alternative to a clinical interview methodology. It evolved from research experience with the semi-structured interview to allow for wider applications of the foundation constructs of the Ego-Identity Status Paradigm. This self-report measure can be used for research and clinical or educational assessments of identity formation.

The development of this instrument has been supported through research grants from the Utah State University Agricultural Experiment Station, National Institute of Mental Health, and the Social Science and Humanities Research Council of Canada. Research scientists who purchase this manual have permission to copy the manual and instrument for use in projects that have been approved by university human subjects committees. There are no limits to the number of copies of test items for this purpose. Graduate students are granted permission to place the test items in their thesis appendices. Educational or clinical assessments, using the measure, must be accompanied by written approval through arrangements with the copyright holder.

Gerald R. Adams  
Fall, 1998

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## History and Rationale for Identity Measurement

Theory

Erik Erikson (1968) set forth a theory of ego development to account for the interactions between psychological, social, historical and developmental factors in the formation of personality. Perhaps no single theoretician has had a greater impact on our perceptions of adolescent personality development than E. H. Erikson. In particular, Erikson's (1968) Identity: Youth and Crisis has provided a theoretical framework for theorizing about, and for measuring identity formation.

Originally, Erikson was stimulated by the difficulties which some World War II veterans encountered upon reentering society, and became interested in problems associated with acute identity diffusion. Over time and through clinical experience he came to believe that the pathological difficulties which some veterans had in leaving one role (soldier) and entering another (civilian) were psychologically similar to the problem which some adolescents experience as they leave childhood and move through the transition of adolescence into adulthood. From this experiential framework has evolved a psychology of adolescent identity formation.

What then did Erikson mean by identity? Drawing on his psychoanalytic thinking with an emphasis on ego development, he derived several definitions of identity. Based on the notion that the ego organizes a coherent personality endowed with a sameness and continuity perceived by others, Erikson (1968) stated:

“Ego identity then, in its subjective aspect, is the awareness of the fact that there is a self-sameness and continuity to the ego's synthesizing methods, the *style of one's individuality*, and that this style coincides with the sameness and continuity of one's *meaning for significant others* in the immediate community” (p. 50).

In even earlier writings, Erikson (1956) stated:

“The term identity...connotes both a persistent sameness within oneself (self-sameness) and a persistent sharing of some kind of essential character with others” (p. 57).

Throughout his writings Erikson proposed that the self-sameness and continuity is expressed through a “conscious sense of individual identity,” an unconscious striving for a “continuity of personal character,” a continuing process of “ego synthesis,” and an “inner solidarity” with a group's “ideals and social identity.”

Erikson delineated major factors that contribute to identity formation during adolescence. He argued that each society provides a scheduled time period for the completion of an identity. While recognizing that there are tremendous variations in the duration, intensity, and ritualization of adolescence, he proposed that all societies offer a psychosocial moratorium wherein the adolescent is expected to make “commitments for life,” and to establish a relatively fixed self-definition. In Erikson's own words:

“Societies offer, as individuals require, more or less sanctioned intermediary periods between childhood and adulthood, institutionalized psychosocial moratoria, during which a lasting pattern of ‘inner identity’ is scheduled for relative completion” (p. 66).

Thus a psychosocial moratorium, as a critical phase of life, is accompanied by a sense of crisis. Crisis is defined as a normative life event designating:

“a necessary turning point, a crucial moment, when development must move one way or another, marshaling resources of growth, recovery, and further differentiation” (Erikson, 1968, p. 16).

This normative identity crisis is thought to stimulate identity consciousness that compels the individual to explore life alternatives (e.g., political views, religious choices, etc.) and is resolved through personal ideological commitment.

Beginning with Erikson's theory we have expanded the theoretical base around which a self-report measure of identity formation can be used (see Adams and Marshall, 1996). The general features of a developmental social psychology of identity will be briefly summarized for prospective users of the Objective Measure of Ego-Identity Status.

#### The Nature of Socialization: Individuality and Relatedness

Socialization, in a broad sense, includes the tendencies that establish and maintain relations between people and which ensure the integration and respect of individuals as participants within a society that regulates behaviors according to societal codes (Damon, 1983). At a glance, the process of socialization and human development appears to be based on the paradoxical association between two seemingly opposing factors. That is, the duality between agency and communion, individuality versus collectivity, self versus other. Agency, or the individual function of socialization, focuses on the need for, and processes associated with, individuation, uniqueness, or separateness. Communion, or the social function of socialization, centers on the need for and processes which facilitate belongingness, connectedness, and union with others. The seeming opposites, however, are actually false oppositions (to use a term from Damon, 1995). This false opposition is readily seen in Damon's (1983) concluding analysis of the writings of James Mark Baldwin (an early pioneer in the field of child development), when he states that communion and individuation are...

“to a certain extent distinct from one another, and there is always the possibility that actions which will further one may not be in the service of the other, or may even stand in opposition to the other. But in the normal course of development, they go hand in hand, supporting each other's growth. There is a creative tension between the two, a dialectical interplay between the needs of the individual to maintain relations with others and the needs of the individual to construct a separate self. The individual can only construct the self in the context of relations with others, but at the same time, the individual must step beyond the confines of those relations and forge a unique destiny” (p. 5).

Individuals need a sense of uniqueness and a sense of belonging. Therefore, most socialization literature will, in various ways, argue for, or demonstrate, that the individual and social functions of socialization serve psychological and social well-being through feelings that the self is significant or matters (often defined as self-esteem) and perceptions of mattering to others (see Rosenberg, 1985; Erikson, 1964). Feeling significant or mattering is “the individual's feeling that he or she counts, makes a difference, ‘signifies’” (Rosenberg, 1985, p. 215). At the individual level, this involves personal agency. At the group level mattering signifies communion or belonging.

#### Individual Function

To restate our position, the individual function of socialization enhances one's sense of self as a unique and individuated person. The underlying process supporting such features is differentiation. Intrapersonally, this process centers on the differentiation of various aspect of the self. Interpersonal differentiation focuses on the emergence of an autonomous self from that of others. Hence, socialization that facilitates differentiation will result in a sense of mattering or feeling significant to the self as an autonomous individual with varying differentiated and valued (salient and important) self features.

#### Social Function

The social function of socialization enhances one's sense of belonging to and caring about significant others. The underlying process of the social function is integration. Intrapersonally, this involves the selection and organization of aspects of the social context which are personally meaningful. That is, the individual constructs an

identity out of socially possible faces and voices. Interpersonally, integration centers on the involvement, connection, and, communion with others. Socialization that facilitates integration will result in a sense of mattering in the form of social or collective identity.

1. The social and individual functions of socialization indicate that there is an underlying need for identity that is part of being human. The individual dynamic is the need to be individuated, unique or special. The social dynamic is the need to belong, to be connected, to have union and fellowship with others. Both dynamics serve psychological and social well-being through feelings and self-perceptions of mattering to oneself and to others.
2. The individual dynamic (need) is to enhance one's sense of self as a unique and individuated person. Intrapersonally, this centers on the differentiation of various aspects of the self. Interpersonal processes focus on the emergence of an autonomous self from that of others. Socialization that facilitates the individual dynamic will result in a sense of mattering to the self as an autonomous individual with varying differentiated and valued self features.
3. The social dynamic (need) is to enhance one's sense of belonging and mattering to significant others. The interpersonal process focuses on the construction of the self within many socially possible faces or voices. Interpersonal processes center on communion and connectedness with others. Socialization processes that facilitate this need result in a sense of mattering to others in the form of social (collective, role, interpersonal, or group) identity.

Balance between the processes of interpersonal differentiation and integration is critical for healthy human development (Erikson, 1968; Grotevant & Cooper, 1986; Papini, 1994). A high degree of differentiation which results in extreme uniqueness of an individual is likely to be met with a lack of acceptance by, and communion with, others. Low interpersonal integration of an individual can lead to marginalization, or a drifting to the periphery of a life system. Some individuals will find community with other marginalized persons and build or join another life system that meets their need for communion. However, low integration into a life system(s) will diminish individuals' sense of mattering to others and to commitments to particular social roles (Schlossberg, 1989). Conversely, extreme connectedness and low interpersonal differentiation within a life system can curtail individuals' sense of uniqueness and agency. This can leave individuals prone to difficulties in adapting to new circumstances (e.g., see Josselson, 1987).

Up to this point, the individual and social functions of socialization have been considered in light of their influence on human development. However, individuals (with identities) are seen as living and growing in active and evolving life systems. These same individuals both shape and are shaped by the very essence of their physical, social, economic, spiritual, and personal lives (Ford & Lerner, 1992). The individual is an essential unit within the group, just as the family, school, and community are a living part of the individual. Actions by or within either affects the other; therefore, we can state the following proposition:

4. An individual's personal or social identity not only is shaped, in part, by the living systems around the individual, but the individual's identity can shape and change the nature of these living systems.

In essence, the processes of differentiation and integration which undergird socialization and human development also function to support the life and growth of living systems. Conceptual and analytic literature within family theory (Minuchin, 1974), sociology, and social psychology (Manheim, 1952; Gergen, 1982; Martindale, 1960) and human development (Ford & Lerner, 1992) have been influential in shaping our notions about the nature of life systems.

The differentiation between individuals within a given system (interpersonal differentiation/intra-system differentiation) allows for individuals to make unique contributions that facilitate the adaptive evolution of the life system. Inter-system differentiation between groups centers on the emergence of an autonomous group identity. Communion between individuals within a group (interpersonal connectedness/intra-system connected-ness) supports communal life in constructing a cohesive structure. Inter-system communion focuses on the connections

between life systems. Connections between life systems support intergroup compatibility, acceptance, and tolerance, while diminishing defensiveness, friction, and discrimination. Communion between life systems effects the permeability of individual systems. That is, interactions between systems result in exchanges which facilitate the adaptative evolution of systems, but also threaten their uniqueness.

The identity of a life system is founded upon the dynamics of integration and relatedness. Indeed, the underlying need for identity that is a part of being human is paralleled in the need for life system identity. As with individuals, the balance between differentiation and integration is critical to the life of the system. High valuation and over-emphasis on differentiation and individuality within a system is likely to result in difficulties in maintaining continuity and cohesion by members over time. Hence, the system may disintegrate if differentiation between members is high. High valuation of differentiation between systems will inhibit permeability which functions to facilitate the adaptive nature of the system. However, the autonomous nature of the system will emerge as a sharp contrast to other systems. Over-emphasis on connections within the system will diminish individual autonomy and hamper the emergence of new ideas that allow for the group to evolve and adapt over time. High valuation of connections between systems will result in permeability, but the system(s) will lack distinctive features.

In propositional form, we advance the following:

5. Differentiation and integration serve to shape the identity of life systems. Thus, identity is a necessary part of human social groups in that it contributes to the structural characteristics of permeability, continuity, and coherence of each life system. Permeability is the adaptive nature of the system in its relationship to other systems. Continuity and coherence give the structure identifiable features over time.

#### The Nature of Selfhood

From the strengths of many diversified perspectives, we have drawn several working propositions that are central to understanding selfhood in the study of identity. We shall state these propositions and move on to a focal concern of identity and context.

6. Identity is a social-psychological construct that reflects social influences through imitation and identification processes and active self-construction in the creation of what is important to the self and to others.
7. The active self-constructive aspects of identity is founded upon cognitive or ego operations that organize, structure, and construct/reconstruct knowledge of the self.
8. Identity, as a psychological structure, is a self-regulatory system which functions to direct attention, filter or process information, manage impressions, and select appropriate behaviors.
9. Like all social psychological constructs, identity has its own functional purpose. The five most common functions of identity include:
  - (a) providing the structure for understanding who one is;
  - (b) providing meaning and direction through commitments, values and goals;
  - (c) providing a sense of personal control and free will;
  - (d) striving for consistency, coherence, and harmony between values, beliefs, and commitments;
  - (e) enabling the recognition of potential through a sense of future, possibilities, and alternative choices.

### Process of Growth and Development

Baumeister's (1986) historical analysis of identity reveals that different societies, or the same society at different times, provide different levels of choice in the construction of self. At one extreme, a society may provide a social structure where an identity is assigned by lineage or gender and is primarily determined by imitation and identification processes. While at the other extreme, a society may require choice, often between incompatible alternatives (e.g., motherhood versus career). Between these two extremes are societies with various degrees of choice, achievement, and self-transformation.

Baumeister (1991a; 1991b) also writes on the search for meaning and the self. In this line of thought, he argues there is a need for escaping the self as the burden of finding meaning is placed on the individual to construct and maintain itself. He concludes in an almost apocalyptic tone:

“...[that] the movement toward modern society critically weakened several of the culture's most powerful value bases [e.g., religion, marriage, work ethic]. The result was the value gap--a severe shortage of firm bases for distinguishing right from wrong, for justifying and legitimizing actions, and for guiding individual moral choices. The value gap is the most serious problem of life's meaning that characterizes modern society, because modern life offers abundant ways of satisfying all the needs for meaning except value. Our culture has responded to the value gap in several ways, but perhaps the most important of these is the transformation of selfhood into a major value base” (Baumeister, 1991b, p. 365, parentheses added).

Extrapolations from Baumeister's work suggests that identity is founded upon meanings and values which can be either assigned or selected. In Western societies, identity is most often thought to be selected from many available choices. (Although sub-cultural differences in regards to variations and restrictions of choice are likely within any given society.) The value base that is to be used is either a set of principles or goals assigned by societal institutions (and acquired through identification and imitation) and/or created and established by the individual (self-constructed). Ford (1992) has provided a list of the many goals of life that are likely to fill the major value base for the “maintenance or promotion of the self, and maintenance or promotion of other people or the social groups of which one is a part” (p.92). These goals include feeling unique, the freedom to act, to be valued by others, to be with and cared for, the keeping of interpersonal commitments, fairness, and caring for others. Many of these goals are similar to Erikson's (1964) notions of ego strengths and healthy psychological functions. We believe, nonetheless, that these value goals are the new emerging value bases of selfhood and identity formation.

But what drives the construction and reconstruction of identity? What compels an individual to select a value-base that underlies meaning? Early research in child development focused on identification and imitation as major mechanisms of social development (e.g., Sears, Maccoby & Levin, 1957). In comparison, psychoanalytic theory places the driving mechanism in the form of conflict and emotional resolutions (Blos, 1962) that lead to deidealization of the ego-ideal and to autonomy. Cognitive and life-span development theorists have placed it within dissonance and dialectics (e.g., Festinger, 1957; Riegel, 1976). Social psychologists (e.g., Wicklund, 1975) have argued that self-awareness is the central motivator of change. All of these perspectives share a mechanism of mild to moderate self awareness, distress/discomfort, confrontation and resolution. Our own work on self-consciousness, perspective-taking, and dialectic thought (Adams & Fitch, 1983; Adams, Abrahams, & Markstrom, 1987; Markstrom-Adams, Ascione, Braegger & Adams, 1994) leads us to believe that processes of identity formation are influenced by dialectic-like mechanisms that involve distress, incompatibility, incompleteness, inconsistency, or confrontation, followed by synthesis and/or resolution.

The childhood socialization processes of identification and imitation in identity formation are not completely replaced in adolescence and adulthood by dialectic processes. Indeed, it is unlikely that these processes are mutually exclusive. For example, identification and imitation are useful processes in adolescence and adulthood as individuals experiment with alternative values, beliefs, and ways of being as a function of resolving the distress which arises from the awareness of need for change.

Processes of identification and imitation are used, to varying degrees, by individuals as are the dialectic mechanism leading to synthesis and resolution. For example, the identity status literature suggests that some individuals are less likely to 'explore' options and more likely to identify and imitate others (Marcia et al., 1993). Conversely, some individuals experience greater awareness of incongruities and distress and may, in turn, seek out information to arrive at a resolution (see identity styles as described by Berzonsky, 1989). The degree to which individuals use either identification and imitation over dialectic processes is not simply a function of individual differences. The structure of the life systems in which the individual is embedded will also serve to shape the processes involved in identity formation.

Social settings are a source of influence in shaping identity formation. Societies can provide institutionalized situations where individuals can identify with others and imitate roles. Indeed, within western society fan clubs of movie stars, sports heroes, or fashion models build upon this notion. An expectancy of conformity and high cohesion between group members may also facilitate identification and imitation. In contrast, social settings may provide for awareness, distress, confrontation, and resolution. An example of an institutionalized experience that leads to a dialectic processes is the Native American practice of marking the transition from childhood to adulthood through long periods of isolation, fasting, and meditation in the wilderness in search of spirit guardians. Such experiences create self-awareness, force a confrontation within the self, and create an expectation of discovery. Less institutionalized is the circumstance where identity formation is based primarily on individuals' establishment of a meaningful value system. This type of setting holds greater ambiguity in the selection of psychological and interpersonal goals. Under such circumstances, there is greater opportunity for individuals to experience a dialectic tension between opposing choices and resolution.

We believe that the dialectics of identity resolution are a function of the individual experiencing an incongruity between the self-as-known (real self) and the self that could be (ideal self). Large discrepancies create anxiety surrounding perceived distance between what is and what should be. Hence there is a sense of yearning to find congruity, coherence, and purpose. Such yearning is not as salient in the processes of identification and imitation (unless these processes are being utilized to resolve an incongruity). Underlying this yearning is human faith--what Erikson (1968) refers to as fidelity. Faith is the ability to know that we will reach the goal, resolve the incongruity. In essence, to become aware of incongruity and to resolve the distress a person must have some degree of faith.

The use of metaphors of shipwreck, gladness, and amazement described by Parks (1986) to understand human faith can also be useful here. Growth, it is argued, begins with suffering. As we let go of some level of belief we feel a collapse of self, a disorientation, a bewilderment, even feelings of emptiness. We are drained of the rich connections that offer us a sense of significance, delight and purpose. We feel shipwrecked. Parks (1986) states, "Shipwreck may be precipitated by events such as the loss of a relationship, violence to one's property, the collapse of a career venture, physical illness or injury, the defeat of a cause, a fateful moral choice that irrevocably reorders one's life, betrayal by a community or government, or the discovery that an intellectual construct is inadequate" (p.24). The shipwreck dissolves the meanings that once served us well. But in time, the ship (person) will travel to a new shore and there will be gladness. Through the shipwreck we come to transform, to discover, move beyond the loss, find new and more robust ways of knowing, understanding, being. Along with gladness, we experience amazement. The survival of the shipwreck tells us we can survive. We are amazed and strengthened.

The process of identity formation will generate faith to the extent that individuals experience incongruity, loss, and crises of meaning and are able to determine some resolution within the self and with others. From work by individuals such as Erikson, Baumeister, and Parks, we believe the following propositions are central to an evolving developmental social psychology of identity.

10. Identity is an ongoing process. It can be altered through processes of (a) identification and imitation and/or, (b) when self-awareness, self-focusing, or self-consciousness is heightened or incongruity that exists between the self-as-known (real self) and the self that could be (ideal self).
11. Identity can be assigned or selected. In most modern technologically complex societies it is selected. What is selected is a set of psychological and interpersonal goals based on the values of individuation (feeling unique),

self-determination (freedom to act), social approval (to be valued by others), belonging (to be with and cared for by others), social responsibility (keeping ideological and interpersonal commitments), equity (fairness and justice), and caring for or about others.

12. Each society has sensitive points in the life-cycle where rites, rituals, institutional expectations, or regulations heighten self-focusing behaviors and identity formation. These sensitive points are often referred to as life stages or phases (e.g., adolescence, mid-life crises, etc.). Each sensitive point has certain socially recognized (and often informally stated) social expectations that a maturing individual is expected to address through experience, thought, individual choices, and self-transformations.

### Person-in-Context

The original assumption of this treatise is that identity develops out of both the individual and social functions of socialization. Further, processes of differentiation and integration undergird social experience such as dialogue, knowledge transmission, discussion and other forms of human relatedness. These social and psychological processes come to influence the sense of self. Further, in these social experiences individuals shape the social process (society) that in turn shapes individuals. Therefore, as humans, we are relationally embedded. Context is an essential feature of the self.

An excellent depiction of the contextual nature of person-in-context has been provided in the study of family, schools, and community and the structural set of expectations and standards which facilitate a successful adolescent transition to young adulthood (Ianni, 1989). Through a comparison of thousands of adolescents living in urban, suburban, and rural communities, Ianni demonstrates a complex contextual influence that shapes adolescents' behaviors, aspirations, and identities. Founded on a social comparison mechanism, society is shown to sort youths and mold their sense of self. Ianni reveals that in communities where adults express consistent values and expectations, adolescents develop a positive sense of self, aspirations and goals with a purpose and direction, a commitment and identity that includes a personal and social responsibility to self and others, and perceptions of power and mastery. In contrast, communities riddled by conflict, despair, and poverty, where the family, school, and community fail to offer cogent and consistent direction, goals, or expectations, result in youth drifting toward unconventional behaviors, role confusion, cynicism, and a generally diffused sense of self.

Ianni (1989) argues that adolescents are engaging in a search for structure; that is, a set of believable and attainable expectations and standards in the form of a loose collection of shared understandings. He refers to this as the "community's youth charter." In his own words, here are the implications:

"It is through the youth charter that teenagers can become active, constructive participants in getting to know themselves, their social worlds, and who they are and can become within them. Within the various community institutions and environments, adolescents can observe the interacting effects of their actions and the actions of others, and thus evaluate and modify their own behavior in response to the judgments of others. A youngster can, for example, decide to view himself, or behave, "like" a particular person or group depending on the judgments attached to that model by peers, significant adults, or both. The charter provides the source for feedback about who one is and how one is doing as the individual develops a set of self-evaluations as a son or a daughter, a student, and a friend" (p. 264).

In a developmental contextualist perspective, attention is given to the study of the individual's psychological processes and to the meaning of these processes within the social, physical, and economic contexts in which they function. One must study the contextual features in which a person is embedded to understand the utility of the individual's personal or social identity.

The research agenda for understanding the person-in-context includes a search for macro-and micro-level environmental features that help to shape and become part of the very fabric of identity itself. All social experiences, be they cooperative or competitive, have their own contextual and relational features. All knowledge is generated and shared in relational contexts.

From research literature such as those cited here and much more the following propositions emerge:

13. Like all personal knowledge, the self is constructed in a relational context. Thus, identity is constructed through a person-in-context.
14. Relational influences include macro-environmental features of culture, economics, population demographics, politics, institutional values, physical environments, social class or caste, race or ethnic membership and micro-level features such as interpersonal communication, conversation, written word, media, and common or routine daily interactions.
15. The macro- and micro-environmental features influence identity formation through the shared values, ideologies, or norms that are socially constructed and communicated through signs, symbols, meanings, and expectations that are found in language, discourse or communication.

#### Linkages Between Macro- and Micro-Environments

We have proposed that what links the macro-and micro-levels of influence on individuality are the shared ideologies, signs, symbols and messages that are present in both cultural/historical/ economic/religious dimensions of society and the day-to-day social interactions that occur between people. The macro-level messages are expressed through different forms of leadership, economic systems, political ideologies and social policies, and cultural messages, signs, and symbols (e.g., see Cote & Allahar, 1994; Simonton, 1994). While micro-level messages are expressed in the forms of dialogue, conversation, gossip, and discussion that occurs face-to-face. In a recent report on adolescents at-risk (Panel on High-Risk Youth, 1993) the interface between macro-and micro-level influences is described in a chapter on neighborhoods. Macro-level influences such as the concentration of poverty, racial and ethnic stratification, crime rates and police practices, and so forth determine the availability of micro-level influences regarding role models that represent intact and fully employed family members, alternative ethnic or cultural group values, and variations in skilled and professional lifestyles. Concentrations of undesirable macro-level features increase the likelihood of restricted role models for identification and imitation and often lead to micro-level behavioral interactions that are filled with threatening, constricted social interactions and issues of safety that minimize a secure sense of community. Under such circumstances the formation of either an identification with a negative identity or the potential of restricting choice is ever present.

#### Operationalization of Identity Formation

While several operationalizations of identity formation have emerged, one widely accepted in the study of adolescence has been provided by James Marcia (1966). Drawing on two of the major dimensions described in Erikson's theory of identity formation, Marcia has conceptualized four types of identity formation. These two dimensions involve the presence or absence of a crisis period (or as more recently conceptualized by Matteson [1977], a continuum of exploration behaviors) and the presence or absence of a clearly defined and stable commitment to values, beliefs, and standards. This exploration or crisis period is expected of adolescents during their youth by society. Prior to entering a psychosocial moratorium, youth do not experience a motivating identity consciousness. He or she, therefore, may not experience a need to explore alternatives and may also fail to establish ideological commitments. These youth are referred to as identity diffused. A second category of youths report stable commitments but have not experienced a personalized crisis period. That is, these youths have adopted commitments from others (usually parents) and have not tested their stated commitments for individual fit. Such youths merely accept the commitments of others and own them, without shaping or modifying them. This process is thought to be similar to that of early childhood identifications. These youths are labeled identity foreclosed. The third category includes youths who are currently experiencing the identity consciousness of an identity crisis and are actively exploring, but have not yet arrived at their own self-defined commitments. These youths are categorized as being in moratorium. Finally, youths who have experienced a psychosocial moratorium and have made substantial exploration prior to identifying personal and unique ideological commitments are referred to as identity achieved.

Various semi-structured clinical interviews and coding strategies (e.g., Marcia, 1966; Waterman, Besold, Crook & Manzini, undated; Grotevant & Cooper, 1981), have been developed for categorizing adolescent identity development. Transcribed tapes from an approximately one hour interview are used by trained coders to derive an identity status, i.e., diffusion, foreclosure, moratorium or identity achievement. As was recognized by Erikson, identity is an evolving configuration and at any given time an individual is inclined to fit into one of four identity statuses; however, over time the individual may change and be categorized in a different status. Several useful summaries of the available findings from the use of the clinical interview have been published and should be read by potential users of that methodological strategy (e.g., Marcia et al., 1993; Marcia, 1980; Waterman, 1982; Waterman & Waterman, 1984).

### Self-Report Versus Clinical Interviews

While the clinical interview technique is a useful measure of identity development that should be used when (a) in-depth information is needed from the research subjects, (b) analyses are planned for idiographic information, or (c) aspects of verbal processing regarding identity formation within a sample are to be studied, several notable problems exist in using the semistructured interview for subject classification. First, the clinical interview requires a great deal of time because of the necessity of individual administration. This is likely to limit the size of research samples and possibly the use of random sampling procedures. Second, scoring procedures require extensive training and considerable care in using scoring manuals in the rating of the verbal protocol. Difficulties in engaging in a reliable and valid interview, using the correct and useful interview stems, and adequate probing that avoids directing or biasing responses can make it difficult to complete extensive interview studies. Further, scoring procedures require obtaining interrater agreements (consensual validation) and finally, status classification is based on unique responses for each subject.

In contrast, a self-report scale can be utilized with a common set of items responded to by all subjects, therein providing a similar base on which all subjects are classified. Its strength is in comparability and its weakness is in its limitations of variability or idiographic uniqueness. For classification purposes, however, a common set of stems and standardized response format allow for easier estimates of reliability and validity within a sample and comparisons between samples. Clear estimates of reliability and validity enhance the comparability between studies and enhance the reliability and validity of findings (Adams & Schvaneveldt, 1985). Likewise, a self-report scale is simple to administer, can be machine or handed scored, and classifications can be easily undertaken on large random samples. A self-report scale can be completed in a face-to-face context, through a mailed questionnaire technique, or in large group or classroom settings. This technique is limited, however, to primarily classification purposes only and provides limited additional opportunity for analyzing a subject's reasoning behind choices.

Given the need for an easily administered and scored instrument that has established forms of reliability and validity, and that can be used for classification purposes, the Objective Measure of Ego Identity Status was developed. It can be (a) used as an instrument in its own right, (b) included along with a clinical interview on identity formation to provide a check on the clinical interview scoring, or (c) included in a larger battery of psychological tests for classification purposes. The instrument can classify an individual at a single point in time, can be used to assess developmental changes in identity, or can be used as a general measure of individuality or self-differentiation ranging from a diffused to an achieved-identity individuated state.

## Measurement Construction

Prototype

The original prototype instrument was developed for two fundamental reasons. First, a self-report instrument was desired for less costly classification of subjects into identity status types. Second, Rest (1975) argues that change depicted in the form of a “transition matrix” misrepresents the complexity of stage change, fostering the misconception that individuals move through one stage (or status) at a time. We accepted his statement that “instead of asking what stage is a subject in, the question should be to what extent and under what conditions does a subject’s thinking exhibit various stages of thinking?” (pp. 739-740). Therefore, we recognize that future developmental research on identity should not only classify and study one stage progression at a time, but should also be looking at what Rest (1975) calls “upward shifts in distributions of responses (increases in higher stages, decreases in lower stages)” (p. 740). Hence, an instrument was developed that allowed for classifications of transition types - e.g. diffusion-foreclosure, moratorium-achievement, diffusion-moratorium.

Accordingly, Adams, Shea and Fitch (1979) completed four separate investigations to demonstrate that a valid self-report measure of ego-identity status could be developed to allow researchers and clinicians to classify adolescents and young adults as to their identity status, but also allow for the assessment of shifts in distribution of stage-related responses. Based on the assumption that exploration and commitment are a relatively conscious activity and can be measured approximately as well by a self-report questionnaire as by an interview format, test items were designed based on subjects’ responses to interview questions which reflected the theoretical amount of exploration and commitment that would be typical for each identity status. This prototypic version of the Objective Measure of Ego Identity Status (OMEIS) contained 24 items with 6 items reflecting each of the four identity statuses for the topical content or domain areas of occupation, religion and politics. These three domains were chosen to match those originally utilized by Marcia (1966) in his early semistructured clinical interview. Each item was responded to by the subjects on a 6-point Likert scale that forced agreement or disagreement. A brief pilot study led to the revision or exclusion of several items which did not appear to reflect appropriately the nature of any of the four identity statuses. (See Appendix A for items.)

A total of 48 male college students were sampled in the first study. All subjects were freshmen. Subjects completed the Marlowe-Crowne Social Desirability Scale, The Marcia Ego-Identity Incomplete Sentence Blank, and the Objective Measure of Ego Identity Status. Convergent-divergent correlations between the items showed diffusion and moratorium shared some common variance, but showed little convergence with the committed statuses of achievement and foreclosure. Correlations of the achievement and foreclosure subscales found minimal shared variance which lends evidence to the theoretical notion that the two committed statuses are distinct forms of identity (See Table 1). Predictive validity was estimated by comparing each identity group’s scores on the Marcia Incomplete Sentence Blank measure. The identity statuses appropriately differed, with diffusion subjects showing the least commitment and achievement-status subjects having the highest degree of commitment to an overall identity. No confounding effects due to social desirability were observed.

Table 1. Convergent-Divergent Correlation Ranges for Stage-Specific Items with the Total Stage Scores

Six items each in	Total Stage Scores			
	Diffusion	Foreclosure	Moratorium	Identity Achieved
Diffusion	.29-.66	-.25-.04	.24-.50	-.34-.08
Md	.48	.15	.25	.24
Foreclosure	.05-.40	.44-.76	-.06-.39	-.17-.26
Md	.10	.67	.20	.08
Moratorium	-.04-.57	-.01-.32	.37-.65	.35-.18
Md	.44	.21	.60	-.27
Identity Achievement	-.42-.11	-.32-.27	-.48-.12	.38-.72
Md	-.14	.05	.19	.59

For these first results a series of psychometric rules for the classification of identity status were derived based on the means and standard deviations of the sample's subscale scores. These rules and means are presented later in this reference manual in the section of description and scoring of the test.

In a text on theories of adolescent development, Muus (1975) has suggested that the identity-achievement adolescents should be high on self-acceptance because of having passed through a period of questioning and having made personal commitments, while Marcia (1966) had indicated foreclosure is related to high authoritarian attitudes. Authoritarianism is considered to be related to rigidity, inflexibility, and dogmatism. Therefore in Study 2, using a sample of 50 females and 26 males, subjects completed the OMEIS, the Adorno F-Scale, the Phillips Self-Acceptance Scale, the Wesley Rigidity Scale, and the Marcia Ego-identity Incomplete Sentence Blank. Results from this study are summarized in Table 2.

Table 2. Mean Comparisons on Ego-Identity Status Categories<sup>a</sup>

	Diffusion		Foreclosure		Moratorium		Achievement		Other	
	<i>M</i>	<i>sd</i>	<i>M</i>	<i>sd</i>	<i>M</i>	<i>sd</i>	<i>M</i>	<i>sd</i>	<i>M</i>	<i>sd</i>
Marcia ISB	34.6 <sub>a</sub>	4.17	37.1 <sub>ab</sub>	1.51	38.2 <sub>b</sub>	3.24	38.0 <sub>b</sub>	3.86	37.8 <sub>ab</sub>	3.77
F Authoritarian	59.1 <sub>b</sub>	9.97	55.4 <sub>b</sub>	9.04	44.2 <sub>a</sub>	11.32	36.6 <sub>a</sub>	13.16	48.5 <sub>ab</sub>	9.98
Social acceptance <sup>b</sup>	66.7 <sub>bc</sub>	9.07	72.9 <sub>c</sub>	16.97	57.9 <sub>ab</sub>	12.05	52.0 <sub>a</sub>	15.43	71.5 <sub>bc</sub>	16.82
Rigidity	11.8 <sub>bc</sub>	2.61	10.3 <sub>ab</sub>	3.37	10.0 <sub>ab</sub>	2.97	8.1 <sub>a</sub>	4.04	14.3 <sub>c</sub>	2.06

<sup>a</sup>Simple effects were assessed with a multiple range test. Means sharing a common subscript across rows are not significantly different from each other, while means with a different superscript are significantly different at the 0.05 level or better.

<sup>b</sup>The social acceptance scale is reverse weighted - low scores imply high self-acceptance.

Predictive validity estimates were generally consistent with expectations. Foreclosed subjects scored higher than the achieved and moratorium subjects on the authoritarian measure, achieved individuals reported significantly more self-acceptance than the diffused or foreclosed group, and the foreclosed subjects were more rigid than the other identity statuses – although the latter findings were not statistically significant. Finally, the diffused- and achieved-status groups differed significantly on the Ego-Identity Incomplete Sentence Blank (a global identity measure) with diffused youths scoring lowest and identity-achieved youths scoring highest.

Study 3 focused on possible sex differences in identity formation measurement. A sample of 88 males and 84 females completed the OMEIS and the Marcia Ego-Identity Incomplete Sentence Blank. A Sex x Identity Status Classification factorial was computed using analyses of variance where the score on the incomplete sentence blank was treated as the dependent measure. No significant main effect or interaction was observed for gender. Further, a comparison of the developmental linkage between identity status and age found that younger males were more likely to be diffused or foreclosed, while older males were more likely to be moratorium or identity achieved. The female sample showed similar distributions, but the differences were not statistically significant.

In Study 4 a comparison was made between the classifications derived from the Objective Measure of Ego-Identity Status, the Marcia clinical interview and the incomplete sentence measure. Fifty-four subjects were assessed using both instruments.

A comparison of the interview and self-report classifications revealed the following: of 7 students scored as diffusion by the OMEIS, 5 were in the uncommitted statuses on the Marcia interview; of the 7 foreclosed students on the OMEIS, 5 were scored as foreclosed on the Marcia measure; 16 of the 31 subjects in the moratorium status were scored in the same category status; while 7 of 9 identity achievement students were scored in committed statuses between the two measures. Discrepancies in scoring and classification are discussed in more detail in Adams, Shea and Fitch (1979). (Higher rates of agreement have been found with further development of scoring techniques and with scale development. These will be reviewed later in this manual.)

Finally, comparisons between the four identity statuses derived from the Marcia interview and the full scores from the OMEIS subscales were computed and are summarized in Table 3. As measured by the Marcia interview, achievement and foreclosed students held significantly lower OMEIS diffusion scores than moratorium or diffusion-status youths. Further, foreclosed students held significantly higher OMEIS foreclosure-subscale scores than diffusion, achievement, or moratorium students. Also, diffusion and moratorium students held higher scores on the moratorium subscale of the OMEIS than the foreclosed- or achievement-status subjects.

Table 3. Comparison of the Four Identity Statuses Measured by the Marcia Interview Schedule on the OMEIS Subscale-Status Scores<sup>a</sup>

Interview status subjects	OM-EIS status scores							
	Diffusion <sup>b</sup>		Foreclosure <sup>c</sup>		Moratorium <sup>d</sup>		Achievement <sup>e</sup>	
	x	sd	x	sd	x	sd	x	sd
Diffusion	21.75 <sub>a</sub>	6.3	11.00 <sub>ab</sub>	16.50	16.50 <sub>ab</sub>	4.0	24.00	3.9
Foreclosure	15.50 <sub>bc</sub>	3.2	16.69 <sub>c</sub>	13.94	13.94 <sub>b</sub>	1.9	27.49	3.1
Moratorium	17.73 <sub>ab</sub>	4.1	14.14 <sub>b</sub>	16.78	16.78 <sub>a</sub>	2.2	26.00	3.6
Achievement	13.67 <sub>c</sub>	4.4	10.75 <sub>a</sub>	14.42	14.42 <sub>b</sub>	3.1	28.75	2.3

<sup>a</sup> Simple effects were assessed with a multiple range test. Means sharing a common subscript across rows are not significantly different from each other, while means with a different superscript are significantly different at the 0.05 level or better.

<sup>b</sup>  $F(3, 50) = 5.07, p < 0.01$ .

<sup>c</sup>  $F(3, 50) = 5.27, p < 0.01$ .

<sup>d</sup>  $F(3, 50) = 4.85, p < 0.01$ .

<sup>e</sup>  $F(3, 50) [1, ns]$ .

Three problems were noted with the use of the prototype OMEIS. First, there was a group of unclassifiable subjects which appeared to share some similarities with the foreclosed and moratorium statuses. These youths are now referred to as the “low profile” moratoriums--a special case of moratorium status. Second, the use of only three topical domains restricted the instrument to measuring an identity formulated only in the areas of occupation, politics, and religion. Third, the instrument showed a moderate overlap between diffusion and moratorium. Therefore, a second series of studies was conducted in an attempt to correct for some of these shortcomings.

### Revisions

Our initial development of the prototype showed strong promise for using the OMEIS to measure ideological commitments in identity formation. However, Grotevant, Thorbecke and Meyer (1982) demonstrated that identity consists of both ideological and interpersonal aspects. In a recent elaboration on Erikson's theoretical treatise regarding this issue, Dyk and Adams (1987) have written:

“Erikson (1968, pp. 211-12) has recognized that identity formation consists of two distinct components. He refers to these as ego-identity and as self-identity. Ego-identity refers to commitments to such things as work, and ideological values associated with politics, religion, a philosophy of living, and so forth. Self-identity theory can be illustrated from the most contemporary and visible theorist of identity formation.”

Therefore, we conclude that ideological identity includes occupational, religious, political and philosophical life-style values, goals, and standards, while a social or interpersonal identity incorporates aspects of friendship, dating, sex roles, and recreational choices. Using this evolving conceptualization we expanded the 24 items of the prototype to include 64 items designed to measure both ideological and interpersonal identity. (See Grotevant & Adams, 1984).

Samples from the University of Texas at Austin ( $n = 317$ ) and Utah State University ( $n = 274$ ) were used in two parallel studies. Several reliability estimates were computed. Internal consistency of the subscales for both the Texas and Utah samples ranged between .67 and .77. Split-half reliabilities ranged from .37 to .64. Test-retest reliabilities ranged over a four week period from .63 to .83.



Table 6. Correlations Between Identity Scores and Coping Scales<sup>a</sup>

	Confrontation	Engaging	Independence vs. obedience	Total coping
<b>Ideology</b>				
Achievement	.25 <sup>b</sup>	.26	.04	.29 <sup>b</sup>
Moratorium	-.11	-.03	.13	-.10
Foreclosure	-.15	-.40 <sup>d</sup>	-.39 <sup>d</sup>	-.33 <sup>c</sup>
Diffusion	-.30	-.11	.07	-.22 <sup>b</sup>
<b>Interpersonal</b>				
Achievement	.12	.32 <sup>c</sup>	.24 <sup>b</sup>	.39 <sup>d</sup>
Moratorium	-.05	-.10	.13	-.04
Foreclosure	-.10	-.34 <sup>c</sup>	-.40 <sup>d</sup>	-.24 <sup>b</sup>
Diffusion	-.22 <sup>b</sup>	-.34 <sup>c</sup>	.08	-.37 <sup>c</sup>
<b>Total Identity</b>				
Achievement	.23	.35 <sup>d</sup>	.16	.42 <sup>d</sup>
Moratorium	-.09	-.08	.16	-.09
Foreclosure	-.14	-.40 <sup>d</sup>	-.42 <sup>d</sup>	-.30 <sup>c</sup>
Diffusion	-.31 <sup>c</sup>	-.26 <sup>b</sup>	.01	-.34 <sup>c</sup>

<sup>a</sup>*N* = 67; Texas sample only.<sup>b</sup>*p* < 0.05.<sup>c</sup>*p* < 0.01.<sup>d</sup>*p* < 0.001.

Table 7. One-Way Analyses of Variance for Vocabulary, Social Desirability, and Achievement Scores by Identity Status: Ideology.

Variable	Mean for identity statuses				<i>F</i>
	Ach <sup>a</sup>	Mor	Fore	Diff	
	Texas sample				
	( <i>N</i> = 43)	( <i>N</i> = 142)	( <i>N</i> = 56)	( <i>N</i> = 64)	
Vocabulary	18.4	20.0	17.0	20.7	3.25 <sup>b</sup>
Social Des.	15.4	14.8	15.0	13.8	1.00
SAT-Verbal	445.3	488.0	440.6	468.6	5.13 <sup>c</sup>
SAT-Math	473.3	508.6	509.6	518.8	2.42
College GPA	2.5	2.7	2.5	2.5	1.62
High-school rank	74.5	80.7	75.1	77.7	1.64
	Utah Sample				
	( <i>N</i> = 49)	( <i>N</i> = 138)	( <i>N</i> = 26)	( <i>N</i> = 43)	
Vocabulary	14.2	13.2	10.3	10.1	4.60 <sup>c</sup>
Social Des.	14.9	13.5	14.8	13.1	1.84
	( <i>N</i> = 36)	( <i>N</i> = 99)	( <i>N</i> = 21)	( <i>N</i> = 28)	
ACT-English	19.4	17.0	17.6	15.4	4.55 <sup>c</sup>
ACT-Math	18.3	17.0	14.1	14.4	2.72 <sup>b</sup>
ACT-Soc. Sci.	18.3	16.6	16.1	15.1	1.43
ACT-Nat. Sci.	22.6	21.2	18.4	18.5	4.14 <sup>c</sup>
ACT-Composite	19.8	18.2	16.7	16.0	3.66 <sup>b</sup>

<sup>a</sup>Ach, Achievement; Mor, Moratorium; Fore, Foreclosure; Diff, Diffusion.<sup>b</sup>*p* < 0.05.<sup>c</sup>*p* < 0.01.

Table 8. One-Way Analyses of Variance for Vocabulary, Social Desirability, and Achievement Scores by Identity Status: Interpersonal

Variable	Mean for identity statuses				<i>F</i>
	Ach <sup>a</sup>	Mor	Fore	Diff	
	Texas sample				
	( <i>N</i> = 36)	( <i>N</i> = 162)	( <i>N</i> = 41)	( <i>N</i> = 65)	
Vocabulary	18.8	20.6	16.4	18.3	4.25 <sup>b</sup>
Social Des.	16.2	14.6	15.3	13.5	2.62
SAT-Verbal	457.5	479.6	424.1	471.5	4.53 <sup>b</sup>
SAT-Math	491.1	503.9	483.5	526.0	2.21
College GPA	2.7	2.6	2.6	2.6	0.22
High-school rank	79.5	78.2	76.0	77.6	0.21
	Utah Sample				
	( <i>N</i> = 36)	( <i>N</i> = 142)	( <i>N</i> = 27)	( <i>N</i> = 47)	
Vocabulary	11.7	12.6	12.4	12.4	0.17
Social Des.	14.2	13.9	14.4	13.1	0.53
	( <i>N</i> = 27)	( <i>N</i> = 104)	( <i>N</i> = 22)	( <i>N</i> = 29)	
ACT-English	16.6	17.5	16.8	17.7	.42
ACT-Math	15.6	16.5	15.5	18.6	1.19
ACT-Soc. Sci.	15.5	16.6	15.5	19.2	2.17
ACT-Nat. Sci.	20.3	21.1	19.5	21.6	0.72
ACT-Composite	17.2	18.1	16.9	19.3	1.31

<sup>a</sup>Ach, Achievement; Mor, Moratorium; Fore, Foreclosure; Diff, Diffusion.

<sup>b</sup>*p* < 0.01.

Table 9. One-Way Analyses of Variance for Vocabulary, Social Desirability and Achievement Scores by Identity Status: Total.

Variable	Mean for identity statuses				<i>F</i>
	Ach <sup>a</sup>	Mor	Fore	Diff	
	Texas sample				
	( <i>N</i> = 39)	( <i>N</i> = 165)	( <i>N</i> = 37)	( <i>N</i> = 57)	
Vocabulary	17.6	20.6	15.5	19.9	5.79 <sup>d</sup>
Social Des.	15.8	14.9	14.9	13.2	2.59
SAT-Verbal	445.6	481.7	429.4	473.7	4.59 <sup>c</sup>
SAT-Math	475.9	505.4	494.4	531.3	3.09 <sup>b</sup>
College GPA	2.5	2.7	2.5	2.5	1.67
High-school rank	72.7	80.3	75.4	75.9	2.01
	Utah Sample				
	( <i>N</i> = 40)	( <i>N</i> = 158)	( <i>N</i> = 28)	( <i>N</i> = 36)	
Vocabulary	12.6	13.1	10.7	10.6	2.18
Social Des.	15.5	13.4	15.1	13.1	3.24 <sup>b</sup>
	( <i>N</i> = 29)	( <i>N</i> = 112)	( <i>N</i> = 24)	( <i>N</i> = 24)	
ACT-English	18.6	17.3	16.1	16.8	1.43
ACT-Math	17.2	17.0	14.6	15.5	0.99
ACT-Soc. Sci.	17.6	16.7	14.9	17.2	0.91
ACT-Nat. Sci.	22.3	21.3	18.3	19.3	3.16 <sup>b</sup>
ACT-Composite	19.0	18.3	16.1	17.3	1.85

<sup>a</sup>Ach, Achievement; Mor, Moratorium; Fore, Foreclosure; Diff, Diffusion.

<sup>b</sup>*p* < 0.05.

<sup>c</sup>*p* < 0.01.

<sup>d</sup>*p* < 0.001.

Finally, a third study directly comparing the EOMEIS-1 classifications with the exploration and commitment ratings derived from the interview strategy was completed. Using a classification system devised by Grotevant and Cooper (1981), clinical interviews with 44 high-school age adolescents were rated for degree of exploration and commitment and correlated with the subscales of the EOMEIS-1. Exploration was rated on a scale of one to four: one equaling complete absence of consideration of options, four equaling both depth and breadth in exploration. Commitment was rated from one (complete absence) through four (strong commitment).

Table 10 summarizes the basic findings. The findings show that six of the eight correlations for the Ideology Identity subscales were significant and in the predicted direction. But only two of the eight correlations for the Interpersonal Identity subscales were significant. Nonetheless, correlations were in the predicted direction in most cases.

Table 10. Correlations Between Ego Identity Interview Ratings of Exploration and Commitment and Ideology, Interpersonal, and Total Identity Scales<sup>a</sup>

Questionnaire scale score	Ego Identity Interview rating	
	Exploration	Commitment
Ideology		
Achievement	.34	.41 <sup>c</sup>
Moratorium	-.16	-.53 <sup>d</sup>
Foreclosure	-.50	-.21
Diffusion	-.48	-.58 <sup>d</sup>
Interpersonal		
Achievement	.30	.09
Moratorium	.14	-.23
Foreclosure	-.52	.22
Diffusion	-.21	-.22
Total		
Achievement	.19	.30 <sup>b</sup>
Moratorium	.06	-.44 <sup>c</sup>
Foreclosure	-.59	.01
Diffusion	-.35	-.44 <sup>c</sup>

<sup>a</sup>N = 44.

<sup>b</sup>p < 0.05.

<sup>c</sup>p < 0.01.

<sup>d</sup>p < 0.001.

### Final Revision

Another investigation (Bennion & Adams, 1986) focusing solely on the psychometric development of the OMEIS, was undertaken to improve on the interpersonal identity items and provide estimates of reliability and validity in the final revision. The objectives were to (a) establish reliability of the new items using Cronbach alpha; (b) determine the correlation of the interpersonal domains with other identity scales; and (c) establish predictive and discriminant validity by comparing the assessed identity statuses with the subjects' reported intimacy, self-acceptance, and social desirability response tendencies.

A total of 106 undergraduates (38 males, 68 females; 37 freshmen, 28 sophomores, 27 juniors, 14 seniors) completed the EOMEIS-2 (revision), the identity and intimacy scales from the Erikson Psychosocial Inventory (Rosenthal et al., 1981), the authoritarian F scale (Webster, Sanford, & Freedman, 1955), and the Crowne-Marlowe Social Desirability Scale (Crowne & Marlowe, 1960). Findings are summarized in Tables 11-19, while a more detailed summary can be found in Bennion and Adams (1986).

Table 11. Cronbach Alpha

Ideology*	
Achievement	.62
Moratorium	.75
Foreclosure	.75
Diffusion	.62
Interpersonal*	
Achievement	.60
Moratorium	.58
Foreclosure	.80
Diffusion	.64

\* $n = 106$  subjects

Table 12. Pearson Correlation - Total Sample (N = 106)

	Mor	Ideological Diff	Fore	Ach	Mor	Interpersonal Diff	Fore
Ideological							
Achievement	-.41***	-.34***	.04	.46***	-.11	-.20*	.11
Moratorium		.71	.06	-.30***	-.50***	.29***	-.11
Diffusion			.22*	-.36***	-.37***	.38***	.02
Foreclosure				-.08	.12	.14	.66***
Interpersonal							
Achievement					-.16*	-.39***	.06
Moratorium						.32***	-.04
Diffusion							-.07

\* $p < .05$ .

\*\* $p < .01$ .

\*\*\* $p < .001$ .

Table 13. Pearson Correlation - Male Sample

	Mor	Ideological Diff	Fore	Ach	Mor	Interpersonal Diff	Fore
Ideological							
Achievement	-.41***	.45**	.18	.54***	-.20	.35*	.31*
Moratorium		.73***	-.07	-.48***	.48***	.59***	-.25
Diffusion			-.01	-.57***	.43***	.61***	-.12
Foreclosure				.32*	.12	.16	.70***
Interpersonal							
Achievement					-.32*	-.53***	.39**
Moratorium						.59***	-.13
Diffusion							-.16

\* $p < 0.05$

\*\* $p < 0.01$

\*\*\* $p < 0.001$

Table 14. Pearson Correlation - Female Sample

	Ideological			Interpersonal		
	Mor	Diff	Fore	Mor	Diff	Fore
Ideological						
Achievement	-.47***	-.26	-.03	.38***	-.10	-.12
Moratorium		.71***	.21*	-.22*	.48***	.02
Diffusion			.37***	-.22*	.34**	.22*
Foreclosure				-.31**	.19	.20
Interpersonal						
Achievement				-.11	-.32**	-.17
Moratorium					.06	.14
Diffusion						.07

\* $p < 0.05$ \*\* $p < 0.01$ \*\*\* $p < 0.001$ 

Table 15. Pearson Correlation - Total Sample

	Ideological				Interpersonal			
	Ach	Mor	Diff	Fore	Ach	Mor	Diff	Fore
Self-Acceptance	.19	-.28**	-.28	-.15	.34***	-.22*	-.20*	-.11
Intimacy	.33***	-.29***	-.36***	-.30***	.45***	-.30***	-.42***	-.15
Identity	.38***	-.50***	-.44***	-.17*	.47***	-.36***	-.25**	-.04
Authoritarian	.10	-.13	-.06	.33***	.13	-.07	-.21*	.23*
Submissive	.05	-.04	-.16*	.04	.18*	-.07	-.16	.07
Rigidity	.32**	-.11	-.14	.01	.14	-.05	-.01	.03

\* $p < 0.05$ \*\* $p < 0.01$ \*\*\* $p < 0.001$ 

Table 16. Pearson Correlation - Male Sample

	Ideological				Interpersonal			
	Ach	Mor	Diff	Fore	Ach	Mor	Diff	Fore
Self-Acceptance	.32*	-.52***	-.46**	-.19	.44**	-.48***	-.41**	.11
Intimacy	.47***	-.45**	-.52***	-.23	.54***	-.50***	-.52***	-.03
Identity	.46**	-.51***	-.45**	-.06	.41**	-.56***	-.45**	.16
Authoritarian	.13	-.25	-.10	.45**	.31*	-.18	-.17	.37*
Submissive	.11	-.29*	-.29*	.07	.19	-.28*	-.21	.06
Rigidity	.38**	-.26	-.27	.22	.28*	-.11	-.22	.20

\* $p < 0.05$ \*\* $p < 0.01$ \*\*\* $p < 0.001$ 

Table 17. Pearson Correlation - Female Sample

	Ideological				Interpersonal			
	Ach	Mor	Diff	Fore	Ach	Mor	Diff	Fore
Self-Acceptance	.14	-.14	-.20	-.16	.31**	-.07	-.06	-.29**
Intimacy	.17	-.22*	-.24*	-.31**	.36***	-.22*	-.38***	-.20*
Identity	.32**	-.50***	-.43***	-.26	.52***	-.22*	-.09	-.21*
Authoritarian	.13	-.04	-.05	.23*	.07	.03	-.21*	.11
Submissive	-.02	.06	-.08	.08	.16	-.00	-.17	.16
Rigidity	.15	-.03	-.07	-.09	.08	-.02	.11	-.08

\* $p < 0.05$ \*\* $p < 0.01$ \*\*\* $p < 0.001$

Table 18. Significant Identity Status Group Mean Differences for General Measures of Identity Formation and Intimacy.

	IDENTITY STATUSES					F Value
	Diffusion	Foreclosure	Moratorium	Low Profile	Achievement	
Ideological Identity						
General Identity	43.82 <sup>a</sup>	44.63 <sup>a</sup>	43.67 <sup>a</sup>	48.22 <sup>b</sup>	53.50 <sup>c</sup>	3.85*
Intimacy	43.82 <sup>b</sup>	39.38 <sup>a</sup>	45.67 <sup>b</sup>	46.39 <sup>b</sup>	49.79 <sup>c</sup>	4.15*
Interpersonal Identity						
General Identity	43.19 <sup>a</sup>	45.55 <sup>ab</sup>	43.90 <sup>a</sup>	47.98 <sup>b</sup>	52.00 <sup>c</sup>	2.43*
Intimacy	41.00 <sup>a</sup>	44.91 <sup>b</sup>	45.00 <sup>b</sup>	46.00 <sup>b</sup>	51.40 <sup>c</sup>	4.14*

\*significant  $p < .05$  or better.

Table 19. Factorial Structure Using Varimax Rotation

	FACTOR 1	FACTOR 2	FACTOR 3
	Diffusion/Moratorium	Achievement	Foreclosure
Ideological			
Diffusion	.73		
Foreclosure			.91
Moratorium	.80		
Achievement		.80	
Interpersonal			
Diffusion	.47		
Foreclosure			.91
Moratorium	.84		
Achievement		.83	
% of Variance			
Accounted for by Factor	35.6%	21.2%	13.0%

Overall, we observed that estimates of internal consistency as an indicator of reliability were adequate. In general, the expected relationships between the identity status subscales showed evidence for discriminant and convergent validity. No significant relationships were found between the ideological or interpersonal scales and a social desirability measure. Estimates of predictive and concurrent validity were provided by correlations between the identity subscales and measures of self-acceptance, intimacy, and authoritarianism. In general, these associations were theoretically consistent. A factor analysis provided evidence for three factors where four factors would be expected (diffusion and moratorium items loaded together into one factor). Face validity was addressed by the ratings of a panel of trained student judges. After brief training in the basic constructs of ego identity development, they were able (with 94.6% agreement) to judge the new items as representative of the appropriate statuses.

### General Conclusions

This series of eight studies provide the basic foundation for the instruments and their revisions. The 24 and 64 item versions of the OMEIS are provided for use. Each have their own reported reliability, validity, and usefulness. The 24 item instrument (OMEIS) can be used in studies designed to study ideological identity where scale size is important. The 64-item version is useful when an extended version is desirable that is based on both ideological and interpersonal identity scores and constructed using samples from the Midwest and the West. We recommend the 64-item scale reported by Bennion and Adams (1986). The modification of the interpersonal identity items provides a clear improvement on the scales' psychometric qualities.

The OMEIS is developed to be used as a classification measure in a self-report format. It has had, from its foundational beginning, considerable research efforts focused on its level of reliability and validity. It is limited in that it does not sharply differentiate between diffusion and moratorium. However, this is likely due to the fact that few pure diffusion-status types are not often observed among healthy adolescent populations.

In a later section of this reference manual further and more comprehensive coverage is provided on the reliability and validity of the OMEIS based on additional studies beyond the original eight studies reported in the three publications reviewed here (Adams, Shea, & Fitch, 1979; Grotevant & Adams, 1984; Bennion & Adams, 1986).

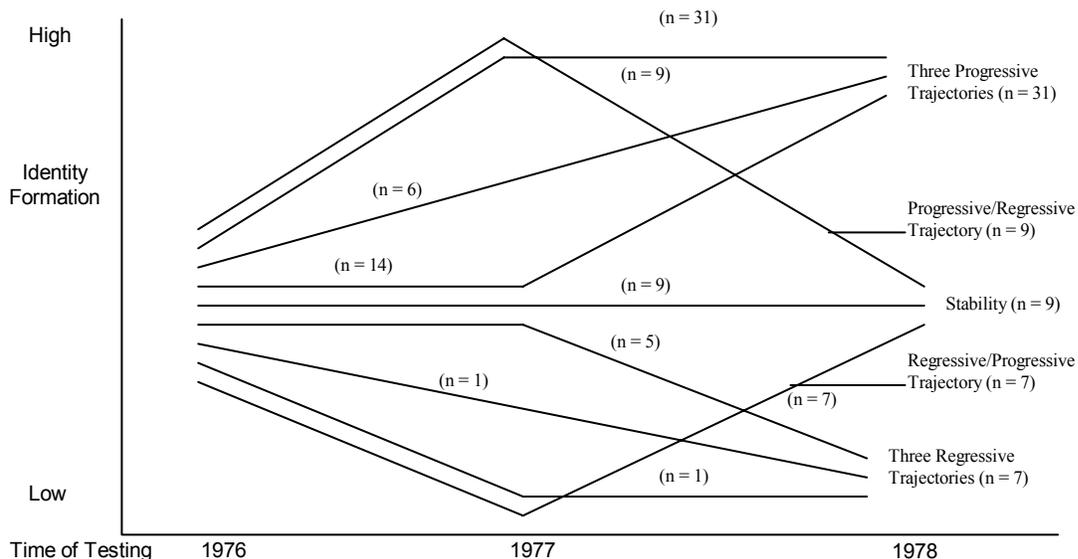
Patterns of Identity Development:  
The Study of Trajectories in Development

In addition to using the OMEIS to classify adolescents into a given identity status, the instrument can be used to study developmental processes associated with identity formation. This broadens the use of the instrument beyond the classification of individual differences (different identity statuses) to that of studying patterns or trajectories in the development of identity across time. Using the scoring criteria detailed by Adams and Fitch (1982) to assess stability, progression and regression in identity development, Adams and Montemayor (1987) have shown that five basic trajectories in identity development can be determined when longitudinal investigations are undertaken using the instrument.

In a longitudinal study over a three year period with data gathered each year, using 83 college age subjects (38 males and 45 females), we have been able to detail basic trajectories of development. As depicted in Figure 1, five basic trajectories can be identified that account for 100% of the types of stability or movement in identity development over a three-year period, when (a) stability is defined as no change in identity status from one year to the next; (b) progression was defined as advancement from either diffusion to foreclosure or moratorium, movement from foreclosure to moratorium or achievement, or movement from moratorium to achievement; and (c) regression was defined as the reverse (in any form) of progression. (It should be noted that two unstable groups can be found: progressive-regressive and regressive-progressive. Over a three year period these two unstable groups arrive at the same outcome as that of the consistently stable pattern.)

These findings indicate that the identity measure can also be used to study intraindividual change and group patterns in identity development over time. Individuals can be found who are remaining stable and showing no growth during periods of adolescence. Others can be observed who are showing increased individuation (a normative expectation) during adolescence, while a third group can be identified who are regressing and showing steady decline and retardation in their individuation. This latter group may reflect elements of psychopathology or abnormal development during adolescence.

Figure 1. A Figural Conceptualization of the Descriptive Analyses of Longitudinal Trajectories in Identity Development Over Three Years



In a longitudinal study of 108 first year students entering the University of Guelph beginning in 1994 (with retests in 1995 and 1996) classification percentages for each year revealed a decrease in diffusion and an increase in moratorium. Further, when subjects were classified into developmental trajectories for each of the three years five patterns were observed. The number of cases for each trajectory are provided below in tables 20 and 21 with details described in Midgett (1997).

Table 20: Status Trajectories: Identity Status Classification Over Three Years of University

Statuses: Years 1-2-3	Trajectories of Identity Development				
	Incremental (n=27)	Decremental Incremental (n=13)	Stable (n=36)	Incremental Decremental (n=13)	Decremental (n=19)
D→F	5 (19%)				
F→M	4 (15%)				
M→A	5 (19%)				
D→M	7 (26%)				
F→A	3 (11%)				
D→A	3 (11%)				
M-D-F		1 (8%)			
A-F-M		1 (8%)			
A-D-M		1 (8%)			
F-D-F		3 (23%)			
M-F-M		2 (15%)			
A-M-A		2 (15%)			
A-D-A		1 (8%)			
A-F-A		1 (8%)			
F-D-A		1 (8%)			
D-D-D			21 (58%)		
F-F-F			5 (14%)		
M-M-M			7 (19%)		
A-A-A			3 (8%)		
F-M-D				1 (8%)	
F-A-D				1 (8%)	
M-A-D				1 (8%)	
D-M-D				1 (8%)	
D-F-D				1 (8%)	
F-M-F				1 (8%)	
F-A-F				1 (8%)	
M-A-M				3 (23%)	
D-A-M				2 (15%)	
F-A-M				1 (8%)	
M→D					3 (16%)
A→F					1 (5%)
F→D					5 (26%)
M→F					3 (16%)
A→M					7 (37%)

Note: D=Diffusion; F = Foreclosure; M = Moratorium; =Achievement

Table 21: Longitudinal Sample: Identity Status Classification Over Three Years of University

Identity Status	Year of University		
	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year
Achieved	17 (16%)	18 (17%)	17 (16%)
Moratorium	25 (23%)	24 (22%)	37 (34%)
Foreclosed	26 (24%)	23 (21%)	20 (19%)
Diffused	40 (37%)	43 (40%)	34 (31%)

## Description of Test and Scoring Procedures

Prototype: Item Descriptions and Scoring Procedures

Drawing from a pool of over 294 interviews completed with the Marcia Ego-Identity Interview, the prototypical measure of the Objective Measure of Ego Identity Status was constructed (Adams, Shea, & Fitch, 1979). Six items were constructed for each identity status subscale. Each subscale has two items dealing with the response format is used for the prototype and all revisions. Items are scored by weighting the “strongly agree” response with a value of six and the “strongly disagree” with a value of one. Identity status subscales are derived by totaling all six items, across the three content domains, into a summated subscale score for diffusion, foreclosure, moratorium, and identity achievement.

Each item (see Appendix A for full scale) is identified under the appropriate identity status subscale that is summed to provide a raw subscale score.

	<u>Diffusion</u>	<u>Foreclosure</u>	<u>Moratorium</u>	<u>Achievement</u>
Occupation	8, 16	2, 4	20, 22	10, 14
Politics	1, 11	17, 7	5, 19	13, 24
Religion	3, 6	21, 23	12, 15	9, 18
	6 Item Score	6 Item Score	6 Item Score	6 Item Score

Each raw subscale score ranges from a possible low of six to a possible high of 36. The raw subscale scores for diffusion, foreclosure, moratorium, or identity achievement can be used in correlational analyses when the researcher is interested in subjects’ low to high subscale scores on a given identity status subscale dimension. For example, if one were interested in a continuous score on diffusion, a research sample could be scored on the diffusion raw subscale score and correlational (or other) analyses can be completed with this summed score. Likewise, subjects can be compared on their distributions of scores for the four raw subscale scores within a testing session or between sessions as recommended by Rest (1975).

To illustrate, a group of 10 subjects was tested in 1976 and again in 1978. The basic research question was whether, over a two year period, diffusion scores decreased and achievement scores increased on the average--therein, reflecting an average identity development growth pattern for these 10 subjects. The data appeared as follows:

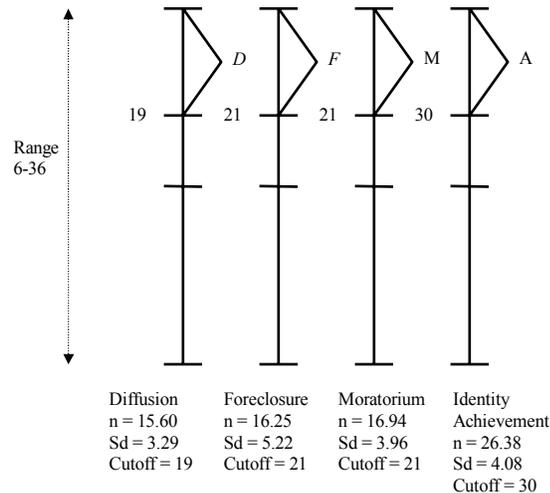
<u>Raw Scale Scores</u>	<u>Time of Testing</u>	
	<u>1976</u>	<u>1978</u>
Diffusion	28.2	22.3
Foreclosure	24.5	21.9
Moratorium	26.5	28.1
Achievement	25.7	32.8

An analysis on these data could be performed using a series of  $t$  test (or other appropriate tests of significance) between the 1976 and 1978 testing periods. The findings would reveal a significant  $t$  test comparison for the diffusion and the achievement subscale scores, with diffusion showing significant decreases and achievement showing significant increases between the first and second test. Thus, one could conclude for these ten individuals, diffusion diminishes and achievement expands during a two year period. This form of analysis is recommended by Rest (1975) in his suggestion that individuals generally function at more than one level of psychological functioning and that developmental research is served well by examining changes in the frequency distribution of scores over time.

Most researchers familiar with the Marcia Ego-Identity Interview, however, are interested in using the categorical or status distinction developed as the operationalization of Erikson’s theories on identity formation. Therefore, a series of rules were formulated and tested in validation studies for the classification of subjects into a single identity status categorization. These rules were modeled after the framework used by the MMPI in deriving subscale scores at a given level of interpretability. That is, in the MMPI, scores on raw subscales are only thought appropriate for interpretation if they exceed a certain threshold or magnitude above the norm (mean). Using a similar strategy, means and standard deviations were generated for each of the raw subscale scores and thereby a

cut-off point was derived for each subscale. As depicted in Figure 2, the range of each subscale is six to 36. The mean is unique for each subscale as is the standard deviation. By adding the mean and standard deviation one arrives at a cut-off that is one standard deviation above the mean for each subscale. The means, standard deviations, and cut-offs for the prototype OMEIS are found in Figure 2. These statistics were derived from a sample of over 2000 adolescent and young adult subjects from midwest, west, and southwest high school and college populations.

Figure 2. Objective Measure of Ego-Identity Status (OMEIS – PROTOTYPE)



Using a series of three rules, by comparing an individual's raw subscale scores against the cut-off points, an individual can then be classified into a single identity status or into a transition identity status category. The classification rules for scoring all versions of the OMEIS are as follows:

### 1. Pure Identity Status Rule

Individuals scoring one standard deviation above the mean (or higher) on a given subscale are scored as being in that identity status if all remaining scores are below their appropriate subscale cutoff comparison. In our publications we refer to these cases as "pure" identity status types.

### 2. Low-Profile Status Rule

Individuals with scores falling less than one standard deviation above the mean on all four measures are scored as the "low profile" moratorium. (This is to distinguish such an individual from "pure" moratorium status individuals.) These individuals have an undifferentiated form of moratorium.

### 3. Transition Status Rule

Individuals with more than one score above the standard deviation cutoffs are scored as in transition and are given a "transition status" category (e.g., diffusion-foreclosure). (Occasionally sub-jects will score above three cutoffs. Given the manner of test development, these subjects are not discriminating in marking items and are dropped from further consideration in research studies in our Laboratory.)

To avoid confusion, an illustration has been prepared for each of the rules. (Please refer to Figure 2 when following the illustration.) For example, using the Pure Identity Status Rule, suppose Michael had raw subscale scores as follows: diffusion = 23; foreclosure = 20; moratorium = 19; and achievement = 28. The diffusion score of 23 is higher than the cutoff of 19, while all other scores when compared to their cutoff are below that value. Using the Pure Identity Status Rule, Michael would be categorized as a Diffused Identity youth. In contrast, John has the following scores: diffusion = 16; foreclosure = 20; moratorium = 17; achievement = 21. According to the Low-Profile Status Rule this individual would be categorized as a Low-Profile Moratorium. Finally, Mary has the following scores: diffusion = 15; foreclosure = 17; moratorium = 26; achievement = 31. When comparing Mary's

scores against the cutoffs, one finds that she is above one standard deviation for the moratorium and for the achievement subscale cutoffs. The Transition Status Rule applies for Mary and she is classified as a Moratorium-Achievement.

Collapsing Transitional Status Individuals. Past users have asked for recommendations regarding the potential for collapsing transition types into four basic identity status groups. Based on data from our earlier validation work (see Adams, Shea, & Fitch, 1979) we found through empirical evidence that collapsing is most appropriately completed using a rank ordering procedure from low to high and collapsing downward into the less sophisticated identity statuses. Diffusion is least advanced, foreclosure next most advanced, followed by moratorium, with identity achievement the theoretical hiatus of identity formation. Thus, everything above diffusion, when represented as a diffusion transition blend (e.g., diffusion-foreclosure, diffusion-moratorium, etc.) is collapsed into diffusion. When foreclosure transitions are present, such as foreclosure-moratorium, or foreclosure-achievement, the subjects is collapsed into foreclosure. When moratorium-achievement transitions are observed they are collapsed into moratorium.

Further, we are occasionally asked if the pure moratorium and low profile (undifferentiated) moratorium should be treated separately or as similar moratorium types. Our recommendation is that where possible a test of significance be applied on dependent variables to test for equivalence. When equivalence is observed we recommend treating them as identical cases of moratorium. In all of our research we have found the pure and low-profile moratorium-status individuals to appear as very similar in their attitudes, values, behaviors, and developmental trajectories.

#### Extended Version: Item Description and Scoring Procedures

In the first revision of the OMEIS, Grotevant and Adams (1984) made a distinction between ideological (personal) and interpersonal (social) identity. This 64-item scale utilizes 32 items to assess ideological identity in the domains of occupation, politics, religion, and philosophical life-style, and 32 items to assess interpersonal identity in the domains of sex roles, friendship, recreation, and dating. The extended version (EOMEIS) allows for the assessment of two identity frameworks that may be more appropriately representative of potential gender differences in identity formation (see Gilligan, 1982, for a discussion). Clearly, the extended version recognizes the ego-identity and self-identity distinction suggested by Erikson (1968).

Once again, the raw subscale scores can be scored and used as indicated earlier and suggested by Rest (1975). Or the same three rules (Pure, Low Profile, Transition Rules) can be applied to generate an identity status classification for ideological and for interpersonal identities.

For scoring purposes we have listed the appropriate items for each summated raw subscale score. Further, users should note that eight items are now included in each subscale score and that the range is from a low of eight to a high of 48. Likewise, in Table 22 we have provided the means and standard deviations for this version of the OMEIS from samples in Texas and Utah. Tests of significance revealed no differences between the two samples' means, standard deviations, or cutoffs. Items to be summed for each of the subscale raw scores are as follows:

	Achievement	Moratorium	Diffusion	Foreclosure
<u>Ideology Subscales</u>				
Occupation	33, 49	9, 57	1, 25	17, 41
Religion	18, 42	26, 34	2, 10	50, 58
Politics	8, 40	32, 48	16, 56	24, 64
Philosophy	20, 60	12, 36	4, 52	28, 44
	8 Items summed	8 Items summed	8 Items summed	8 Items summed
<u>Interpersonal Subscales</u>				
Friendship	13, 45	5, 61	29, 53	21, 37
Dating	15, 55	31, 47	7, 23	39, 63
Sex Roles	35, 51	11, 43	19, 59	3, 27
Recreation	22, 46	14, 54	6, 30	38, 62
	8 Items summed	8 Items summed	8 Items summed	8 Items summed

The means, standard deviations, and cutoffs for the Revised Objective Measure of Ego Identity Status (EOMEIS-1) are as follows. (For individuals interested in combined ideological and interpersonal identity-status classification each row of subscales scores can be derived and applied to scoring rules. However, at this time it is recommended that two identity status classifications be made since the correlation between the subscales average in the range of  $r_s = .60$ .)

Table 22. Means, Standard Deviations, and Ranges for Identity Scales

	Texas sample			Utah sample		
	Mean	SD	Range <sup>a</sup>	Mean	SD	Range
Ideology						
Achievement	32.8	5.3	20-47	33.1	5.6	19-48
Moratorium	26.5	6.3	8-44	25.9	5.9	12-44
Foreclosure	19.6	6.3	8-36	20.9	6.4	8-41
Diffusion	22.1	5.7	10-41	22.0	5.5	8-41
Interpersonal						
Achievement	32.6	4.6	19-45	32.3	4.4	21-44
Moratorium	27.6	4.9	8-38	26.7	5.5	12-40
Foreclosure	20.2	5.8	8-38	22.6	5.5	8-41
Diffusion	22.3	5.1	9-36	21.1	5.4	10-41
Total						
Achievement	65.4	8.2	44-88	65.5	8.3	42-91
Moratorium	54.1	9.7	21-78	52.6	9.9	26-78
Foreclosure	39.9	11.1	16-70	43.5	10.8	16-82
Diffusion	44.4	9.2	20-77	43.2	9.3	24-75

<sup>a</sup>Theoretically possible range for Ideology and Interpersonal scales, 8-48; for Total scale, 16-96.

### Norms for 7<sup>th</sup>-12<sup>th</sup> Grade Students

In the past we have been asked about separate cutoff points for junior and senior high school students. Further, we have been asked about the approximate proportion of adolescents in each identity status that one might expect for each grade. Using a sample of 2,331 adolescents in the State of Arizona, Dr. Randal M. Jones (personal correspondence, August, 1987) has provided (a) the means, and standard deviations for males and females, and (b) the percentage of identity status classifications for 7<sup>th</sup> through 12<sup>th</sup> grade. Tables 23 and 24 are provided below. These data can be used to generate cutoffs for public school age samples.

Table 23. EOMEIS-1 Subscale Means and Standard Deviations Depicting the Relationship Between Respondent Gender and Ego Identity Development

	RESPONDANT GENDER				
	Mean	Male		Female	
		SD	Mean	SD	Mean
Ideological					
*Achievement	31.99	6.08	32.77	6.31	6.31
*Moratorium	29.02	6.20	30.25	6.52	6.52
*Foreclosure	25.34	7.41	23.85	7.21	7.21
Diffusion	27.51	6.35	26.88	6.21	6.21
Interpersonal					
*Achievement	33.24	5.79	34.52	5.61	5.61
Moratorium	29.62	6.01	30.15	6.13	6.13
*Foreclosure	23.96	6.97	22.79	6.72	6.72
*Diffusion	27.14	6.07	25.30	5.83	5.83

NOTE \* Indicates statistical significance  $p < .05$ .

Table 24. Identity Classification Percentages Distributed Across Grade Level

	Grade						n
	7th	8th	9th	10th	11th	12th	
Achievement	12.0	18.3	24.2	23.6	32.4	41.6	635
Moratorium	17.6	21.3	19.3	23.2	20.4	21.4	485
Foreclosure	44.0	30.5	30.1	25.5	20.2	19.3	617
Diffusion	26.4	29.9	26.4	27.7	27.0	17.7	594
n =	216	197	508	530	445	435	N=2331

### Final Revision

The final revision of the OMEIS was completed by Bennion and Adams (1986). This improvement on the first revised OMEIS (Grotevant & Adams, 1984) provides stronger interpersonal identity subscale items. Once again raw subscale scores can be used for analyses or a single identity status classification can be obtained by applying the three scoring rules. For users of this version of the OMEIS, item locations are identical to those reported for the earlier 64 item version (see section above). Further, means, standard deviations, and cutoffs using a new Utah sample with the recent update were compared with the samples from Texas and Utah and no significant differences were observed. Therefore, we recommend the following cutoff points for the Bennion and Adams (1986) version for high school and college age subjects.

	<u>Cutoff Mark</u>
<u>Ideology Identity</u>	
Achievement	38.0
Moratorium	33.0
Foreclosure	26.0
Diffusion	28.0
<u>Interpersonal Identity</u>	
Achievement	38.0
Moratorium	33.0
Foreclosure	26.0
Diffusion	27.0
<u>Total Identity</u>	
Achievement	73.0
Moratorium	63.0
Foreclosure	53.0
Diffusion	53.0

An added feature of using the final revision of the Objective Measure of Ego Identity Status is the development of an SPSS program for computer scoring of data. A program is provided in Appendix C that can be used to establish a self-managed computer program for scoring data.

## Administrative Procedures

### Samples of Populations

The OMEIS has included in its early validation samples of individuals as young as 14 and as old as 56 years of age. The ideal range of use is between 13 and 30 years of age. The ideological identity subscales have been written with appropriate use for any age range, married or single. The interpersonal identity subscales are most appropriate for single persons. Interpersonal identity items can be modified to accommodate married subjects.

The instrument has been developed with a normative population focus. That is, the conclusions one draws from the use and classification strategies are based on normal groups and used with delinquents, runaways or adolescent psychopathological groups, must be made against normal patterns of individual differences (identity statuses) and intraindividual change (trajectories in development).

### Administration Instructions

The instrument has been successfully used in classroom group testing, small group testing, in mailed questionnaires, and in individual testing that is based on the tester reading items to the individual. For adolescents younger than 15 years, we recommend reading the items to the individual as he or she follows along and responds to each question one at a time. For high school age populations we recommend classroom or small group testing for non-delinquent samples, individual testing with delinquents, and reading item-by item with the student for any clinical population tested. For college age or older samples any of the aforementioned administrative procedures appear successful.

In administering the items it is important to indicate that there may be more than one element to each question. Therefore the respondent is to read the full item and respond to the question in its totality. Derivations of the following instructions have been successful:

“Read each item carefully. Be sure to respond to the total item and not just a certain part of it. Using the range of responses from strongly agree to strongly disagree, indicate to what degree it fits your own impressions about yourself. You may begin by thinking about whether you agree or disagree. Then you can decide how strongly you feel about it. Remember, we are interested in how these items either reflect or don’t reflect how you perceive your own situations.”

In the past we have had subjects respond in several ways: writing directly on the questionnaire, using a space to the side of the question with a scale at the top of each page to remind the individual of the range of responses possible, and responding on computer scorable sheets. All response formats have been usable with 15 years or older subjects. For younger subjects a scale below or to the side of each item is preferred to avoid confusion. Finally, for those individuals administering any version of the OMEIS who have a scanning machine available to them, responses on the computerized scoring sheet can allow for direct electronic file creation.

### Evidence on Reliability and Validity

Beyond the basic 8 psychometric studies, the OMEIS has been used in numerous published studies. The majority of these studies provide further information on the reliability and validity of the instrument. Therefore, we have prepared a tabled and written summary of these findings for potential users of the OMEIS. Our description of the psychometric properties of the instrument will begin with an overview of reliability, followed by validity, and concluded with a summary of the evidence.

#### Reliability Estimates

Table 25 summarizes 20 studies which investigated the reliability of the OMEIS. All 20 studies tested the reliability of internal consistency. Three studies estimated test-retest reliability and one study investigated split-half reliabilities. The internal consistency coefficients indicate the degree to which the test items intercorrelate or, in other words, estimates the strength of the internal structure of the test. The test-retest method entails administering the same instrument twice to the same group of individuals under equivalent conditions after a time interval has elapsed. The correlation coefficient is called the coefficient of stability and gives an estimate of how stable the results are over a given time period. Split-half reliability indicates the degree of correspondence between two halves of the test. The correlation between these two scores (the two halves) provides an estimation of the degree to which the two halves are equivalent.

#### Internal Consistency

Internal consistency is commonly measured by Cronbach alphas. Internal consistency estimates from all 20 studies of the interpersonal and ideological subscales ranged from .30 to .91. The median alpha was .66. Generally, the internal consistency of the ideological subscales tends to be higher than those of the interpersonal subscales.

#### Test-Retest

Montemayor, Brown, and Adams (1985) found no significant difference between scales means and standard deviations over four measurement times, indicating stability in test-retest context. Grotevant and Adams (1984) estimated the test-retest reliability on all domain subscales over a four-week period of time. Correlations of stability for the ideological and interpersonal subscales ranged from .59 to .82. Adams, Shea and Fitch (1979) found correlations of stability ranged from .71 to .93. Overall, available estimates of test-retest reliability have a median correlation of .76.

#### Split-Half

Grotevant and Adams (1984) found split-half correlations of the ideological and interpersonal subscales ranged from .10 to .68. Total identity score correlations with subscale scores ranged from .37 to .64.

#### Summary

In conclusion, all three different estimates of reliability show significant consistency for the OMEIS. Internal consistency and split-half reliability indicate moderate to strong consistency between items and the estimate of test-retest reliability provides evidence for consistency over time.

Table 25. Estimates Of Reliability

<u>Author(s) &amp; Date</u>	<u>Sample Test Version and Findings</u>
Adams, G.R., & Jones, R. (1983)	<p><u>Sample</u>: 82 Female 10<sup>th</sup> and 12<sup>th</sup> graders; OMEIS version.</p> <p><u>Internal Consistency</u>: Correlations of interpersonal and ideological subscales were .75 or higher.</p>
Adams, G.R., & Montemayor, R. (1987)	<p><u>Sample</u>: 70 college freshmen; OMEIS version.</p> <p><u>Internal Consistency</u>: Cronbach alphas of the subscales for three consecutive years showed the following ranges: Diffusion .69 to .73, Foreclosure .81 to .86, Moratorium .70 to .77, and Achieved .84 to .89.</p>
Adams, G.R., Ryan, F.H., Hoffman, J.J., Dobson, W.R., & Nielsen, E. (1985)	<p><u>Sample</u>: 138 college students; EOMEIS-1 version.</p> <p><u>Internal Consistency</u>: Correlations of subscales ranged from .69 to .86.</p>
Adams, G.R., Shea, J., & Fitch, S.A. (1979)	<p><u>Sample</u>: 48 college freshmen; OMEIS version.</p> <p style="text-align: center;"><u>Study 1</u></p> <p><u>Internal consistency</u>: Correlations of identity subscales ranged from .67 to .76.</p> <p style="text-align: center;"><u>Study 4</u></p> <p><u>Sample</u>: 80 college students; OMEIS version.</p> <p><u>Test-Retest</u>: Correlations of subscales ranged from .71 to .93.</p>
Bennion, L.D. (1988)	<p><u>Sample</u>: 60 sixteen-year-olds, EOM-EIS-2 version.</p> <p><u>Internal Consistency</u>: Alphas ranged from .53 to .73 with a mean of .61 for the ideological subscales and from .52 to .80 with a mean of .64 for the interpersonal subscales.</p>
Bennion, L.D., & Adams, G.R. (1986)	<p><u>Sample</u>: 106 college students; EOMEIS-2 version.</p> <p><u>Internal Consistency</u>: Cronbach alphas ranged from .62 to .75 on the ideological subscales and .58 to .80 on the interpersonal subscales.</p>
Boyes, M.C., & Chandler, M. (1992)	<p><u>Sample</u>: 61 students from a sample of 96 volunteers, both male and female, in the 8<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> grades; OM-EIS version.</p> <p><u>Internal Consistency</u>: Cronbach alpha coefficients range from adequate to good, with the exception of the Ideological Diffusion and Interpersonal Moratorium scales (.44 and .39, respectively).</p>

Carlson, D.L. (1986)	<p><u>Sample</u>: 162 college students, EOM-EIS version.</p> <p><u>Internal Consistency</u>: Internal consistency estimates for total diffusion were .69; foreclosure, .81; moratorium, .66; and achievement, .76 with a mean of .77.</p>
Craig-Bray, L., & Adams, G.R. (1986)	<p><u>Sample</u>: 23 male and 25 female college students; EOMEIS-1 version.</p> <p><u>Internal Consistency</u>: Correlations of interpersonal and ideological subscales ranged from .41 to .74.</p>
Grotevant, H.D., & Adams, G.R. (1984)	<p><u>Sample</u>: 317 Utah college students and 274 Texas college students; EOMEIS-1 version.</p> <p style="text-align: center;"><u>Studies 1 and 2</u></p> <p><u>Internal Consistency</u>: Cronbach alphas of the interpersonal and ideological subscales ranged from .37 to .77. Correlations of total identity score with subscales were .42 to .82. Correlations of interpersonal and ideological scores with total identity scores ranged from .78 to .92. Correlations comparing interpersonal with corresponding ideological subscales ranged from .37 to .68.</p> <p><u>Split-half</u>: Correlations of the ideological and interpersonal subscales ranged from .10 to .68. Total identity score correlations with subscales scores ranged from .37 to .68.</p> <p><u>Test-Retest</u>: Correlations of the ideological and interpersonal subscales were from .59 to .82. Total identity score correlations ranged from .63 to .83.</p>
Jones, R.M. (1984a)	<p><u>Sample</u>: 137 9<sup>th</sup> and 12<sup>th</sup> graders; EOMEIS-1 version.</p> <p><u>Internal Consistency</u>: Cronbach alphas for the interpersonal and ideological items ranged from .40 to .74.</p>
Jones, R.M. (1984b)	<p><u>Sample</u>: 200 20-68 year olds; EOMEIS-1 version.</p> <p><u>Internal Consistency</u>: Cronbach alphas of the interpersonal and ideological scales ranged from .57 to .83.</p>
Jones, R.M., & Hartmann, B. R. (1984)	<p><u>Sample</u>: 137 9<sup>th</sup> through 12<sup>th</sup> graders; EOMEIS-1 version.</p> <p><u>Internal Consistency</u>: Correlations of the interpersonal and ideological scales ranged from .64 to .74.</p>
Jones, R.M., & Hartmann, B.R. (1988)	<p><u>Sample</u>: 2612 7<sup>th</sup> through 12<sup>th</sup> grade adolescents; EOM-EIS version.</p> <p><u>Internal Consistency</u>: Cronbach alphas ranged from .51 (for interpersonal achievement) to .75 (for ideological foreclosure).</p>

Montemayor, R., Brown, B., & Adams, G.R. (1985)	<p><u>Sample</u>: 52 randomly selected college freshmen; OMEIS version.</p> <p><u>Internal Consistency</u>: Correlations of subscales ranged from .47 to .76. All correlations were significant.</p> <p><u>Test-Retest</u>: No significant differences found between scale means and standard deviations over four measurement times. Significant positive relationships were found between diffusion and moratorium subscales over four measurement times. Significant negative relationships were found between the moratorium and achievement subscales and also between diffusion and achievement subscales.</p>
O'Connor, B.P. (1995)	<p><u>Sample</u>: 418 students from 8<sup>th</sup> through 13<sup>th</sup> grades as well as first year university classes. Ages ranged from 12-21 years; EOM-EIS-2 version.</p> <p><u>Internal Consistency</u>: Cronbach alphas ranged from .65 (diffusion, females) to .83 (foreclosure, males), indicating moderate to high levels of reliability.</p>
Owen, R.G. (1984)	<p><u>Sample</u>: 39 Cuban and 39 white college students; OMEIS version.</p> <p><u>Internal Consistency</u>: Correlations of subscales ranged from .30 to .66.</p>
Perosa, L.M., Perosa, S.L., & Tam, H.P. (1996)	<p><u>Sample</u>: 164 undergraduate female students aged 18-25 years; EOMEIS-2 version.</p> <p><u>Internal Consistency</u>: Internal consistency ranged from .61 to .91 with average reliability estimate of .79.</p>
Streitmatter, J. (1993)	<p><u>Sample</u>: 74 students who were juniors, seniors or post-baccalaureates in a college of education at a large university in the United States; EOM-EIS version.</p> <p><u>Internal Consistency</u>: Correlations of interpersonal and ideological dimensions ranged from moderate to high. Within the ideological domain, reliability estimates ranged from .56 (achievement) to .82 (foreclosure); within the interpersonal domain, estimates ranged from .43 (diffusion) to .79 (foreclosure).</p>
Yatim, D.J. (1982)	<p><u>Sample</u>: 55 Indonesian males, 34 late adolescents and 21 young adults; OMEIS version (80-item test, 24 adapted from the OMEIS)</p> <p><u>Internal Consistency</u>: Cronbach alpha showed the following subscale correlations: Diffusion .84, Moratorium .76, Foreclosure .77 and Achievement .80.</p>

## Validity Estimates

Validity is concerned with the extent to which an instrument assesses the construct it was designed to measure. Although validity is difficult, if not impossible, to directly ascertain, estimates of four different kinds of validity can be attempted. Face validity refers to how well the instrument measures or represents the entire concept or structure that it purports to measure. This type of validity is impossible to establish except through logical appeal and/or agreement by “experts” in the subject matter as to the content of the construct. Concurrent validity focuses on the similarity of outcomes between a newly-developed measure and other established instruments or methods that are thought to measure the same construct. Predictive validity deals with significant behavioral, cognitive, affective, or attitudinal differences in groups as defined by the instrument. Construct validity is based on the degree to which the instrument parallels the theoretical expectations of inter-relatedness between the elements of the construct being assessed.

Table 29 lists research findings, arranged first by author and secondly according to the type of validity estimate found. In this section that same information is revised and summarized so that the research results are organized first by the type of validity and second by the general categories of variables used to perform correlations.

Specifically, this section is organized in the following manner: predictive validity estimates were grouped by cognitions, social cognitions, behaviors, family factors, and demographic variables. Likewise, concurrent validity estimates were grouped by OMEIS derived identity classification as compared with classifications from other general identity measures and by OMEIS identity status derivations directly compared with status classifications for the Marcia Ego Identity Interview. Estimates of construct validity are summarized and grouped by factor analyses and developmental data are presented.

### Predictive Validity Estimates

Predictive validity focuses on the degree to which one group or construct (as determined by the assessment of the instrument) predicts significantly different behaviors or responses as compared to other groups.

#### Cognitions

According to Eriksonian theory, identity formation includes parallel development of increasingly mature cognitive abilities which serve to organize and integrate information garnered from personal experiences. Thus progression into more mature identity statuses is expected to correspond with increasingly mature cognitive abilities.

#### Cognitive Development

In assessing the cognitive development or level of cognitive functioning, one would expect that identity achievement subjects would score higher than diffused individuals. As predicted, Wiess (1984) found that achieved and moratorium subjects scored higher on a measure of cognitive development than the other identity statuses.

### Social Cognitions

*Authoritarianism and Rigidity.* From a social exchange viewpoint, the social pressure to maintain an identity during the college years and throughout late adolescence, once it is established, may influence committed status individuals to discontinue their exploration of options, become more rigid, and possibly even authoritarian, in their opinions. Because of the sorting through options associated with working through an identity crisis, it is expected that achieved subjects are less rigid than foreclosed individuals, who have not explored available options. Bennion and Adams (1985), with a sample of college students, reported foreclosure status as strongly correlated with high authoritarianism scores and diffusion as negatively correlated with the same measure. They also found foreclosed subjects as scoring higher on a measure of rigidity than the other identity statuses.

In contrast, using a sample ranging from 19-57 year old females, Wiess (1984) reported no significant relationship between identity status and a measure of authoritarianism. In the Bennion and Adams (1985) study, achievement and foreclosure status males scored higher on measures of authoritarianism and rigidity than the females. It appears that the relationships between authoritarian and rigid attitudes and committed identity statuses may be stronger for males than for females.

*Psychological, Moral, and Ego Development.* Eriksonian theory postulates an adaptive and dynamic process involving the intertwined maturation of basic personality constructs, such as moral and ego development. Indeed, several studies have found that achieved subjects score higher on psychosocial development measures, other ego identity measures, self-actualization scales, superior adjustment scales, and general ego development instruments than do diffused and foreclosed subjects (Adams, Shea, & Fitch, 1979; Bennion, 1988; Francis, 1981; Mead, 1983; O'Neil, 1986; Owen, 1984). The opposite pattern is found for psychopathology scales, that is, diffusion scores correlate positively while achievement scores are negatively associated (Bennion, 1988).

In contrast, Wiess (1984), using a nonrandom sample of 114 females, found no significant differences between identity statuses on a measure of moral development.

*Intimacy.* Based on the Eriksonian notion that identity formation involves the concurrent development of effective and adaptive interpersonal styles, mature identity statuses are expected to be more interpersonally intimate than less mature identity statuses. Bennion and Adams (1985) report that achieved subjects score higher on a measure of intimacy than individuals in other identity statuses. Diffused- and foreclosure-status individuals score the lowest on the intimacy instrument with moratorium subjects falling in between. Bennion (1988) found achievement scores positively associated with a measure of positive social relations while diffusion scores were found to be negatively correlated.

*Locus of Control, Self-Consciousness and Self-Perceptions.* Locus of control and self-consciousness both deal with social perception. Specifically, locus of control refers to the extent to which an individual perceives himself or herself (vs. fate, luck or others) as responsible for reinforcement in their lives. Self-consciousness is a form of self-awareness that includes uncomfortable feelings of vulnerability or exposure. Erikson (1968) theorized that identity confusion is accompanied by high self-consciousness while identity achievement is associated with feelings of self-direction, certainty and self-esteem. Similarly, less mature identities are thought to be associated with external locus of control and mature identities with internal locus of control. Abraham (1983), Bennion (1988), Francis (1981), and Markstrom-Adams and Adams (1995) found that achieved subjects show the least and diffused individuals show that most amount of external locus of control. However, using a nonrandom sample of college students, Rodman (1983) found no significant differences between identity statuses on a measure of locus of control. Adams, Abraham and Markstrom (1987) found that achieved youths were least likely to report self-consciousness or to engage in self-focusing behavior and diffused adolescents were most likely to report self-referencing.

Self-perceptions refer to feelings individuals have about themselves. Specifically, self-esteem involves an internal process of self-evaluation between the "ideal self" and the "perceived self". Because of the association between mature identity status and internal locus of control, over time, individuals with a primarily internal locus of control are expected to initiate changes that lessen the discrepancy between the "ideal" and "perceived" self, therein holding higher levels of self-esteem, self-acceptance and mature identities. Indeed, several studies have found advanced identity statuses to be correlated with measures of self-esteem and self-acceptance (Adams, Shea, & Fitch, 1979; Jones, 1984a; Owen, 1984), and positive body and self-image scales (Bennion, 1988).

An interesting study performed by Neimeyer and Raeshide (1991) found a relationship between recall of personal memories, identity status and self-perceptions. It was predicted that more committed identity statuses demonstrate greater recall of personal memories and the impact of that recall on self-perceptions varies as a function of the congruence of memory. Evidence was provided to support this prediction.

*Epistemic Development.* In terms of epistemic doubt processes it has been hypothesized by Chandler, Boyes and Ball (1990) that the progress which young people make in resolving identity crises should depend upon

the general manner in which they deal with conflicting truth claims. Levels of epistemic development proceed from naïve and defended realism through dogmatic, skeptical and rational positions. As predicted, it was found that relativized epistemic stance is associated with movement beyond a Diffused or Foreclosed sense of Identity to the Achieved identity status. In an additional study performed by Boyes and Chandler (1992) it was also shown that realistic epistemic positions are related to “lower” identity statuses, while dogmatic skeptical or rational epistemic positions are associated with the “more mature” identity statuses.

*Masculinity/Femininity.* Sex role orientation is considered to be a part of one’s identity, thus committed identity status individuals (foreclosed and achieved) would be expected to perceive themselves as more feminine or masculine than the other identity statuses. Lamke and Abraham (1984) found achieved subjects score higher on measures of masculinity/femininity than the other statuses. Likewise, Markstrom-Adams and Adams (1995) found interpersonal moratorium was positively associated with femininity while negatively correlated with ideological diffusion. Additionally, higher interpersonal diffusion predicted lower masculinity.

The recent women’s movement has greatly influenced social attitudes towards men’s and women’s roles. Presumably this influence has affected adolescents growing up in the last two decades. Adolescents who have experienced identity crises would theoretically be more likely to examine and select profeminist attitudes. Although Sweeney (1984) did not find a significant correlation between achievement status and profeminist attitudes, she did report strong negative correlation between foreclosed status subjects and feminist ideology. Freeman-Young (1985) also found no significant relationship between sex role orientation and identity status.

*Social Cognitive Styles.* Similar to cognitive development, Eriksonian theory predicts that the mature identity status individuals (achieved- and moratorium-status persons) will use more effective and adaptive social cognition styles than foreclosed and diffused individuals. Read, Adams and Dobson (1984) found that foreclosed subjects were less likely to be analytical or philosophical than subjects in other identity statuses. Foreclosed and diffused individuals were also more likely to err due to narrowed attention, i.e. failing to keep in mind the “big picture.”

Similarly, Adams et al. (1985) report evidence for the notion that uncommitted status individuals experience greater social anxiety due to social pressures toward established or committed identities. In their sample, achieved identity status individuals were more relaxed, less worried and less extreme in their introversion or extroversion.

In contrast to the above results, supporting the notion that mature identity status individuals are more likely to use correspondingly mature social cognitive rules, Adams et al. (1985) report that moratorium and diffused men (uncommitted identity statuses) as compared to achieved and foreclosed men (committed identity statuses) perceive themselves as more attentive to social information and more capable of dealing with numerous ideas. However, these same individuals also show signs of being overwhelmed by their social environment and having a need to control their interpersonal relationships.

For females, Adams et al. (1985) failed to find the expected differences between identity statuses in personality and perceptual styles. They did report that foreclosed women were easily confused, more likely to narrow their perceptual system and to be interpersonally restricted. These results support other evidence (Josselson, 1973) that foreclosed women maintain a regressive familial closeness and show inhibited impulsive expression.

*Personal Problem Solving and Decision Making.* A study was performed by Berzonsky and Neimeyer (1994) to assess the processing orientation characteristically used by individuals categorized within the four Marcia identity statuses. The four processing orientations identified were: Informational, Normative, Diffuse/avoidant and Commitment. Results of this study indicated that late adolescents who are identity foreclosed rely on a normative approach to personal problem solving and decision making. Further, those in the diffusion status were most apt to avoid dealing with identity issues and conflicts. Results also indicated that highly committed students had higher informational scores.

*Social Desirability.* Social desirability focuses on the extent to which individuals bias their responses toward perceived desirable answers. Thus, measures associated with high social desirability scores may be invalid due to subjects slanting their responses. Identity status subscales of the OMEIS have been found to be associated with social desirability measures (Adams, Shea, & Fitch, 1979; Bennion & Adams, 1985). Similarly, Jones (1984a) reported that advanced identity statuses were modestly correlated with a measure of social desirability. But the shared variance between the advanced identity statuses and the social desirability scores (1-16%) is not much different than the shared variance found when correlating positive self-esteem and social desirability measures.

*Social Satisfaction and Burnout.* At first thought, one may expect to find advanced status persons being more satisfied. However, Waterman and Waterman (1972) found that college students in moratorium tend to be dissatisfied with their situation possibly because of the social pressures favoring a developed identity. Achieved individuals, with their developed and very personal sense of identity, may be more sensitive to the lack of “fit” between their existing social environment and their chosen identity.

Francis (1981) found that achieved and moratorium persons did indeed score lower on a measure of social satisfaction than did diffused or diffused-moratorium subjects.

In contrast to social satisfaction is a notion of burnout which is thought to occur when a person’s workload exceeds his/her endurance and ability to cope with accumulated pressures, resulting in feelings of being overwhelmed and decreases in functioning.

Identity achievement is theoretically associated with self-certainty, higher amounts of ego strength, and more adaptive behaviors. Thus, identity achievement would not be expected to correlate with the experience of burnout. O’Neil (1986) reported moratorium status subjects as showing the highest correlation with the experience of burnout and achieved subjects showing the lowest.

It is possible that the energy spent in the exploration process of moratorium adds to the lack of commitment and assurance typical of achieved individuals, and may be associated with burnout.

### Behaviors

The study of behavioral correlates of personality constructs, such as identity, stem from the notion that overt behaviors are a function of internal psychological processes. Therefore one would expect an association between identity status and overt behaviors.

*Achievement Indices.* Achievement in academic settings is frequently collapsed into a convenient indicator, e.g. grade point average (GPA). As the adolescent begins to select and lend importance to available roles, mature identity status individuals tend to become achievement oriented in their selected emphasis (Orlofsky, 1977). Although GPA is commonly used as an indicator of academic achievement, studies reporting correlations between identity status and GPA have shown mixed results.

Francis (1981) found that achieved persons have a higher GPA than diffused or diffused-moratorium subjects. However, Rodman (1983) found no significant differences between identity statuses and GPA. Similarly, Grotevant and Adams (1984), in a series of three studies, concluded that nine academic variables (including GPA, SAT and ACT scores, within class rank and a measure of vocabulary) accounted for only 6.25% of the variance in identity status.

Perhaps the advanced identity status individuals are more achievement oriented, as suggested by Orlofsky (1977), but the number of such persons who chose to focus on academics may not represent enough of each subsample to create significant differences.

In addition to overall GPA scores achievement may also be measured by individual academic subjects. Streitmatter (1989) examined the relationship between identity status and individual math achievement scores. It was found that students with higher diffusion scores showed lower math achievement scores. Conversely, higher

moratorium scores achieved higher math scores. Finally, those with higher interpersonal achievement scores did better on the math achievement measure than did all of their peers. As expected from the results of studies measuring achievement by GPA scores, higher identity statuses resulted in higher math achievement scores.

*Personality.* Clancy and Dollinger (1993) performed a study which examined the relationship of the “big five” personality measures (Neuroticism, Extroversion, Openness, Agreeableness and Conscientiousness) with the eight identity statuses. Their results for the ideological dimension indicated that foreclosed subjects are especially low on openness to experience, diffused subjects are low on conscientiousness and identity-achieved subjects were especially extraverted. For the interpersonal dimension foreclosed subjects scored low on openness, and again, identity-achieved subjects scored extraverted. The diffused and foreclosed subjects also scored very low on agreeableness.

*Shyness.* It has been hypothesized by Hamer and Monroe (1994) that shyness inhibits identity development, whereas self-consciousness facilitates identity development. Their findings show that shyness is positively associated with identity diffusion and negatively associated with achievement. However, contrary to the hypothesis, shyness also showed a significant positive relationship to the moratorium status. As expected private self-consciousness was not associated to identity achievement and negatively associated with identity foreclosure.

*Conformity Behaviors.* Conformity behaviors, or yielding to peer pressures, would logically be associated with less defined internal guidelines or commitments, specifically diffusion and moratorium. Adams, Ryan, Hoffman, Dobson and Nielsen (1985) found diffused men and women were more likely to conform to peer pressures during an experimental task. While the other identity status subjects exhibited conformity behaviors, their motivation appeared to be associated with personal motives, rather than submission to peer pressure.

*Involvement in Student Activities.* Involvement in a variety of activities may be related to identity status in two ways. First, the participation may be part of an active searching process (typical of moratorium-status individuals) in an attempt to find an activity that satisfies one’s needs. Second, the involvement may be passive and initiated primarily by the influence of peers and associates. O’Neil (1986) reported that diffused and moratorium individuals were more likely to be involved in greater numbers of student activities than the other identity status students.

*Social Influence Behavior.* Social influence refers to interpersonal influence or the ability to get another person to do or believe something that he/she would not spontaneously do or believe. Congruent with Eriksonian notions of personality development, advanced identity-status individuals are thought to have a more complex and effective interpersonal behavioral repertoire, which would allow them to be more effective in influencing others. Read, Adams, and Dobson (1984) found that achieved status subjects, as compared to other identity status individuals, exhibited more assertive structuring behaviors (such as maintaining a contrary position without hostility) while using minimal amounts of deception. Foreclosed subjects were more controlling and engaged in the most deception. Thus it appears that mature identity status subjects exhibit more adaptive social interaction skill than less mature subjects.

*Unprotected Sex.* A hypothesis could be assumed that “more mature” identity statuses would engage in unprotected sex less often than “less mature” identity statuses. Hernandez and Diclemente (1992) examined psychosocial factors relating to unprotected sex in late adolescent males. They found that adolescents who had low scores for ego-development (goal directness), self control, and scored high in moratorium were significantly more likely to engage in sex without condoms.

*Substance Use and Exposure.* Erikson (1956) has defined identity as the “sum total of all experience”; that is, the mature identity statuses are the result of varied experiences. From this definition of identity one would expect more experience with various substances to be associated with mature identity statuses. On the other end of the continuum identities composed of ill-defined (or lack of) commitments may also be correlated with substance exposure and use, if the primary social environment of the individual involves substance use. Jones and Hartmann (1984) found that achieved and diffused subjects were more likely than foreclosed individuals to have been exposed to marijuana and cigarettes and also concluded that achieved and moratorium subjects reported more experience with cigarettes, marijuana, alcohol, heroin, cocaine and inhalants than did the other identity statuses. Similarly,

Jones (1984a) found that psychosocial maturity was related with subjects' reports of having tried cigarettes, alcohol and marijuana. Correspondence with Jones (August, 1987) reveals that diffused youths are most likely to be chronic users of all drugs. Recently, Bishop, Macy-Lewis, Schnekloth, Puswella and Strussel (1997) found that subjects with less sophisticated identity statuses reported higher levels in both the volume and frequency of beer consumption. There was an inverse linear relationship between identity status and alcohol consumption.

### Family Factors

*Family Environment.* Moderate amounts of conflict and the acceptance of disparate views in parent-adolescent relationships can set the stage for an adolescent's search for alternatives as the teenager disagrees with his/her parents' views. This searching process theoretically leads to more psychosocially advanced identity statuses. Conversely, families who are highly cohesive may discourage exploration, thus inhibiting identity development. Adams, Montemayor and Brown (1985) found that adolescent perceptions of family environment were predictive of developmental pathways. Regression in identity development was seen in families perceived by the teenager as low in conflict, high in cohesion and high in controlling behaviors.

Nelson, Hughes, Handal, Katz, and Searight (1993), from a sample of 285 undergraduate college students, found that when individuals from families perceived as low in conflict were compared to those from families perceived as middle or high in conflict, the distributions of ideology and interpersonal identity statuses did not significantly differ. However, the mean total identity achievement score of individuals from high-conflict families was significantly lower than that of individuals from middle-conflict and low-conflict families. Persons from middle-conflict and low-conflict families did not differ significantly on mean total identity achievement scores. Similarly, Willemsen and Waterman (1991) found that little conflict predicted foreclosure status rather than identity achievement.

Family structure also plays a role in the identity development of adolescents. Perosa, Perosa and Tam (1996) examined the contributions of family structure on identity development of females and found that foreclosed women tend to be raised in families where boundaries between parent and child are blurred and enmeshed. This discourages the women from developing a clear sense of self; instead, they tend to seek practical and emotional support from parents. On the other hand, identity achieved women tend to be raised in families in which there are clear intergenerational boundaries and flexibility so that they are able to express and resolve differences. Women raised in these families are more likely to avoid the moratorium and diffused identity statuses.

One of the primary influences that parents may have on the identity development of their children is thought to be their socialization style. Symbolic interactionism suggests that parents may reinforce "valued" identity developmental processes by providing emotional security (acceptance, affection and companionship) for behaviors indicative of that process or status. In contrast, poor parent-adolescent relationships characterized by weak affection, rejection and poor communication may not provide the emotional security the adolescent needs to undertake the risks involved in identity exploration. Further, extremely cohesive and enmeshed families may have limited tolerance for individuality and thus encourage foreclosure. Adams (1985) and Adams and Jones (1983) found that diffused and foreclosed adolescents perceive more parental rejection and parental control or regulating behavior than achieved or moratorium teenagers. Frank, Pirsch and Wright (1990) found that overall autonomy was associated with less ideological and interpersonal foreclosure.

Campbell, Adams and Dobson (1984) reported that foreclosed youths were most likely to report affectionate relationships with their parents. The apparent discrepancy between foreclosed adolescents perceiving both parental rejection and affection may be due to the parents offering affection when the adolescent performs within the role assigned by the family environment and psychologically withdrawing from the teenager through rejection when the adolescent explores new roles or attitudes.

Schultheiss and Blustein (1994), from a sample of 174 university students, examined the contributions of family relationship factors for both males and females to their identity formation process. The results of the study suggested for females that higher levels of attitudinal independence from both parents is associated with a tendency to avoid identity achievement (commitment), therefore displaying lower levels of foreclosure and identity achievement along with a greater level of diffusion. A greater tendency toward foreclosure and identity

achievement with a lesser degree of diffusion is associated with the experience of perceptions of attachment to one's parents coupled with a modest degree of conflictual independence from one's mother. Finally, it was suggested that women who experience some degree of attachment to their mothers along with attitudinal independence from their mothers will be most able to avoid the diffusion, foreclosure and moratorium statuses.

For males, the results of the study suggest that attitudinal independence from both mother and father was inversely associated with the identity achieved and the foreclosure statuses and positively associated with the diffusion and moratorium statuses.

*Parental Identity Status.* A social learning perspective suggests that mature identity-status parents provide models which their adolescents may emulate and through observational learning may develop advanced identity statuses. Adams (1985) reported that mature ego-identity parents are more likely to have mature ego-identity daughters. He also found that these same achieved and moratorium daughters report more affection for their fathers than other identity-status daughters. This finding gives support to a symbolic interaction notion that parents reinforce their children in exhibiting behaviors indicative of the approved developmental process.

### Demographic Variables

*Major Field of Study and Career Objectives.* Even within the limitations imposed by the gradually lessening social pressures toward gender stereotyped careers and college majors, there remains a great variety of choices for students to choose from. Due to the range of alternatives available and number of "midrange" options, career objectives and major field of study are not expected to correlate with identity status. Indeed, Clancey (1984) found no relationship between major field of study and identity status (applied majors vs. liberal arts majors).

Other research findings are more difficult to interpret. For example, Sweeney (1984) reported nursing and elementary education majors as scoring higher on total identity than women's studies students. Closer examination of the sample found that nursing and elementary education students were more homogeneous in career aspirations while the students in the women's studies courses represented a variety of majors. Therefore, the comparison made is confounded and difficult to meaningfully interpret.

Freeman-Young (1985) found business and physical education majors scoring higher on the moratorium subscale than social science majors. Perhaps the business and physical education majors had selected career directions based on high school experiences and within the university environment were beginning to question their choices. Or it is possible that business and physical education represent a very broad array of choices that need to be further selected and focused as a career field.

According to Erikson (1968) one of the main tasks of adolescence is the formation of a vocational identity. Researchers have found that during this formation there is evidence of variation regarding indecision about a career. Specifically, Vondracek, Schulenberg, Skorikov, Gillespie and Wahlheim (1995) have found that identity achieved individuals score significantly lower than all other status individuals on career indecision subscales, (General indecision, Diffusion, Support, Approach-approach and External barriers) with the exception of moratorium on the support subscale. Additionally, Wallace-Brosious, Serafica and Osipow (1994) discovered that identity achievement was negatively related to career indecision, while moratorium and diffusion were positively associated with career indecision.

*Racial Differences.* One of the social contextual variables that is thought to influence identity development is ethnic heritage. Abraham (1983, 1984) reported that Anglo-American adolescents are more likely to be achieved or diffused while Mexican-American adolescents are more likely to be foreclosed. Likewise, Owen (1984) reported Cuban-American youths as scoring higher than American young adults on the foreclosure political subscale. Finally, Markstrom-Adams and Adams (1995) found that Whites scored significantly lower than African Americans, American Indians, and Mexican Americans on ideological foreclosure. The environmental pressures toward foreclosure within racial minorities may be greater, due to the struggles of the ethnic subculture to maintain and "pass down" its racial and ethnic identity.

*Religion and Identity Formation.* There has been very little empirical investigation into the relationship of identity status and religious orientation. Markstrom-Adams and Smith (1996), in two separate studies, examined the relationship between identity statuses of the EOMEIS and Allport Ross' (1967) Religious Orientation Scale (containing four subscales of Indiscriminate, Intrinsic, Extrinsic Nonreligious). In the first study consisting of Mormon and non-Mormon subjects it was found that Extrinsic youth scored significantly higher and intrinsic youth scored significantly lower in diffusion. Both indiscriminates and extrinsics scored significantly higher in foreclosure than intrinsics. In the second study consisting of Jewish high school students it was found that extrinsic and indiscriminate youth scored significantly higher in diffusion than intrinsic and there were no significant differences between the orientations in identity foreclosure. Indiscriminates scored significantly higher on identity achievement. Diffusion and achievement were the most salient in terms of religious orientations

An additional study by Markstrom-Adams, Hofstra, and Dougher (1994) examined the relationship between identity formation and religion by studying Mormon and non-Mormon adolescents. They found that the Mormon subjects scored significantly higher than the non-Mormon adolescents on ideological and interpersonal foreclosure. When examining church attendance results showed that weekly attenders scored higher in interpersonal foreclosure and ideological achievement, and lower in ideological diffusion and moratorium. Interestingly, for Mormons, church attendance was related to higher identity achievement, while for non-Mormons less frequent church attendance was related to higher identity achievement.

*Cross-Cultural Differences.* An investigation by Nensen, Kristiansen, Sandbekk and Kroger (1998) examined patterns of identity development for late adolescents within Norway with late adolescents within the United States. It was found that there were statistically significant differences on all identity status scale scores within both interpersonal and ideological domains across national samples. The Norwegian sample scored consistently lower on identity subscales compared with the United States sample. However, when comparing pure overall identity status distributions among the nations, there were approximately even numbers of subjects in each of the four "pure" overall identity statuses. Therefore, there were no statistically significant differences in identity status distributions between the Norwegian and United States samples.

*Sex Differences.* The study of sex differences in identity development has produced conflicting and varied results. Due to the earlier onset of puberty for females, they experience the changes in role expectations associated with the concomitant physical development which may provide impetus for the exploration of new and more "mature" roles. Abraham (1984) and Streitmatter (1987), with a sample of early and middle adolescents, did find that females scored higher on the achievement subscales than did males of the same age group. Grotevant and Adams (1984) reported similar findings from a sample of late adolescents. Mead (1983), with a wide age range sample, again found that females were more likely to be identity achieved. In contrast, Fregeau and Barker (1986), using a slightly older sample, found females scoring consistently higher on the moratorium and diffusion subscales and Jones (1984) reported middle adolescent females as scoring highest on the foreclosure subscales. None of these studies used random samples. Adams and Fitch (1982), in a longitudinal study of identity development in a random sample of late adolescents, concluded that there are no sex differences in identity formation. Although Adams and Fitch were using the Marcia interview to classify identity status, the high correlation between the OMEIS and the Marcia interview classifications would suggest appropriate generalization of the findings.

Many of the studies using the OMEIS report no significant gender differences between identity statuses (Abraham, 1983; Adams, Ryan, Hoffman, Dobson, & Nielsen, 1985; Adams, Shea, & Fitch, 1979; Bennion & Adams, 1985; Clancey, 1984; O'Neil, 1986; Rodman, 1983; Streitmatter, 1993).

Socio-Economic Status. Socio-economic status is an index related to annual income and educational training. Wiess (1984) found no relationship between identity status and socio-economic status.

## Functions of Identity

According to Adams and Marshall (1996), there are five basic functions of identity. In the following section a collection of research findings that provide evidence of these five functions are summarized.

The first function of identity is *to provide the structure for understanding who one is*. Therefore, an individual who has an achieved identity status would be expected to show low level of anxiety about the self. This may involve aspects such as self-consciousness, self-esteem and self-acceptance. In the first of a series of studies, Adams, Abraham, and Markstrom (1987) found ideologically achieved individuals to be less self-conscious and the least self-focussed. Additionally, Bennion (1988) and Owen, (1984) delineated that advanced identity statuses correlate with positive body and self-image scales as well as measures of self-esteem and self-acceptance, respectively. Understanding the self may also involve adolescent egocentrism. The self-concerns and social demands of the identity development process may lead adolescents to confuse their own concerns with the concerns of others. As O'Connor (1995) has found, these egocentric adolescents tend to be identity achieved.

The second function of identity, delineated by Adams and Marshall (1996) is *to provide meaning and direction through commitments, values and goals*. Adams, Shea, and Fitch (1979) found that identity achieved subjects showed significantly more commitment than diffused subjects. Commitment can be evaluated by examining the sincerity of relationships that adolescents hold (Archer & Waterman, 1988) and by measuring the importance of religious values in adolescents' lives (Markstrom-Adams, Hofstra, & Dougher, 1994). It was shown that achieved individuals tend to approach romantic relationships in a more deliberate fashion and were more willing to share personal information with their partner (Archer & Waterman, 1988). Markstrom-Adams, Hofstra and Dougher (1994) found that among Mormons, weekly church attenders were more likely to be ideologically achieved. Finally, identity achieved individuals have been shown to be goal-directed and self-motivated (Blustein & Palladino, 1991).

*Providing a sense of personal control and free will* is an additional function of identity. According to Abraham (1983) the construct locus of control refers to the extent that individuals believe they, rather than fate, chance or powerful others, hold the responsibility for reinforcement in their lives. Researchers have found that achievement status individuals show the least and diffused subjects the most amount of external locus of control (Abraham, 1983; Francis, 1981; Bennion, 1988). This suggests that achieved individuals tend to believe that they control their own lives rather than social forces that are external to them. Conformity is also related to an adolescent's ability to maintain personal control. Adams, Ryan, Hoffman, Dobson, and Nielsen (1985) reported that conforming to peers was significantly more likely among diffused than achieved men and women.

Shyness has been identified as a problem involving anxious self-preoccupation and behavioral inhibition in the presence of others due to the prospect of the threat of being evaluated (Buss, 1980; Leary, 1983). As would be expected, shyness has been shown to have a negative relationship with identity achievement (Hamer, & Bruch, 1994). According to Clancy and Dollinger (1993), achieved individuals were found to hold high conscientiousness. Costa and McCrae (1985) describe a conscientious person as one who is organized, planful, and energetic in striving to achieve his or her goals, a person who sees life in terms of tasks to be accomplished. The opposite would be a person with a spontaneous lifestyle characterized by self-indulgence, therefore, lacking personal control.

Finally, substance abuse is a classic example of a persons ability to maintain personal control. Therefore, it would be assumed that achieved individuals would be least likely to indulge in abusing substances. As expected, substance abuse and greater beer consumption was more likely to occur among lower identity status individuals (Jones, Hartmann, Grochowski, & Glider, 1989; Bishop, Macy-Lewis, Schnekloth, Puswella and Strussel, 1997).

A fourth function of identity is *striving for consistency, coherence and harmony between values, beliefs and commitments*. According to Carlson (1986) achievement status individuals are significantly more adjusted than diffused-status individuals in comparison of overall academic adjustment. Defense mechanisms are an additional example of the way adolescents make use of this function. As an adolescent begins to make the transition into achieving an identity narcissistic defenses guard against the potential loss of self-esteem and disappointments. Adaptive narcissism also has a role, as it is connected to developing and maintaining one's ego-

ideals, and contributes to healthy self-esteem (Cramer, 1995). Cramer (1995) found that achievement status individuals were associated with both adaptive and defensive narcissism.

Finally, intrinsic religious orientations are characteristic of this function of identity. According to Fulton (1997) an individual possessing an intrinsic internalized religion pursues it as an end in itself rather than a means to some other end, whereas an individual possessing an extrinsic social orientation is using religion as a means toward social gain. Fulton (1997) found that achievement individuals are associated with high intrinsic and low extrinsic social orientation.

The final function of identity is *enabling the recognition of potential through a sense of future possibilities and alternative choices*. Two of the major areas concerning an adolescent's recognition of potential is the measure of achievement by their GPA and their career planning for the future. According to Francis (1981), achieved subjects report significantly more desire to continue their studies and have higher GPA scores than diffused subjects. Additionally, adolescents committed to an identity are associated with increased career planning and decidedness (Wallace-Brosious, Serafical, & Osipow, 1994). Adolescents who are identity achieved also appear to subscribe more strongly to the idea that aspects of work represent a viable vehicle for satisfying their future aspirations than adolescents who are identity-diffused (Vondracek, Schulenberg, Skorikov, Gillespie, & Wahlheim, 1995).

### Estimates of Construct Validity

Construct validity addresses the accuracy of the instrument in assessing the underlying theoretical elements of a psychological construct. If the present theoretical notions of identity development are correct and a perfect instrument were developed, one would expect four separate structures with each structure representing one of the identity statuses. Construct validity can be estimated by different methods, e.g. a factor analysis assessing statistically separate factors or correlations between subscales of an instrument.

#### Factor Analysis

Ideally, four separate factor structures, one representing each identity status, would be expected. In six factor analyses, conducted by Bennion and Adams (1985), Bennion (1988), McConnell (1985), and Grotevant and Adams (1984), theoretically consistent results were reported, except that the diffusion and the moratorium scales were found to share some variance in five of the analyses.

This may be due to diffusion and moratorium statuses being more similar than is presently conceptualized or it may be caused by the inability of the OMEIS to fully discriminate between these two identity statuses. One can also speculate that clear cases of diffusion may not be frequently found in college samples.

Convergence/Divergence. Correlations of the subscales of an instrument can provide evidence for construct validity. The OMEIS contains eight subscales, one representing each identity status in the interpersonal domain and in the ideological domain. Each of the subscales assess the amount of current thinking characteristic of each identity status. As the typical thinking patterns of the four identity statuses are not compatible, correlations between the status subscales are expected to be divergent.

Conversely, the same status subscales from the interpersonal and ideological domains (e.g., the diffusion subscales from the interpersonal domain and the diffusion subscales from the ideological domain) are expected to have a moderate degree of convergence, yet not be identical because of domain differences. Jones (1984a), Bennion (1988), Bennion and Adams (1985), Jones and Hartmann (1984), and Boyes and Chandler (1992) report that the convergence of the ideological and of the interpersonal scales ranged from .38 to .92. Divergence between interpersonal subscales ranged from .27 to .76 and of the ideological subscales from .19 to .79.

Correlations between the subscales representing the different identity statuses are expected to show evidence of divergence because the type of thinking characteristic of each stage is thought to be incompatible, i.e., it is not theoretically congruent for an individual to simultaneously exhibit thought processes of different maturational levels.

Across many different studies, a theoretically consistent and common finding is that for both interpersonal and ideological domains, the achievement subscale is either negatively correlated or uncorrelated with the other subscales (Adams & Jones, 1985; Adams, Shea, & Fitch, 1979; Bennion, 1988; Bennion & Adams, 1985; Boyes & Chandler, 1992; Campbell, Adams, & Dobson, 1984; O'Neil, 1986; Willemsen and Waterman, 1991). On the other extreme, a theoretically unexpected and a theoretically consistent finding frequently occurs. The diffusion subscale is often found to be correlated with the moratorium subscale, yet it is usually negatively correlated or uncorrelated with the foreclosure subscale (Adams & Jones, 1983; Adams, Shea, & Fitch, 1979; Bennion & Adams, 1985; Campbell, Adams, & Dobson, 1984; Freeman-Young, 1985).

The positive correlation between the diffusion and moratorium subscale supplements the above mentioned findings from the factor analyses of the subscales. Two possible explanations for these findings include (a) the OMEIS does not finely discriminate between diffusion and moratorium identity statuses, and (b) diffusion and moratorium may be more closely related than presently theorized.

A third correlation that can be performed in assessing construct validity involves correlations of identity subscales with the overall identity status derived from the OMEIS. Adams, Shea and Fitch (1979), correlating the original six items representing each identity status, reported a range from .48 to .67 with a median of .60. Jones and Hartmann (1984) reported similar correlations using a later version of the OMEIS between the ideological and interpersonal subscales and total identity scores with correlations ranging from .91 to .94 with a median of .93.

Squared correlations of the ideological and interpersonal subscales found the following shared variances: achievement, 50.4%; moratorium, 39.7%; foreclosure, 64.0%; and diffusion, 37.2%. Average  $r^2$  for all ideological scores was 25.8% and for interpersonal achievement was 27.9% (Streitmatter, 1987).

Discriminance. Within the context of construct validity, discriminance deals with the idea that theoretically unrelated constructs, when correlated, should produce non-significant or negative correlational findings. Grotevant and Adams (1984) in correlating identity scores with six theoretically related constructs (e.g. verbal ability and academic achievement), found a range of -.25 to .22 and that these six scores accounted for only 6.25% of the variance.

Evidence of discriminant validity was also found by Streitmatter (1989). Correlation of status scores between ideological achievement and diffusion resulted in an  $r$  of .02. Since these statuses purportedly assess different constructs this value represents evidence of discriminance between the two subscales.

### Estimates of Concurrent Validity

Concurrent validity refers to the degree to which the instrument is associated either with (a) a second accepted assessment strategy of the same construct, or (b) behaviors that are considered to be characteristic of the groups differentiated by the instrument.

### Other Identity Measures

One of the ways that concurrent validity may be assessed is by testing associations between the developing instrument and other assessment devices for the same construct.

Ego Strength Scales. The Inventory of Psychosocial Development (IPD) (Constantinople, 1969) can be used to obtain a low (diffusion) and a high (achievement) psychosocial stage score. O'Neil (1986) reported a positive and significant relationship between the achievement subscale on the OMEIS and the achievement score from the IPD. Correlations of the other identity status subscales with the IPD achievement score were negative. Correlations of the IPD diffusion score and the OMEIS subscales was theoretically less expected. All of the correlations were nonsignificant, except for the OMEIS moratorium subscale. Again, support was found for the inter-relatedness of diffusion and moratorium identity statuses.

The Barron Ego Strength Scale (Barron, 1953) [Shortened version developed by Gravitz, (1970)] consists of subscale items from the Minnesota Multiphasic Personality Inventory (MMPI). Ego strength is defined as the capacity for personality integration and is thought to be associated with more advanced identity statuses. O'Neil (1986) found that moratorium was negatively related with high scores on the ego strength measure providing support for the identity crisis as being a period of personality disintegration.

Marcia Incomplete Sentence Blank. In Marcia's (1966) original validation studies of the Marcia Ego Identity Interview, the Ego Identity Incomplete Sentence Blank (EI-ISB) was used to estimate concurrent validity. Higher scores on the EI-ISB indicated more advanced levels of identity. Marcia (1966) indeed found diffused subjects scoring significantly lower on the EI-ISB than the other identity status subjects and achieved status individuals scored significantly higher than the diffused status subjects. Adams, Shea and Fitch (1979) reported that achieved status subjects were more likely to obtain higher scores on the EI-ISB than diffused status individuals.

Reported Current Thinking About Domains. Marcia (1981) suggested correlating subjects' reported current thinking about each of the domains as a concurrent validity check based on the notion that more mature identity status individuals would theoretically report more thinking about identity domains. Grotevant and Adams (1984) correlated reported current thinking about the domains and identity statuses derived from the OMEIS. They found that interpersonal achievement scores were positively and moderately correlated with reported current thinking about the domains. Correlations of ideological scores and reported current thinking about each domain found achievement scores positively correlated, foreclosure scores mostly uncorrelated, diffused scores negatively correlated, and moratorium, moderately correlated. Bennion (1988) created an overall self-rated exploration and commitment score for the ideological and interpersonal domains by combining self-ratings of exploration and commitment reported for each of the eight domains. Correlations of the EOMEIS-2 subscale scores with these overall self-ratings produced the predicted relationships for the achievement and diffusion subscales (all significant). These same correlations for the foreclosure and moratorium subscales obtained two significant relationships out of eight predicted associations.

#### Comparisons with the Marcia Ego Identity Interview

The Marcia Ego Identity Interview is widely accepted as a valid measure of ego development. Thus, comparisons of the status derivation of the Marcia interview and the OMEIS become critical in assessing concurrent validity. Because scoring the interview often results in an identity rating for each domain through commitment and exploration scores as assessed by trained raters and the OMEIS derives only an identity status for the interpersonal domain and one for the ideological domain through subscale cut-off points determined by subscale means and standard deviations, it is difficult to determine the best method of comparing the two instruments. Several different comparisons have been attempted.

*Comparisons of Status Domains by the OMEIS and the Marcia Interview.* Comparisons of the OMEIS categorizations and Marcia Interview ratings have found moderate (Rodman, 1983; Bennion, 1988; Adams, Shae, & Fitch, 1979) to strong agreement between the two instruments (Adams & Montemayor, 1987; Adams, Ryan, Hoffman, Dobson, & Nielson, 1985).

Correlations of the identity statuses obtained from the Marcia Interview and the subscale scores from the OMEIS revealed that achieved and foreclosed status subjects (as derived from the Marcia Interview) scored lower on the OMEIS diffusion subscale than did moratorium and diffused status subjects. Also, diffused and moratorium individuals scored higher on the OMEIS moratorium subscales than did achieved and foreclosed status respondents (Adams, Shea, & Fitch, 1979).

*Comparisons of OMEIS Statuses with the Exploration and Commitment Scores from the Marcia Interview.* Another way that the OMEIS and the Marcia Interview can be compared is through correlations of the OMEIS derived categories and exploration and commitment scores of the Marcia Interview. Grotevant and Adams (1984), Bennion (1988), and Craig-Bray and Adams (1985) found a moderate to high number of the predicted relationships, e.g. achievement status was expected to be related to high degrees of commitment and exploration.

## Conclusions and Discussion

Several different methods of comparing the OMEIS and the Marcia interview strategy as identity assessment methods have found moderate to high agreement in status classification.

Possible explanations for the similar, but not identical, ratings given by the OMEIS and the Marcia Interview include (a) one of the methods is more precise in assessing identity development, and (b) both of the methods are approximately equally accurate, but are assessing slightly different aspects of ego identity. Both of these hypotheses are extremely difficult to test directly. Therefore, an examination of other evidence is appropriate in determining the strength and limitations of the OMEIS and the Marcia interview.

## Developmental Data

### Longitudinal

The Eriksonian notions of ego-identity development conceptualizes identity formation as beginning in middle adolescence and continuing into late adolescent and even into early adulthood. An analysis of longitudinal research would expect to find, as individuals move through adolescence, the number of less mature identity status subjects to decrease and concomitantly the number of mature identity status individuals to increase in number.

Erikson and others draw heavily on the orthogenetic principle of human development (see Pepper, 1942), and views the self as undergoing gradual stage transformation and reorganization from less to more differentiated psychological states (e.g., see Loevinger, 1976). This approach focuses on developmental transformations of the self (or identity). While the original identity status paradigm by Marcia (1966) focused on individual differences, the whole field has now recognized the developmental features of identity formation (see Marcia, 1976; Marcia et al., 1993).

In determining how to rank order the stages into a sequence we have utilized the basic notions of crisis and commitment and their underlining states of differentiation and integration. Crisis is an exploration process that is created by self-awareness of variations, differences, and discovery (differentiation). Commitment is based on decision-making processes that involves selection, choice, rejection (integration). In the identity status paradigm, diffusion represents disorganization, confusion, and an undifferentiated state of mind. Identity achievement reflects commitment to personal goals and beliefs based on differentiation and integration processes. Foreclosure represents some commitment without clear differentiation of options or choices. This state reflects a tentative form of completeness or integration that emerges without experience in exploration and differentiation. Moratorium, as a state of searching, role experimentation, and seeking, represents ongoing differentiation without the completion of wholeness or integration.

Erikson (1968) indicates that a healthy identity is associated with active mastery that is reflected as an integrated wholeness of self. In more contemporary terms we might represent this as a sense of locus of control and psychological complexity. Likewise, identity exploration and commitment, from an Eriksonian perspective, should be presented by processes of differentiation and integration.

If rank ordering can be endorsed between the four identity statuses, then differences should be observed on locus of controlled and distinctions in cognitive complexity (differentiation and integration). In one of our studies of 63 college subjects who were entering first year students, data were collected over a three year period. Measures of self-acceptance, internal locus of control, rigidity or authoritarianism, ego stage, psychological differentiation and integration, and ego-identity statuses were obtained using the self-report measure of identity, the clinical interview technique, and other scales.

Analyses of individual differences between the identity statuses and personality characteristics were completed for the first year (see table 26). Diffusion and foreclosure subjects were more authoritarian and less self-accepting, while moratorium and achievement subjects held higher internal locus of control. Likewise, diffusion subjects had very low differentiation and integration scores. Foreclosure subjects showed moderate integration but

low differentiation. Moratorium subjects had high levels of both differentiation and integration. These data, when combined, indicate that the identity statuses can be rank ordered from diffusion to foreclosure, moratorium, and then identity achievement.

Further evidence for this rank order is found in table 27. It is clear from these data that diffusion subjects hold the lowest levels of cognitive complexity within the ego stages outlined by Jane Loevinger (1976). Foreclosure subjects are slightly higher in their complexity, Moratorium subjects are middling, and Identity Achieved are the most advanced.

Finally, in table 28, when comparisons are made between various forms of regression, progression, and stability, declines in the rank order are associated with authoritarian rigidity, lower self-acceptance and low internal control. The converse is true for those subjects who are progressive or incremental in their development. Likewise, regressive states are associated with lower ego stage complexity, while progressive states are associated with higher ego stage development. Finally, regressive states are associated with poor differentiation and integration. With progression associated with high differentiation and integration processes.

Table 26. Individual Differences Between Identity Statuses and Personality Characteristics

Personality Measure	Identity Status for First Year								One-Way ANOVA Probability
	Diffusion (n = 16)		Foreclosure (n = 20)		Moratorium (n = 22)		Achievement (n = 5)		
	<u>M</u>	<u>sd</u>	<u>M</u>	<u>sd</u>	<u>M</u>	<u>sd</u>	<u>M</u>	<u>sd</u>	
<u>Self-Report</u>									
F-Scale	61.1 <sup>a</sup>	9.8	57.4 <sup>a</sup>	9.0	42.2 <sup>b</sup>	10.3	37.6	12.2	p < .05
Self-Acceptance	70.6 <sup>a</sup>	1.9	68.4 <sup>a</sup>	2.6	87.4 <sup>b</sup>	3.1	89.9 <sup>b</sup>	2.1	P < .05
Internal Control	29.9 <sup>a</sup>	1.1	30.2 <sup>a</sup>	1.8	37.9 <sup>b</sup>	1.0	38.9 <sup>b</sup>	.9	P < .05
<u>Clinical Interview</u>									
Differentiation	.47 <sup>a</sup>	.51	.68 <sup>a</sup>	.49	1.29 <sup>b</sup>	.54	2.14 <sup>c</sup>	.54	P < .001
Integration	.42 <sup>a</sup>	.50	1.20 <sup>b</sup>	.48	.60 <sup>a</sup>	.67	2.25 <sup>c</sup>	.51	P < .001

Note: Simple effects were assessed with a multiple range test. Means sharing a common superscript across rows are not significantly different from each other, while means with a different superscript are significantly different at the .05 level or better; degrees of freedom (3,59)

Table 27. A Descriptive Analysis Between Individual Differences in Identity and Ego Stage Development

First Year	Identity Status for First Year			
	Diffusion (n = 16)	Foreclosure (n = 20)	Moratorium (n = 22)	Achievement (n = 5)
<u>Ego Stage</u>				
Impulsive	7	4	0	0
Self-Protective	7	7	0	0
Conformist	2	9	13	0
Conscientious	0	0	9	3
Autonomous	0	0	0	1
Integrative	0	0	0	1

Table 28. Personality Characteristics Predictive of Trajectories in Ego-Identity Development

	Trajectories in Ego-Identity Development										One-Way ANOVA Probability
	Progressive (n = 31)		Progressive/ Regressive (n = 9)		Stable (n = 9)		Regressive/ Progressive (n = 7)		Regressive (n = 7)		
	<u>M</u>	<u>sd</u>	<u>M</u>	<u>sd</u>	<u>M</u>	<u>sd</u>	<u>M</u>	<u>sd</u>	<u>M</u>	<u>sd</u>	
<u>Self-Report</u>											
F-Scale	52.6 <sup>b</sup>	10.1	61.0	9.7 <sup>a</sup>	48.9 <sup>b</sup>	11.1	53.5 <sup>b</sup>	10.0	56.2 <sup>a</sup>	.92	P < .01
Self-Acceptance	86.3 <sup>a</sup>	2.9	71.0 <sup>b</sup>	1.9	73.3 <sup>b</sup>	2.8	72.9 <sup>b</sup>	2.1	69.9 <sup>b</sup>	2.5	P < .01
Internal Control	36.9 <sup>a</sup>	1.1	29.8 <sup>c</sup>	1.2	33.0 <sup>b</sup>	1.3	32.8 <sup>b</sup>	.9	32.2 <sup>b</sup>	1.4	P < .01
<u>Projective</u>											
Ego Stage	3.81 <sup>a</sup>	.91	1.83 <sup>b</sup>	.54	3.00 <sup>a</sup>	.50	2.14 <sup>b</sup>	.60	1.71 <sup>b</sup>	.76	P < .001
<u>Clinical Interview</u>											
Differentiation	2.38 <sup>a</sup>	.56	.44 <sup>c</sup>	.51	1.22 <sup>b</sup>	.67	.67 <sup>c</sup>	.49	.43 <sup>c</sup>	.50	P < .001
Integration	2.49 <sup>a</sup>	.53	.57 <sup>c</sup>	.52	1.31 <sup>b</sup>	.87	.83 <sup>c</sup>	.61	.44 <sup>c</sup>	.53	P < .001

Note: Simple effects were assessed with a multiple range test. Means sharing a common superscript across rows are not significantly different from each other, while means with a different superscript are significantly different at the .05 level or better.

Adams and Montemayor (1987) in a three-year longitudinal study found nine developmental paths: three patterns that collapsed into progressive trajectories, three patterns into regressive trajectory, a stable or no change group and two unstable trajectories. Over time they observed 50% progressive growth, 14% stability, 11% regressive development and 25% unstable patterns. Further it was found that 80% of the growth occurred for freshmen entering college in moratorium. Most diffused youths showed unstable development. The committed statuses (achieved and foreclosed) were most likely to remain stable, however, foreclosure was likely to predict a regressive/progressive (unstable) pattern or a regressive developmental pattern. As expected, most of the youths manifest increasing individuation and differentiation, while relatively few remain stable, and even fewer show regressive movement.

### Cross-Sectional Research

Similar to longitudinal work, increasing psychosocial development is expected across age groups in cross-sectional data. Although cross-sectional data can provide crude group indices of age related development, it is limited to interindividual comparisons (age differences confounded by birth cohorts) and is not useful for examining intraindividual change.

Similar to Adams and Montemayor's (1987) longitudinal study, Fregeau and Barker (1986) found theoretically expected trends with cross-sectional data obtained from 350 12- to 18-year-olds. Diffusion subscale scores remained stable through the middle teens with a decrease in later adolescence. Moratorium scores were uneven across ages with a decrease in later teens and foreclosure scores showed a steady decline across ages. However, Fregeau and Barker reported achievement subscale scores as remaining stable, rather than increasing across age groups. While the average achievement subscale scores did not increase across age groups, the decrease in diffusion, moratorium and foreclosure subscale scores suggests the conclusion that more of the late adolescents would be classified as identity achieved. Unfortunately, Fregeau and Barker do not report identity derivations across age groups.

A frequent, theoretically consisted finding in other cross-sectional data is that older subjects are more likely to be identity achieved, while the younger subjects in the sample are expected to exhibit less mature identity stage processes (Abraham, 1984; Adams & Jones, 1984; Adams, Shea, & Fitch, 1979; Campbell, Adams, & Dobson, 1984; Mead, 1983; Streitmatter, 1987). In contrast, Wiess (1984) using a sample of 19- to 57-year-old females and Rodman (1983) and Yatim (1982) with a sample of late adolescents and young adults found no significant differences by age in identity status.

All three of the above studies used samples of late adolescents and young or even middle aged adults. Identity formation is thought to occur primarily through adolescence and by late adolescence and young adulthood, the social presses toward established identities may inhibit further exploration and individuation associated with identity development.

Adams and Jones (1983) found unexpected results with a sample of middle adolescent females. The 15 and 18-year-olds showed similar levels of foreclosure and moratorium. The higher diffusion and moratorium subscale scores for the 18-year-old girls may be individual reactions to projected life changes as these females approach the end of high school and face possible dramatic changes in lifestyle.

In general, cross-sectional research supports Eriksonian notions of increasing individuation and differentiation through adolescence.

Table 29. Estimates Of Validity

<u>Author &amp; Date</u>	<u>Sample Test Version and Findings</u>
Abraham, K.G. (1983)	<p><u>Sample:</u> 223 9<sup>th</sup> through 12<sup>th</sup> graders; OMEIS version</p> <p><u>Predictive:</u> Achievement-status subjects showed significantly less external locus of control than all other identity statuses. Foreclosed subjects were not significantly less externally controlled than diffusion or moratorium subjects. Moratorium<sup>1</sup> subjects were significantly less external than moratorium<sup>2</sup> subjects. No significant sex differences were found. Anglo-Americans were significantly more likely to be achieved- and diffused-identity status than were Mexican -Americans.</p>
Abraham, K.G. (1984)	<p><u>Sample:</u> 870 9<sup>th</sup> through 12<sup>th</sup> graders; EOMEIS-1 version.</p> <p><u>Predictive:</u> Mexican-Americans were significantly more ideologically foreclosed and more interpersonally foreclosed and diffused than were Anglo-Americans. 9<sup>th</sup> and 10<sup>th</sup> graders were significantly more likely to be moratorium and foreclosed identity statuses than 11<sup>th</sup> and 12<sup>th</sup> graders. Males were significantly more diffused and less achieved than females.</p>
Adams, G.R. (1985)	<p><u>Sample:</u> Father, mother, and adolescent daughter triads of 45 families; OMEIS version.</p> <p><u>Predictive:</u> Mature ego-identity status parents were significantly more likely to have mature ego-identity status daughters. Diffused and foreclosed daughters perceived significantly more rejection from parents while achieved and moratorium daughters perceived significantly more companionship, affection, and support from fathers. Achieved and moratorium status fathers perceived self as being significantly (marginally) more supportive than foreclosed and diffused fathers.</p>
Adams, G.R., Abraham, K.G., & Markstrom, C.A. (1987)	<p style="text-align: center;"><u>Study 1</u></p> <p><u>Sample:</u> 870 9<sup>th</sup> through 12<sup>th</sup> graders; EOMEIS-1 version.</p> <p><u>Predictive:</u> Self-consciousness, as measured by the Elkind and Bowen Imaginary Audience scales, correlated with identity statuses found that ideologically achieved adolescents were significantly less self-conscious than the other identity statuses.</p> <p style="text-align: center;"><u>Study 2</u></p> <p><u>Sample:</u> 160 selected (by identity status) college students from a larger pool of 462 students; EOMEIS-1 version.</p> <p><u>Predictive:</u> Self-reference, as measured by the Self-as-Target questionnaire and an experimental situation, analyzed by sex and identity status, showed that achieved subjects were significantly less likely to report self-reference and diffused subjects were most likely to report self-consciousness. No significant sex differences were found.</p>

<p>Adams, G.R., &amp; Jones, R.M. (1983)</p>	<p><u>Sample</u>: 82 female high school students; OMEIS version.</p> <p><u>Construct</u>: Convergent-divergent correlations between the OMEIS subscales showed diffusion and achieved subscales significantly correlated at -.46, diffusion and foreclosure subscales at -.25, diffusion and moratorium at .25, moratorium and foreclosure at .28, and achievement and foreclosure at -.05.</p> <p><u>Predictive</u>: An age by sex one-way analysis of variance found 15- and 18-year-olds significantly more likely to be foreclosed and found 16- and 17-year-olds more likely to be achieved. Identity status correlated with perceived parenting style found achieved and moratorium adolescents least likely to report maternal behaviors that control or regulate with fathers seen as being fair in punishment, while giving minimal praise.</p>
<p>Adams, G.R., &amp; Montemayor, R. (1987)</p>	<p><u>Sample</u>: 70 college freshmen; OMEIS version.</p> <p><u>Concurrent</u>: Status classification agreement between Marcia interview and OMEIS ranged from 73% to 80% across the four statuses.</p>
<p>Adams, G.R., Ryan, J.G., Hoffman, J.J., Dobson, W.R., &amp; Nielsen, E.C. (1985)</p>	<p style="text-align: center;"><u>Study 1</u></p> <p><u>Sample</u>: 80 randomly selected college students from a pool of 646 college students; EOMEIS-1 version.</p> <p><u>Predictive</u>: Correlations of EOMEIS statuses and scores on the Test of Attentional and Interpersonal Style showed the following: men in the uncommitted statuses (moratorium and diffusion) as compared to committed status men (achieved and foreclosed) viewed themselves as highly attentive to social information and capable of addressing numerous ideas; being overwhelmed by their social environments; less able to narrow their attention; and having a strong need to control their interpersonal situation. Foreclosure status women compared to women in other identity statuses were least likely to see themselves as able to integrate ideas; more inclined to perceive themselves as overloaded and confused by internal stimuli; more likely to tune out the external environment and perceive their environment as less demanding; involved in competitive activities; and perceive less control of their own interpersonal situations.</p> <p style="text-align: center;"><u>Study 2</u></p> <p><u>Sample</u>: 50 “pure types” selected from a sample of 138 college students; OMEIS version.</p> <p><u>Concurrent</u>: Convergence between OMEIS statuses and statuses obtained from the Marcia Interview ranged from 70% to 100% in each of the identity statuses.</p> <p style="text-align: center;"><u>Study 3</u></p> <p><u>Sample</u>: From a pool of 700 college students, 87 randomly selected “pure types”; OMEIS version.</p> <p><u>Predictive</u>: Comparisons of degree of conformity, as measured by peer-rating, experimental talk and self-report, found foreclosed and diffused men viewed by their peers as significantly more conforming than foreclosed and diffused women and also diffusion status men and women were significantly more likely to conform to peer pressure on an experimental task.</p>

<p>Adams, G.R., Shea, J., &amp; Fitch, S.A. (1979)</p>	<p style="text-align: center;"><u>Study 1</u></p> <p><u>Sample:</u> 48 Utah College freshmen; OMEIS version.</p> <p><u>Construct:</u> Correlations between the identity subscale items and overall identity ranged from .48 to .67.</p> <p><u>Predictive:</u> Correlations of statuses derived from the OMEIS and Marcia's Incomplete Sentence Blank found that identity achieved subjects showed significantly more commitment than diffused subjects. Correlations of scores on the Marlowe-Crowne Social Desirability Scale and identity subscales from the OMEIS ranged from .1 to .08.</p> <p style="text-align: center;"><u>Study 2</u></p> <p><u>Sample:</u> 76 Nebraska college students; OMEIS version.</p> <p><u>Construct:</u> One-way analysis of variance completed between the identity statuses derived from the OMEIS and the Marcia Ego-Identity Incomplete Sentence Blank (EI-ISB) found identity achieved subjects (OMEIS) significantly higher on overall identity (EI-ISB) than diffused subjects (OMEIS).</p> <p><u>Predictive:</u> Foreclosure status subjects scored higher on an authoritarian measure than other statuses (non-significant). Correlations with a self-acceptance scale showed that identity achieved subjects were significantly higher than foreclosed or diffused subjects. Analysis of variance compared rigidity scores with the identity statuses. The mean for the foreclosure group was higher than the mean for the identity achieved group (non-significant).</p> <p style="text-align: center;"><u>Study 3</u></p> <p><u>Sample:</u> 88 males and 84 females, college students; OMEIS version.</p> <p><u>Predictive:</u> No significant main effect was found for sex. Diffusion status subjects scored significantly lower than achieved subjects on the Marcia Ego-Identity Incomplete Sentence Blank. Moratorium and foreclosed subjects scored in between the diffused and achieved subjects. A significant main effect for age was found. Younger males tended to be more diffused or foreclosed. Older males were more likely to be achieved or in moratorium. No significant age by sex relationship was found.</p> <p style="text-align: center;"><u>Study 4</u></p> <p><u>Sample:</u> 54 randomly selected college students; OMEIS version.</p> <p><u>Concurrent:</u> As measured by the Marcia Interview, achieved and foreclosed subjects scored significantly lower on the OMEIS diffusion subscales than did moratorium and diffused subjects. Diffusion- and moratorium-status subjects scored significantly higher on the OMEIS moratorium scales than did achieved and foreclosed subjects. Comparison of the statuses derived by the Marcia Interview and the OMEIS show similar but not identical congruence.</p>
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<p>Archer, S.L., &amp; Waterman, A.S. (1988)</p>	<p><u>Sample:</u> 56 undergraduate students; EOM-EIS-R version.</p> <p><u>Predictive:</u> Comparison of romantic relationship styles and identity status revealed that achievement-status individuals tended to approach romantic relationships in a more deliberate fashion and were more willing to share personal information with their partner, while diffusion-status subjects showed the opposite pattern. Moratorium status was associated with poor quality relationships.</p>
<p>Bennion, L.D., &amp; Adams, G.R. (1985)</p>	<p><u>Sample:</u> 106 college students; EOMEIS-2 version.</p> <p><u>Construct:</u> Discriminance: for both the ideological and interpersonal identity subscales, achievement was either significantly uncorrelated or negatively correlated with the other subscales. The diffusion subscale was significantly and positively correlated with moratorium subscales (ideological .71, interpersonal .32).</p> <p>Convergence: a significant degree of shared variance was found between subscales measuring similar ideological and interpersonal content. The highest degree of convergence between ideological and interpersonal identity subscales was found for the foreclosure subscales (.66, <math>p &lt; .001</math>) and the lowest convergence was observed for the diffusion subscales (.38, <math>p &lt; .001</math>).</p> <p><u>Factorial:</u> Using varimax rotation, a factor analysis provided evidence for three basic factors with eigenvalues greater than 1. Pure factor structures were observed for identity achievement and foreclosure subscales. Diffusion and moratorium loaded on a common factor.</p> <p><u>Predictive:</u> No significant correlation was found between any of the subscales and a social desirability measure (Crowne-Marlowe). No significant sex interaction was found. For both ideological and interpersonal identity, the identity-achievement status subjects were consistently higher on general identity and intimacy (Rosenthal et al. Measure). Diffusion- and foreclosure-status subjects were observed as consistently scoring less high on the same identity and intimacy measure, moratorium-status subjects scored toward the middle or lower middle on the same continuum. Low-profile moratorium-status subjects scored similarly to the moratorium subjects on intimacy measures, but scored higher on measures of general identity. Foreclosure was significantly (<math>p &lt; .001</math>) correlated with authoritarianism (Berger), while diffusion was negatively correlated. Identity achievement was positively correlated with a measure of rigidity.</p> <p><u>Concurrent:</u> Identity achievement was positively and significantly (<math>p &lt; .001</math>) correlated with the Rosenthal identity measure, while diffusion, moratorium and foreclosure were negatively correlated (moratorium at <math>p &lt; .001</math>; Diffusion at <math>p &lt; .01</math>).</p> <p><u>Content:</u> Trained judges obtained 94.4% agreement on revised items.</p>
<p>Berzonsky, M. D., Rice, K. G., &amp; Neimeyer, G. J. (1990)</p>	<p><u>Sample:</u> 118 participants from an original sample of 503, ages ranged from 17 through 25 years; EOM-EIS version.</p> <p><u>Predictive:</u> It was found that moratoriums and diffusions had the highest self-construct scores than only of the other three statuses. Those classified as achievers were the most self-certain in their ratings and diffusions were the least.</p>

<p>Berzonsky, M. D., &amp; Neimeyer, G. J. (1994)</p>	<p><u>Sample:</u> 560 undergraduates in an introductory psychology class (mean age = 19 years); OM-EIS version.</p> <p><u>Predictive:</u> Foreclosed subjects had the highest normative scores, diffusions the highest diffuse/avoidant orientation, and achievers the highest informational scores. The informational scores for moratorium subjects were significantly lower than those of achievers and, not significantly higher than those of foreclosures. The normative scores of achievers were significantly higher than those of diffusions and moratoriums.</p> <p>It was also observed that when commitment is statistically controlled, self-exploring moratoriums have the highest informational scores, significantly higher than foreclosure and diffusions. Also, the normative scores of achievers did not differ significantly from those of moratoriums or diffusions.</p> <p>Highly committed students had higher informational scores. Under low commitment, moratoriums had the highest informational scores. With high commitment, achievers scored the highest.</p> <p><u>Concurrent:</u> Results could also be interpreted as evidence of concurrent validity between the ISI and the OM-EIS. When the ISI is analyzed with the OM-EIS it is found that the highest normative scores are observed for foreclosed subjects. Diffusion subjects have the highest diffuse/avoidant orientation and achievers the highest informational scores. Additionally committed status types scored significantly higher on the ISI commitment scale than the non-committed types.</p>
<p>Bishop, D. I., Macy-Lewis, J. A., Schneklath, C. A., Puswella, S., &amp; Struessel, G. L. (1997)</p>	<p><u>Sample:</u> 419 first-year college students; EOM-EIS version.</p> <p><u>Predictive:</u> There was an inverse linear relationship between the level of beer consumption and identity status. As identity status increased the volume and frequency of beer consumption decreased. The exception to this trend was the level of consumption for the identity achieved status. These individuals reported an intermediate level of beer consumption.</p>
<p>Blustein, D. L., &amp; Palladino, D. E. (1991).</p>	<p><u>Sample:</u> 254 students, 141 from an introductory psychology course, 113 students were paid \$3.00 for their participation. Mean age was 18.91 years; EOM-EIS version.</p> <p><u>Predictive:</u></p> <p>Results lead to the conclusion that females in moratorium and diffusion statuses tend to have high levels of goal instability and to a lesser extent superiority. This goal instability and superiority are inversely, but modestly associated with the identity achievement status. Finally, older female adolescents are more likely found in the identity achievement status than the moratorium or diffusion statuses.</p> <p>The results for the males suggest that males in the identity achieved status tend to be goal directed. This goal directedness was inversely associated with moratorium. Results also suggest that male adolescents who rely on superior means of self-expression are likely to be in the foreclosure identity status and not the diffusion status. Age did not seem to be related to the overall interrelationships for the male sample.</p>

<p>Boyes, C. B., &amp; Chandler, M. (1992)</p>	<p><u>Sample:</u> 61 students from a sample of 96 volunteers, both male and female, in the 8<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> grades; OM-EIS version.</p> <p><u>Predictive:</u> A two-by-two analysis of identity statuses and epistemic level shows that “lower” identity statuses (identity diffusion or foreclosure) are related to realistic epistemic positions (realism; I and defended), while “more mature” identity statuses (moratorium or achieved) are associated with “higher” epistemic positions (dogmatic, skeptical or rational).</p> <p><u>Construct:</u> For all but the Ideological Diffusion scale, each scale within the Interpersonal content domain correlated strongly and positively with its counterpart scale in the Ideological content domain, and negatively or insignificantly with most of the other scales in both domains.</p> <p>Varimax rotation yielded clear identity achieved, foreclosed and moratorium factors. Diffusion scales loaded on the moratorium and foreclosure factors.</p>
<p>Caldwell, R.A., Bogat, G.A., &amp; Cruise, K. (1988)</p>	<p><u>Sample:</u> 193 college students: OM-EIS version.</p> <p><u>Predictive:</u> Correlations of a social support network measure and the subscale of the OM-EIS showed that the diffusion and moratorium subscale scores were negatively related to number of emotional support givers, while achievement subscale scores were positively related. Foreclosure subscale scores were positively associated with increasing proportions of their support network reported as mutually disclosing. Moratorium subscale scores were negatively associated with overall satisfaction reported with support network while achievement subscale scores were positively related.</p> <p>There were no significant relationships with reported social support network by “pure” identity status.</p>
<p>Campbell, E., Adams, G.R., &amp; Dobson, W.R. (1984)</p>	<p><u>Sample:</u> 83 adolescent males, 203 adolescent females; OMEIS version.</p> <p><u>Construct:</u> Convergence-divergence correlations found the diffusion subscale negatively correlated with the achievement subscale, the diffusion subscales were moderately correlated with the moratorium subscale, foreclosure was uncorrelated with achievement and moratorium was negatively correlated with achievement.</p> <p><u>Predictive:</u> Younger adolescents were significantly more likely to be diffused and older adolescents were significantly less likely to be diffused.</p> <p>Affection for parents: Foreclosed youths rated themselves as having significantly more affectionate relationships with their parents than did diffused youths. Foreclosed males expressed the highest degree of affections toward their mothers, while diffused males perceived the least affection. Diffused females reported significantly more affection for their mothers than did diffused males.</p> <p>Communication with parents: Female adolescents reported significantly more communication with mothers than did male adolescents. Mothers perceived a significantly stronger communicative relationship with their daughters than with their sons.</p>

<p>Carlson, D.L. (1986)</p>	<p><u>Sample:</u> 162 college students; EOM-EIS version.</p> <p><u>Concurrent:</u> Comparisons of EOM-EIS status categorizations with Marcia interview status classifications showed 70% to 100% agreement over the status categories. Overall status-to-status agreement was 84%.</p> <p><u>Construct:</u> Convergent correlations of an overall exploration and commitment score with the overall subscales of the EOM-EIS exhibited the following significant associations: Achievement scores were correlated .30 with commitment, moratorium correlated -.44 with commitment, foreclosure correlated -.59 with exploration, and diffusion correlated -.35 with exploration and -.44 with commitment. Five out of eight predicted significant relationships were found.</p> <p><u>Predictive:</u> No significant differences were found between status groups and GPA.</p> <p>On a state-trait anxiety measure, achieved subjects scored lower than other groups. Scores for the moratorium status cluster approached being significantly higher.</p> <p>Comparisons of scores from a social adjustment scale found diffused individuals significantly higher and low-profile moratorium-status subjects significantly higher.</p> <p>Results from an emotional/personal adjustment scale indicate that moratorium subjects scored significantly lower.</p> <p>For academic adjustment, the achievement-status group was significantly higher.</p> <p>On goals/attachment adjustment scale, diffusion scored significantly lower while the low-profile moratorium group scored significantly higher.</p> <p>Comparisons of overall adjustment revealed diffusion-status individuals as significantly less well-adjusted while the achievement group was significantly more adjusted.</p>
<p>Chandler, M., Boyes, M. &amp; Ball, L. (1990)</p>	<p style="text-align: center;"><u>Study 2</u></p> <p><u>Sample:</u> 61 from an original 70 8<sup>th</sup> through 12<sup>th</sup> grade student volunteers; OMEIS version.</p> <p><u>Predictive:</u> It was found that relativized epistemic stance is associated with movement beyond a Diffused or Foreclosed sense of identity, therefore proceeding to a moratorium or achieved sense of identity.</p>

Clancy, S. M., & Dollinger, S. J. (1993).	<p><u>Sample:</u> 198 undergraduate psychology students, aged 18 to 25; EOM-EIS version.</p> <p><u>Predictive:</u> Ideologically identity-achieved subjects were more extroverted; foreclosed, more low on openness to experience; and diffused, more low on conscientiousness and on agreeableness.</p> <p>Therefore, identity-achieved subjects appeared to be very interpersonally warm or outgoing and generally happy individuals. Whereas foreclosed subjects scored low on all facets regardless of whether they were classified by ideological or interpersonal scales.</p> <p>Neuroticism was significantly related to overall moratorium, diffusion and achievement (<math>r = .35, .25, -.27</math>, respectively).</p> <p>Extroversion was positively related to achievement status, but negatively related to the diffusion and moratorium statuses (<math>r = .35, -.30, -.19</math>, respectively).</p> <p>Openness was strongly related to foreclosed status with a correlation of <math>r = -.50</math>.</p> <p>There was a significant, but weak correlation between agreeableness and diffusion, <math>r = -.17</math>.</p>
Clancy, S. M. (1984)	<p><u>Sample:</u> 338 college students: OMEIS version.</p> <p><u>Predictive:</u> No significant differences were reported by education level, sex, major field of study. A significant two-way interaction was found between sex and education level.</p>
Craig-Bray, L., & Adams, G.R. (1986)	<p><u>Sample:</u> 48 college students: EOMEIS-1 version.</p> <p><u>Construct:</u> Diffusion subscale scores were positively correlated with the moratorium subscale, negatively correlated with achievement subscale and were not correlated with the foreclosure subscale. Foreclosure was negatively or uncorrelated with achievement. Moratorium was negatively correlated with achievement. Relationships between EOMEIS identity status scores and the exploration and commitment scores from the Marcia Interview found seven eighths of the expected relationships (e.g. achievement is correlated with high commitment and high exploration, etc.)</p> <p><u>Concurrent:</u> Moderate status-to status agreement was found between the OMEIS and the Marcia Ego-Identity Interview.</p>

Cramer, P. (1995)	<p><u>Sample:</u> 118 first year college students; EOM-EIS-2 version.</p> <p><u>Predictive:</u> Findings show that late adolescents whose identity status indicates they are not committed, and may or may not be in crises, (moratorium and diffusion) are more likely to use projection as a defense than those individuals who are committed and are not in crisis (foreclosure and achieved).</p> <p>Those individuals in the moratorium, diffusion and achieved status groups are more likely to use denial than the foreclosed group.</p> <p>Identification was used more in the achieved group than by the diffused group.</p> <p>Individuals in the two committed identity statuses (achieved and foreclosed), compared to the non-committed groups, were both higher on the narcissistic component of entitlement. Only subjects in the achieved group were high on authority, superiority and exploitativeness.</p> <p>Achieved and foreclosed subjects were high on superiority and vanity. Whereas only achieved subjects were high on authority and self-sufficiency.</p> <p>The achieved status groups scored higher than the diffused, foreclosed, or moratorium groups on the adaptive narcissism measure. While, both the achieved and the foreclosed groups scored higher than the diffused and moratorium groups on the defensive narcissism measure.</p> <p>Overall, diffusion and moratorium were negatively, and identity achievement was positively, related to narcissism.</p> <p><u>Construct:</u> Factor analysis was performed to determine the overall pattern of the results.</p> <p>Ideological and interpersonal identity achievement loaded positively on Factor I.</p> <p>Ideological and interpersonal moratorium loaded positively on Factor II.</p> <p>Factor III is defined as identity foreclosure since both ideological and interpersonal statuses load positively on this factor.</p> <p>Factors IV and V are both defined in terms of identity diffusion, interpersonal domain. However, the ideological diffusion scale also shows (low positive loadings on the two factors of foreclosure and moratorium. Thus, Factor IV may be defined as diffusion (interpersonal)/ foreclosure, and Factor V as diffusion (interpersonal)/ moratorium.</p>
Francis, S.J. (1981)	<p><u>Sample:</u> 353 college freshmen: OMEIS version.</p> <p><u>Predictive:</u> Diffused subjects showed significantly more external control than did moratorium or achieved subjects. Diffused and diffused-moratorium subjects scored significantly lower on the Washington University Sentence Completion (ego development) test than did moratorium and achieved subjects. Achieved subjects reported significantly more desire to continue their studies and had higher GPA scores than diffused and diffused-moratorium subjects. Achieved and moratorium subjects showed significantly lower levels of social satisfaction than did diffused and diffused-moratorium subjects.</p>

Frank, S. J., Pirsch, L. A., & Wright, V. C. (1990)	<p><u>Sample:</u> 376 undergraduates aged 17 to 22; EOMEIS version.</p> <p><u>Predictive:</u> Greater autonomy from parents was associated with less foreclosure in both the ideological and interpersonal domains and greater insecurity was associated with more foreclosure in the ideological domain.</p>
Freeman-Young, E. (1985)	<p><u>Sample:</u> 86 college female athletes and 69 college female nonathletes; OMEIS version.</p> <p><u>Predictive:</u> No significant relationship was found between sex-role orientation and identity status. Significantly more athletes than nonathletes were diffused. Business and physical education majors scored higher on the moratorium subscales than did social science majors. Subjects with sports and education career objective tended to score lower on the moratorium subscale than did business and professional career oriented subjects. (Analyses were computed only with diffusion and moratorium status subjects due to insufficient cell size for achievement and foreclosure status). Moratorium subscale scores were negatively correlated (<math>p &lt; .001</math>) with the Establishing Autonomy and with Mature Lifestyle Plans subscales and achievement was positively correlated (<math>p &gt; .001</math>) with the Mature lifestyle Plans and with the Developing Purposes subscales from the Student Developmental Task Inventory (SDTI-2).</p> <p><u>Construct:</u> A correlation matrix between the OMEIS subscales found the following significant relationships: diffusion was positively correlated with foreclosure (.24) and moratorium (.47), and foreclosure was positively related to moratorium (.29).</p>
Fregeau, D.L., & Barker, M. (1986)	<p><u>Sample:</u> 350 high school and junior college students: OMEIS version.</p> <p><u>Predictive:</u> Significant sex differences were found in the diffusion and moratorium subscales; females scored higher than males on both subscales.</p> <p>A significant interaction between age and identity subscales scores was found. In general, achievement subscales scores were found to be stable across age groups, diffusion subscales scores were relatively stable across age groups with a significant decrease in late teens, moratorium subscales scores were uneven across early and middle adolescence with a significant decrease in late adolescence and foreclosure subscales scores showed a steady decline across age groups.</p>
Fulton, A. S. (1997)	<p><u>Sample:</u> 176 Christian undergraduate students from an original sample of 257 aged 18 to 24; EOM-EIS version.</p> <p><u>Predictive:</u> Researchers made use of the .5 standard deviation classification rule proposed by Jones et al. (1994). Data were analyzed to find that the pattern of results found for the mean plus .5 standard deviation criteria was essentially the same as that found for the original criteria.</p> <p>Diffused subjects were shown to be less intrinsic than all other subjects. Moratorium subjects scored higher on Es (extrinsic-social) than achieved subject. Foreclosed subjects scored lower on Q (Quest) than either diffused or moratorium, and achieved subjects scored lower on Q than moratorium subjects.</p> <p>For the interpersonal statuses, foreclosed subjects scored higher on Es than achieved and moratorium subjects scored higher on Q than achieved or foreclosed subjects.</p>

<p>Grotevant, H.D., &amp; Adams, G.R. (1984)</p>	<p style="text-align: center;"><u>Study 1 and 2</u></p> <p><u>Sample:</u> 317 Texas college student and 274 Utah college students; EOMEIS-1 version.</p> <p><u>Content:</u> 10 graduate student judges classified the new items by identity status. Inter-rater agreement was 96.5%.</p> <p><u>Construct:</u> A factorial analysis of the Texas sample yielded six factors (where eight factor would be theoretically expected), accounting for 88.1% of the variance. A factor analysis of the Utah sample found five factors which accounted for 84.9% of the variance. In general, the factors were interpretable identity status profiles.</p> <p>Discriminant validity was indicated by negative or non-significant correlations between identity scores and other scores that are not predicted to correlate (nine indices of academic achievement, vocabulary and social desirability) which ranged from -.25 to .22 and accounted for 6.25% of the variance.</p> <p><u>Concurrent:</u> Correlations between the ideological identity subscale scores and reported current thinking about each identity domain showed achievement as positively correlated (eight significant), foreclosure as uncorrelated (except for one relationship), diffusion as negatively &amp; significantly correlated (all eight relationships) and moratorium with 7 out of 10 of the relationships as negative. Correlations of the interpersonal identity scores with reported current thinking about each identity domain found all achieved scores positively correlated (8 significant).</p> <p style="text-align: center;"><u>Study 3</u></p> <p><u>Sample:</u> 44 high school seniors: EOMEIS-1 version.</p> <p><u>Concurrent:</u> Correlations between the EOMEIS identity status classification and the exploration and commitment rating from the Marcia Ego-Identity Interview found for the ideological domain 6 out of 8 of the predicted relationships and for the interpersonal domain, 2 out of 8 of the predicted relationships were significant. Total identity classification derived form the OMEIS correlated with exploration and commitment scores from the Marcia interview found 5 out of 8 predicted relationships between ego identity status and the amount of exploration and commitment. All of the predicted relationships were observed (although some were nonsignificant) in the predicted direction, except two.</p>
<p>Hernandez, J. T., &amp; Diclemente, R. (1992)</p>	<p><u>Sample:</u> 176 male college students between 18 and 22 years of age; EOMEIS-2 version.</p> <p><u>Predictive:</u> Moratorium, along with self control, were found to be significant in predicting unprotected sex.</p>
<p>Jones, R. (1984a)</p>	<p><u>Sample:</u> 137 9<sup>th</sup> and 12<sup>th</sup> graders; EOMEIS-1 version.</p> <p><u>Predictive:</u> Achievement status was moderately correlated with scores on the Rosenberg Self-Esteem measure and with social desirability.</p> <p><u>Construct:</u> Convergence of ideological and interpersonal scales ranged from .65 to .76. The divergence of the interpersonal subscales ranged form .69 to .27 and of ideological subscales from .65 to .19.</p>

Jones, R. (1984b)	<p><u>Sample:</u> 200 20-68-year-olds; EOMEIS-1 version.</p> <p><u>Construct:</u> Convergence correlations of interpersonal and ideological scales ranged from .75 to .92. Divergence correlations of the subscales ranged from .51 to .76 for the interpersonal domain and .25 to .79 for the ideological domain.</p>
Jones, R.M., & Hartmann, B.R. (1984)	<p><u>Sample:</u> 137 9<sup>th</sup> graders; EOMEIS-1 version.</p> <p><u>Predictive:</u> Higher cigarette use was significantly and positively correlated with total achievement and diffusion scores while negatively related to the interpersonal and ideological foreclosure scores. Marijuana use was positively associated with ideological diffusion and interpersonal achievement and not associated with either interpersonal or ideological foreclosure. Alcohol use was positively related to ideological moratorium and inversely associated with interpersonal foreclosure. Experience with cigarettes, marijuana, alcohol, heroin, cocaine and inhalants is associated with higher scores on the moratorium and achievement subscales than cohorts who have not had previous experience.</p> <p><u>Construct:</u> Interpersonal and ideological subscale correlations range from .65 to .76. Subscale correlations with total identity scores range from .91 to .94.</p>
Jones, R.M., & Hartmann, B.R. (1988)	<p><u>Sample:</u> 2612 7<sup>th</sup> through 12<sup>th</sup> grade adolescent; EOM-EIS version.</p> <p><u>Predictive:</u> Significant sex differences were shown: Females were more likely than males to score higher on the more mature subscales (i.e., achievement and moratorium) and lower on the foreclosure and diffusion subscales.</p> <p>Age, as a covariant, was significantly and inversely related to interpersonal moratorium.</p> <p>Substance use experience and subscale scores were significantly related in the following manner: (a) achievement (interpersonal) scores decrease with increasing cigarette experience, but the reverse trend is shown for marijuana experience; (b) while moratorium (interpersonal and ideological) scores were not significantly associated with substance experience, females who reported “no experience” had significantly higher ideological moratorium scores than similar males, while males who reported cigarette and alcohol experience had higher ideological moratorium scores than similar females (trend again reversed for marijuana use); (c) foreclosure scores (ideological and interpersonal) were higher for subjects reporting having tried only cigarettes; and (d) diffusion scores (ideological) showed a slight decrease from over increased experience with cigarettes and alcohol.</p>

<p>Jones, R.M., Hartmann, B.R., Grochowski, C.O., &amp; Glider, P. (1988)</p>	<p><u>Sample:</u> 27 adolescents in residential treatment and 27 matched adolescents not in treatment; EOM-EIS version.</p> <p><u>Construct:</u> For the clinical sample, convergent correlations between the corresponding ideological and interpersonal subscales ranged from .44 to .75 with a mean of .65. Divergent correlations within the ideological subscales ranged from .03 to .31 with a mean of .16 and the interpersonal subscales ranged from -.24 to .50 with a mean of .03.</p> <p>For the nonclinical sample, convergent correlations between the corresponding ideological and interpersonal subscales ranged from .51 to .79 with a mean of .63. Divergent correlations of the ideological subscales ranged from -.20 to .65 with a mean of .19 and for the interpersonal subscales, -.15 to .55 with a mean of .23.</p> <p><u>Predictive:</u> A stepwise discriminant analysis procedure that yielded a significant discriminant function for distinguishing between the clinical and nonclinical groups included interpersonal achievement, interpersonal foreclosure, ideological achievement and ideological moratorium subscales and accounted for 75.7% of variance associated with group membership (clinical vs. nonclinical). Classification into group membership based on subscale scores utilizing the discriminant function resulted in 98% of the sample being correctly identified.</p>
<p>Jones, R., M., Hartmann, B. R., Grochowski, C. O., &amp; Glider, P. (1989)</p>	<p><u>Sample:</u> 54 adolescents, 27 participating in a residential treatment center for substance abuse, 27 attending junior or senior high school, ranging in age from 12 to 18; EOM-EIS version.</p> <p><u>Construct:</u> Evidence of convergent validity was found for the identity status scales where positive coefficients were yielded when contrasted across the interpersonal and ideological dimensions (ranging from <math>r = .44</math> for moratorium scores in the clinical group to <math>r = .79</math> for foreclosure scores in the student group). Evidence of discriminant validity was evidenced by correlations between different subscales being low.</p>
<p>Lamke, L.K., &amp; Abraham, K.G. (1984)</p>	<p><u>Sample:</u> 790 9<sup>th</sup> through 12<sup>th</sup> graders; EOMEIS-1 version.</p> <p><u>Predictive:</u> Interpersonally and ideologically achieved and interpersonal moratorium status subjects reported higher levels of masculinity and femininity than did other identity statuses.</p>
<p>LaVoie, J.C. (1988)</p>	<p><u>Sample:</u> 433 college sophomores and juniors from universities in Midwestern USA, Japan, and south China; EOM-EIS version.</p> <p><u>Concurrent:</u> For identity and intimacy (Rosenthal measure), American students scored as predicted, i.e., achievement status individuals scored higher on identity and intimacy while diffusion-status subjects scored lower. For the Japanese, the achievement-status groups (both ideological and interpersonal) scored lower on identity than the other-status groups. For both the American and Japanese subjects, males scored higher than same-race females on identity.</p> <p><u>Predictive:</u> Significant differences were observed between the racial groups on the subscales of the EOM-EIS. On the ideological foreclosure subscale, the Japanese students scored the highest. For the ideological diffusion subscale, the Chinese were significantly higher than the Americans. For the interpersonal foreclosure and diffusion subscales, the Japanese students</p>

scored higher than the American or Chinese students.

For Sex x Race differences, females scored higher on the ideological identity subscales (or the corresponding males scored higher on the foreclosure and/or diffusion subscale) than their opposite-sex, same-race counterparts.

Status assignment configurations were not significantly different by race when race specific cut-off points were utilized. If the typical cut-offs are utilized, Japanese students would have been primarily classified as foreclosed while Chinese subjects would have been categorized as diffused.

Regarding personality by identity-status differences, American and Chinese ideological foreclosures were more compulsive whereas Japanese foreclosures were more likely to be authoritarian and rigid. The Japanese diffused and foreclosed interpersonal identity-status groups were significantly higher on authoritarianism. As for self-acceptance, Japanese ideological achieved subjects scored lower than the same-race moratorium or diffused individuals, whereas for the Chinese, the foreclosed subjects scored lower. For interpersonal identity, American diffusion-status subjects scored lower while Japanese achieved-status individuals scored lower.

As for family socialization variables, parental nurturance and support were related to ideological foreclosure and moratorium respectively (Japanese). For interpersonal identity, female diffused subjects reported lower father nurturance while female foreclosures scored highest (American). Foreclosures scored lower than other-status groups on mother nurturance and support (Japanese). An examination of scores on a measure of parental companionship and affect showed Japanese ideological diffusion subjects scored lower on father companionship, while foreclosures scored lower on mother affection. For the Chinese, ideologically achieved subjects scored higher on father affect. For the interpersonal statuses, foreclosed Japanese scored lower than other statuses on mother companionship and mother affection. Analyses of parent withdrawal and rejection-control indicated in general that male ideological diffusion and moratorium subjects scored higher while female achieved and diffusion subjects scored higher. For interpersonal identity, American and Japanese moratorium-status subjects scored higher on maternal rejection/control. For the Chinese, male foreclosure and female achieved were higher on father withdrawal.

<p>Markstrom-Adams, C., Hofstra, G., &amp; Dougher, K. (1994)</p>	<p><u>Sample:</u> 36 Mormon and 47 non-Mormon high school students from grades 9 through 12; EOM-EIS version.</p> <p><u>Predictive:</u> Mormon adolescents scored significantly higher than the non-Mormon adolescents on ideological and interpersonal foreclosure.</p> <p>Weekly church attenders scored higher in interpersonal foreclosure and lower in ideological diffusion. They also scored higher on ideological achievement and lower on ideological moratorium.</p> <p>For Mormons, church attendance was related to higher identity achievement, while for non-Mormons less frequent church attendance was related to higher identity achievement.</p> <p><u>Construct:</u> Pooled within correlations were performed among the variables. Ideological diffusion was found to be substantially correlated with ideological moratorium (.43) and with ideological achievement (-.36), and ideological achievement was also found to be correlated with ideological moratorium (-.21).</p>
<p>Markstrom-Adams, C., &amp; Adams, G. (1995)</p>	<p><u>Sample:</u> 123 10<sup>th</sup> through 12<sup>th</sup> grade students; EOM-EIS version.</p> <p><u>Predictive:</u> Higher paternal education was associated with lower ideological foreclosure, higher masculinity, and higher internal locus of control. Higher maternal education predicted lower ideological foreclosure and greater masculinity. No association was found between education and femininity or interpersonal identity. Higher interpersonal diffusion predicted lower masculinity. Interpersonal diffusion was negatively associated with locus of control. Femininity was negatively correlated with ideological diffusion while interpersonal moratorium was positively associated with femininity.</p> <p>Whites scored significantly lower than African Americans, American Indians, and Mexican Americans on ideological foreclosure.</p> <p>12<sup>th</sup>-grade students scored significantly lower than 10<sup>th</sup>- and 11<sup>th</sup>-grade students on ideological diffusion and interpersonal foreclosure. 12<sup>th</sup>-grade students scored lower than 10<sup>th</sup>- and 11<sup>th</sup>- grade students on ideological moratorium. Finally, 10<sup>th</sup> and 12<sup>th</sup> graders reported higher ideological achievement than 11<sup>th</sup>-grade students.</p> <p>Females scored lower than males on both ideological and interpersonal diffusion, and higher than males on femininity. Nonsignificantly, males tended to be more foreclosed and internal than females.</p> <p>Females of higher grade levels exhibited the expected lower scores in ideological diffusion in contrast to females at lower grade levels. Males scores on ideological diffusion were relatively similar for the three grade levels.</p> <p><u>Construct:</u> Strong positive correlations were observed between the like subscales of the interpersonal and ideological domains. While a negative correlation was observed between the Identity Achieved subscale and the other subscales with the exception of a small positive correlation with moratorium.</p>

Markstrom-Adams, C., & Smith, M. (1996)	<p style="text-align: center;"><u>Study 1</u></p> <p><u>Sample:</u> 38 Mormon and 47 non-Mormon high school students living in a predominantly Mormon Utah community; EOMEIS version.</p> <p><u>Predictive:</u> Extrinsic religious orientation youth scored significantly higher in diffusion than the orientations, and intrinsic youth scored significantly lower than the orientations in diffusion. Both indiscriminates and extrinsics scored significantly higher in foreclosure than intrinsics, and indiscriminates scored significantly higher than the nonreligious in foreclosure.</p> <p style="text-align: center;"><u>Study 2</u></p> <p><u>Sample:</u> 102 Jewish high school students living in Ontario, Canada; EOMEIS version.</p> <p><u>Predictive:</u> Extrinsic and indiscriminate youth scored significantly higher in diffusion than intrinsics. The religious orientations did not score significantly different from each other in identity foreclosure. Indiscriminates scored significantly higher than intrinsics and nonreligious on identity achievement. Diffusion and achievement (the two least and most mature statuses) were most salient in terms of the religious orientations.</p>
McConnell, J. (1985)	<p><u>Sample:</u> 150 heterosexual males, 150 homosexual males.</p> <p><u>Construct:</u> A factor analysis found foreclosure and achievement items loading on separate factors while diffusion and moratorium items shared a common factor.</p>
Mead, V.H. (1983)	<p><u>Sample:</u> 797 traditional and 543 non-traditional college students; OMEIS version.</p> <p><u>Predictive:</u> Class rank (year in school) and identity-status correlations showed a low, but significant relationship (higher class rank correlated with mature identity statuses).</p> <p>Significantly more females (than males) and more non-traditional students were identity achieved. A low, but significant, positive relationship was found between ego-identity status and level of self-actualization as measured by the Shostrom Personal Orientation Inventory.</p>
Melgosa, J. (1986)	<p><u>Sample:</u> 417 high school and college students; OMEIS version.</p> <p><u>Concurrent:</u> Identity status correlated with the corresponding identity statuses on the Occupational Identity Scale in the following manner: achievement .79, moratorium .68, foreclosure .38, and diffusion .43.</p>
Montemayor, R., Brown, B., & Adams, G.R. (1985)	<p><u>Sample:</u> 52 randomly selected college freshmen; OMEIS version.</p> <p><u>Predictive:</u> Identity status is highly stable over the summer before entering college. The freshman year of college is destabilizing for established identities. Perceptions of family environment were significantly predictive of identity status developmental pathways. Regression in identity development was seen in subjects from families perceived as low in conflict, highly cohesive, and controlling.</p>

Neimeyer, G. J., & Rareshide, M. B. (1991)	<p><u>Sample:</u> 71 of a sample of 370 university students ranging in age from 18 to 23; EOM-EIS version.</p> <p><u>Predictive:</u> Achieved and foreclosed identity statuses (committed) recalled a greater number of personal memories and a greater number of overall memories than did moratoriums and diffusions (low-commitment). The speed of recall was also different among the high and low commitment statuses where achieved and foreclosed subjects recalled memories at a faster rate than the moratorium or diffused subjects.</p>
O'Connor, B. P. (1995)	<p><u>Sample:</u> 418 students from 8<sup>th</sup> through 13<sup>th</sup> grades as well as first year university classes. Ages ranged from 12-21 years; EOM-EIS-2 version.</p> <p><u>Predictive:</u></p> <p>As for identity development and adolescent egocentrism, higher scores on the AES (Adolescent Egocentrism Scale) were associated with higher levels of achievement and moratorium. For males, higher scores on the IAS (Imaginary Audience Scale) were associated with less achievement, and with higher levels of moratorium and diffusion.</p> <p>There were also correlations found between perceived parental behavior variables and identity development. Among males, parental emotional-support was associated with greater achievement and with less diffusion. Among females emotional-support was associated with greater foreclosure.</p> <p>Among both males and females, scores on moratorium, foreclosure and diffusion tended to decrease slightly with age.</p>
O'Neil, D.S. (1986)	<p><u>Sample:</u> 187 male and 164 female college students; OMEIS version.</p> <p><u>Construct:</u> A negative correlation was found between the identity achievement subscale scores and the other subscale scores.</p> <p><u>Concurrent:</u> Achievement (OMEIS) was positively and significantly associated with achievement status as measured by the Inventory of Psychosocial Development (IDP), while moratorium, foreclosure and diffusion (OMEIS) were negatively correlated with achievement (IPD). Negative correlations were found between the Barron Ego Strength scale and foreclosure, moratorium and diffusion subscale scores (OMEIS).</p> <p><u>Predictive:</u> Age and number of student activities the subjects was involved in were negatively and significantly related to identity status for diffused and moratorium subjects. Identity achievement was found not to be predictive of the experience of burnout. Moratorium showed the highest correlation with burnout as measured by the Maslach Burnout Inventory and the Meier Burnout Assessment.</p>
Owen, R.G. (1984)	<p><u>Sample:</u> 39 Cuban and 39 white freshmen and sophomores; OMIES version.</p> <p><u>Predictive:</u> Achieved-identity subjects showed significant differences as compared to diffused subjects on the bicultural self-esteem scale, psychosocial development scale, Rosenberg self-esteem scales and a state-trait anxiety inventory. Achieved subjects showed significant differences as compared to foreclosed subjects on the psychosocial development scale.</p>

<p>Perosa, L. M., Perosa, S. L., &amp; Tam, H.P. (1996)</p>	<p><u>Sample:</u> 164 undergraduate female students, 18 to 25 years of age; EOMEIS version.</p> <p><u>Predictive:</u> Female subjects that are raised in families described as somewhat enmeshed and with parent/child generational boundaries somewhat blurred tend to be identity foreclosed. Whereas women raised in families with clear intergenerational boundaries and flexibility in expression and resolution of differences tend to be identity achieved and to avoid the moratorium and diffused identity statuses.</p>
<p>Read, D., Adams, G.R., &amp; Dobson, W.R. (1984)</p>	<p><u>Sample:</u> 80 female college student; OMEIS version.</p> <p><u>Predictive:</u> Identity statuses correlated with the Test of Attentional and Interpersonal Style (TEIS) showed that foreclosed subjects have significantly less ability to be analytical or philosophical and that foreclosed and diffused subjects are more likely to make mistakes due to narrowed attention. Identity status as compared with social influence behavior (measured by the Social Interaction Scoring System) found foreclosed subjects reporting significantly more total image control behavior and achieved subjects asking for more structure, engaging in more total sanction control and negative sanctions, using less deception and less perception control (all significant). A measure of latency (recovery from rejection) showed foreclosed and achieved subjects with less recovery time from the rejection from males than from females and found diffusion and moratorium subjects with less recovery time from the rejection of females than males.</p>
<p>Rodman, M. (1983)</p>	<p><u>Sample:</u> 65 18-23-year-old college student; OMEIS version.</p> <p><u>Concurrent:</u> Correlations between ego-identity scores obtained by the Marcia Interview and the OMEIS showed a significant but low relationship (.32).</p> <p><u>Predictive:</u> No significant relationship was found between locus of control, academic achievement (GPA), sex, or age and identity status as measured by the OMEIS.</p>
<p>Sankey, A. M., Young, R. A. (1996).</p>	<p><u>Sample:</u> 11 college students, 18- to 23-year-olds, from an original sample of 47; EOMEIS-2 version.</p> <p><u>Predictive:</u> The narratives of participants who were classified as either identity achieved or moratorium statuses tended to share the same narrative structure.</p> <p>The six participants classified as identity achieved universally spoke about struggles or conflicts with parents as occurring in the past. They also described a sense of personal responsibility for success, there was a clear awareness of personal values and goals, and the process through which personal goals will be reached was often detailed. With the moratorium participants, the “acceptance” of value differences that was indicated in the narratives of the identity achieved participants had not been reached. In the narratives of the identity diffused, the progression toward life goals is achieved through the accommodation of the young person to parental influence. There is a lack of rebellion in the narratives and the parents values are seen as appropriate and often idealized.</p>

Streitmatter (1987)	<p><u>Sample:</u> 367 7<sup>th</sup> and 8<sup>th</sup> graders; EOMEIS-1 version.</p> <p><u>Construct:</u> Squared correlations of the ideological and interpersonal subscales found that the achievement subscales share 50.4% of the common variance; the moratorium subscales, 39.7%; Foreclosure, 64.0%; and diffusion, 37.2%. The average <math>r^2</math> for ideological achievement, moratorium, foreclosure and diffusion was 25.8%. For the interpersonal achievement the average <math>r^2</math> was 27.9%.</p> <p><u>Predictive:</u> Significant gender differences were found for the ideological and interpersonal achievement, and ideological moratorium measures. Females scored significantly higher on all three measures. Average achievement and moratorium scores were significantly higher for 8<sup>th</sup> graders than for 7<sup>th</sup> graders. Anglo adolescents scored significantly lower on ideological and interpersonal foreclosure.</p>
Streitmatter, J. (1989)	<p><u>Sample:</u> 208 6<sup>th</sup> and 8<sup>th</sup> graders; EOM-EIS version.</p> <p><u>Construct:</u> Evidence of convergent validity was observed between the like ideological and interpersonal subscales with the moratorium subscales showing the most significant correlation (.53). Evidence of discriminant validity was observed between status scores that assess different constructs with ideological achievement and ideological diffusion showing the least correlation (.02).</p> <p><u>Predictive:</u> Ideological diffusion and foreclosure shared a negative association with missed school days, whereas interpersonal moratorium was positively associated.</p> <p style="padding-left: 40px;">Ideological and interpersonal moratorium were positively related to language achievement, while both measure of diffusion were negatively related.</p> <p style="padding-left: 40px;">Moratorium was the only ideological subscale that shared a positive relationship with math achievement. The interpersonal subscales were poor predictors of math achievement.</p> <p style="padding-left: 40px;">Therefore, negative relationships were observed for ideological foreclosure and three measures (missed school days, language achievement and math achievement). Whereas ideological diffusion subscale was significantly and negatively related to missed school days and math scores. Ideological moratorium, however displayed a positive relationship with math scores, as did, interpersonal achievement and math scores, and interpersonal moratorium and missed school days.</p>
Streitmatter, J. (1993)	<p><u>Sample:</u> 74 students who were juniors, seniors or post-baccalaureates in a college of education at a large university in the United States; EOM-EIS version.</p> <p><u>Construct:</u> Ideological statuses were associated with their corresponding interpersonal identity status with correlations ranging from .18 for the achievement statuses and .82 for the foreclosure statuses. Intercorrelations for status scores within the ideological domain resulted in negative correlations observed for achievement with all other status scores. As well, the moratorium scale yielded a positive correlation with foreclosure (.22) and diffusion (.27). Foreclosure with diffusion yielded a weak, positive correlation (.15). Intercorrelations for status scores within the interpersonal domain resulted in a weak relationship between achievement and moratorium (.15), foreclosure (-.12), and diffusion (-.13). The correlation of foreclosure with diffusion (.43) was the largest correlation, and moratorium</p>

	was positively related to both foreclosure (.32) and diffusion (.34).
Streitmatter, J. (1993)	<p><u>Sample:</u> 105 junior high school students; EOM-EIS.</p> <p><u>Predictive:</u> Results indicated a general decrease in total diffusion scores that was similar for boys and girls over time. The foreclosure scores of both males and females also showed similar decrease over time. An apparent rise in moratorium scores was observed for both boys and girls and there was no significant effects by gender when total achievement was taken into consideration.</p> <p>The results were that total foreclosure and diffusion scores decrease from Time 1 to Time 2. Total moratorium scores increased with age. Finally, total achievement scores displayed no significant change over time.</p>
Sweeney, C.J. (1984)	<p><u>Sample:</u> 60 college students; EOMEIS-1 version.</p> <p><u>Predictive:</u> Nursing and elementary education students scored significantly higher than women's studies students on the achievement subscales. Identity achievement was not significantly correlated with a profeminist orientation. Moratorium, foreclosure and diffusion correlated significantly and negatively with a profeminist orientation score.</p>
Vondracek, F. R., Schulenberg, J., Skorikov, V., Gillespie, L. K., & Wahlheim, C. (1995)	<p><u>Sample:</u> 407 students in grades 7 through 12; EOM-EIS version.</p> <p><u>Predictive:</u> Achievement status groups scored significantly lower than all other groups on career indecision subscales of the CDS (Career Decision Scale), with the exception of the moratorium group on the support subscale.</p>
Wallace-Broschious, A., Serafica, F. C., & Osipow, S. H. (1994)	<p><u>Sample:</u> 134 9<sup>th</sup> graders and 134 12<sup>th</sup> graders attending a parochial high school; EOM-EIS version.</p> <p><u>Predictive:</u> Identity achievement was positively related to career planning and negatively related to career indecision. Moratorium and diffusion statuses were positively associated with career indecision and negatively related to career planning. Unexpectedly, in both grades foreclosure was positively related to career indecision.</p>
Weinmann, L.L. & Newcombe, N. (1988)	<p><u>Sample:</u> 100 undergraduate students; EOMEIS-R version.</p> <p><u>Predictive:</u> Committed-status subjects (foreclosure and achievement) were more significantly likely to retrospectively report a "U"-shaped pattern of love in regards to their relationship with their mother than the uncommitted-status subjects. No significant differences or patterns were found for relationships with fathers.</p>
Wiess, R.H. (1984)	<p><u>Sample:</u> 114 19-75-year-old females; OMEIS version.</p> <p><u>Predictive:</u> No significant relationships were found between age, socio-economic status, scores on Kohlberg's Moral Development scale, Authoritarianism, reading level and subjects' identity status. Achieved and moratorium subjects were significantly more likely to have scored higher on the Kuhn cognitive development test.</p>

<p>Willemsen, E. W., &amp; Waterman K. K. (1991).</p>	<p><u>Sample:</u> 83 college students ranging in age from 18 to 22 years; EOMEIS version.</p> <p><u>Predictive:</u> For women, identity achievement in both ideological and interpersonal domains was associated with perceiving their families as promoting growth in the intellectual-cultural sphere. Foreclosure was associated with the absence of family conflict. Diffusion was associated with little emphasis being placed on moral and religious issues, and ideological diffusion was further associated with lack of organization in the family.</p> <p>Men's identity achievement in the interpersonal domain was correlated with the encouragement for independence they perceive in their families. Foreclosure was predicted from low perceived family conflict but significantly only in the ideological domain. Diffusion in the ideological domain was associated with perceived low family cohesion and perceived low encouragement for intellectual-cultural growth. Ideological moratorium is predicted by lack of organization and little emphasis on intellectual-cultural growth.</p> <p><u>Construct:</u> Ideological statuses were associated with their corresponding interpersonal identity status with correlations ranging from .40 for the diffusion statuses and .54 for the foreclosure statuses. Intercorrelations for status scores within the ideological domain resulted in negative correlations observed for achievement with all other status scores. As well, the moratorium scale yielded a negative correlation with foreclosure (-.14) and achievement (-.47). Foreclosure with diffusion yielded a weak, positive correlation (.03). Intercorrelations for status scores within the interpersonal domain resulted in a relationship between achievement &amp; moratorium (-.11), foreclosure (.21), and diffusion (-.18). The correlation of moratorium with achievement (-.32) was the largest correlation, and moratorium was positively related to foreclosure (.12).</p>
<p>Yatim, D.J. (1982)</p>	<p><u>Sample:</u> 55 Indonesian males, 34 late adolescents and 21 young adults; OMEIS version (80 item test, 24 adapted from OMEIS).</p> <p><u>Predictive:</u> Correlations between the diffusion and achievement subscales scores showed no significant difference between the adolescent and young adult sample. Adolescents scored significantly higher on moratorium and foreclosure subscales than did the young adult sample.</p>

### Research and Clinical Uses

The Objective Measure of Ego Identity Status was developed from the Eriksonian framework of human development, life crises, and life-span development. Erikson theorizes that identity has a central personality-organizing function to life. He maintains that each life crisis offers important contributions to one's identity. Further, he maintains that each life crisis either progressively or regressively offers important contributions to one's identity. Adams and Marshall suggest that many factors within one's culture, history, community, and individual maturation contribute to identity formation.

Recognizing the broad scope of Erikson's theory we recommend that the Objective Measure of Ego-Identity Status be used for derivations of the following directions in research and theory development:

1. It can be used as a measure of identity formation for single persons between approximately 14 and 30 years of age. However, modifications can be undertaken for married individuals.
2. It can be used (a) as a key measure of identity formation in the study of socialization factors as they contribute to identity, and (b) as a classification measure for individual differences between adolescents and youths with the intent of finding out how different identities are predictive of different behaviors, attitudes, and values.
3. It can be used to assess both individual differences and intraindividual change in the form of identity development.
4. It might be utilized as both a primary and secondary research instrument in the study of psychosocial development during adolescence and young adulthood.

Regarding clinical use, we recommend the following possibilities:

1. Comparisons be made between normative and clinical samples to determine the degree to which clinical groups manifest different individual differences or developmental patterns from normative comparisons. This recommendation focuses on the study of developmental psychopathology from a normative comparison base.
2. Individuals within given clinical groups (e.g., conduct disorder youth) be assessed for individual differences in identity formation and compared on their improvement due to various forms of social interventions.
3. Comparisons be undertaken between clinical groups (e.g., conduct disorder and eating disorder groups) to determine whether differences in identity formation can be associated with distinctions between groups.
4. The OMEIS be used as one possible screening device among others to detect the possibility of identity disorders among adolescent samples.
5. Comparisons be undertaken between normative and clinical populations on the rate and type of growth manifested in developmental trajectories and distinctions between progressive and regressive factors that appear to cause differential onset, rates, and growth patterns.

These recommendations are merely suggestive of how the instrument can be utilized as a classification assessment, a measure of identity development, and as a research and clinical tool.

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Appendix A: Prototype OMEIS

Adams, Shea &amp; Fitch (1979)

Response Scale: 1 = strongly agree      4 = disagree  
 2 = moderately agree      5 = moderately disagree  
 3 = agree      6 = strongly disagree.

1. I haven't really considered politics. They just don't excite me much.
2. I might have thought about a lot of different things but there has never really been a decision since my parents said what they wanted.
3. When it comes to religion I just haven't found any that I'm really into myself.
4. My parents had it decided a long time ago what I should go into and I'm following their plans.
5. There are so many different political parties and ideals. I can't decide which to follow until I figure it all out.
6. I don't give religion much thought and it doesn't bother me one way or the other.
7. I guess I'm pretty much like my folks when it comes to politics. I follow what they do in terms of voting and such.
8. I haven't chosen the occupation I really want to get into, but I'm working toward becoming a \_\_\_\_\_ until something better comes along.
9. A person's faith is unique to each individual. I've considered and reconsidered it myself and know what I can believe.
10. It took me a long time to decide but now I know for sure what direction to move in for a career.
11. I really never was involved in politics enough to have to make a firm stand one way or the other.
12. I'm not so sure what religion means to me. I'd like to make up my mind but I'm not done looking yet.
13. I've thought my political beliefs through and realize I may or may not agree with many of my parent's beliefs.
14. It took me awhile to figure it out, but now I really know what I want for a career.
15. Religion is confusing to me right now. I keep changing my views on what is right and wrong to me.
16. I'm sure it will be pretty easy for me to change my occupational goals when something better comes along.
17. My folks have always had their own political and moral beliefs about issues like abortion and mercy killing and I've always gone along accepting what they have.
18. I've gone through a period of serious questioning about faith and can now say I understand what I believe in as an individual.
19. I'm not sure about my political beliefs, but I'm trying to figure out what I can truly believe in.
20. I just can't decide how capable I am as a person and what jobs I'll be right for.
21. I attend the same church as my family has always attended. I've never really questioned why.

22. I just can't decide what to do for an occupation. There are so many possibilities.
23. I've never really questioned my religion. If it's right for my parents it must be right for me.
24. Politics are something that I can never be too sure about because things change so fast. But I do think it's important to know what I believe in.

## Appendix B: EOMEIS-2 (Revision)

Bennion &amp; Adams (1986)

Response Scale: 1 = strongly agree      4 = disagree  
 2 = moderately agree      5 = moderately disagree  
 3 = agree      6 = strongly disagree.

1. I haven't chosen the occupation I really want to get into, and I'm just working at what is available until something better comes along.
2. When it comes to religion I just haven't found anything that appeals and I don't really feel the need to look.
3. My ideas about men's and women's roles are identical to my parents'. What has worked for them will obviously work for me.
4. There's no single "life style" which appeals to me more than another.
5. There are a lot of different kinds of people. I'm still exploring the many possibilities to find the right kind of friends for me.
6. I sometimes join in recreational activities when asked, but I rarely try anything on my own.
7. I haven't really thought about a "dating style." I'm not too concerned whether I date or not.
8. Politics is something that I can never be too sure about because things change so fast. But I do think it's important to know what I can politically stand for and believe in.
9. I'm still trying to decide how capable I am as a person and what work will be right for me.
10. I don't give religion much thought and it doesn't bother me one way or the other.
11. There's so many ways to divide responsibilities in marriage, I'm trying to decide what will work for me.
12. I'm looking for an acceptable perspective for my own "life style", but haven't really found it yet.
13. There are many reasons for friendship, but I choose my close friends on the basis of certain values and similarities that I've personally decided on.
14. While I don't have one recreational activity I'm really committed to, I'm experiencing numerous leisure outlets to identify one I can truly enjoy.
15. Based on past experiences, I've chosen the type of dating relationship I want now.
16. I haven't really considered politics. It just doesn't excite me much.
17. I might have thought about a lot of different jobs, but there's never really been any question since my parents said what they wanted.
18. A person's faith is unique to each individual. I've considered and reconsidered it myself and know what I can believe.
19. I've never really seriously considered men's and women's roles in marriage. It just doesn't seem to concern me.

20. After considerable thought I've developed my own individual viewpoint of what is for me an ideal "life style" and don't believe anyone will be likely to change my perspective.
21. My parents know what's best for me in terms of how to choose my friends.
22. I've chosen one or more recreational activities to engage in regularly from lots of things and I'm satisfied with those choices.
23. I don't think about dating much. I just kind of take it as it comes.
24. I guess I'm pretty much like my folks when it comes to politics. I follow what they do in terms of voting and such.
25. I'm not really interested in finding the right job, any job will do. I just seem to flow with what is available.
26. I'm not sure what religion means to me. I'd like to make up my mind but I'm not done looking yet.
27. My ideas about men's and women's roles have come right for my parents and family. I haven't seen any need to look further.
28. My own views on a desirable life style were taught to me by my parents and I don't see any need to question what they taught me.
29. I don't have any real close friends, and I don't think I'm looking for one right now.
30. Sometimes I join in leisure activities, but I really don't see a need to look for a particular activity to do regularly.
31. I'm trying out different types of dating relationships. I just haven't decided what is best for me.
32. There are so many different political parties and ideals. I can't decide which to follow until I figure it all out.
33. It took me a while to figure it out, but now I really know what I want for a career.
34. Religion is confusing to me right now. I keep changing my views on what is right and wrong for me.
35. I've spent some time thinking about men's and women's roles in marriage and I've decided what will work best for me.
36. In finding an acceptable viewpoint to life itself, I find myself engaging in a lot of discussions with others and some self exploration.
37. I only pick friends my parent would approve of.
38. I've always liked doing the same recreational activities my parents do and haven't ever seriously considered anything else.
39. I only go out with the type of people my parents expect me to date.
40. I've thought my political beliefs through and realize I can agree with some and not other aspects of what my parents believe.
41. My parents decided a long time ago what I should go into for employment and I'm following through their plans.

42. I've gone through a period of serious questions about faith and can now say I understand what I believe in as an individual.
43. I've been thinking about the roles that husbands and wives play a lot these days, and I'm trying to make a final decision.
44. My parents' views on life are good enough for me, I don't need anything else.
45. I've had many different friendships and now I have a clear idea of what I look for in a friend.
46. After trying a lot of different recreational activities I've found one or more I really enjoy doing by myself or with friends.
47. My preferences about dating are still in the process of developing. I haven't fully decided yet.
48. I'm not sure about my political beliefs, but I'm trying to figure out what I can truly believe in.
49. It took me a long time to decide but now I know for sure what direction to move in for a career.
50. I attend the same church as my family has always attended. I've never really questioned why.
51. There are many ways that married couples can divide up family responsibilities. I've thought about lots of ways, and not I know exactly how I want it to happen for me.
52. I guess I just kind of enjoy life in general, and I don't see myself living by any particular viewpoint to life.
53. I don't have any close friends. I just like to hang around with the crowd.
54. I've been experiencing a variety of recreational activities in hope of finding one or more I can really enjoy for some time to come.
55. I've dated different types of people and know exactly what my own "unwritten rules" for dating are and who I will date.
56. I really have never been involved in politics enough to have made a firm stand one way or the other.
57. I just can't decide what to do for an occupation. There are so many possibilities.
58. I've never really questioned my religion. If it's right for my parents it must be right for me.
59. Opinions on men's and women's roles seem so varied that I don't think much about it.
60. After a lot of self-examination I have established a very definite view on what my own life style will be.
61. I really don't know what kind of friend is best for me. I'm trying to figure out exactly what friendship means to me.
62. All of my recreational preferences I got from my parents and I haven't really tried anything else.
63. I date only people my parents would approve of.
64. My folks have always had their own political and moral beliefs about issues like abortion and mercy killing and I've always gone along accepting what they have.

Appendix C: SPSS Subprograms  
For Computer Scoring of the 24 And 64 Item Versions

SPSS Scoring Commands for 24 Item Version:

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RECODE EOM1 to EOM24 (6=1) (5=2) (4=3) (3=4) (2=5) (1=6)

COMPUTE DIF = EOM8 + EOM16 + EOM1 + EOM11 + EOM3 + EOM6
COMPUTE FOR = EOM2 + EOM4 + EOM17 + EOM7 + EOM21 + EOM23
COMPUTE MOR = EOM20 + EOM22 + EOM5 + EOM19 + EOM12 + EOM15
COMPUTE ACH = EOM10 + EOM14 + EOM13 + EOM24 + EOM9 + EOM18

VARIABLE LABELS
  DIF 'Diffusion'
  FOR 'Foreclosure'
  MOR 'Moratorium'
  ACH 'Achievement'

IF (DIF GE 19 AND FOR LT 21 AND MOR LT 21 AND ACH LT 30) ISC = 1
IF (DIF LT 19 AND FOR GE 21 AND MOR LT 21 AND ACH LT 30) ISC = 2
IF (DIF LT 19 AND FOR LT 21 AND MOR GE 21 AND ACH LT 30) ISC = 3
IF (DIF LT 19 AND FOR LT 21 AND MOR LT 21 AND ACH GE 30) ISC = 4
IF (DIF GE 19 AND FOR GE 21 AND MOR LT 21 AND ACH LT 30) ISC = 5
IF (DIF GE 19 AND FOR LT 21 AND MOR GE 21 AND ACH LT 30) ISC = 6
IF (DIF GE 19 AND FOR LT 21 AND MOR LT 21 AND ACH GE 30) ISC = 7
IF (DIF LT 19 AND FOR GE 21 AND MOR GE 21 AND ACH LT 30) ISC = 8
IF (DIF LT 19 AND FOR GE 21 AND MOR LT 21 AND ACH GE 30) ISC = 9
IF (DIF LT 19 AND FOR LT 21 AND MOR GE 21 AND ACH GE 30) ISC = 10
IF (DIF GE 19 AND FOR GE 21 AND MOR GE 21 AND ACH LT 30) ISC = 11
IF (DIF GE 19 AND FOR GE 21 AND MOR LT 21 AND ACH GE 30) ISC = 12
IF (DIF GE 19 AND FOR LT 21 AND MOR GE 21 AND ACH GE 30) ISC = 13
IF (DIF LT 19 AND FOR GE 21 AND MOR GE 21 AND ACH GE 30) ISC = 14
IF (DIF GE 19 AND FOR GE 21 AND MOR GE 21 AND ACH GE 30) ISC = 15
IF (DIF LT 19 AND FOR LT 21 AND MOR LT 21 AND ACH LT 30) ISC = 16

IF (Any (ISC, 1, 5, 6, 7, 11, 12, 13, 15)) STATUS= 1
IF (Any (ISC, 2, 8, 9, 14)) STATUS= 2
IF (Any (ISC, 3, 10, 16)) STATUS= 3
IF (ISC= 4) STATUS= 4

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Note: The notation EOM stands for the items of the test. ISC means Identity Status Classification. STATUS is the final collapsed identity status. If the researcher wishes to study transitions and pure identity statuses then the last 4 IF commands should not be used in the program. Not using the last 4 commands results in 16 identity status classifications. The 16 ISC types are as follows:

1 = Pure Diffusion	9 = For-Ach Transition
2 = Pure Foreclosure	10 = Mor-Ach Transition
3 = Pure Moratorium	11 = Dif-For-Mor Transition
4 = Pure Achievement	12 = Dif-For-Ach Transition
5 = Dif-For Transition	13 = Dif-Mor-Ach Transition
6 = Dif-Mor Transition	14 = For-Mor-Ach Transition
7 = Dif-Ach Transition	15 = Dif-For-Mor-Ach Transition
8 = For-Mor Transition	16 = Undifferentiated/Low Profile Mor

SPSS Scoring Commands for 64 Item Version:

```
RECODE EOM1 to EOM64 (6=1) (5=2) (4=3) (3=4) (2=5) (1=6)
```

```
COMPUTE IdDIF=EOM1 + EOM2 + EOM4 + EOM10 + EOM16 + EOM25 + EOM52 + EOM56
COMPUTE IdFOR=EOM17 + EOM24 + EOM28 + EOM41 + EOM44 + EOM50 + EOM58 + EOM64
COMPUTE IdMOR=EOM9 + EOM12 + EOM26 + EOM32 + EOM34 + EOM36 + EOM48 + EOM57
COMPUTE IdACH=EOM8 + EOM18 + EOM20 + EOM33 + EOM40 + EOM42 + EOM49 + EOM60
```

```
COMPUTE InDIF=EOM6 + EOM7 + EOM19 + EOM23 + EOM29 + EOM30 + EOM53 + EOM59
COMPUTE InFOR=EOM3 + EOM21 + EOM27 + EOM37 + EOM38 + EOM39 + EOM62 + EOM63
COMPUTE InMOR=EOM5 + EOM11 + EOM14 + EOM31 + EOM43 + EOM47 + EOM54 + EOM61
COMPUTE InACH=EOM13 + EOM15 + EOM22 + EOM35 + EOM45 + EOM46 + EOM51 + EOM55
```

## VARIABLE LABELS

```
IdDIF 'Ideological Diffusion'
IdFOR 'Ideological Foreclosure'
IdMOR 'Ideological Moratorium'
IdACH 'Ideological Achievement'
```

```
InDIF 'Interpersonal Diffusion'
InFOR 'Interpersonal Foreclosure'
InMOR 'Interpersonal Moratorium'
InACH 'Interpersonal Achievement'
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```
IF (IDDIF GE 28 AND IDFOR LT 26 AND IDMOR LT 33 AND IDACH LT 38) IDISC = 1
IF (IDDIF LT 28 AND IDFOR GE 26 AND IDMOR LT 33 AND IDACH LT 38) IDISC = 2
IF (IDDIF LT 28 AND IDFOR LT 26 AND IDMOR GE 33 AND IDACH LT 38) IDISC = 3
IF (IDDIF LT 28 AND IDFOR LT 26 AND IDMOR LT 33 AND IDACH GE 38) IDISC = 4
IF (IDDIF GE 28 AND IDFOR GE 26 AND IDMOR LT 33 AND IDACH LT 38) IDISC = 5
IF (IDDIF GE 28 AND IDFOR LT 26 AND IDMOR GE 33 AND IDACH LT 38) IDISC = 6
IF (IDDIF GE 28 AND IDFOR LT 26 AND IDMOR LT 33 AND IDACH GE 38) IDISC = 7
IF (IDDIF LT 28 AND IDFOR GE 26 AND IDMOR GE 33 AND IDACH LT 38) IDISC = 8
IF (IDDIF LT 28 AND IDFOR GE 26 AND IDMOR LT 33 AND IDACH GE 38) IDISC = 9
IF (IDDIF LT 28 AND IDFOR LT 26 AND IDMOR GE 33 AND IDACH GE 38) IDISC = 10
IF (IDDIF GE 28 AND IDFOR GE 26 AND IDMOR GE 33 AND IDACH LT 38) IDISC = 11
IF (IDDIF GE 28 AND IDFOR GE 26 AND IDMOR LT 33 AND IDACH GE 38) IDISC = 12
IF (IDDIF GE 28 AND IDFOR LT 26 AND IDMOR GE 33 AND IDACH GE 38) IDISC = 13
IF (IDDIF LT 28 AND IDFOR GE 26 AND IDMOR GE 33 AND IDACH GE 38) IDISC = 14
IF (IDDIF GE 28 AND IDFOR GE 26 AND IDMOR GE 33 AND IDACH GE 38) IDISC = 15
IF (IDDIF LT 28 AND IDFOR LT 26 AND IDMOR LT 33 AND IDACH LT 38) IDISC = 16
```

```
IF (INDIF GE 27 AND INFOR LT 26 AND INMOR LT 33 AND INACH LT 37) INISC = 1
IF (INDIF LT 27 AND INFOR GE 26 AND INMOR LT 33 AND INACH LT 37) INISC = 2
IF (INDIF LT 27 AND INFOR LT 26 AND INMOR GE 33 AND INACH LT 37) INISC = 3
IF (INDIF LT 27 AND INFOR LT 26 AND INMOR LT 33 AND INACH GE 37) INISC = 4
IF (INDIF GE 27 AND INFOR GE 26 AND INMOR LT 33 AND INACH LT 37) INISC = 5
IF (INDIF GE 27 AND INFOR LT 26 AND INMOR GE 33 AND INACH LT 37) INISC = 6
IF (INDIF GE 27 AND INFOR LT 26 AND INMOR LT 33 AND INACH GE 37) INISC = 7
IF (INDIF LT 27 AND INFOR GE 26 AND INMOR GE 33 AND INACH LT 37) INISC = 8
IF (INDIF LT 27 AND INFOR GE 26 AND INMOR LT 33 AND INACH GE 37) INISC = 9
IF (INDIF LT 27 AND INFOR LT 26 AND INMOR GE 33 AND INACH GE 37) INISC = 10
IF (INDIF GE 27 AND INFOR GE 26 AND INMOR GE 33 AND INACH LT 37) INISC = 11
IF (INDIF GE 27 AND INFOR GE 26 AND INMOR LT 33 AND INACH GE 37) INISC = 12
IF (INDIF GE 27 AND INFOR LT 26 AND INMOR GE 33 AND INACH GE 37) INISC = 13
IF (INDIF LT 27 AND INFOR GE 26 AND INMOR GE 33 AND INACH GE 37) INISC = 14
IF (INDIF GE 27 AND INFOR GE 26 AND INMOR GE 33 AND INACH GE 37) INISC = 15
IF (INDIF LT 27 AND INFOR LT 26 AND INMOR LT 33 AND INACH LT 37) INISC = 16
```

```
IF (Any (IDISC, 1, 5, 6, 7, 11, 12, 13, 15)) IdSTATUS= 1
IF (Any (IDISC, 2, 8, 9, 14)) IdSTATUS= 2
IF (Any (IDISC, 3, 10, 16)) IdSTATUS= 3
IF (IDISC= 4) IdSTATUS= 4

IF (Any (INISC, 1, 5, 6, 7, 11, 12, 13, 15)) InSTATUS= 1
IF (Any (INISC, 2, 8, 9, 14)) InSTATUS= 2
IF (Any (INISC, 3, 10, 16)) InSTATUS= 3
IF (INISC= 4) InSTATUS= 4
```

Note: ID stands for ideological and IN for interpersonal. STATUS is the classification level. The status categories are the same as for the 24 item version.

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