
The Identity Statuses: Origins, Meanings, and Interpretations

2

Jane Kroger and James E. Marcia

Abstract

This chapter describes the origins and development of the identity statuses and provides a brief overview of studies into antecedent, concurrent, and consequent implications of the construct. In so doing, it reviews selected personality, relational, behavioral, and developmental variables that have been examined in relation to the identity statuses over the past 45 years. Additionally, the chapter addresses some of the many implications that the identity statuses hold for intervention as well as the relationship of the identity status paradigm to other models of identity. The rootedness of the identity statuses in Erikson's concept of identity versus identity diffusion (confusion) is discussed, and meta-analyses of the identity statuses in relation to selected variables are presented. Therapeutic and educational interventions for individuals in each identity status are also discussed.

One always begins with a theory. The only question is whether or not that theory is made explicit and testable, or remains implicit and untestable. Only when theories are made explicit can their propositions be falsified. The identity statuses—on which much current identity theory and research is based (Kroger, 2007)—originated from attempts to validate a major construct, ego

identity, drawn from Erikson's (1950) ego psychoanalytic theory. In this chapter, James Marcia begins by detailing the origins and meanings of the identity statuses. He also provides thoughts on the construct validity and measurement of identity. Jane Kroger then turns to the interpretations of the identity statuses by reviewing studies that address key questions that have been asked by identity status researchers over the history of the model, spanning more than 40 years. She concludes with comments on the implications of the identity statuses for intervention as well as the place of the identity status paradigm in relation to other perspectives on identity covered in the present volume.

J. Kroger (✉)
Psychology Department, University of Tromsø, Tromsø,
Norway
e-mail: jane.kroger@uit.no

Origins and Meanings of the Identity Statuses

Theoretical Origins

Erik Erikson (1950), a practicing psychoanalyst, located his theory of psychosocial development, as well as his central concept of ego identity, within the matrix of psychoanalytic theory. Specifically, ego identity arose from the extension of psychoanalytic theory known as “ego psychology.” In what became an introduction to Erikson’s (1959) monograph, Rapaport (1958, p. 5) laid out basic assumptions underlying the work discussed in this chapter as well as a description of the field of ego psychology:

Before beginning our survey, it will be worth reminding ourselves that the ego, the id, and the superego are concepts. They are abstractions that (sic) refer to certain characteristics of behavior. In contrast to the id, which refers to *peremptory* aspects of behavior, the ego refers to aspects of behavior which are *delayable*, *bring about delay*, or are themselves, products of *delay*.

Three phases may be distinguished in Freud’s development of the concept of ego functions (cf. Rapaport, 1958). First, the ego was viewed as a structure preventing the re-encountering of painful affect occasioned by an experience occurring in external reality. Second, the ego was seen as oriented toward dealing with intrapsychic dangers occasioned by id-dominated fantasies, rather than arising from external reality. Finally, the ego was freed somewhat from its dependence upon both external reality and the id and considered as a structure having its own genetic roots and energies. This third function of the ego was introduced in Freud’s (1946) work on the role of ego and ego defense mechanisms.

Hartmann, Kris, and Lowenstein (1946) further established autonomy for the ego by postulating that both ego and id were differentiated from a common matrix, implying that the ego, in its origins, was characterized by both unique processes and its own energy. The infant entered the world “pre-adapted” to an “average

expectable environment.” This meant that the ego was autonomous in two senses: it had its own pattern for development (the epigenetic principle) and mechanisms, which, though id- and conflict-initiated, eventually became freed from their instinctual origins. At the same time, theorists such as Adler, Horney, Sullivan, and Kardiner were exploring the realms of interpersonal relations and the influences of society on ego development (Rapaport, 1958). Erikson was the heir and systematizer of all of these developments.

Erikson spelled out eight stages of ego growth, each marked by a chronological phase-specific psychosocial crisis. Ideally, at each phase there is a mutuality or cogwheeling (as in the meshing of gears) between the developing individual and his/her social milieu, resulting in the predominantly positive resolutions of psychosocial crises. The relationship between the individual and society, rather than being the primarily antagonistic one described by Freud (1930, 1961), was a co-constructive one. Rapaport (1958, p. 104) puts this nicely:

In Erikson’s conception, neither does the individual adapt to society nor does society mold him (sic) into its pattern; rather, society and individual form a *unity* within which a mutual regulation takes place. The social institutions are pre-conditions of individual development, and the developing individual’s behavior, in turn, elicits that help which society gives through its adult members directed by its institutions and traditions. Society is not merely a prohibitor or provider; it is the necessary matrix of the development of all behavior.

Identity and Late Adolescence

The psychosocial crisis of late adolescence was postulated to be identity versus identity diffusion (or confusion, in Erikson’s later writings). Faced with the imminence of adult tasks (e.g., getting a job, becoming a citizen, and planning marriage), the late adolescent must relinquish the childhood position of being “given to” and prepare to be the “giver.” Accomplishing this involves changing one’s worldview as well as projecting oneself

imaginatively into the future via a possible occupational path (see also Skorikov & Vondracek, Chapter 29, this volume). This self-reconstructive process is assumed to strengthen overall ego processes as the individual becomes capable of handling a broader range of developmental tasks. Ego strengthening occurs on both an internal level (e.g., delay of impulses) and an external level (e.g., adaptation to societal demands).

The psychosocial task of ego identity development is essentially one of integration. The achievement of ego identity involves a synthesis of childhood identifications in the individual's own terms, so that she/he establishes a reciprocal relationship with her/his society and maintains a feeling of continuity within her/himself. It represents a reformulation of all that the individual has been into a core of what she/he is to become.

Researching Erikson's Identity Construct

Concepts such as "configuration," "synthesis," and "core" suggest the formation of an internal structure. The problem for empirical research was how to determine the presence or absence and qualities of this structure. No one ever sees *an* ego, or *a* superego. One observes only the behavioral referents for hypothesized states of these personality structures. Likewise, no one can observe *an* identity. What can be seen and measured are behaviors that should result if an identity has or has not been formed.

The task at the onset of identity research was to determine what observable referents were available that would point to the presence, absence, and nature of the hypothesized underlying identity structure. Erikson furnished some direction for this work by specifying two issues confronting the late adolescent: the choice of an occupation and the formation of an ideology.

In general, it is the inability to settle on an occupational identity which disturbs young people. (Erikson, 1963, p. 252)

To envisage a future, the young adult may also need that something which Shaw called "a religion" and "a clear comprehension of life, in the light of an intelligible theory." . . . we would call

this something-between-a-theory-and-a-religion an ideology. . . *a necessity for the growing ego* which is involved in the succession of generations, and in adolescence is committed to some new synthesis of past and future: a synthesis which must include but transcend the past, even as identity does. (Erikson, 1963, p. 97)

Choosing an *occupation* involves the individual's consideration and integration of at least the following Eriksonian criteria for identity formation: "[integration of] . . . constitutional givens, idiosyncratic libidinal needs, favored capacities, significant identifications, successful sublimations, and consistent roles" (Erikson, 1969, p. 116). Forming a personally and socially relevant *ideology* involves, again, "[integrating] . . . significant identifications" and "consistent roles." "Effective defenses" are not so specifically embedded in the areas of occupation and ideology, although they appear related to both of these areas, especially when changes in their content occur as the result of "identity crises." Any significant change in personality structure, even if positive, elicits anxiety that must be controlled in order to permit effective functioning in the world.

Embedded in the Erikson quotation above, and stated specifically in the following one, is the idea that commitments in the two areas of occupation and ideology are accompanied by a period of reflection and trial and error, whereby past patterns are examined, some discarded, and others integrated into a new identity configuration.

The final identity, then, as fixed at the end of adolescence is superordinated to any single identification with individuals of the past: it includes all significant identifications, but it also alters them in order to make a unique and reasonably coherent whole of them (Erikson, 1956, pp. 67–68).

Based on Erikson's ideas, two criteria for the presence of identity formation were proposed: *exploration* (originally called "crisis"; Marcia, 1966), and *commitment*. Exploration referred to some period of re-thinking, sorting through, and trying out various roles and life plans. The exploratory period is a time when the late adolescent is actively involved in choosing among meaningful alternatives. Commitment referred to the degree of personal investment the individual

expressed in a course of action or belief. The two life areas in which exploration and commitment were to be assessed were *occupation* and *ideology*, the latter being composed of religious and political positions. The centrality to identity of both religion and politics recur in Erikson's theoretical writings and biographical sketches (Erikson, 1956, 1963, 1969). Although other researchers have considered identity to exist in separate domains (e.g., "occupational identity" or "political identity"), domains were used here *to point to* a hypothesized underlying identity structure, not as "identities" in themselves. Essentially, they were a "map" used to indicate a more fundamental "territory." Two measures of identity were constructed. The first was a semi-projective measure: the Ego Identity Incomplete Sentences Blank (EI-ISB). This was intended to be an overall measure of ego identity and to include in its scoring criteria as thorough a survey of Erikson's ideas concerning identity formation as possible. The EI-ISB scoring manual was constructed according to the general criterion: if one has achieved an ego identity, either by the criteria of exploration and commitment or in terms of behaviors which Erikson proposed to be indicative of identity formation, what should a participant's responses be (Marcia, 1964)? The scoring criteria for the EI-ISB comprised the following characteristics excerpted from Erikson's theory: self-reflection, a realistic sense of the future, commitment to occupation and ideology, self-initiated action, relatively safe expression of impulses, reformulation of childhood personality antecedents in adult terms, autonomy, group affiliation, social integration, and internal locus of self-evaluation.

The second measure was a semi-structured interview, the identity status interview (ISI), and an accompanying scoring manual. The interview was designed to reveal the presence or absence of a developmental process: the history of how individuals, through the course of their lives, came to their present identity resolutions. It asked participants in some depth how they came to their present commitments or lack thereof; what their past influences had been; as well as how and why they had changed from whom they had

been in childhood. The actual *content* of occupational choices and beliefs was not important. The focus was on the developmental *process*: how were choices arrived at; how thorough was the respondent's exploration; what were the related feelings accompanying exploration; how firm and how actualized were commitments; and under what foreseeable circumstances would commitments change. The scoring manual contained both theoretical rationales for evaluating participants' responses and sample responses.

The Identity Statures

Whereas the EI-ISB yielded an overall score for ego identity, the identity status interview (ISI) assessed the depth and breadth of exploration and the extent of commitment in the areas of occupation and ideology (religion plus politics). The ISI provided a classification of individuals into one of four groups called *identity statures*. Two stature groups were high in commitment. One group had arrived at commitments via an exploratory process and was called *identity achievement*. The second committed group had proceeded by taking on commitments from significant others, with little or no exploration, and was called *foreclosure*. Identity achievements were seen as having "constructed" identities; foreclosures were considered to have "conferred" identities. They seemed to be heirs to a bequeathed identity rather than having formulated their own via an exploratory process. The other two statures were characterized by a low degree of commitment. *Moratoriums* were struggling to reach commitments and were engaged in an exploratory period. *Identity diffusions* were not committed and had undergone little meaningful exploration. These two groups were distinguished by differences in a sense of concern and direction. Moratoriums were actively attempting to form an identity and were torn between alternatives. Their future directions were present but vaguely defined. Moratoriums were, optimally, a prelude to eventual identity achievement. Diffusions were relatively directionless, unconcerned about their lack of commitment, and easily swayed by external influences.

Following are portraits of the identity statuses that have emerged from thousands of identity status interviews as well as accumulated empirical findings since the initial identity status construct validation research was undertaken. Much of this research will be reviewed in subsequent sections.

Identity achievements. These persons impress one as solid with important focuses in their lives. While they retain some flexibility, they are not easily swayed by external influences and pressures in their chosen life directions. Even if they encounter obstacles, one senses that they will persevere in their chosen directions, unless proceeding becomes clearly unrealistic. They have room for understanding the experiences of others, whose differing opinions they can consider reflectively and non-defensively. Their characteristics of “self-sameness and continuity” (Erikson’s descriptors) make them dependable and sources of strength for others.

Moratoriums. Moratoriums are struggling to define themselves. They are lively, engaging, conflicted, and sometimes tiring to be around. They tend to use the identity status interview (as well as many conversations) in the service of determining who they are and who they are to be. They may try to draw others into their identity-information project, sometimes setting others up to take a position polar to their own stated one, so that they may be at least temporarily relieved of the internal conflict they are undergoing by converting an interior struggle into an external one. Moratoriums are often exquisitely morally sensitive. And, if they are articulate, they can engage others in their quest and appear, albeit briefly, as charismatic figures. There are other Moratoriums who appear to be drowning in their struggles to swim against the tide of earlier authority-based identifications. Rather than explorers, they become ruminators, perpetually mired in what seem to be insoluble dilemmas. In the best of outcomes, Moratoriums make self-relevant choices and move on to the firm commitments of identity achievement; in more unfortunate outcomes, they can become paralyzed in their vacillations.

Foreclosures. Foreclosures may appear as strong and self-directed as achievements.

However, there is a brittleness, and, hence, underlying fragility, to their position. Because of their difficulty in considering alternatives seriously, they must maintain their stances defensively and either deny or distort disconfirming information. If their values are generally mainstream and they stay within social contexts supporting those values, they appear “happy,” “well-adjusted,” loving their families and their families loving them. But if they stray from these conforming positions, they experience both self- and familial rejection. The longer a foreclosed position is maintained, the greater the attendant shame and guilt associated with questioning those positions. Often a foreclosure position is maintained by adopting an “us” and “them” posture, wherein the “them” can be a bit less than fully human. The price paid by the foreclosure for security is a limited, although sometimes reasonably satisfying, life.

Identity diffusions. Diffusions come in a variety of styles, all having in common a weak or non-existent exploratory period and an inability to make definite commitments. At their best, diffusions can appear extremely flexible, charming, and infinitely adaptable. They can be whatever current influences shape them to be. But, in the absence of an internal sense of self-definition, they must constantly look externally to define who they are and will be. At their worst, diffusions are lost and isolated, beset by feelings of emptiness and meaninglessness. Both types of diffusions seem to lack a solid identification with just those early childhood figures from whom foreclosures do not differentiate. In identity terms, foreclosure, because it is at least *some* identity, is preferable to diffusion. While superficially “well-adjusted” diffusions do exist, they require a defining context to supply externally what is internally lacking.

Research Strategy

The research methodology used to validate the new identity measures focused on construct validity (Cronbach & Meehl, 1955). This procedure allows for the investigation of complex

theoretical ideas such as identity by requiring an operational definition of the construct—facilitated here through the EI-ISB and ISI measures—and a choice of dependent variables selected for their theoretical relevance to the constructs under investigation. The choice of theoretically relevant dependent variables is especially important if the results of studies are to have the broadest possible implications. One should learn as much from negative as from positive results. For example, if the identity construct does not relate to other measures of ego strength, then one is pretty certain that either the identity measure or the theory underlying it is invalid. However, if the dependent variables chosen are unrelated, or only tangentially related, to ego strength, then neither positive nor negative measures tells us much.

In the process of operationalizing any complex construct such as identity, the construct is drained of some meaning. No operationalization of Erikson's identity construct would likely ever include either all of the content or spirit of his lengthy—and sometimes inconsistent—descriptions. However, a judicious and fairly broad selection of dependent variables, *if they are theoretically grounded*, will, through numerous studies, *replenish and extend* the meaning of the construct, as has been the case with the extensive research on the identity statuses. Erikson's original ideas have been expanded by means of the established relationships between the identity statuses and the variables discussed in the latter part of this chapter. Identity status research has facilitated the extension of Erikson's theory into theoretical realms he had not specifically envisioned (e.g., moral development, cognitive development, object relations).

A number of dependent variables were employed in the original identity status construct validation studies (Marcia, 1966, 1967). Only a few will be described here, those with especial theoretical relevance. They may be considered as “near” and “far” variables. “Near” variables are those, which, on a face validity basis, must relate to the construct. For example, another measure of the same construct, such as the identity statuses and the EI-ISB, or a variable that “common sense” would predict to be related, such

as foreclosure and authoritarianism. “Near” variables are those whose content comes very close to the definition of the construct under investigation. If no relationships are found with these “near” variables, then something is wrong either with the measure of the construct or with the theory underlying the construct. “Far” variables refer to more distant, less obvious, theoretical propositions underlying the construct being studied (e.g., identity status and performance on a stressful concept attainment task). If no relationships are found between these “far” variables and the construct, then again the underlying theory may be faulty or the measure of the construct inadequate, and, in addition, the choice of the dependent variable may be inappropriate—or any combination of the above. If positive relationships are found, then, in addition to some validity being established for the construct, validity can accrue to the theory underlying the construct (e.g., ego psychoanalytic theory).

Initial Identity Status Research

In the first identity status studies, the primary “near” relationship established was between the new identity statuses and the overall measure of ego identity, the EI-ISB. Although this approaches a form of concurrent validity, the EI-ISB had not been previously established as a measure of ego identity. As stated before, the EI-ISB was scored according to criteria representing a very broad reading of Erikson's theory. The positive relationship that was found between this measure and the identity statuses suggests that the statuses, although a rather shorthand measure of identity, provided an adequate representation of the broader Eriksonian theory as represented by the EI-ISB.

A second “near” measure was authoritarianism, on which foreclosures scored highest of the statuses. That persons who had unquestioningly followed directions laid down for them by important childhood figures should espouse values of “law and order,” preference for a strong leader, and suspicion of others unlike themselves was considered evidence corroborating the validity

of the foreclosure designation. With respect to underlying psychoanalytic theory, the formation of an ego ideal (the final development of the superego) is proposed to occur during adolescence (Blos, 1974). Failure to complete this task leaves one at the mercy of an un-reconstructed superego formed in childhood, when the internalized parental figures are formidable characters in the child's life. The suggestion that emerges from the now oft-found relationship between foreclosure and authoritarianism is that persons in this identity status remain fixed in childhood values and, in their adult lives, seek out authorities upon whom they can depend for guidance. Clinically, they would also be expected to find themselves at the mercy of strict internal (parental) standards that they have never re-formulated in their own terms. In order to avoid guilt and anxiety, it would seemingly be important for these individuals to maintain, as closely as possible, a living situation that approximates that of their childhoods. Any other context would seriously threaten their rigid value structure. This predicament is described by Erikson (1987) in his discussion of "pseudo-speciation," wherein it becomes necessary, for defensive purposes, to divide the world into "us" (fully human) and "them" (sub-human) (see also Moshman, 2005; Moshman, Chapter 39, this volume).

A third "near" measure involved participants' susceptibility to positive or negative feedback from the researcher following their performance on a difficult conceptual task. It was found that participants in the statuses of foreclosure and diffusion changed their estimates of their own abilities following feedback from others more than did achievements and moratoriums. Again, these findings were consistent in differentiating those who had constructed, or were in the process of constructing, their own identities on their own terms from those who either had adopted conferred identities or who had no firm identities.

An important "far" dependent variable was performance on a fairly complex concept attainment task administered under the stressful condition of evaluation apprehension (i.e., participants believed that they were working on a task assessing "academic potential"). Participants

were shown a large chart displaying 24 rectangular cards. Included in each card were five characteristics: one or two, large or small, black or white, squares or circles, and located on either the right or left side of a dividing line. Hence, each card contained five concepts: number (1 or 2), size (large or small), color (black or white), shape (squares or circles), and position (right or left). The experimenter pointed to one of the 24 cards as an example of the correct concept to be arrived at by the participant, for example, a card having one large, black, square on the right-hand side. In this case, the concept to be arrived at might be "one, large." Then, the participant pointed to other cards on the chart and received positive or negative feedback as to whether or not that card contained the correct concept. In the case of "one, large," a card with one, small, circle, on the left, would be called "negative." A card with one, large, square on the right would be called "positive." By a deductive process of elimination, participants arrived at the correct concept. The task was timed, and negative points were accumulated for time passed and incorrect guesses made.

Now, why should efficient guessing at concepts, in the face of stressful conditions, relate to participants' interview responses concerning their occupational plans and ideological beliefs? The reasoning was as follows: Identity development is assumed to constitute a stage in ego growth. A primary function of the ego is to mediate between internal states (e.g., anxiety) and the demands of external reality in order to function effectively in the world. To the extent that an identity has been achieved, ego processes should be stronger, more efficient, and better able to deal with a complex task in the face of disruptive feelings. If the identity statuses accurately reflected identity formation and, hence, greater ego strength, then participants in "higher" or more mature identity statuses (achievement and moratorium) should perform better than those in the "lower" or less mature (foreclosure and diffusion) statuses (given previously established equivalence in intelligence). That they did so suggested validity for the identity statuses, for Erikson's concept of ego growth via resolution

of psychosocial crises and for the underlying psychoanalytic conception of the role of ego processes. It would be difficult to link exploration and commitment in occupation and ideology, assessed by a semi-structured interview, with performance on a rather sterile, stressful concept attainment task without using the concept of ego development as an explanation.

Other dependent variables were also employed in the early identity status studies (e.g., level of aspiration, self-esteem, anxiety, parental antecedents), but the above have been chosen as important examples of moving from theory, to measure, to validation, and back to enrichment of theory via accumulated empirical findings.

The early identity studies—1964–1969—used only male participants. However, once some validation was established with men, it was essential to broaden the criteria for identity status to issues of relevance for women, and this was done in 1969–1970 (Marcia & Friedman, 1970) and further in 1972 (Josselson, 1972). The initial interview area added was “attitudes toward sexuality,” following Erikson’s writings on women’s identity development. Evidence for the importance of adding this domain for women’s identity was provided by Schenkel and Marcia (1972). Subsequently, the area of “sexuality” has been broadened to include “ideas about relationships,” and this domain, together with other related domains (see Marcia, Waterman, Matteson, Archer, & Orlofsky, 1993) is currently used in interviews with both men and women.

Some Implications of Method for Assessing Identity Status

It is essential not to underestimate the importance of the ISI method in assessing late-adolescent identity formation. A number of questionnaire measures assessing identity status have been developed in the service of “efficiency” and “objectivity.” These measures could be considered acceptable to the extent that they correspond closely to identity status categorization using the interview. However, because of their

closed-ended form, they all lack the opportunity to probe, in depth, the genuineness and extensiveness of a person’s exploratory process and the depth of subsequent commitment (Marcia, 2007). Just asking research participants “have you explored . . .” and “are you committed . . .” allows for only superficial, individual, interpretations of the questions. Whether or not what the researcher means by exploration and commitment is the same as what the respondent means is unknown. In addition to involving much more theoretically rich interview scoring criteria, the interview and its scoring criteria also have a “built-in” developmental focus. *How*, *when*, and *why* an individual came to their current position is important.

New shorter, more “objectively scorable” measures have enabled researchers to use large numbers of research participants and employ statistics suited for large sample sizes. Perhaps these large *N* studies average out the error variance due to some invalid individual categorizations. And, if a questionnaire measure yields identity status categorizations close to those of the lengthier interview, then there is certainly nothing wrong with using such questionnaire “indicators” as proxies for the identity statuses arrived at by the lengthier interview. The interview, itself, was an “indicator.” That is, it was formulated to “point to” an underlying, essentially unobservable, hypothesized identity structure. Similarly, the questionnaire measures can “point to” the identity statuses as determined by the more thorough and careful interview. The problem is that the identity statuses, as determined by objective questionnaires, can easily become social psychological or sociological concepts, sometimes superficially understood as they become unmoored from their original ego psychoanalytic bases. An original requirement for administering an identity status interview was the interviewer’s thorough grounding in ego psychoanalytic theory, Erikson’s psychosocial developmental theory, and interviewing techniques. The interview involves the thoughtful assessment of one individual by an empathic other in a relationship of rapport (see Bartholomew, Henderson, & Marcia, 2000). That is a far cry

from a group setting where 200 (or more) persons mark X's in boxes.

A Current Assessment

What can be, and, to some extent, has been lost with questionnaire methods is the original theoretical grounding of the construct and of the researcher, as well as the accuracy of any one identity status assessment. For example, not understanding that a developmental process is embedded *in the interview itself* may lend a “non-developmental” quality to the identity statures, portraying them as *only* snapshots of current identity states. Not recognizing the degree of theoretical underpinning of the interview scoring manual and the related EI-ISB, as well as not considering the extensive nomological network that has been established for the identity statures, can suggest that the identity statures inadequately represent Erikson's theory. This was just Erikson's fear when he was skeptical about empirical research being conducted with his concepts. And there is some validity to this concern. Not all of Erikson's ideas about identity are represented directly by the identity status definitions themselves. Likewise, not all of the theoretical richness underlying the identity status concepts is reflected in questionnaire measures. However, to the extent that these latter measures do accurately correspond to interview ratings, and to the extent that the interview categories and their associated nomological networks reflect essential aspects of Erikson's theory, the road is then clear for the accumulation of findings that *enrich* the theory and give back to it *enhanced meaning*.

That said, most current identity researchers are neither psychoanalytically oriented nor concerned with whether or not classical psychoanalytic theory, or even psychosocial developmental theory, is enhanced. There are positive and negative aspects to this unmooring of the identity status concepts from their original theoretical base. On the positive side, it has freed the concepts to be applied to such diverse areas as general education, counselor training,

theological studies, business training, political science, sports education, self-regulated learning platforms, remedial youth projects. Negatively, however, few of these applied settings, and research conducted within them, have considered the psychoanalytic grounding of the identity statures and the implications of findings for the advancement of theory. In some senses, perhaps the popular identity statures have “succeeded” all too well. I (JEM) recall musing at a recent symposium as to why the identity statures had persisted long beyond the time when such constructs were likely to have been subsumed by others. A colleague responded that it might be because they had “street cred.” I winced at this, realizing the truth of his statement and feeling regretful about the shallowness of understanding that could accompany their acceptance—at the same time being pleased that so many had found them so useful. My plea, here, is that readers will remember where the identity status ideas came from and the wealth of theory that underlay, and underlies, them.

Interpretations of the Identity Statures: Studies and Theoretical Place

Once some predictive validity had accumulated for the identity statures and researchers were reasonably assured of their viability, additional variables holding concurrent relationships with the identity statures could be investigated. Concurrent relationships refer to variables that operate in conjunction with one's current identity status. In the two decades following the initial investigations of construct validity described in the previous section, some researchers questioned whether or not different clusters of personality variables (Adams & Shea, 1979; Ginsburg & Orlofsky, 1981) or cognitive variables (Berzonsky & Neimeyer, 1988; Podd, 1972) might be differentially associated with the four identity positions. And, indeed, support was found for many of the hypothesized differences among the statures, providing further evidence of the paradigm's construct validity. Some of these

personality studies are reviewed in the following section.

In the decades of identity status research that followed, investigators have asked questions regarding antecedent and consequent conditions of the various identity statuses. *Antecedent* conditions refer to developmental precursors of identity. For example, what kind of child-rearing practices might be associated with one identity status or another (Adams, 1985; Grotevant, 1983); what are the early memories (reflecting psychosexual stage fixation) of different statuses (Josselson, 1982; Orlofsky & Frank, 1986); what resolutions of prior psychosocial stages are associated with various identity statuses (Kowatz & Marcia, 1991). *Consequent* conditions refer to subsequent developmental implications of the construct. For example, what kind of intimate relationships will persons in different identity statuses establish (Orlofsky, Marcia, & Lesser, 1973; Whitbourne & Tesch, 1985); what kind of child-rearing practices will different identity status persons employ (MacKinnon & Marcia, 2002); what is the impact of different types of identity resolutions at late adolescence upon the resolution of subsequent psychosocial stages (Årseth, Kroger, Martinussen, & Bakken, 2009). Antecedent and consequent conditions could be investigated legitimately only after initial construct validity was established, and examples of some of these studies will also be presented below.

During the second, third, fourth, and fifth decades of identity status research, questions regarding possible gender differences in identity status have also been explored, alongside questions of identity status development and ethnic identity formation. Erikson's (1968) discussions of gender and identity suggested that women may follow different developmental pathways in the identity-formation process as compared to men, and a number of investigations began focusing on possible gender differences in overall identity status distributions as well as on the relevance of various domains used to assess identity status (Goossens, 2001; Rogow, Marcia, & Slugoski, 1983). Investigators also questioned whether or not there might be gender differences in the

actual timing of identity status development, arguing that women's earlier physical maturation might be associated with more advanced identity development compared to men (Kroger, 1997). Questions about the ethnic identity-formation process also appeared (Phinney, 2006; Phinney & Tarver, 1988), alongside questions of identity development both in terms of global identity status changes and in specific identity status domains such as work, politics, religion, and sexuality (Archer, 1982; Fadjukoff, Pulkkinen, & Kokko, 2005). Studies have also been expanding the identity statuses to explore the implications of ruminative identity exploration and of identifying with commitments for ongoing identity development (Luyckx, Goossens, Soenens, & Beyers, 2006; Luyckx, Soenens, Goossens, Beckx, & Wouters, 2008b).

Early in the fifth decade of identity status research, researchers have also begun turning to meta-analytic techniques to examine earlier studies of the identity statuses in relation to selected personality variables, antecedent and consequent conditions, and developmental patterns of change and stability, particularly where some conflicting findings have emerged over preceding decades. Where meta-analyses¹ have been performed, their results will be presented in subsequent sections. Several explanatory points are made here with regard to the studies reviewed below.

As noted, the selected variables that are the subject of the identity status studies reviewed in the following sections can be construed as having a *concurrent*, *antecedent*, or *consequent* focus. These categorizations and some rationale for their relationships to the identity statuses, based upon the theoretical considerations previously outlined, will be discussed. However, two caveats have to be stated. The first is that the rationales proffered here may not be the rationales that all, or any, researchers stated in their individual studies. To the extent that they are not, their discussion here is an instance of theoretical "bootstrapping." That is, theoretical rationales are offered post hoc for studies and findings, when those studies did not necessarily set out clearly to test the theoretical propositions. So, the

rationales offered below are from the perspective of the original theoretical underpinnings of the identity statuses and not necessarily those of the authors' studies. Second, although a variable may "look" or be conceived as developmental, most variables are measured cross-sectionally and not longitudinally. For example, when identity is found to be related to intimacy, one assumes that intimacy is a condition consequent to identity. In fact, because both measures are given simultaneously rather than sequentially over time, the assumed developmental progression lies only in the description of the measures and the theoretical model underlying them, not in the design of the study.

Identity Status and Concurrent Personality Variables

Self-esteem. A number of studies of identity status in relation to self-esteem measures have been undertaken over the past four decades. One problem with self-esteem measures is that they may come from differing theoretical perspectives, so that their meanings are confounded. For example, does a self-esteem test used in one of the studies measure Rogerian real-ideal self-discrepancy, psychoanalytic proximity of observed self to ego ideal, or general "feeling good about oneself." That being said, one would expect the highest self-esteem scores from identity achievements and foreclosures—but for different reasons. Achievements have successfully undertaken an important developmental task; they have "paid their psychosocial dues" by struggling to find meaningful life directions for themselves. Foreclosures may have defensively high self-esteem scores, in attempts to "shore up" their rather rigid and superficial self-concepts and defend themselves against feelings of uncertainty or deficiency. Moratoriums are struggling or stuck and are unlikely to be feeling very good about themselves (depending, of course, on the day you test them, given their high variability). Diffusions will differ according to the nature of their diffusion, but they generally would be

expected to score low on measures of self-esteem, together with moratoriums.

Ryeng, Kroger, and Martinussen (2010a) undertook a meta-analysis of some 18 of 35 studies that provided data on the relationship between identity status and self-esteem measures from the larger identity status database described in footnote 1. These studies were selected because they all used measures of self-esteem that assessed a similar, global self-esteem construct. Among studies that assessed identity status and self-esteem as continuous variables, identity achievement was the only status to have a positive correlation with self-esteem ($r = 0.35$); this correlation is considered moderate in terms of Cohen's (1988) criteria. Among studies that assessed identity status as a categorical variable, the effect size difference between foreclosures and achievements was especially low (Hedges' $g = 0.00$)²; this finding indicated no significant difference in self-esteem scores between identity achievements and foreclosures. Furthermore, the confidence interval for this effect size difference contained zero, indicating a lack of significant difference from zero for the identity achievement–foreclosure comparison. The effect size for the foreclosure–diffusion comparison (Hedges' $g = 0.40$) was small to medium in terms of Cohen's (1988) criteria, and the confidence interval did not contain zero, indicating a significant effect. The following comparisons produced very small or small effect size differences in self-esteem scores: moratorium versus foreclosure (Hedges' $g = -0.19$); achievements and diffusions (Hedges' $g = 0.37$); moratorium versus diffusion (Hedges' $g = 0.07$). Correlational and categorical studies support a relationship between identity achievement and self-esteem; the categorical analyses also support a small to medium relationship between the Foreclosure status and self-esteem.

Anxiety. A number of investigations over the past five decades have also explored the relationships between anxiety and identity status. The theoretical linkages between anxiety and identity status have seldom been provided in these investigations. In general, anxiety measures are behavior checklists about current or abiding

states. Moratoriums, because of their challenging of parental or other authorities, with the attendant oedipal consequences, as well as their discomfort over their indecisiveness, would be expected to score highest on anxiety measures. Foreclosures and achievements would score lower, for the same rationales as noted above for self-esteem. And, again, whether or not diffusions are anxious would depend upon the nature of their diffusion. In general, they would be expected to be close to, but lower than, moratoriums in their scores on anxiety.

Lillevoll, Kroger, and Martinussen (2010a) examined the relationship between identity status and anxiety through meta-analytic techniques. Some 12 of 27 studies of identity status assessed categorically provided useable data on the relationship between identity status and anxiety. Effect size differences in anxiety scores for moratoriums compared with foreclosures (Hedges' $g = 0.40$) were small to moderate according to Cohen's (1988) criteria. Additionally, confidence intervals for the moratorium-foreclosure comparison did not contain zero, which indicates that the difference in anxiety scores was significantly different from zero. Also, of interest were the effect size differences in anxiety scores for the foreclosure-diffusion comparison (-0.41), which was small to moderate in terms of Cohen's criteria and the achievement-moratorium comparison, which was small. Furthermore, the confidence interval surrounding these effect sizes also did not contain zero, indicating significant effects. The effect size for the moratorium versus diffusion comparison (Hedges' $g = -0.01$) was very small, and the confidence interval contained zero, indicating a nonsignificant effect. Results offer some support for the hypothesis that moratoriums have significantly higher anxiety scores than foreclosures and that foreclosures have significantly lower anxiety scores than diffusions.

Locus of control. A number of studies have also explored the relationship between locus of control and identity status in the first decade of identity status research. Because of their self-constructed identity-formation process, identity achievements should have high internal locus of

control scores relative to other identity statuses. Moratoriums, who are currently undergoing a self-examination process, would be expected to rank second to achievements. Foreclosures and diffusions should be more externally oriented, looking to others for their self-definitions.

Lillevoll, Kroger, and Martinussen (2010b) undertook a meta-analysis of identity status in relation to locus of control and identity status. Only five of nine studies provided sufficient information for meta-analysis. Although limitations of the small sample size must be kept in mind when interpreting results, the hypotheses above were partially supported. In terms of Cohen's (1988) criteria, the correlations between identity status and locus of control corresponded to effect sizes that ranged from weak to moderate in the predicted directions. The following mean correlations appeared between identity status and *internal locus of control* measures: For achievements, $r = 0.26$; for moratoriums, $r = -0.17$; for foreclosures, $r = -0.12$; and for diffusions, $r = -0.15$. The following mean correlations appeared between identity status and *external locus of control* measures: For achievements, $r = -0.17$; for moratoriums, $r = 0.17$; for foreclosures, $r = 0.19$; and for diffusions, $r = 0.23$.

Authoritarianism. The rationale for foreclosures scoring highest on authoritarianism was discussed earlier. Moratoriums, in the midst of an authority-questioning process, should score lowest on measures of authoritarianism. Achievements and diffusions would be expected to score intermediate on measures of authoritarianism, whereas foreclosures would score highest of all identity statuses.

Ryeng, Kroger, and Martinussen (2010b) conducted a meta-analysis of the relationship between identity status and authoritarianism. Some 9 of 13 studies contained sufficient data to be included in this investigation. Results confirmed that achievements and moratoriums both scored significantly lower than foreclosures on measures of authoritarianism, and these effect sizes (Hedges' $g = -0.79$ and -0.67 , respectively) were both large in terms of Cohen's (1988) criteria. Furthermore, foreclosures also scored higher than diffusions on authoritarianism measures, and

this effect size (Hedges' $g = 0.42$) was small to moderate, according to Cohen's (1988) criteria. Additionally, none of the confidence intervals for the three effect sizes above included zero, so results can be interpreted as being significantly different from zero. In sum, results provided strong evidence that foreclosures score very high on measures of authoritarianism, relative to the other identity statuses.

Findings here strongly support the hypothesis explored in Marcia's (1966, 1967) original construct validation studies that foreclosures, who based their identities on identifications with important childhood figures, would prefer to follow a strong leader without questioning his or her directions. Foreclosures are theoretically at the dictates of unexamined, internalized standards from parents or significant others. In order to avoid guilt and anxiety, foreclosures would be expected to retain a living situation that closely approximates that of their childhood. Their high authoritarianism scores, relative to all other identity statuses, offer further evidence corroborating the validity of the foreclosure identity status.

Moral reasoning. Kohlberg (1984) developed a stage sequence in the complexity of reasoning surrounding questions of justice in moral decision-making. Pre-conventional stages are marked by responses in which the needs of the self are paramount in considering what is right or just. Conventional stages of moral reasoning reflect decisions about what is right and wrong based on the dictates of the immediate social group or the laws of the larger social context. Post-conventional levels of moral reasoning reflect a consideration of broader ethical principles in deciding what is just; here, that which is just is judged by broader principles that may be agreed upon (and changed) by the community or that are regarded as universal standards, such as the right to life. In terms of the relationship between Kohlberg's stages of moral reasoning and the identity statuses, the same introspective processes that lead to the identity achievement and moratorium positions should lead also to higher levels of reasoning about issues of morality. The almost total lack of real introspectiveness

on the part of diffusions should produce the lowest levels of moral reasoning. And foreclosures, who might be characterized as the standard barriers of the mass culture, would be expected to score primarily at conventional moral reasoning levels.

Jespersen, Kroger, and Martinussen (2010a) undertook a meta-analysis of the relationship between identity status and moral reasoning. A total of 10 out of 17 studies provided sufficient data for further analysis (five studies had categorical assessments of both measures and five had continuous assessments of both measures). Results showed a large mean effect size (odds ratio = 6.85) when the relationship between identity achievement/non-achievement and post-conventional/non-post-conventional levels of moral reasoning was examined.³ However, no relationship was found between the foreclosed/non-foreclosed identity statuses and conventional/non-conventional levels of moral reasoning (odds ratio = 0.90).

For continuous measures of both variables, it was anticipated that there would be a positive mean correlation between identity status and moral reasoning. A moderate correlation, in terms of Cohen's (1988) criteria ($r = 0.31$), was found between continuous measures of identity status and moral reasoning. The limitation of small sample sizes in both analyses must be kept in mind when interpreting these results; however, results partially supported the hypothesized expectations. In sum, the identity achieved was significantly more likely to be reasoning at post-conventional levels of moral reasoning than non-post-conventional levels, and a moderate correlation between identity status and moral reasoning was found.

Ego development. Loevinger's (1976; Hy & Loevinger, 1996) measure of ego development is an instrument designed to assess different levels of complexity in how one makes meaning of one's life and life experiences. The low end of the continuum (preconformist stages) is marked by an organization of the self in which meaning is derived primarily in terms of implications that others and life events have for the self. The conformist stage is marked by the interpretation

of the world in terms of the needs, expectations, and opinions of others. Postconformist stages are marked by increasingly complex organizations that are aware of an inner life, seek to balance the needs of others with the needs of the self, show an increasing tolerance for ambiguity, and a valuing of individuality. Achievements and moratoriums, because of their resolution or proximity to resolution of a psychosocial stage issue, should score highest on this measure, with foreclosures and, especially diffusions, scoring lowest. Although moratoriums may be in a period of feeling badly about themselves or experiencing anxiety, they should score relatively high on this measure that assesses complexity of meaning construction rather than emotional feeling states.

Jespersen, Kroger, and Martinussen (2010b) undertook a meta-analysis of the relationship between identity status and level of ego development. A total of 12 out of 14 studies contained sufficient data to be included in the two analyses. Results from eight studies showed a weak to moderate relationship between identity achievement and postconformist levels of ego development (odds ratio = 2.15). However, no relationship between the foreclosure status and conformist level of ego development was found. Furthermore, results from six studies showed a moderate correlation, in terms of Cohen's (1988) criteria ($r = 0.35$), between continuous measures of identity status and ego development. Limitations of small sample sizes must again be considered in interpreting results. Although some relationship appeared (a) between identity achievement and postconformist levels of ego development and (b) between continuous measures of identity status and ego development, these relationships were not as strong as anticipated.

Identity Status and Antecedent Conditions

Attachment. Attachment styles (e.g., Bartholomew & Horowitz, 1991) refer to expectations of relationship security based upon the internalization of child–parent interactions.

In developmental terms, secure attachment is assumed to be a prerequisite for guilt- and shame-free exploratory behavior. Hence, achievements, who have undergone a successful exploratory period, should be found most frequently in the secure attachment category. Somewhat surprisingly, so might foreclosures—not because they are securely attached, but because they might be defensively reluctant to say anything negative about their relationships with attachment figures. Moratoriums, currently experiencing estrangement from early authority figures, should be lower than the achievements and foreclosures. Diffusions, given previous findings of perceived lack of acceptance by parental figures (Marcia, 1980), should score as the most insecurely attached identity status group.

Årseth, Kroger, Martinussen, and Marcia (2009) undertook a meta-analysis of the relationship between identity status and attachment style. Some 14 of 30 studies provided sufficient data to be included in analysis. Results indicated that the highest mean proportion of secure attachment was found within the identity achieved status (0.55), and the lowest among diffusions (0.23). Only the achieved and diffuse identity statuses did not have overlapping confidence intervals on secure attachment scores, and thus could be said to differ significantly from each other. However, the achieved and foreclosed identity statuses had only marginally overlapping confidence intervals, suggesting a possible difference in the mean proportion of securely attached individuals between these two statuses as well. Mean correlations between identity status and attachment styles were generally weak (ranging from $r = 0.21$ for the relationship between secure attachment and identity achievement through $r = -0.02$ for the relationship between preoccupied attachment and identity achievement). Scores for the achieved and foreclosed identity statuses were, however, positively correlated with the secure attachment style ($r = 0.21$ and 0.10 , respectively); the moratorium and diffusion statuses were negatively correlated with the secure attachment style ($r = -0.14$ and -0.23 , respectively). Results suggest a stronger positive

link between secure attachment and the committed identity statuses than negative link between secure attachment and the uncommitted identity statuses.

Findings from continuous measures of adult attachment and identity status suggest that the concept of “exploration” in adult attachment theory may have a somewhat different meaning than “exploration” in identity theory. Exploration in adult attachment theory generally refers to social, intellectual, and environmental exploration, such as developing new interests, working toward new goals, and traveling (e.g., Hazan & Shaver, 1990). Exploration in identity theory involves active questioning for the purpose of arriving at commitments in individual values, beliefs, and goals (Marcia et al., 1993). In identity theory, exploration is ideally a means to an end, which is commitment. In attachment theory, however, exploration is described as an ideal goal in itself. While the contents of *what* might be explored in the two theoretical approaches may be similar, the *process* of exploration may hold different functions in attachment theory compared with identity theory. Research on adult attachment has often drawn simple parallels between infant and adult exploration (Elliot & Reis, 2003), and a more rigorous conceptualization of adult exploration and its role in adult attachment theory is needed (Hazan & Shaver, 1990).

Identity Status and Consequent Conditions

Intimacy. Erikson (1968) proposed that intimacy versus isolation is the psychosocial stage succeeding, and dependent upon, resolutions to identity versus role confusion. Orlofsky et al. (1973) and Orlofsky and Roades (1993) postulated that there may be qualitatively different styles of intimacy, or intimacy statuses, as there are qualitatively different styles of identity status resolutions. They conducted validation studies and provided construct validity for the following intimacy statuses: The intimate individual is characterized by having close friendships characterized

by depth and openness of communication, as well as an exclusive, committed partner relationship. Pre-intimate individuals share the same openness and depth of communication with friends, but lack an exclusive partner relationship. The pseudointimate individual has relationships with friends that are more superficial in nature, lacking closeness and depth; these features may also be present in some exclusive partner relationships. Stereotyped individuals have relationships with friends that are characterized by the relationship qualities of the pseudointimate; however, the stereotyped individual lacks an exclusive partner relationship. Finally, the isolate may have a few casual associations, but generally withdraws from social situations and contact with others.

In line with Erikson’s (1968) epigenetic theory, the developmental ordering of the intimacy statuses should be closely associated with the developmental ordering of the identity statuses: those with an achieved or moratorium identity status would be more likely to have an intimate or pre-intimate intimacy status than would those with a foreclosed or diffuse identity status. On continuous identity status and intimacy measures, there should be a positive difference between high (identity achieved and moratorium) and low (foreclosure and diffuse) identity status individuals on scale measures of intimacy. To paraphrase Erikson (1968), in order to share oneself with another, one must have a sufficiently secure sense of identity in order not to risk losing oneself in the (temporary) merger that an intimate relationship involves.

Årseth et al. (2009) have also undertaken a meta-analysis of the relationship between identity status and intimacy. Some 21 of 31 studies provided sufficient data for further examination. Results indicated that the mean odds ratio for being in both a “high” (achievement and moratorium) identity status and a “high” (intimate and pre-intimate) intimacy status was significantly higher for men than for women ($p < 0.001$). Some 69% of males in high-exploring identity statuses were also high in intimacy status, whereas only 23% of males in low-exploring identity statuses were high in intimacy status. For women, the pattern was different. Some 65% of high-exploring

identity status women were also high in intimacy status, whereas 46% of low-exploring identity status women were also high in intimacy status. Results from studies using scale measures of intimacy indicated that the mean Hedges' g for men, women, and the combined group (collapsing across gender) ranged from 0.30 to 0.41. This finding represents a small difference between the intimacy scores of those in high- and low-identity status groups (Cohen, 1988).

Results from categorical analyses suggest a positive relationship between identity and intimacy statuses for the majority of men and women, supporting Erikson's (1968) epigenetic conceptualization of personality development. Among women, however, nearly half of women "low" in identity status were also "high" in intimacy status. Although Erikson (1968) does suggest that identity and intimacy may co-develop for women, reasons for the findings obtained empirically require further investigation. The relatively small sample sizes involved in most of the meta-analytic results reported here strongly suggest the need for further studies to examine possible moderator effects of such contextual variables as social climate and other situational factors. The impact of various support systems for identity exploration and consolidation has been examined only infrequently in identity status research, and may be an important issue in understanding the phenomenon of why so many women rated "low" in identity status were also rated "high" in intimacy status. This finding may result from greater relational responsibilities that characterize women's roles in many cultures.

Identity Status and Developmental Patterns of Change

Developmental patterns of change. There has been much discussion in the identity status literature over the past decades about the developmental nature of the identity statuses and whether or not a developmental continuum underlies these statuses (Côté & Levine, 1988; Meeus, Iedema, Helsen, & Vollebergh, 1999; van Hoof, 1999). New research methods now exist that enable

the testing of identity status category orders along a developmental continuum. Al-Owidha, Green, and Kroger (2009) have addressed the preliminary question of whether the identity statuses can be empirically ordered in a theoretically optimal way through the use of Rasch model threshold and scale statistics.⁴ All permutations of Marcia's four identity status ratings, Loevinger's (1976) ego development stage ratings, and Kegan's (1982) self-other differentiation ratings were examined in data from a sample of late adolescent and young adult participants. The optimal identity status category order found was diffusion to foreclosure to moratorium to achievement in two sets of analyses, and diffusion combined with foreclosure to moratorium to achievement in two additional sets of analyses. Results supported the theoretically optimal identity status category order, based on Erikson's (1968) account of the identity-formation process.

Kroger, Martinussen, and Marcia (2010) conducted a meta-analysis of investigations containing longitudinal or cross-sectional data on identity status movement or stability patterns over time (some investigations had more than one study). These 124 investigations were limited to adolescents (13–19 years) and young adults (20–36 years). A total of 72 studies contained sufficient data to be included in these analyses. These 72 developmental studies were further divided into the following types for purposes of meta-analysis (with K indicating the numbers of studies): (1) Longitudinal studies with categorical identity status assessments ($K = 11$); (2) longitudinal studies with continuous identity status assessments ($K = 1$); (3) cross-sectional studies with categorical assessments of identity status ($K = 52$); and (4) cross-sectional studies with continuous assessments of identity status ($K = 9$).

A number of hypotheses were explored with respect to each developmental subgroup. Based on proposals from Waterman (1999), it was anticipated that in Group 1, a preponderance of progressive rather than regressive developmental movements ($D \rightarrow F$, $D \rightarrow M$, $D \rightarrow A$, $F \rightarrow M$, $F \rightarrow A$, $M \rightarrow A$) would occur over time. It was also predicted that there would be movement out of the diffusion and foreclosure statuses and

into the moratorium and achievement statuses. During adolescence and the transition to young adulthood, it was anticipated that the identity development process would begin with foreclosure or diffusion. The years of late adolescence (18–25 years) were predicted to be associated with more transitions through the moratorium status than other age ranges, and moratorium was hypothesized to be the least stable of the identity statuses. The mean time span covered by the longitudinal studies in Group 1 was 3.0 years ($SD = 2.6$ years); 8 of the 11 studies focused on identity status changes over the years of tertiary study, whereas two addressed changes between university study and 18 months–6 years post-university. The final study focused on changes in a sample from the general population between ages 27 and 36 years. Group 1 results generally supported our hypotheses. However, there were also relatively large mean proportions of individuals who remained stable in their original identity statuses over time (0.49). Stability was highest in the committed (foreclosure and achievement) statuses (0.53 and 0.66, respectively). There was also a relatively high mean proportion of individuals who regressed (0.15) in identity status movement over time (i.e., $A \rightarrow D$, $A \rightarrow F$, $A \rightarrow M$, $M \rightarrow D$, $M \rightarrow F$, $F \rightarrow D$).

Unfortunately, the number of studies in Group 2 ($K = 1$) was too small for further analysis. With respect to Group 3 studies, a decrease in the mean proportions of identity diffuse and foreclosed youths was anticipated from mid to late adolescence, alongside an increase in the mean proportions of moratorium and achievement identity statuses. From late adolescence through young adulthood, an initial drop in the mean proportions of identity achieved and moratorium youths was anticipated, followed by a subsequent increase in the mean proportions of these two statuses over time. A concurrent increase in the percentages of foreclosure and diffusion youths was predicted from late adolescence through young adulthood, followed by a subsequent decrease in the mean proportions of these two statuses over time. These hypotheses were generally supported for the patterns of identity development through mid-late adolescence.

From late adolescence through young adulthood, patterns of identity status change were more varied. As predicted, there was an initial drop in identity achievement mean proportions followed by a general increase in identity achievement mean proportions through young adulthood. The moratorium mean proportions peaked at age 19 years (0.42), and then declined thereafter. The mean proportions of youths in foreclosure and diffusion statuses were more varied through the university years, but declined fairly steadily in the 23–29 and 30–36 year age groups.

It was hypothesized that Group 4 studies, where Hedges' g served as the measure of effect size, would evidence a positive difference between younger and older moratorium and achievement scores over time and a negative difference between younger and older foreclosure and diffusion scores over time. Results were in the predicted directions; moratorium and achievement scores did increase over time, while foreclosure and diffusion scores decreased. However, in terms of Cohen's (1988) criteria, all effect sizes were small (identity achievement, $g = 0.17$; moratorium, $g = 0.24$; foreclosure, $g = -0.16$; diffusion, $g = -0.18$).

Considered together, findings from meta-analytic studies of identity status change reviewed in this section generally support the slow, evolutionary process of identity formation that Erikson (1968) proposed some four decades ago. Further consideration, however, must be given to regression in identity status movements and the meanings that various forms of regression may have in the identity-formation process of late adolescence and young adulthood. The fact that approximately 15% of late adolescents participating in longitudinal studies included in these meta-analyses showed some form of regressive movement suggests the need for further understanding of regression and its role in the identity-formation process. Kroger (1996) suggested the possibility of three different types of regressive identity status movements that may reflect different identity-related processes: (a) regressions of disequilibrium ($A \rightarrow M$), (b) regressions of rigidification ($A, M \rightarrow F$), and (c) regressions of disorganization ($A, M, F \rightarrow D$).

Although regressions of disequilibrium may be very adaptive in the ongoing process of identity development once initial identity decisions have been made and re-evaluations are undertaken, regressions of rigidification and regressions of disorganization are likely to be non-adaptive causes for concern. Further research needs to be undertaken to understand conditions that may be associated with each of these three forms of regression, for each process will likely require very different strategies for intervention.

Identity Interventions

Research into intervention methods appropriate for facilitating identity development is in its infancy. In the mid-1980s, Marcia (1986) first described the possible implications that the identity status paradigm held for intervention in educational and clinical settings. He warned against requiring occupational or other major educational decisions in early adolescence, and he made a plea that professional degree programs should provide opportunities for the study and exploration of ideas and values rather than accelerated degree acquisition. Marcia also discussed forms of clinical intervention likely to be effective with individuals in each identity status. Archer (1994) produced the first edited volume that considered the implications of identity and identity status interventions across a wide range of contexts—from psychotherapy to the family, and from ethnic minority adolescents to educational settings. Contributors to that volume reflected on a range of issues essential to intervention programs encouraging identity exploration and self-discovery. However, research on the actual applications of identity and identity status interventions has begun only more recently.

One of the first systematic attempts to assess results of an intervention program aimed to facilitate identity status development in late adolescence was undertaken by Markstrom-Adams, Ascione, Braegger, and Adams (1993). These researchers introduced a short-term perspective-training program aimed particularly at increasing identity exploration. However, their two studies

failed to show significant results, and the authors concluded that it was difficult to promote substantial identity development through short-term intervention programs. These results have been largely re-echoed through various doctoral studies that have attempted to implement short-term strategies to facilitate identity status change (e.g., Edward, 1981; Hall, 1994; Wentz, 1986).

More recently, intervention attempts have targeted areas such as knowledge, attitudes, and exploration/commitment dimensions of identity in marginalized youth. Ferrer-Wreder et al. (2002) examined the impact of a one-semester intervention program for marginalized youth on the specific developmental domains of skills/knowledge, attitudes, orientations, and exploration/commitment dimensions linked to identity. Although immediate intervention gains were apparent, these gains were not well-maintained over time. From these studies, it seems that identity exploration and consolidation requires time and readiness for development to proceed, and short-term intervention efforts (e.g., sessions over the course of several weeks or months) have, in general, not been particularly effective in facilitating long-term identity development.

Very recent attempts have been made to examine implications that the identity statuses hold for intervention by refining definitions of the statuses or the processes of exploration and commitment to consider their interplay with adaptive or maladaptive forms of adjustment. Luyckx and colleagues (e.g., Luyckx et al., 2008a; see Luyckx et al., Chapter 4, this volume) have attempted to understand the association of identity exploration with both openness and distress. They have expanded Marcia et al. (1993) identity status model by adding ruminative exploration as a new identity dimension, alongside exploration in breadth and in depth. They found that ruminative exploration was positively related to identity distress and self-rumination, whereas the two forms of positive, reflective exploration were positively related to self-reflection. They have also differentiated between “carefree diffusion” and “diffused diffusion” statuses. In further research, Luyckx et al. (2008b) discuss some possible counseling

implications from their findings that adaptive and maladaptive levels of perfectionism were differentially linked with new identity statuses. They suggest that clinicians could attend specifically to possible underlying levels of maladaptive perfectionism to reduce dysfunctional identity-formation processes. Common to intervention theory and research to date is the suggestion that differential intervention strategies must be targeted to individuals in each of the distinct identity statuses.

The Identity Statuses in Relation to Other Identity Models

Marcia's (1966; Marcia et al., 1993) identity status model has been one of the earliest and most enduring systematic approaches used by social scientists to examine selected dimensions of Erikson's (1968) adolescent identity-formation concept. Whereas Marcia and colleagues (Marcia et al., 1993) have used such psychosocial domains as occupational, religious, political, family, and sexual values as indicators of global identity status, Skorikov and Vondracek (Chapter 29, this volume) have focused on the occupational domain, alone, to examine occupational identity status patterns of change over time and its associations with other identity domains. Berzonsky (Chapter 3, this volume) uses a social cognitive model of identity to describe three modes by which individuals process, interpret, and make decisions regarding self-relevant information: informational, normative, and diffuse-avoidant. These modes have been strongly linked with Marcia's (1966, Marcia et al., 1993) identity statuses. Waterman (Chapter 16, this volume) uses the two philosophical metaphors of self-construction and self-discovery to address the question of how one knows which, among many identity alternatives, represents the "best choice" in making identity-related decisions. Building upon frameworks of the identity status paradigm and eudaimonistic philosophy, Waterman discusses how these two metaphors contribute to a "well-lived" life. McAdams (Chapter 5, this volume) also draws upon Erikson's (1968)

identity writings to suggest that the configuration of the self is, in fact, a story or narrative that the individual constructs in order to maintain a sense of continuity over time and place. McAdams identifies how life stories can be interpreted in terms of a number of identity themes such as narrative tone, themes of agency and communion, ideological setting, and future script in order to understand the nature of an individual's identity. All of these major contributions to the understanding of lifespan identity development have built upon and expanded dimensions of Erikson's (1968) identity-formation process, articulated over a half century ago.

Conclusions

This chapter has reviewed the ego psychoanalytic origins of Marcia's (1966) identity statuses, as well as the early procedures used to validate the statuses. We have also commented on the meanings that various methods for identity status assessment may hold in relation to interpreting data and in refining Eriksonian theory. The chapter has also reviewed some recent meta-analytic findings regarding a number of the variables that have been examined in relation to the identity statuses over the past 40 years and has commented on some of the developmental patterns of change that comprise the identity-formation process for various groups of adolescents and young adults. A brief history of intervention theory and empirical work aimed at facilitating adolescent and young adult identity development has been undertaken, suggesting that methods must be targeted to individuals in particular identity statuses in order for intervention to be effective. Evidence was also reviewed suggesting that short-term intervention efforts have failed to produce long-term gains. Additionally, recent empirical efforts to refine the identity statuses have been reviewed, and their implications for intervention have been discussed. Marcia's (1966; Marcia et al., 1993) identity status model has provided an enriched understanding of identity-relevant constructs that Erikson (1968) originally identified and defined, as well as a deeper appreciation of

the difficulties and rewards offered by the adolescent and adult identity-formation process. The model continues to be as relevant and important today as it was in years past.

Notes

1. Studies described in the meta-analyses have been drawn from a large database at Univeristy of Tromsø. Using PsycINFO, ERIC, Sociological Abstracts, and Dissertation Abstracts International databases, researches first collected all English language publications and dissertations produced between the years January 1966 and December 2005 that used statistical analyses to provide data on the identity statuses and their patterns of change over time and/or their relationship to at least one additional variable. The following search terms were used: Identity status, identity and Marcia, identity and Marcia's, and ego identity. Dissertations that later appeared as publications were eliminated from further analysis, except where the dissertation could supplement the publication with necessary statistical information. Also eliminated were studies that used the same data, or part of the same data, to address similar questions. Our initial database was comprised of 565 empirical investigations (287 publications and 278 doctoral dissertations) that met these criteria.

A coding sheet was developed for each of these investigations to provide a number of demographic details such as year of publication, type of article (publication or doctoral dissertation), primary themes of study, measure of identity status and its reliability, sample size and gender distribution, mean age and age ranges for study sub-samples, and other sample characteristics. Six graduate students, trained by the first author, coded the variables. From the larger database, 25% of the studies were selected for a reliability assessment of agreement between two coders. For categorical variables, Kappa values ranged from 0.48 to 1.00, and the percent agreement
2. In terms of Cohen's (1988) criteria, Hedges' g effect sizes are defined in the following terms: large, $g = 0.80$; medium, $g = 0.50$; small, $g = 0.30$. Cohen's (1988) criteria for correlational effect sizes are defined as follows: large, $r = 0.50$; medium, $r = 0.30$; small, $r = 0.10$.
3. An odds ratio that deviates from 1 indicates that there is a relationship between the variables. Confidence intervals for an odds ratio that do not contain 1 indicate an average effect size that is different from 1.
4. The Rasch model, used here, enables a non-linear transformation of raw scores (here, category order) to create an interval scale measure of an underlying trait. Rasch model step and scale statistics are applied here to determine an empirically optimal category order for a disputed developmental model (here, Marcia's identity status categories) by examining all permutations of ratings for the four identity statuses in combination with categorical ratings for two models describing related phenomena with a previously determined categorical order: Loevinger's (1976) stages

ranged from 79 to 85%. Pearson's correlations for the remaining continuous variables described above ranged from 0.84 to 1.00. Disagreements were resolved by discussion between or among the coders.

From this initial database of 565 empirical investigations, study themes were examined to identify those containing sufficient data for further examination through techniques of meta-analysis. Meta-analysis is a statistical technique that enables one to combine data from multiple studies for the purpose of identifying a mean treatment effect (or effect size) (Hunt, 1997). Replacing the procedure of narrative literature reviews, meta-analysis holds the advantage of applying objective criteria for study selection and takes into account varying sample sizes as well as the strength of results across studies. Furthermore, meta-analysis is a far more statistically powerful technique compared with narrative literature reviews (Hunt, 1997). All calculations were performed using the software program *Comprehensive Meta-analysis* (Borenstein & Rothstein, 1999).

of ego development and Kegan's (1982) stages of self-other differentiation. While theorists may describe a developmental process based on intuition or logic, Rasch model step and scale statistics enable the researcher to empirically test whether a hypothesized developmental (or category) order yields an adequate and optimal fit to the actual data itself. In the study described here, the Winsteps computer software (Linacre, 2008) was used to determine the empirically optimal category order for Marcia's (1966, 1993) identity statuses. The optimal developmental identity status category ordering was diffusion, foreclosure, moratorium, to achievement in two sets of analyses and diffusion/foreclosure, moratorium, to achievement in the remaining two sets of analyses.

References

- Adams, G. R. (1985). Family correlates of female adolescents' ego identity development. *Journal of Adolescence*, 8, 69–82.
- Adams, G. R., & Shea, J. A. (1979). The relationship between identity status, locus of control, and ego development. *Journal of Youth and Adolescence*, 8, 81–89.
- Al-Owida, A., Green, K. S., & Kroger, J. (2009). On the question of an identity status category order: Rasch model step and scale statistics used to identify category order. *International Journal of Behavioral Development*, 33, 88–96.
- Archer, S. L. (1982). The lower age boundaries of identity development. *Child Development*, 53, 1551–1556.
- Archer, S. L. (Ed.). (1994). *Interventions for adolescent identity development*. Thousand Oaks, CA: Sage.
- Årseth, A. K., Kroger, J., Martinussen, M., & Bakken, G. (2009). Intimacy status in relation to attachment, separation-individuation patterns and identity in female university students. *Journal of Social and Personal Relationships*, 26, 697–712.
- Årseth, A. K., Kroger, J., Martinussen, M., & Marcia, J. E. (2009). Meta-analytic studies of identity status and the relational issues of attachment and intimacy. *Identity: An International Journal of Theory and Research*, 9, 1–32.
- Bartholomew, K., Henderson, A. J. Z., & Marcia, J. E. (2000). Coding semi-structured interviews in social psychological research. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 286–313). New York: Cambridge University Press.
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four category model. *Journal of Personality and Social Psychology*, 61, 226–244.
- Berzonsky, M. D., & Neimeyer, G. J. (1988). Identity status and personal construct systems. *Journal of Adolescence*, 11, 195–204.
- Blos, P. (1974). *On adolescence: A psychoanalytic interpretation*. New York: Free Press.
- Borenstein, M., & Rothstein, H. (1999). *Comprehensive meta-analysis: A computer program for research synthesis*. Englewood, NJ: Biostat.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). New York: Academic Press.
- Côté, J. E., & Levine, C. (1988). A critical analysis of the ego identity status paradigm. *Developmental Review*, 8, 147–184.
- Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52, 281–302.
- Edward, D. A. (1981). Girls' camp cross-age helping: A study of self and situation effects and influences. *Dissertation Abstracts International*, 42(03), 1056A. (UMI No. 8119285).
- Elliot, A. J., & Reis, H. T. (2003). Attachment and exploration in adulthood. *Journal of Personality and Social Psychology*, 2, 317–331.
- Erikson, E. H. (1950). *Childhood and society*. New York: W. W. Norton & Co.
- Erikson, E. H. (1956). *Young man Luther: A study in psychoanalysis and history*. New York: Norton.
- Erikson, E. H. (1959). *Identity and the life cycle. Psychological Issues 1*. [Monograph 1]. New York: International Universities Press.
- Erikson, E. H. (1963). *Childhood and society* (2nd ed.). New York: W. W. Norton.
- Erikson, E. H. (1968). *Identity, youth and crisis*. New York: W. W. Norton.
- Erikson, E. H. (1969). *Ghandi's truth*. New York: W. W. Norton.
- Erikson, E. H. (1987). Psychoanalysis and ongoing history: Problems of identity, hatred, and nonviolence. In S. Schlein (Ed.), *A way of looking at things* (pp. 481–496). New York: Norton.
- Fadjukoff, P., Pulkkinen, L., & Kokko, K. (2005). Identity processes in adulthood: Diverging domains. *Identity: An International Journal of Theory and Research*, 5, 1–20.
- Ferrer-Wreder, L., Lorente, C. C., Kurtines, W., Briones, E., Bussell, J., & Berman, S., et al. (2002). Promoting identity in marginalized youth. *Journal of Adolescent Research*, 17, 168–187.
- Freud, A. (1946). *The ego and mechanisms of defense*. Oxford, UK: International Universities Press.
- Freud, S. (1930). *Civilization and its discontents*. Oxford: Hogarth.
- Freud, S. (1961). *Civilization and its discontents* (Vol. XXI, *The Standard Edition*). London: Hogarth. (Original work published 1930.).

- Ginsburg, S. D., & Orlofsky, J. L. (1981). Ego identity status, ego development, and locus of control in college women. *Journal of Youth and Adolescence*, *10*, 297–307.
- Goossens, L. (2001). Global versus domain-specific statuses in identity research: A comparison of two self-report measures. *Journal of Adolescence*, *24*, 681–699.
- Grotevant, H. D. (1983). The contribution of the family to the facilitation of identity formation in early adolescence. *The Journal of Early Adolescence*, *3*, 225–237.
- Hall, S. E. (1994). The influence of a structured curricular intervention on the identity development of college students. *Dissertation Abstracts International*, *56*(02), 462A. (UMI No. 9517010).
- Hartmann, H., Kris, E., & Lowenstein, R. N. (1946). *Papers on psychoanalytic psychology. Psychological Issues*. Monograph No. 14. New York: International Universities Press.
- Hazan, C., & Shaver, P. R. (1990). Love and work: An attachment-based theoretical perspective. *Journal of Personality and Social Psychology*, *52*, 511–524.
- Hunt, M. (1997). *How science takes stock: The story of meta-analysis*. New York: Russell Sage Foundation.
- Hy, L. X., & Loevinger, J. (1996). *Measuring ego development* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Jespersen, K., Kroger, J., & Martinussen, M. (2010a). *Identity status and ego development: A meta-analysis*. Manuscript in preparation.
- Jespersen, K., Kroger, J., & Martinussen, M. (2010b). *Identity status and moral reasoning: A meta-analysis*. Manuscript in preparation.
- Josselson, R. (1972). *Identity formation in college women*. Unpublished doctoral dissertation, University of Michigan, Ann Arbor, MI.
- Josselson, R. (1982). Personality structure and identity status in women as viewed through early memories. *Journal of Youth and Adolescence*, *11*, 293–299.
- Kegan, R. (1982). *The evolving self: Problem and process in human development*. Cambridge, MA: Harvard University Press.
- Kohlberg, L. (1984). *Essays in moral development: The psychology of moral development* (Vol. 2). San Francisco: Harper and Row.
- Kowitz, A. M., & Marcia, J. E. (1991). Development and validation of a measure of Eriksonian industry. *Journal of Personality and Social Psychology*, *60*, 390–397.
- Kroger, J. (1996). Identity, regression, and development. *Journal of Adolescence*, *19*, 203–222.
- Kroger, J. (1997). Gender and identity: The intersection of structure, content and context. *Sex Roles*, *36*, 747–770.
- Kroger, J. (2007). *Identity development: Adolescence through adulthood* (2nd ed.). Newbury Park, CA: Sage, Inc.
- Kroger, J., Martinussen, M., & Marcia, J. E. (2010). Identity status change during adolescence and young adulthood: A meta-analysis. *Journal of Adolescence*, *33*, 683–698.
- Lillevoll, K. R., Kroger, J., & Martinussen, M. (2010a). *Identity status and anxiety: A meta-analysis*. Manuscript in preparation.
- Lillevoll, K. R., Kroger, J., & Martinussen, M. (2010b). *Identity status and locus of control: A meta-analysis*. Manuscript in preparation.
- Linacre, J. M. (2008). A User's Guide to Winsteps. Retrieved October 2007 from Winsteps.com.
- Loevinger, J. (1976). *Ego development*. San Francisco: Jossey Bass.
- Luyckx, K., Goossens, L., Soenens, B., & Beyers, W. (2006). Unpacking commitment and exploration: Preliminary validation of an integrative model of late adolescent identity formation. *Journal of Adolescence*, *29*, 361–378.
- Luyckx, K., Schwartz, S. J., Berzonsky, M. D., Soenens, B., Vansteenkiste, M., & Smits, I., et al. (2008a). Capturing ruminative exploration: Extending the four-dimensional model of identity formation in late adolescence. *Journal of Research in Personality*, *42*, 58–82.
- Luyckx, K., Soenens, B., Goossens, L., Beckx, K., & Wouters, S. (2008b). Identity exploration and commitment in late adolescence: Correlates of perfectionism and mediating mechanisms on the pathway to well-being. *Journal of Social and Clinical Psychology*, *27*, 336–361.
- MacKinnon, J. & Marcia, J. E. (2002). Concurring patterns of women's identity status, styles, and understanding of children's development. *International Journal of Behavioral Development*, *26*, 70–80.
- Marcia, J. E. (1964). *Determination and construct validity of ego identity status*. Unpublished doctoral dissertation, State University of New York, Buffalo.
- Marcia, J. E. (1966). Development and validation of ego identity status. *Journal of Personality and Social Psychology*, *3*, 551–558.
- Marcia, J. E. (1967). Ego identity status: Relationship to change in self-esteem, "general maladjustment," and authoritarianism. *Journal of Personality*, *35*, 118–133.
- Marcia, J. E. (1980). Identity in adolescence. In J. Adelson (Ed.), *Handbook of adolescent psychology* (pp. 159–187). New York: Wiley.
- Marcia, J. E. (1986). Clinical implications of the identity status approach within psychosocial developmental theory. *Cadernos de Consulta Psicológica*, *2*, 23–34.
- Marcia, J. E. (1993). The relational roots of identity. In J. Kroger (Ed.), *Discussions on ego identity* (pp. 101–120). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Marcia, J. E. (2007). Theory and measure: The identity status interview. In M. Watzlawick & A. Born (Eds.), *Capturing identity: Quantitative and qualitative methods* (pp. 1–15). Lanham, MD: University Press of America.
- Marcia, J. E., & Friedman, M. (1970). Ego identity status in college women. *Journal of Personality*, *38*, 249–262.

- Marcia, J. E., Waterman, A. S., Matteson, D. R., Archer, S. L., & Orlofsky, J. L. (1993). *Ego identity: A handbook for psychosocial research*. New York: Springer.
- Markstrom-Adams, C., Ascione, F. R., Braegger, D., & Adams, G. R. (1993). Promotion of ego-identity development: Can short-term intervention facilitate growth? *Journal of Adolescence, 16*, 217–224.
- Meeus, W., Iedema, J., Helsen, M., & Vollebergh, W. (1999). Patterns of adolescent identity development: Review of literature and longitudinal analysis. *Developmental Review, 19*, 419–461.
- Moshman, D. (2005). *Adolescent psychological development: Rationality, morality, and identity* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Orlofsky, J. L., & Frank, M. (1986). Personality structure as viewed through early memories and identity status in college men and women. *Journal of Personality and Social Psychology, 50*, 580–586.
- Orlofsky, J. L., Marcia, J. E., & Lesser, I. M. (1973). Ego identity status and the intimacy versus isolation crisis of young adulthood. *Journal of Personality and Social Psychology, 27*, 211–219.
- Orlofsky, J. L., & Roades, L. A. (1993). Intimacy Status Interview and rating scales. In J. E. Marcia, A. S. Waterman, D. R. Matteson, S. L. Archer, & J. L. Orlofsky (Eds.), *Ego identity: A handbook for psychosocial research* (pp. 334–358). New York: Springer.
- Phinney, J. S. (2006). Ethnic identity exploration in emerging adulthood. In J. J. Arnett & J. L. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century* (pp. 117–134). Washington, DC: American Psychological Association.
- Phinney, J. S., & Tarver, S. (1988). Ethnic identity search and commitment in Black and White eight graders. *Journal of Early Adolescence, 8*, 265–277.
- Podd, M. (1972). Ego identity status and morality: The relationship between two developmental constructs. *Developmental Psychology, 6*, 497–507.
- Rapaport, D. (1958). A historical survey of psychoanalytic ego psychology. *Bulletin of the Philadelphia Association for Psychoanalysis, 8*, 105–120.
- Rogow, A. M., Marcia, J. E., & Slugoski, B. R. (1983). The relative importance of identity status components. *Journal of Youth and Adolescence, 12*, 387–400.
- Ryeng, M. S., Kroger, J., & Martinussen, M. (2010a). *Identity status and self-esteem: A meta-analysis*. Manuscript in preparation.
- Ryeng, M. S., Kroger, J., & Martinussen, M. (2010b). *Identity status and authoritarianism: A meta-analysis*. Manuscript in preparation.
- Schenkel, S., & Marcia, J. E. (1972). Attitudes toward premarital intercourse in determining ego identity status in college women. *Journal of Personality, 3*, 472–482.
- van Hoof, A. (1999). The identity status approach: In need of fundamental revision and qualitative change. *Developmental Review, 19*, 622–647.
- Waterman, A. S. (1999). Identity, the identity statuses, and identity status development: A contemporary statement. *Developmental Review, 19*, 591–621.
- Wentz, R. T. (1986). The effects of a structured intervention program on identity and divorce adjustment. *Dissertation Abstracts International, 47*(09), 3976B. (UMI No. 8619406).
- Whitbourne, S. K., & Tesch, S. A. (1985). A comparison of identity and intimacy statuses in college students and alumni. *Developmental Psychology, 21*, 1039–1044.



<http://www.springer.com/978-1-4419-7987-2>

Handbook of Identity Theory and Research
Schwartz, S.J.; Luyckx, K.; Vignoles, V.L. (Eds.)
2011, XLII, 998 p. 17 illus. In 2 volumes, not available
separately., Hardcover
ISBN: 978-1-4419-7987-2