PART SEVEN

APPLICATIONS FOR CHILDREN AND ADOLESCENTS

CHAPTER 45

Sentence Completion Measurement of Psychosocial Maturity

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The use of a projective rather than an objective test is justified by the fact that, in this context, [psychosocial] development is taken to mean (or perhaps to reflect) the person’s frame of reference; thus a format requiring the subject to project his or her own frame of reference is preferable to providing a clearly stated set of questions, reflecting the test constructor’s frame of reference.

—Loevinger (1998, p. 30.)

The assessment of psychological and social maturity has attracted increasing attention during the past two decades due to the relevance of these constructs for clinical practice, organizational settings, and research protocols. Yet few psychologically sound instruments have been developed to assess psychosocial maturity. A sentence completion test for measuring maturity in adults was developed by Loevinger and her colleagues: the Washington University Sentence Completion Test (WUSCT; Loevinger, 1985). A version for use with children and youth (ages 8 and older) was recently developed by Westenberg and his colleagues: the Sentence Completion Test for Children and Youth (SCT-Y; Westenberg, Treffers, & Drewes, 1998). Both instruments are based on Jane Loevinger’s theory of ego development, which portrays personality growth as a series of developmental advances in impulse control, interpersonal relations, and conscious preoccupations. Advances in these domains are depicted in terms
of "stages," a term that implies an underlying coherence and structure to personality growth.

The WUSCT and SCT-Y are both scored using empirically based scoring manuals based on research with thousands of respondents. Research has indicated excellent reliability, construct validity, and clinical utility. A critical examination of the scientific status of projective techniques noted that the WUSCT "is arguably the most extensively validated projective technique" (Lilienfeld, Wood, & Garb, 2000, p. 56). The two instruments illustrate how projective measures can (and should) meet rigorous psychometric standards.

This chapter provides an overview of the theoretical and empirical basis of the WUSCT and SCT-Y as measures of psychosocial maturity. The chapter also reviews the practical uses of these measures in clinical and organizational settings.

TEST DESCRIPTION

The WUSCT was originally constructed for use with adults (see Loewinger, 1998); the SCT-Y was recently constructed for use with children and adolescents (Westenberg, Treffers, et al., 1998). Both instruments consist of a sentence completion protocol as well as empirically based scoring manuals with detailed administration and scoring procedures.

Test Protocols and Administration Procedure

The WUSCT contains 36 sentence stems (Table 45.1). Several versions of the instrument have been published since 1970. The most recent version of the test, Form 81, is the form that is currently recommended for use because it served as the basis for the revised scoring manual that was published in 1996 (Hy & Loewinger, 1996; Loewinger, 1985, 1998). The SCT-Y (Westenberg, Treffers, et al., 1998) contains 32 items; these items are also presented in Table 45.1. Twenty-one of the items on the SCT-Y are identical to the items on Loewinger's Form 81 of the WUSCT; five additional items were revised slightly and six items were newly constructed in order to create a form that was appropriate for use with older children and adolescents.

The items of the WUSCT and SCT-Y address a variety of issues, including how respondents perceive and respond to personal relationships (e.g., "My mother and I—"), authority (e.g., "Rules are—"), frustration (e.g., "If I can't get what I want—"), and everyday issues (e.g., "Raising a family—"). The instrument is considered semiprojective because the sentence stems (items) provide respondents with some initial structure while also providing respondents with an opportunity to "project" their viewpoint or frame of reference when completing the sentence stems. These instructions are printed on the top of page 1 of the WUSCT: "Complete the following sentences." The SCT-Y instructs respondents to "Complete the following sentences in any way that you wish." The phrase "in any way that you wish" was added because young respondents frequently ask for additional instructions. If subjects request further information, the administrator should make a nonsuggestive answer, such as "There are no right or wrong answers." Instructions aimed to motivate subjects to show their best selves make it a different test and should be avoided (see the Psychometric Characteristics section).

The WUSCT is printed on two pages: the first 18 items are presented on page 1, and the remaining 18 items are presented on page 2. The SCT-Y is also printed on two pages (16 items on page 1 and 16 items on page 2). Each set of items can be used as an independent short form of the test, although this strategy should be avoided when possible because of reduced reliability (e.g., Drewes & Westenberg, 2001; Novy & Francis, 1992). The use of one test half is not recommended in the assessment of individual clients. Testing individuals requires optimal reliability and stability of test scores.

The WUSCT and SCT-Y have separate forms for males and females (see Table 45.1). For the WUSCT, 30 items are identical on male and female forms (e.g., "When I am criticized—") and 6 items are closely comparable (e.g., Female form: "The worst thing about being a woman—"; Male form: "The worst thing about being a man—"). For the SCT-Y 28 items are identical on both forms (e.g., "If I were in charge—") and 4 items are closely comparable (e.g., Female form: "When I am with a boy—"; Male form: "When I am with a girl—").

The WUSCT and the SCT-Y can be administered individually or in group settings. The instruments can be administered in written format or they can be administered orally. The written format represents the standard administration procedure and it is least likely to be subject to response bias (e.g., subjects seeking to respond in a socially desirable manner). That is, the written procedure fits best with the purpose of the test: to reveal the respondent's frame of reference without distortion that might arise from the presence of the administrator. However, an oral administration, conducted with care, does not appear to distort test scores (e.g., McCammon, 1981; Westenberg, van Strien, & Drewes, 2001). If administered orally, the investigator should abstain from making comments or posing follow-up questions. In other words, the oral procedure should closely mimic the written procedure.

Scoring Manuals and Rating Procedure

Detailed scoring manuals are available for the WUSCT (Hy & Loewinger, 1996) and for the SCT-Y (Westenberg et al.,
### TABLE 45.1 Sentence Completion Measures of Ego Development

<table>
<thead>
<tr>
<th>Washington University Sentence Completion Test (WUSCT; Loevinger, 1985, 1998)</th>
<th>Sentence Completion Test for Children and Youth (SCT-Y; Westenberg, Treffers, et al., 1998)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Page</strong></td>
<td><strong>First Page</strong></td>
</tr>
<tr>
<td>1. When a child will not join in group activities</td>
<td>1. When a child will not join in group activities</td>
</tr>
<tr>
<td>2. Raising a family</td>
<td>2. Raising children</td>
</tr>
<tr>
<td>3. When I am criticized</td>
<td>3. When I am criticized</td>
</tr>
<tr>
<td>4. A man’s job</td>
<td>4. If I were in charge</td>
</tr>
<tr>
<td>5. Being with other people</td>
<td>5. Being with other people</td>
</tr>
<tr>
<td>6. The thing I like about myself is</td>
<td>6. The thing I like about myself is</td>
</tr>
<tr>
<td>7. My mother and I</td>
<td>7. My mother and I</td>
</tr>
<tr>
<td>8. What gets me into trouble is</td>
<td>8. What gets me into trouble is</td>
</tr>
<tr>
<td>9. Education</td>
<td>9. Education</td>
</tr>
<tr>
<td>10. When people are helpless</td>
<td>10. When people are helpless</td>
</tr>
<tr>
<td>11. Women are lucky because</td>
<td>11. When I am afraid</td>
</tr>
<tr>
<td>12. A good father</td>
<td>12. A good father</td>
</tr>
<tr>
<td>13. A girl has a right to</td>
<td>13. My biggest fear</td>
</tr>
<tr>
<td>14. When they talked about sex, I</td>
<td>14. I feel sorry</td>
</tr>
<tr>
<td>15. A wife should</td>
<td>15. When they avoided me</td>
</tr>
<tr>
<td>16. I feel sorry</td>
<td>16. Rules are</td>
</tr>
<tr>
<td>17. A man feels good when</td>
<td>17. Crisis and delinquency could be halted if</td>
</tr>
<tr>
<td>18. Rules are</td>
<td>18. Women (Men) are lucky because</td>
</tr>
<tr>
<td></td>
<td>19. I just can’t stand people who</td>
</tr>
<tr>
<td></td>
<td>20. At times he (she) worried about</td>
</tr>
<tr>
<td></td>
<td>21. I am</td>
</tr>
<tr>
<td></td>
<td>22. A boy (girl) feels good when</td>
</tr>
<tr>
<td></td>
<td>23. My main problem is</td>
</tr>
<tr>
<td></td>
<td>24. Good friends</td>
</tr>
<tr>
<td></td>
<td>25. The worst thing about being a man (woman)</td>
</tr>
<tr>
<td></td>
<td>26. A good mother</td>
</tr>
<tr>
<td></td>
<td>27. When I am with a girl (boy)</td>
</tr>
<tr>
<td></td>
<td>28. Sometimes I wished that</td>
</tr>
<tr>
<td></td>
<td>29. My father</td>
</tr>
<tr>
<td></td>
<td>30. If I can’t get what I want</td>
</tr>
<tr>
<td></td>
<td>31. Usually he (she) felt that sex</td>
</tr>
<tr>
<td></td>
<td>32. For a woman a career is</td>
</tr>
<tr>
<td></td>
<td>33. My conscience bothers me if</td>
</tr>
<tr>
<td></td>
<td>34. My conscience bothers me if</td>
</tr>
<tr>
<td></td>
<td>35. A man (woman) should always</td>
</tr>
</tbody>
</table>

*Note. Some items have male and female forms. The female form is placed in parentheses.*

2000). Both instruments are scored using a two-step procedure: First, each response (i.e., sentence completion) on a protocol is assigned to a developmental level independently of every other response on the protocol. Thus the WUSCT would yield 36 independent ratings and the SCT-Y would yield 32 independent ratings. Second, the distribution of item response ratings is converted into a single total protocol rating (TPR). Both Loevinger and Westenberg provide an algorithm (rule) for converting the distribution of item response ratings into a single TPR (Hy & Loevinger, 1996, pp. 38–39; Westenberg et al., 2000, pp. 77–80). This single TPR represents the respondent’s core level of psychosocial maturity. Alternatively, an item sum score could be used if a continuous rating scale is required for data analytic purposes in the context of a research study.

Assigning each response (sentence completion) to a developmental level is accomplished by using empirically derived scoring manuals. Separate manuals have been constructed for each item (sentence stem). Each scoring manual is composed of verbatim responses that were collected from heterogeneous samples of individuals; each of these responses has been empirically assigned to one of eight developmental levels (see the Test Development section). The “sentence completion” responses that are presented in the scoring manual are not organized haphazardly; rather, the responses are grouped according to the content of the response (e.g., interpersonal, behavioral), which facilitates the rating process.

Raters first seek to determine if a client’s response (sentence completion) is identical (or nearly identical) to the examples that are presented in the scoring manual. Due to the
THEORETICAL BASIS

The theoretical basis of the WUSCT and SCT-Y is provided by Loewinger's conceptualization of ego development. Her conceptualization of ego development was mostly based on sentence completion responses from (young) adult samples (see Loewinger, 1998). Sentence completion data obtained from a large sample of children and adolescents necessitated a revised description to adequately conceptualize ego development in children and youth (Westenberg, Jonckheer, Treffers, & Drewes, 1998).

Jane Loewinger's Conceptualization of Ego Development

Loewinger (1976, 1997) portrays psychosocial maturation as a series of changes in impulse control, interpersonal relations, and conscious preoccupations. Developmental advances in these domains are depicted in terms of stages, a term that implies an underlying coherence and structure to personality. Eight developmental stages have been identified by Loewinger and her colleagues, and each stage (described in the next section) is defined by a characteristic set of capacities (e.g., impulse control) and milestone developments (e.g., a concern with self-evaluated standards). More generally, each developmental stage is defined by a characteristic way of perceiving and responding to the social world. The term ego refers to a "striving to master, to integrate, [and] to make sense of experience" (Loewinger, 1976, p. 59). For Loewinger the "ego" is an abstraction, not an extant structure; thus, she describes the ego informally, referring to it as "a frame of reference" or "lens" through which individuals perceive their world (ego development thus represents a change in one's frame of reference).

Despite its psychometric origins (see the Test Development section), Loewinger's developmental model is often linked to stage theories that have Piagetian origins, such as Kohlberg's (1969) model of moral reasoning and Selman's (1980) model of the growth of social cognition (see Kegan, 1982; Snarey, 1998). Several of these models do indeed show some similarities with Loewinger's stages of ego development. Yet in many respects Loewinger's model does not fit nicely in the cognitive-developmental tradition because it is not a model of cognitive growth or reasoning per se; instead, ego development is primarily concerned with "impulses and methods for controlling impulses, personal preoccupations and ambitions, interpersonal attitudes and social values—what psychologists normally call personality" (Blasi, 1998, p. 15).

Ego Development Stages

Loewinger has identified the milestone achievements that seem to characterize each developmental stage (Loewinger, 1976, 1997). A brief description of these stages is provided here; an overview is presented in Table 45.2.

The first stage depicted by Loewinger is labeled the Impulsive stage (E-2). Individuals at this stage are characterized by aggressive and sexual impulsivity, egocentrism, and the pursuit of immediate desires. Other people are expected to attend to one's needs and desires; frustration is not easily accepted and it is reacted to impulsively. Impulsive individuals are also oppositional and defiant; they view rules as arbitrary and punishment as retaliatory; hence they require external constraints for regulating their impulses. Individuals at the Impulsive stage understand their emotional world (inner life) in simple, somewhat impoverished, terms. Likewise, their social world is typically described in simple dichotomies; for example, people are described as either good or bad, nice or mean. Examples of sentence stems and their completions include: "If I can't get what I want—I get pissed off!"; "A good father—should give his daughter anything she wants"; "A good mother—is nice."

The next developmental stage (labeled the Self-Protective stage, E-3) is characterized by a preoccupation with issues of control, trouble, opportunism, and the manipulation of other people. Relationships are often exploitative and manipulative, an interpersonal style that encourages the Self-Protective person to be punitive and wary of the intentions of other people. Finally, hedonism is paramount during the Self-Protective period, and the easy life is perceived as the good life. Examples of sentence stems and their completions include: "If
TABLE 45.2 Some Characteristics of Ego Development Levels

<table>
<thead>
<tr>
<th>Ego Level</th>
<th>Impulse Control</th>
<th>Interpersonal Mode</th>
<th>Conscious Preoccupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-2. Impulsive</td>
<td>Impulsive</td>
<td>Egocentric, dependent</td>
<td>Bodily feelings</td>
</tr>
<tr>
<td>E-3. Self-Protective</td>
<td>Opportunistic</td>
<td>Manipulative, wary</td>
<td>&quot;Trouble,&quot; control</td>
</tr>
<tr>
<td>E-4. Conformist</td>
<td>Respect for rules</td>
<td>Cooperative, loyal</td>
<td>Appearances, behavior</td>
</tr>
<tr>
<td>E-5. Self-Aware</td>
<td>Exceptions allowable</td>
<td>Helpful, self-aware</td>
<td>Feelings, problems, adjustment</td>
</tr>
<tr>
<td>E-6. Conscientious</td>
<td>Self-evaluated standards, self-critical</td>
<td>Intense, responsible</td>
<td>Motives, traits, achievements</td>
</tr>
<tr>
<td>E-7. Individualistic</td>
<td>Tolerant</td>
<td>Mutual</td>
<td>Individuality, development, roles</td>
</tr>
<tr>
<td>E-8. Autonomous</td>
<td>Coping with conflict</td>
<td>Interdependent</td>
<td>Self-fulfillment, psychological causation</td>
</tr>
<tr>
<td>E-9. Integrated</td>
<td></td>
<td>Cherishing individuality</td>
<td>Identity</td>
</tr>
</tbody>
</table>


I can’t get what I want—I beg and crying works with my father”; “Raising a family—I want my family to obey me”; “A man feels good—when he has fun.”

The fourth developmental stage is labeled the Conformist stage (E-4). This stage is characterized by a concern with social norms and social approval. Individuals at this stage are attentive to the expectations and opinions of other people and believe that everyone is, or ought to be, the same, just as rules apply to everyone. Individual differences in beliefs, personality, and behavior are regarded as inappropriate and undesirable. Social approval is highly valued, while social disapproval is feared and avoided. Note, however, that conformity should not be equated with conventionality: Persons at the Conformist ego level might adhere rigidly to nonconventional norms. Examples of sentence stems and their completions include: “If I can’t get what I want—I look sad and pour”; “Being with other people—is good for everyone”; “A woman should always—be friendly and nice.”

Loevinger’s fifth developmental stage is labeled the Self-Aware stage (E-5). It is characterized by an awareness of being different from other people and of having private feelings, views, opinions, and ideas. This self-awareness is accompanied by a growing appreciation of individual differences among people. Both types of advances represent different sides of the same developmental coin: Increasing self-awareness and examination of inner life is accompanied by an increasing awareness of being different from other people. Distinctions between public and private aspects of oneself are recognized, and there is an increasing belief that it is important to be true to one’s inner self. Individuals at the Self-Aware stage begin to recognize that morality is not absolute and that expectations to the rules are acceptable. Examples of sentence stems and their completions include: “If I can’t get what I want—I fight for it, then I get disappointed”; “A woman should always—be true to what she feels inside”; “A good mother—comes in many different packages.”

The sixth developmental stage described by Loevinger is labeled the Conscientious stage (E-6). The pursuit of self-evaluated standards is one of the hallmarks of this stage, a pursuit that is characterized by a preoccupation with goals, accomplishments, ideals, and issues of conscience. Conscientious individuals are often self-critical and concerned with self-improvement, two traits that again reflect an underlying concern with self-defined goals and self-evaluated standards. Individuals at this stage also display a strong sense of responsibility for their actions and choices in life, as well as the actions and choices of other people. An increasing capacity for psychological awareness and time perspective is also characteristic of this stage. Examples of sentence stems and their completions include: “If I can’t get what I want—I sometimes act immaturely”; “I am—a procrastinator”; “A good mother—loves, cares for, and takes on a great responsibility in raising her children.”

The seventh developmental stage is referred to as the Individualistic stage (E-7). This stage is characterized by a clear sense of personal identity, psychological development, and psychological causation. Individuals at this stage have a complex understanding of personal relationships and the multiple roles that a person may simultaneously have in life (e.g., daughter, mother, spouse, professional). Instead of trying to change oneself and other people to fit an ideal image (a pursuit that is more characteristic of the Conscientious stage) people at this stage also recognize and comment on their own contradictory emotions, motivations, and related inner conflicts. Examples of sentence stems and their completions include: “If I can’t get what I want—I get annoyed or sometimes I resign myself, depends on the situation”; “My mother and I—are probably more alike than I tend to admit”; “I am—emotionally independent and physically dependent.”

The eighth stage is labeled the Autonomous stage (E-8). Individuals at this stage are no longer preoccupied with issues of achievement, goals, or morality; thus, individuals at this
stage are no longer preoccupied with evaluating their own actions and the actions of other people. Indeed, this stage is characterized by a respect for other people's need for autonomy, finding their own way, and making their own mistakes. Individuals at this stage also display an appreciation of life's paradoxes, contradictions, and inconsistencies, an appreciation that gets expressed in existential rather than hostile humor. Examples of sentence stems and their completions include: "My mother and I—love each other enough to respect each other's private life"; "At times she worried about—the future so much she forgot to enjoy the present"; "The worst thing about being a man—is that you can easily come to expect too much of yourself and others."

The ninth and last ego development stage is labeled the Integrated stage (E-9). Loewinger suggests that Maslow's self-actualizing person may best capture the personality characteristics of this stage. Details of this stage are limited because of the rarity of subjects; Loewinger speculates that fewer than 1% of urban residents reach this developmental milestone. She includes this stage in her model (and scoring manual) for theoretical reasons but the details of this stage are not relevant for most clinical practice or research purposes.

Age and Ego Development

Many developmental theories assume a close association between age and developmental advances, as if age is a sufficient condition for development. In contrast, Loewinger's conception of ego development is only loosely related to age. An individual's pace, and extent, of ego development depends on many influences beyond the mere passage of time. Recent studies have identified some of these influences, both environmental and hereditary (e.g., Allen, Hauser, Bell, & O'Connor, 1994; Hauser et al., 1984; Newman, Tellegen, & Bouchard, 1998). Loewinger proposes that age may be a necessary but not sufficient condition for development. Thus within any age cohort (e.g., 22-year-olds) there will be individuals at a range of ego levels. Likewise, across any time period (e.g., 5 years, 10 years) one may find different trajectories of ego development; for example, some individuals may advance from the Self-Protective to the Conformist stage, while other individuals may advance from the Self-Protective to the Conscientious stage (Westenberg & Gjerde, 1999).

Loewinger suggests that ego development "is at once a developmental sequence and [italics added] a dimension of individual differences in any age cohort" (Loewinger, 1976, p. 13). From this perspective ego development can be viewed as a personality typology: Any age cohort will include a range of ego levels and these different ego levels, in effect, represent different types of people. However, it is only a quasi-typology because individuals may mature and, thus, change, moving from one position in the typology to another (Loewinger, 1976). The loose relationship between age and ego level is clearly reflected in Loewinger's scoring manual, which instructs raters to ignore a respondent's age when evaluating the developmental level of a response. The loose association between age and ego level is also reflected in Loewinger's portrayal of ego levels, which are never described in age-specific terms.

To what extent, however, are Loewinger's depiction and measurement of ego development stages truly independent of age? Loewinger and her colleagues relied mostly on adult samples when describing the characteristics of each developmental stage (see Loewinger, 1985, 1993, 1998; Loewinger & Wessler, 1970). The absence of child and adolescent samples raises two critical questions: (1) Can the characteristic descriptions of each ego stage be regarded as truly age-independent, and (2) Can a scoring manual that was derived mainly from adult responses be used to assess the ego level of children and adolescents? Both questions highlight a more fundamental question: What is the "normal" course of ego development from middle childhood through late adolescence, and how can it be measured? Studies conducted by Westenberg and his colleagues address the latter questions.

Ego Development in Children and Adolescents

A sentence completion test for assessing ego development in children and adolescents was recently developed and cross-validated by Westenberg and his colleagues, based on data obtained from more than 2,700 children, adolescents, and young adults, ages 8 to 25 (SCT-Y; Westenberg, Jonckheer, et al., 1998; Westenberg, Treffers, et al., 1998; Westenberg et al., 2000). The scoring manual for the SCT-Y was constructed using the same psychometric procedures employed by Loewinger in the development of her manual for assessing adult development (see the Test Development section). Notably the new scoring manual introduced important changes into our understanding of the characteristic signs of ego development displayed by youth. These changes were most notable at the Impulsive, Self-Protective, and Conformist stages, where children and adolescents display more positive signs of development, and less malignancy, than revealed in Loewinger's studies of adults. The major revisions introduced by Westenberg are described in the following sections.

Impulsive Stage

Unlike adults, children at the Impulsive stage are not characterized by antisocial attitudes, blatant aggression, or the
absence of empathic tendencies. Nor are children at this stage characterized by an oppositional-defiant attitude, as is characteristic of Impulsive adults. Instead, the sentence completion responses of children at this stage show some capacity for prosocial interactions, a receptive attitude toward rules, and a dependent coping style. The latter themes do not typically appear in adult protocols until the Conformist stage of development. For example, the response "When people are helpless—I help" is categorized at the Conformist level in Loewinger's manual, but is one of the most reliable indicators of the Impulsive level in the Westenberg manual. Socially, Impulsive children are also characterized by a preoccupation with impulses; these children also display a tendency to dichotomize their social world (e.g., judging people to be either good or bad, nice or mean). Impulsive children are also characterized by an absence of cognitive complexity, which leads children to reduce abstract ideas to concrete examples. The latter signs of ego development are consistent with Loewinger's description of this stage. Examples of sentence stems and their completions include: "If I can't get what I want—I ask my father"; "My conscience bothers me if—I have done something wrong"; "Being with other people—is doing fun things."

**Self-Protective Stage**

Unlike adults, Self-Protective youths are not characterized by "an outright manipulative and exploitative attitude toward other people." Likewise, interpersonally malignant forms of controlling other people are not characteristic of youth at this stage although, like their adult counterparts, Self-Protective youths are preoccupied with issues of control. Self-Protective youth emphasize self-reliance and self-sufficiency. Self-Protective youth are also characterized by a simple laissez-faire orientation toward independence, believing that everyone should be allowed "to do one's own thing." For example, in response to the sentence stem "When a child will not join group activities—" Self-Protective youth sometimes write: "I don't mind" or "it's up to him." Notably, in Loewinger's scoring manual these responses were empirically located at the Conformist stage, whereas in Westenberg's manual for youth these same responses are empirically located at the Self-Protective stage. Additional examples of sentence stems and their completions include: "If I can't get what I want—I couldn't care less"; "I feel sorry—for poor people"; "A good father—is mine."

**Conformist Stage**

In Loewinger's manual a helpful interpersonal style is attributed to the Self-Aware stage, while in Westenberg's manual for youth this helpful orientation is more characteristic of the Conformist stage. Conformist adults primarily describe interpersonal interactions in terms of actions rather than feelings. In contrast, Conformist youngsters appear to put greater emphasis on feelings rather than concrete actions in specific situations. In addition, Conformist youths are not just geared toward concrete rules in specific situations but are also geared toward more abstract interpersonal norms and values, such as reciprocity and equality. Otherwise, the overlap between Loewinger's and the revised description of the Conformist ego level is considerable. The overlap for the Self-Aware ego level and beyond is almost perfect. Examples of sentence stems and their completions at the Conformist ego level include: "If I can't get what I want—I'm unhappy"; "The thing I like about myself—I like to help others"; "My mother and I—get along with each other."

**TEST DEVELOPMENT**

In principle, sentence completion tests can be constructed by almost anyone: Identify a set of important themes and then draft a set of sentence stems that address these themes. However, the distinguishing feature of an SCT is not the items per se but the validity and reliability of the scoring procedure. It is the latter issue that distinguishes the WUSCT and the SCT-Y from many other sentence completion tests that are currently used in research or clinical practice. Loewinger was trained as a psychometrist and her continued attention to psychometric rigor guided the development of the WUSCT and accompanying scoring manual.

**Washington University Sentence Completion Test**

In their "Recommendations for Building a Valid Projective Technique," Lilienfeld et al. (2000, pp. 55–56) referred to the WUSCT as an exemplar of a psychometrically sound projective test. They argue that a good projective technique should meet three basic criteria: (1) test scores should be based on aggregate scores derived from responses to multiple items (because aggregation "averages out" measurement error), (2) test items should be directly pertinent to the construct being measured, and (3) construction of the instrument should be based on an iterative and self-correcting process. Lilienfeld et al. propose that the WUSCT meets all three criteria: (1) the ego level of a respondent is based on the aggregation of the 36 independent item ratings (32 in the case of the SCT-Y), (2) the items (sentence stems) were selected to reveal a respondent's general frame of reference or ego level, and (3) the construction of the WUSCT, and the description of each ego
stage, is based on a self-correcting process that Loevinger refers to as micro-validation (Loevinger, 1993).

The micro-validation technique lies at the heart of the self-correcting feedback loop linking the measurement of ego development and the evolution of the construct. On the basis of an ingenious feedback loop, Loevinger moved between theory, item selection, scoring manual construction, data, theory revision, instrument revision, new data, and so forth. The WUSCT gradually evolved using this self-correcting process (see Loevinger, 1993). A brief historical account will serve to illustrate the process and the research procedures (for a more elaborate account, see Loevinger, 1993, 1998).

In the 1960s Loevinger and her colleagues investigated an issue that, at that time, received very little research attention: authoritarian and nonauthoritarian child-rearing styles. She concluded that authoritarianism was not the low point on a developmental continuum (as was believed at that time) but, rather, a midpoint on a developmental scale that ranged from a chaotic and impulsive parenting style to a more democratic and flexible approach to child rearing. This conclusion was based on a mixture of clinical insights and research findings. Additional findings led Loevinger to conclude that she was inadvertently measuring a construct that was much broader in scope than her original target (i.e., child-rearing style). She labeled this variable ego development because it appeared to encompass many of the divergent but interrelated aspects of the self: moral development, interpersonal relations, and conceptual complexity.

The sentence completion technique was selected because it could elicit responses that were relevant to all aspects of ego development and still yield a profile of scores suitable for psychometric analyses. Initially Loevinger and her colleagues constructed a broad pool of items (sentence stems) to employ in the sentence completion measure; responses were assigned to a developmental level using a quasi-stage model proposed by Sullivan, Grant, and Grant (1957). Sullivan et al. had proposed four levels of "interpersonal maturity and interpersonal integration": Impulsive, Conformist, Conscientious, and Autonomous. Loevinger initially derived individual item ratings and total protocol ratings based on the conceptual similarity between a sentence completion response (or protocol) and the description of each stage provided by Sullivan et al. Sentence completion responses that were conceptually similar and rated at the same ego level were grouped into a single response category. (The current scoring manual consists of over 2,000 response categories.)

Next, Loevinger employed her micro-validation procedure: Taking base rates into account, she determined if a response category that had been intuitively assigned to a developmental level was empirically more likely to appear at that level compared to any other developmental level. Based on this feedback loop, Loevinger adjusted the stage location of response categories, providing her scoring manual and developmental model with a rare empirical grounding (Westenberg employed this identical procedure when constructing his manual for youth). Finally, an algorithm was devised to convert the profile of 36 item ratings into a total protocol rating (this algorithm is often referred to as the "ogive rules" in published papers).

The resulting scoring manual was cross-validated and refined in successive studies spanning a 25-year period, involving approximately 2,800 respondents. "There was a long period of mini-experiments, for example, trying different sentence stems, different arrangements of items, different lengths of the test" (Loevinger, 1998, p. 7). The initial version of the WUSCT was published in 1970 (Loevinger & Wessler, 1970), a revised version of the test protocol was published in 1985 (Loevinger, 1985), and the revised version of the scoring manual was published in 1996 (Hy & Loevinger, 1996; Loevinger, 1998).

The process of micro-validation and the resulting feedback loop enabled Loevinger to empirically modify the ego development construct itself. Thus Sullivan et al.'s (1957) four-stage model was initially expanded to a five-stage model when Loevinger's micro-validation procedure revealed another developmental stage: the Self-Protective stage (emerging between the Impulsive and Conformist stages). Eventually Loevinger's research identified eight developmental stages, currently assessed using the revised scoring manual that was published in 1996.

### Sentence Completion Test for Children and Youth

The most recent advance in the measurement of ego development was the construction and publication of the SCT-Y (Westenberg, Treffers, et al., 1998). As noted earlier, the scoring manual for the WUSCT was constructed primarily on the basis of adult responses; at least 85% of Loevinger's "manual construction" sample was older than age 16. In contrast, Westenberg's manual construction sample was mainly comprised of children and adolescents (approximately 65% of the participants were age 16 or younger). The youthful composition of Westenberg's sample was essential for developing a valid scoring manual for children and adolescents; it was also essential for revealing genuine signs of ego development during childhood and adolescence. The negative tone that is often associated with adult protocols at low ego levels may be due, in part, to the fact that low-level adults are delayed in their development, a delay that has been associated with various forms of adult psychopathology (see the Use in Clinical
and Organizational Practice section). Hence it is likely that
Loevinger’s portrayal of the earliest ego development stages
is not characteristic of children and adolescents at these same
stages.

Westenberg and his colleagues sought to develop a scoring
manual that was specifically constructed for assessing ego
development in youth. Toward this end he initiated a large
research project involving more than 2,700 participants, all
of whom completed a revised version of the WUSCT. Ap-
proximately 80% of the responses generated by Westenberg’s
sample could be rated (i.e., assigned to a developmental level)
using Loevinger’s manual. However, Westenberg’s own man-
ual construction and micro-validation revealed that approxi-
mately 50% of these ratings had to be corrected; that is, the
response categories had to be reassigned to a developmental
stage that was different than the one indicated in Loevinger’s
manual (Westenberg, Jonckheer, et al., 1998). The majority
of changes involved reassigning response categories that
were empirically located at the Conformist ego stage in the
Loevinger manual to the Self-Protective or Impulsive ego
stage in the scoring manual for the SCT-Y. For example,
some responses indicating unrestrained emotions dropped
from the Conformist level to the Impulsive level (e.g., “If I
can’t get what I want—*I get angry*”). This change appears
to be consistent with the Loevinger description of the Impul-
sive person and, therefore, strengthens the connection be-
tween the theory and the measure. Similar downshifts at first
seemed inconsistent (e.g., “When people are helpless—*I help
them*” dropped from Conformist to Impulsive), but in the end
fit well in a more balanced description of the Impulsive ego
level in youths.

New response categories constructed on the basis of the 20% unratable responses also emerged mostly at the lowest
ego levels. Thus, the downshift of response categories and
the addition of new categories resulted in a more detailed
scoring system for the lowest ego levels and contributed to a
more balanced and “normal” picture of the earliest three
ego levels (see the Theoretical Basis section). The downshift
of response categories to the Impulsive and Self-Protective
go stage is attributed to the greater number of low-level
individuals in the normative samples. The revision of the
WUSCT scoring manual was based on responses obtained
from 67 pre-Conformist individuals; the SCT-Y scoring
manual was based on responses obtained from 1,141 pre-
Conformist individuals. The importance of the sheer number
of low-level subjects was anticipated by Loevinger (1993):
“If there are almost no cases at the extremes, one will never
be able to verify what responses belong there. Responses typ-
ical for extreme cases will occur occasionally at median lev-
eels and, if there are few or no extreme cases, be wrongly
assigned there” (p. 9). It may therefore be concluded that the
scoring manual for the SCT-Y provides a more sensitive and
accurate measure of ego development in adolescents and chil-
dren over 8 years of age.

PSYCHOMETRIC CHARACTERISTICS

Psychometric studies of the WUSCT and SCT-Y invariably
report high levels of interrater reliability. Perfect interrater
agreement per item averages about 85%, and interrater agree-
ment within one stage (i.e., disagreement not larger than one
stage) is often close to 95% (e.g., Cohn, 1984; Drewes &
Westenberg, 2001; Westenberg & Gjerde, 1999). Westenberg,
van Strien, et al. (2001) reported an average kappa of .80
(p < .001). The WUSCT and SCT-Y also display high in-
ternal consistency: Most studies report a Cronbach’s alpha of
.90 or higher (e.g., Loevinger, 1998; Novy & Francis, 1992;
Westenberg et al., 2000). In addition, a principal component
analysis showed only one major component, another dem-
stration of the supposed unity of the test.

Several studies suggest that the split-half reliability of the
WUSCT and SCT-Y is about .80, and, if disattenuated for
the greater unreliability of the two test halves, the correla-
tion between the two halves approached unity (e.g., Novy
& Francis, 1992; Westenberg et al., 2000). Test-retest reli-
ability of the WUSCT and SCT-Y is also high, and test-retest
correlations are often about .80 (e.g., Jurich & Holt, 1987;
Westenberg et al., 2000). Interrater agreement, internal con-
sistency, and test-retest stability also appear adequate when
the WUSCT or SCT-Y are administered to clinical popula-
tions (e.g., Weiss, Zilberg, & Genevro, 1989; Westenberg,
Siebelink, Warmenhoven, & Treffers, 1999).

Several studies have examined the sensitivity of ego level
scores to changes in the administration of the instrument or
accompanying instructions. Most studies used the same gen-
eral design: one half of the items were presented in the stan-
dard mode, the other half were presented in the modified
mode (i.e., split-half within-subjects test-retest design). In
general, findings suggest that the oral administration of the
WUSCT or SCT-Y does not appear to affect the assessment
of a respondent’s ego level, regardless of the respondent’s age,
gender, reading and writing skills, IQ, and preference for ei-
ther presentation mode (see McCammon, 1981; Streich &
Swensen, 1985; Westenberg, van Strien, et al., 2001), at least
not when administrator and respondents were in direct con-
tact. However, when the WUSCT was administered as part
of a telephone interview, then the oral mode did yield sig-
nificantly lower ego level scores (Hansell, Sparacino, Ronchi,
& Strodtbeck, 1985). Additional research needs to confirm
that the demand characteristics of a telephone interview negatively affect ego level scores.

Some studies instructed respondents to "be candid" or present a "good face" (Blumenritt, Novy, Gaa, & Liberman, 1996; Drewes & Westenberg, 2001; Jurich & Holt, 1987; Redmore, 1976). In these studies, participants were administered one half of the items after receiving the standard instructions ("Complete the following sentences"); participants then completed the remaining items after being instructed to "be candid" or "make a good impression." In principle, such instructions should not influence the assessment of ego level because their meaning is partially shaped by one's developmental level. That is, the instructions were not conceptually relevant to the assessment of ego level. Several studies suggest that such instructions do not appear to influence ego level ratings (e.g., Drewes & Westenberg, 2001; Redmore, 1976).

In contrast, three other types of instructions, each with conceptual relevance to ego level, had a modest but significant impact on ego level scores. In one study, Blumenritt et al. (1996) asked respondents to complete their second administration of the WUSCT in the most complex and thought-provoking way. In related research, Redmore (1976) and Blumenritt et al. (1996) obtained ego level scores from respondents under standard assessment conditions; participants were then provided with brief descriptions of each ego stage and instructed to complete the sentence stems as they would be completed by a person at the highest ego levels. Finally, Drewes and Westenberg (2001) instructed respondents to complete sentence stems in an adult and mature a manner as they could. In each study, the modified instructions had a modest positive (and predicted) effect on ego level scores, although the average increase was no more than one half a stage.

In line with Vygotsky's (1978) notion of a proximal zone of development, Drewes and Westenberg (2001) interpreted the increased ego level scores, obtained under conceptually relevant instructions, as an indication of optimal ego level, whereas the performance under the standard instructions reflected a person's functioning ego level (for the distinction between optimal and normal functioning, see also Lamborn, Fischer, & Pipp, 1994). The developmental psychologist's distinction between functional and optimal ego level resonates with the psychometrician's distinction between "characteristic" versus "maximum" performance (Jackson, 1993).

**RANGE OF APPLICABILITY AND LIMITATIONS**

The sentence completion method should probably not be used with children younger than age 8, although 6-year-olds have produced meaningful responses to the SCT-Y when the instrument was presented orally. By about age 8 or 9, most children are capable of writing down their own sentence completions. If children are not capable of writing responses (e.g., due to paralysis) then the oral presentation of the stems (and subsequent transcription of responses) does not seem to distort ego level scores (Westenberg, van Strien, et al., 2001). If the testing situation permits, it might be good testing practice to ask children ages 8 through 11 if they would prefer the written or oral format, because a slight advantage was noted for young respondents who indicated a preference for an oral presentation (Westenberg, Van Strien, et al., 2001). No studies have examined if there is an upper age limit beyond which the WUSCT should not be administered. The WUSCT has been administered to individuals older than age 70 (e.g., Labouvie-Vief, Hakim-Larson, & Hobart, 1987).

The WUSCT and SCT-Y have demonstrated incremental validity over measures of intelligence and cognitive development. It is doubtful, however, that SCTs are meaningful tools for assessing personality development in individuals with very low verbal ability and low mental capacities. In our own research we have not recruited individuals with IQ scores lower than 70.

The WUSCT and the SCT-Y can be administered individually or in group settings. Individual administration will be most typical in clinical or assessment settings, while group testing will be typical of research settings. During group administration respondents should not discuss their responses nor look at anyone else's responses. Group administration should be conducted using the standard written procedure. Individual administration of the WUSCT or SCT-Y could be conducted in either a written or oral format (assuming the test administrator refrains from making comments and asking follow-up questions). Mail or telephone administration procedures are not typically advised. Mail procedures do not allow for the direct supervision needed to ensure an uninterrupted and independent completion of the sentences, and one study indicated that a telephone administration yielded significantly lower ego level scores (Hansell et al., 1985).

The WUSCT and SCT-Y can be administered in the context of a larger assessment battery; however, the sequencing of instruments should be planned carefully, for at least two reasons. First, sentence completion responses might be influenced by the content of other personality questionnaires or interviews. Second, most respondents find completing sentence stems to be a novel task, requiring more effort and motivation than multiple-choice surveys and related questionnaires. Therefore, the SCT should be one of the first and not one of the last instruments to be completed.
CROSS-CULTURAL ISSUES

In principle, the SCT method is suitable for individuals from virtually any culture or country because the sentence stems refer to universal issues (e.g., “Raising a family—”) and social interactions (e.g., “My mother and I—”). Studies in at least 11 non-English-speaking countries support the cross-cultural value and applicability of the ego development concept, measure, and scoring procedure (see Carlson & Westenberg, 1998). Cultural adaptations of the measure have been used to examine the relationship between ego development and numerous variables: achievement motivation and economic development (Papiamentu, Curacao), models of achievement in women (Norwegian, Norway), professional training activities (French, Quebec), effects of trauma (Hebrew, Israel), personality correlates of corporate subcultures (Japanese, Japan), the subcultural aspects of academic disciplines (Portuguese, Portugal), religion and caste (Kannada, India), fluency among bilinguals (Vietnamese, United States), psychosocial process correlates of various psychiatric diagnostic groups (German, Germany), and normal fears and anxiety disorders (Dutch, the Netherlands). The English version of the instrument has also been used in the United States with ethnically diverse populations, such as Puerto Rican, Vietnamese, and African American groups. (See Carlson & Westenberg, 1998, for the references to these and other cross-cultural studies.)

Findings obtained from studies conducted outside of the United States are similar to the findings obtained from studies conducted within the United States. These studies provide support for the cross-cultural applicability of the ego development construct. However, several linguistic and cultural issues arise when administering the WUSCT to non-U.S. populations, and test administrators should be cognizant of these issues. For example, Dhurvaragan (1981) and Hy (1986) note that the English language offers relatively few ways of encoding social standing, whereas this social attribute is central to several other languages. In Vietnamese several different pronouns can be used to signify “the self” and each of these terms contains different information related to the social characteristics of the speaker, the addressee, and their relationship (Hy, 1986). Notably, English makes no such distinctions. Thus the English word for “I” is not easily translated into Vietnamese because information about the social attributes of the individual is missing. In related research, Kusatsu (1977) observed that the response category “The thing I like about myself is—nothing at all” was most characteristic of the Self-Aware ego level (E-5) in Japan, whereas this response is classified at the Impulsive level (E-2) in the American scoring manual. Kusatsu (1977) argued that “this is because of the Japanese norm of humiliation of the individual ego” (p. 66). To adequately deal with such cultural differences, Sasaki (1981) developed a Japanese scoring manual. It is unclear, however, whether they have used the micro-validation procedure described earlier.

ACCOMMODATION FOR POPULATIONS WITH DISABILITIES

For most respondents, completing the SCT is not a difficult task. If respondents are unable to write their own responses, then the oral administration of the sentence stems (and subsequent transcription of responses) may be appropriate, provided that the oral procedure mimics the written procedure. Limited experience with sign language indicates that it can replace the written or oral procedures, provided that great care is given to the issues of notation, interpretation, and reliability.

LEGAL AND ETHICAL CONSIDERATIONS

The WUSCT and the SCT-Y have strong psychometric properties. When these instruments are administered and scored properly they yield reliable and valid assessments of ego level. In clinical and organizational settings, however, neither instrument should be used as the sole assessment technique. These measures should always be used in conjunction with other assessment procedures in order to obtain a clear and accurate clinical picture. The more serious the implications of the client’s evaluation, the more one would want corroborating information before speaking strongly from the data. Clinicians might utilize interview procedures and other tests for particular characteristics that are key to different ego levels. One should also check the degree to which the description of the ego level as assessed from the SCT is met with agreement and examples from persons who are close to the client. The WUSCT and the SCT-Y have not yet been evaluated for the purposes of forensic psychology and should therefore be used with great caution in such contexts.

Another ethical consideration concerns “informed consent” and how much information is needed to qualify as “informed.” The standard instructions accompanying both instruments (e.g., “Complete the following sentences”) are intentionally vague, prompting respondents with no information about the actual purpose of the test. Jurich and Holt (1987) argued that it would be “ethically desirable . . . to be direct rather than mysterious or devious about what one is trying to do with a test, if it is not necessary to be vague or indirect in order to
obtain valid measurement” (p. 193). In most testing situations it will be sufficient to explain the purpose of the test by saying “that it is a way to understand your ideas (or your child’s) on different topics and the way you see your world.” In our experience most people understand those concepts easily enough, even most children. If the testing situation or client requires more specific information about the purpose of the test, one might add that the test “will help us understand your maturity (or your child’s), and explain that you would see things differently now than when you were much younger.” Clinical experience and research has indicated that such an introduction has hardly any effect on ego level scores (see the Psychometric Characteristics section).

When administering the WUSCT or SCT-Y in clinical practice or organizational settings, one should always consider the possibility that the client or his legal caretaker or representative might demand access to the item ratings, total protocol rating, or written interpretation of these scores.

**COMPUTERIZATION**

No computerized scoring system is available to rate the WUSCT or SCT-Y. The development of computerized scoring systems has been attempted by several investigators but to date no program has proved to be valid and reliable. Attempts to develop such programs have failed to make the subtle distinctions between scoring categories that sometimes distinguish one ego level from another. In other words, scoring the protocols has to be completed by trained raters (see the Test Description section). The final step in the scoring process, the conversion of the profile of 36 (or 32) item ratings into a total protocol rating by means of the ogive rules, could be computerized, because the ogive rules are “automatic” (see Hy, 1998).

**CURRENT RESEARCH STATUS**

By the early 1990s more than 300 empirical studies had employed the WUSCT (the SCT-Y was only recently developed and cross-validated and thus lacks a similarly large research base). The scope of this chapter does not permit a comprehensive review of these studies, and a few critical reviews have been published elsewhere (Cohn, 1991; Hauser, 1976, 1993; Loevinger, 1979, 1998; Manners & Durkin, 2000; see also Westenberg, Blasi, et al., 1998). Here we will only review the empirical evidence addressing a number of critical assumptions underlying the ego development construct.6

First, Loevinger, Westenberg, and other investigators maintain that ego development represents a single developmental continuum. Thus the sentence completion test should measure only one dimension. Several studies support this contention, including (1) the results of homogeneity and factor analyses (see Loevinger, 1998; Westenberg et al., 2000), and (2) the failure to identify separate subsets of items measuring distinct aspects of ego development (e.g., Blasi, 1971; Lambert, 1972).

Second, the current model of ego development also assumes sequentiality; that is, the model assumes that there is an invariant sequence of stages that individuals must traverse in the order proposed. Loevinger (1998) grouped the evidence for sequentiality into four categories: (1) evidence from cross-sectional studies in which ego level is correlated with age and educational grade (see Cohn, 1998); (2) evidence from longitudinal studies, in which individuals display significant gains between Time 1 and Time 2 testings (cf. Cohn, 1998); (3) evidence of asymmetry of comprehension (i.e., individuals can be prompted to produce SCT protocols that are scored lower than their own ego level, but individuals cannot be prompted to produce protocols that are scored higher than their own ego level; e.g., Redmore, 1976); and (4) evidence obtained from theory-relevant interventions that seek to foster development (see Cohn, 1998; Manners & Durkin, 2000).

A third assumption underlying the proposed model concerns individual differences: Specifically, within any cohort of individuals there should be a range of ego levels; likewise, within any age range (e.g., ages 10 to 20) there should be a variety of developmental trajectories, with some individuals displaying greater development than other individuals (perhaps due to different social experiences that may act as pacers for development). Cross-sectional studies have demonstrated the expected variety of ego level scores within age cohorts, and longitudinal studies have illustrated a range of ego level trajectories (e.g., Gelfner, 1986; Hauser, Powers, & Noam, 1991; Westenberg & Gjerde, 1999). For example, WUSCT data collected at age 14 and then again at age 23 years revealed that some precocious teenagers (as measured by scores on the WUSCT) do not mature into precocious adults, whereas some teens who displayed average or even below average ego levels achieved atypically high WUSCT scores at age 23 (several additional trajectories were also revealed; Westenberg & Gjerde, 1999). In their repeated measures longitudinal study tracking adolescents from ages 14 to 18, Hauser and colleagues operationally define specific ego development trajectories (e.g., progressive, regressive, profound arrest) based on ego stage scores shown by these adolescents over successive 3- and 4-year periods. They report, and describe in detail, individuals illustrating these varied ego development patterns (Hauser et al., 1991). Moreover, the various trajectories are
not without consequence. It has been demonstrated, for example, that arrested ego development trajectories in adolescence are associated with insecure attachment in young adult years (Hauser, Gerber, & Allen, 1998).

A fourth assumption, directly related to the third one, is that ego levels represent a personality typology; that is, ego development represents a dimension of individual differences within a given age cohort. The bulk of the research addressing this issue provides strong support for this contention: Ego level is related to a host of other variables, even when controlling for age of respondent. Ego level was predictably related to personality types (John, Pals, & Westenberg, 1998), individual differences in personality (e.g., Westenberg & Block, 1993; for an overview, Pals & John, 1998), attachment representations (Hauser, Powers, et al., 1998), psychological maturity (Helson & Wink, 1987; McCrae & Costa, 1980), emotion expression (Hauser & Safyer, 1994), psychosocial and moral development (Adams & Fitch, 1983; Gelflener, 1986; Snarey, 1998), identity development (Adams & Fitch, 1983; Blasi, 1988), coping and ego resiliency (Hauser, Borman, Bowlds, et al., 1991; Hauser, Borman, Jacobson, Powers, & Noam, 1991), successful adaptation after divorce (Bursik, 1991), depression and suicide (Borst & Noam, 1993; Borst, Noam, & Bartok, 1991; Rierdan & Koff, 1991, 1993), social fears and anxiety disorders (Westenberg, Drewes, Goedhart, Siebelink, & Treffers, 2003; Westenberg et al., 1999; Westenberg, Siebelink, & Treffers, 2001), delinquency and antisocial behavior (Frank & Quinlan, 1976; Noam et al., 1984; Novy, Gaa, Frankiewicz, Liberman, & Amerikaner, 1992), interpersonal style and peer relations (Hansell, 1981; Hauser, 1978), risk taking (Kishon, Starrett, & Lucas, 1984; Philliber, Namerow, Kaye, & Kunkes, 1986), parental style and family contexts (e.g., Adams & Jones, 1981; Allen et al., 1994; Hauser et al., 1984), managerial performance (Fish & Torbert, 1991; Torbert, 1989, 1994), self-image complexity (Hauser, Jacobson, Noam, & Powers, 1983), and various other variables (see Westenberg, Blasi, et al., 1998).

In addition to the many concurrent relations between level of ego development and a host of other variables, studies directed by Hauser, Allen, and Crowell have indicated several prospective relations. In their ongoing long-term longitudinal studies of normative and clinical (psychiatrically impaired) adolescents, ego development is studied in terms of specific stage-predictors as well as individual-based ego development trajectories (Hauser et al., 1998). In these studies ego development is viewed as an indicator of the adolescent’s capacity to integrate and balance needs of self and others in a way that permits the establishing of autonomy and maintaining relationships in interactions. Using this perspective and longitudinal approach, this research group finds clear threads of continuity from adolescent ego development to functioning in social relationships over the following 20 years. Low levels of ego development in adolescence are related to individual’s hostility as reported by peers (e.g., failures of relatedness) and to lower levels of dating assertion (e.g., failures of autonomy) of our participants at age 25 (Allen, Hauser, & Borman-Spurrell, 1996). Similarly, ego development at age 14 predicted maturity in close relationships, over and above concurrent effects of attachment security, thus suggesting that each construct was making an independent contribution to close relationship functioning (Schultz & Selman, 1998). By age 35, low levels of adolescent ego development predict low levels of trust and greater distress in marital relationships and greater parenting stress in parents of 18-month-olds. In addition, these new studies reveal strikingly lower levels of perceived parenting competence when parenting 36- to 54-month-olds associated with lower levels of adolescent ego development ($r = .54; p < .01$).

While the effects of adolescent psychopathology may in part be mediated by low levels of ego development, there is evidence that a number of the effects of adolescent ego development exist in addition to the predictive effects of severe adolescent psychopathology. For example, adolescent ego development is a stronger predictor of adult attachment coherence (a prime marker of secure adult attachment organization at age 25 than is prior psychiatric hospitalization, suggesting an important continuity in underlying developmental processes that exists (at least in part) independently of manifest psychopathology (Hauser et al., 1998). Consistent with these predictions of ego development to later markers of social functioning, both ego development at age 14 and a lack of ego development from ages 14 to 25 were strongly predictive of marital distress at age 35, after accounting for the effects of adolescent-era psychopathology ($beta$ for ego level $= -54; p < .001$).

Finally, all psychological tools need to demonstrate incremental validity over already existing instruments and concepts. The WUSCT and SCT-Y have demonstrated incremental validity over age as the primary marker of development and have also displayed incremental validity over IQ and socioeconomic status (SES) in the prediction of other variables (e.g., Browning, 1987, Cohn, 1991; Westenberg & Block, 1993). A recent meta-analysis of more than 40 studies including approximately 4,700 participants reported that the weighted average correlation between ego level and (verbal) intelligence ranged from .20 to .34 (Cohn & Westenberg, 2003). The meta-analysis also included 16 studies (and 25 statistical tests) of the incremental validity of ego level scores over and above intellectual ability: 92% of the tests of incremental validity revealed significant relations between ego
level and a host of criterion variables after statistically removing the influence of (verbal) intelligence. For example, in a sample of twins reared apart, Newman et al. (1998) showed that ego development scores have a considerable genetic basis even after controlling statistically for intelligence (the heritability estimate is about 50% after controlling for IQ).

USE IN CLINICAL AND ORGANIZATIONAL PRACTICE

The WUSCT and SCT-Y have demonstrated good psychometric properties when used with clinical populations (see the Psychometric Characteristics section). Studies also reveal that many variables with clinical relevance are related to ego level (see the Current Research Status section). Research also suggests that respondents cannot typically “fake” a higher ego level (unless they are well versed in the ego development concept; see Psychometric Characteristics). The research status of the WUSCT and SCT-Y allows for the question of how these instruments can be used in clinical and organizational practice. Three categories of practical uses are explored.

1. The client’s or employee’s interpersonal frame of reference. As was previously noted, the WUSCT and SCT-Y provide access to a client or employee’s core frame of reference or psychosocial “lens”; that is, these instruments provide insight into how individuals perceive themselves and other people in relationships and social interactions. Such insight can be quite important because it facilitates a better understanding of clients and employees and may contribute to an improved partnership and the pursuit of common goals (e.g., Dill & Noam, 1990; Young-Eisendrath & Foltz, 1998). Knowledge of a client’s ego level (frame of reference) is of particular relevance if the client or employee does not display the level of psychosocial maturity that is expected of a specific age group. A client or employee may score substantially above or below the modal ego level displayed by one’s age peers. This age-stage discrepancy might go unnoticed by the clinician or counselor, who might address a client erroneously on the basis of the intuitive average for that age group. Loevinger’s model of ego development and the accompanying assessment tools sought to provide a concept and measure of psychological maturity that was independent from age (see the Theoretical Basis section). Hence, the WUSCT and SCT-Y provide a yardstick of psychological maturity “that does not itself stretch with age” (Loevinger, 1990, p. 112). This age-independent measure of ego level maturity can be used to supplant or support the assessor’s intuitive impression of the client’s psychosocial maturity.

Knowledge about the client or employee’s ego level (frame of reference) can also help to organize other information that is available about the client, such as assessments of personality traits or psychopathology. For example, a high need for achievement will express itself differently at different levels of psychosocial maturity: Impulsive persons might have achievement fantasies but are unlikely to work with any consistency, Self-Protective persons might be very competitive and try to get others to do the dirty work, Conformist individuals may feel a strong sense of duty toward shared goals, Self-Aware persons might reflect on their needs for achievement, Conscientious people would feel the need to achieve in accordance with their own standards and strong sense of responsibility for others, and so on (see also Lasker, 1978). Therefore, employees of different ego levels may be motivated by different management approaches. In other words, the ego development perspective could be a useful tool for “situational leadership,” in which the manager’s management style matches the employee’s characteristic way of perceiving and responding to work-related tasks and social situations (for a similar argument see Graves, 1966).

Finally, knowledge about the client or employee’s ego level or frame of reference supports the selection of the most appropriate intervention method. Research indicates that clinical interventions should be tailored to the developmental level of the client, regardless of her or his chronological age (Borst & Noam, 1993; Kirshner, Hauser, & Genack, 1988; Noam, 1998). For example, Young-Eisendrath and Foltz (1998) found that clients at low ego levels perceive psychotherapy as a concrete service provided by therapists who are responsible for the outcome, whereas clients at higher ego levels perceive psychotherapy as a personal process of internal discovery for which the client is primarily responsible (see also Dill & Noam, 1990). A similar distinction was drawn by Lasker (1978) in a sample of industry workers in Curaçao. He noted that workers displayed different types of achievement needs—either low or high personal efficacy—and argued that screening for ego level was an effective way to tailor training content to increase its effectiveness in raising worker motivation. A mismatch between the services provided on the one hand and the client or employee’s ego level on the other hand is more likely to lead to failure and prematurely terminated interventions.

2. The link between ego development and problem behavior and psychopathology. A second way in which the ego development construct and measures might be of relevance for clinical practice concerns the relationship between ego level and psychopathology. Many clinicians, counselors, and
lay people equate “low” with “bad,” and vice versa. Thus, low ego levels are often assumed to be associated with psychological problems, and clients with psychosocial difficulties are often assumed to be immature (see Noam, 1998). It is often proposed that clinical interventions should be aimed primarily at raising people’s level of ego development; likewise, it is sometimes assumed that personnel selection should be aimed at hiring high ego level personnel. But this presumed association between low ego level and psychosocial problems presents us with a logical problem: Children and adolescents who move through these low stages are not expected to always display psychosocial problems, and many adults who have outgrown the lowest ego levels might still have psychosocial problems. Therefore, the presence of psychosocial problems cannot intrinsically be a characteristic or product of low ego levels, and low ego levels cannot be a direct cause of psychosocial problems (Loevinger, 1968, 1976). Loevinger (1968) maintained that “every stage has its weaknesses, its problems, and its paradoxes, which provide both a potential for maladjustment and a potential for growth” (p. 169). She emphasized that to know more about the relationship between maturity and psychosocial problems or psychopathology, both need to be defined independently of each other. The initial purpose of the ego level construct was therefore to disentangle psychological maturity from psychological adjustment and to provide a measure of psychological maturity.

Even though psychosocial problems and ego development are not intrinsically related, research has revealed some meaningful relationships that suggest practical implications. Numerous studies over the past 30 years have illuminated the relationship between ego level and psychopathology and have, by and large, supported the contention that “every stage has its weaknesses.” Reviews of the literature by Rierdan (1998) and Noam (1998) indicate that the absence or presence of psychopathology is not related to ego development; however, the type of pathology displayed by individuals is related to level of ego development. This connection will be reviewed for the broad categories of externalizing and internalizing problems.

The general pattern is that behavior or externalizing problems (i.e., crime and conduct disorders, with or without internalizing problems) are mostly related to the Impulsive and Self-Protective ego levels, whereas the emotional or internalizing problems (without comorbid externalizing problems) are mostly related to the Conformist ego level or beyond. In other words, the higher one’s ego level, the smaller the likelihood of serious behavior problems. This connection is particularly pronounced in late adolescents and adults, suggesting that a developmental delay might be a risk factor for developing an externalizing problem (e.g., Noam, Paget, Valiant, Borst, & Bartok, 1994). The developmental delay itself might be partly responsible for the behavior problems: The mismatch between the person and the expectations others have about that person might yield disagreements and lead to escalating conflicts. In her work in elementary schools, Lamb (1996) observed that among children who had difficulties at recess was a group for whom a common factor was having a lower ego level while trying to participate in social play activities that demanded a higher level of functioning. Among the characteristics of ego development, those pertaining to interaction style and understanding of rules are most relevant to participation in social games. Social games were analyzed according to these factors (in addition to physical skills, leadership needs, and imaginative play requirements) and were paired with the different ego levels common among elementary school children. A small pilot study showed that when social games and leadership needs were matched to the ego level of young children with severe behavioral problems, aggression was minimized and children were able to participate successfully.

The association between the behavior difficulties and the developmental delay might not be an intrinsic one, but could both be due to other factors, such as genetic and environmental factors. In any case, the studies by Hauser and colleagues indicate that severe and chronic delays in the adolescent period are associated with a bad outcome in adulthood (e.g., greater hostility and poorer parenting skills; see the Current Research Status section). Whatever the causal relationship might be, the fact that most adolescents and adults with behavior problems are developmentally delayed, and that a chronic delay is associated with current and future interpersonal problems, has two implications for intervention: (1) they should not be overrated in terms of their expected maturity level and should be approached like younger persons, and (2) the intervention should not be restricted to the behavior problems themselves but should also be aimed at raising one’s ego level up to par with one’s age mates (see Cohn, 1998, and Manners & Durkin, 2000, for an overview of methods to stimulate ego development). For clients with externalizing problems, development to the Conformist level and above might serve as a protective factor that would ameliorate the detrimental effects of other factors.

Internalizing problems, such as anxiety and depression, can be present in people of all ages and ego levels, but are most noticeable at the Conformist level and beyond. From that level onward, the comorbid presence of externalizing problems declines, allowing the emotional difficulties to come to the fore. From this realization it can be concluded that emotional problems in children and older persons at rela-
tively low ego levels might be obscured by their behavior problems. Borst and Noam (1993), for example, noted that depression in low-level adolescents often goes unnoticed (i.e., is not diagnosed) because of the much stronger presence of the behavior difficulties (e.g., impulsivity and acting-out behavior). The practical implications of this finding are obvious: In low-level individuals presenting with externalizing problems, diagnosticians should be extra careful not to miss emotional difficulties.

Internalizing problems may arise at any age or stage of development, but the specific type or manifestation of these difficulties appears to differ across the ego levels. Borst and Noam (1993) reported that suicidality in 14-year-old girls was equally prevalent at the different ego levels, but manifested itself in a strikingly different manner: The angry-defiant type was most prevalent at the Self-Protective ego level, whereas the self-blaming type was most prevalent at the Conformist level. Both types differed in terms of the reasons for and the methods by which they had attempted to commit suicide. The authors argued that the types had to be treated in a different way: The angry-defiant type would mostly benefit from a behavioral approach, the self-blaming type would best be served by psychotherapy.

Another example of the stage-dependent manifestation of emotional disorders is provided by the results of research on the relation between ego level and anxiety disorders in a population of children and adolescents referred to an outpatient psychiatric clinic (Westenberg et al., 1999). The two most prevalent and debilitating anxiety disorders in children and adolescents were empirically related to conceptually equivalent ego levels. The separation anxiety disorder (SAD) was related to the Impulsive ego level, and the generalized anxiety disorder (GAD) was related to the Conformist ego level— with age, sex, IQ, and socioeconomic status statistically controlled for. This connection is thought to be due to common ground between specific anxiety disorders and certain ego levels: Vulnerability and dependency are common elements of SAD and the Impulsive ego level, the focus on social desirability and a self-blaming attitude are common elements of GAD and the Conformist ego level.

Apparently, anxiety disorders in children and adolescents are aggravated or pathological versions of normal concerns and preoccupations. This hypothesis is supported by research on the development of normal fears in a nonclinical sample: Impulsive individuals mostly report concrete-physical fears, Conformist individuals mostly report social-evaluative fears (Westenberg, Dreves, et al., 2003). Those connections suggest that the content of the anxiety disorder is not abnormal but is an integral part of that stage. Hence, the treatment of such anxiety disorders should not be aimed at the “removal” of the fear content but should be aimed at the reasons why the fear should be excessive and uncontrollable (e.g., by enhancing the child’s coping strategies).

3. The ego development level of clinicians, counselors, and managers. A third way in which the ego development construct and measure might be of relevance for clinical and organizational practice does not concern the client’s ego level, but concerns the ego level of the clinician, manager, or parent. From this perspective it appears that “higher” is “better.”

Overall, high ego level counselors, managers, and parents do better than their counterparts at lower ego levels (e.g., Borders, 1998; Hauser, Borman, Jacobson, et al., 1991; Torbert, 1994). Borders (1989, 1998, Borders & Fong, 1989; Borders, Fong, & Neimeyer, 1986) examined how counselors’ ego level influences the perception of patients, in-session cognitions, and counseling ability. She observed that a relatively low ego level restricts the attainable level of counseling skills, although counseling training itself may actually promote ego development. Research findings reported by Torbert (1989, 1994; Fisher & Torbert, 1991) suggest that a relatively high ego level would be needed for the successful managing of organizational transformations. He argues that the Strategist level of managerial development—akin to Loewinger’s Individualistic ego level—is needed to bring about change in organizations. Managers at lower ego levels were less successful in bringing about change.

Why would higher ego levels promote success in counseling, management, and parenting? One possible answer is that higher ego levels embody—and have been shown to be related empirically to—properties needed to perform complex tasks, particularly in cases when the right outcome is not known in advance. Such situations require the ability to grasp the complexity in situations, the recognition of divergent perspectives, the awareness of one’s own role in such situations, and a strong sense of personal identity. As Rooke and Torbert (2001) noted: “CEOs whose cognitive-emotional structure recognizes that there are multiple ways of framing reality and that personal and organizational transformations of structure require mutual, voluntary initiatives—not just single-framed, hierarchical guidance—are more likely to succeed in leading organizational transformation” (p. 1).

A second answer might be that high ego level individuals are able to intuitively (and perhaps unwittingly) match their interaction style to the maturity level of their client, employee, or child, whereas low ego level individuals have fewer degrees of freedom in adapting to the various ego levels in their environment. Due to the asymmetry of comprehension embodied in any progressive developmental variable, people are able to understand and adjust to ego levels below their own level, but cannot understand and adjust to ego lev-
els beyond their own level. Therefore, people of high ego level will be able to produce the desired match between self and many others, whereas low ego level individuals cannot match up with everyone else. High ego level parents are able to recognize and respect the different needs of their children at various stages in their development, and high ego level counselors and managers are able to adjust to the different frame of references of their clients and employees, thereby improving the desired match between the person and his or her environment.

In summary, the ego development construct should not be interpreted as a model of psychosocial health and the measure cannot be used as a screening tool for psychological or behavior problems. Many other measurement tools are available for the assessment of psychopathology; that is not what the WUSCT and SCT-Y are for. However, independence from pathology (and from age) makes the instrument highly relevant for clinical and organizational practice because it provides crucial information that is not obtained from other instruments.

**FUTURE DEVELOPMENTS**

One of the most important contributions of the ego development construct and measure is that it provides an age-independent yardstick of psychosocial maturity. A drawback, however, is that a clear connection with age is lacking, leaving a basic question unanswered: What ego level is normative for each age group? Loevinger and her colleagues did not describe their samples as “representative,” nor did they claim that the prevalence of ego levels obtained during the measurement development process reflected ego level norms for the United States. It would, indeed, be a daunting task to collect precise norms for such a large country with a very heterogeneous population. Such norms would, however, be of interest from a developmental perspective, and also be of practical use from a clinical and organizational perspective because they would help one obtain a better sense of consistencies in relations between ego levels and age, and how these relations might vary in different contexts (e.g., social class, rural, or urban). Piecemeal information has been provided (e.g., Gfeller, 1986; Holt, 1980; Westenberg, Jonckheer, et al., 1998), but more systematic studies need to be mounted to obtain more comprehensive and reliable age data.

Related to questions about age and ego development is the topic of gender differences in ego development. One of the most intriguing findings arising from studies employing the WUSCT and SCT-Y has been the finding of gender differences during the adolescent period: Girls mature earlier than boys, and the difference is notable. Yet by the mid-20s this gender difference disappears (see Cohn, 1991; Westenberg et al., 2000). This gender difference in the adolescent period needs to be validated against other, conceptually related gender differences. For example, the fear literature indicates that adolescent girls display more social fearfulness than boys (see Gullone, 2000). Is this greater sensitivity for social fearfulness related to the higher ego development of the girls? If validated, it needs to be explained why girls should be ahead of the boys and why they lose their lead in late adolescence. More research on the adolescent gender difference in ego development might be informative regarding (1) pacers for ego development (what makes people move from one ego level to the next?), (2) the nature of gender differences in the adolescent period (are some gender differences temporary?), and (3) a number of practical implications (e.g., teaching curricula might have to be tailored according to the ego level differences between boys and girls).

Another issue related to questions about age and ego development is the topic of ego development trajectories, referred to in the Current Research Status section. We already know that a given cohort of adolescents, when followed over several years, will show different paths of ego development (Hauser, Powers, et al., 1991). Some adolescents, for example, clearly progress from earlier (pre-Conformist) to either Conformist or post-Conformist stages. Other adolescents show no signs of change in their ego development, remaining either “profoundly arrested” (fixed at pre-Conformist stages) or “consistently Conformist,” expressing Conformist stage scores throughout each repeated testing over 3 or more adolescent years. Of interest is the fact that these varied ego change patterns are differentially distributed in special populations (e.g., profound arrests in adolescents previously hospitalized for nonpsychotic disorders; Hauser, Powers, et al., 1991).

These findings, emerging from a long-term longitudinal study of ego development in adolescents and young adults, have many theoretical and empirical implications. In terms of fruitful methods, they suggest the advantages of taking a person-centered approach in examining ego development over time. By conceptually defining theoretically meaningful “types” of ego development trajectories, one can derive operational definitions of these patterns, and then identify individuals fitting each profile. Once such types have been located, a host of intriguing questions can be addressed: How stable are these ego development paths from adolescence to adult years? Are they associated with specific adolescent family process, parental ego development paths, or other conceptually relevant aspects of adolescent contexts? Are such trajectories differentially found in different special populations (e.g., specific psychiatric diagnoses, chronic illness, se-
were poverty or other major familial or individual adversity)? Can such trajectories be modified through specially designed interventions? How does knowledge of an individual’s ego development trajectory (his or her “ego history”) add to our understanding of his or her concurrent or future behavior and/or attitudes? One would suppose that knowing an individual’s history of ego stages and changes would provide a more comprehensive picture of that given person. But what do we gain in terms of predicting future behaviors or clarifying current phenomena, such as unexpected resilient outcomes? (Hauser, 1999). Finally, can discovering ego development trajectories clarify such matters as the nature of adult psychosocial development and intergenerational transmission of ego development? For instance, if we discern intergenerational continuities in ego development trajectories, then we would want to further examine associate familial patterns as candidates for underlying psychological mechanisms.

Finally, links between ego level and behavior, including psychopathology, require more attention. Recent ongoing longitudinal studies by Hauser and colleagues, briefly summarized previously, are pertinent to complex and important questions about the interplay (and underlying mechanisms) between individual ego development and concurrent as well as subsequent individual actions. Even though ego level scores derived from sentence completions have been shown to display external validity vis-à-vis a host of behavioral measures (see the Current Research Status section), the mechanisms underlying these relations need to be specified. After all, ego development is not about behavior per se, but is about an internal frame of reference. One possibility is that ego level has an impact on the way social information is processed, thereby restricting and amplifying the behavioral options available to a given individual. For example, low ego level persons might be inclined to perceive other people’s behavior as threatening to the self and are therefore inclined to react with counteraggression or other self-protective measures. Another possibility is that ego level has an impact on the way one deals with situations. For example, along the line of expanding options, high ego level teens may not be less likely to engage in sexual behavior than low ego level teens, but they may be more likely to use contraceptives. Studies targeting mechanisms behind ego level behavioral links can lead to needed insights into the actual impact of ego development on daily functioning.

REFERENCES


NOTES

1. The original scoring manual for the SCT-Y is in Dutch because it is based on research with Dutch children and adolescents. An English-language version, based on research with American, Australian, and New Zealand children and adolescents, is in preparation (please contact the first author of this chapter).

2. Several authors have mistakenly associated Loewinger’s model of ego development with Freud’s psychoanalytic model. The link is nonexistent, however, as Loewinger has repeatedly stated (Loewinger, 1976, 1993; see also Westen, 1998).

3. The first ego level, E-1, is not accessible by means of the sentence completion test (see Loewinger, 1976).


5. Loewinger and colleagues had constructed a form for children and adolescents, Form 77 of the WUSCT, but some of its items did not have a scoring manual and none of the item manuals had been validated for usage with children and adolescents. See Westenberg, Treffers, and Drewes (1998) for a comparison between the SCT-Y and Form 77 of the WUSCT.

6. A complete bibliography of ego development studies may be obtained from the first author of this chapter.


Loevinger’s conception of ego development (pp. 59–70). Mahwah, NJ: Erlbaum.


