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A review of the Washington University Sentence Completion Test

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A review of the Washington University Sentence Completion Test

Abstract

Ego development is a concept which has been researched for many years. One way this concept has been measured is through the use of projective tests which offer a vague stimulus (in this case sentence stems) which respondents answer without a clear set of rules. Jane Loevinger and her associates developed a theory of ego development which was then used to develop a projective test in 1970 called the Washington University Sentence Completion Test (WUSCT or SCT).

A synthesis of information including validity, reliability, explanations of ego development theory, discussions of different forms, and scoring has not yet been done. This paper is an attempt to synthesize these aspects of the SCT.

A REVIEW OF THE WASHINGTON UNIVERSITY SENTENCE
COMPLETION TEST

A Research Paper

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of the Requirements for the Degree
Master of Arts

by

Jennifer K. Murra

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Ego development is a concept which has been researched for many years (Dill & Noam 1990; Hauser, 1976; Loevinger, 1979b, 1985, 1987; Lorr & Manning, 1978; Young-Eisendrath, 1982). One way this concept has been measured is through the use of projective tests which offer a vague stimulus (in this case sentence stems) which respondents answer without a clear set of rules. Jane Loevinger and her associates developed a theory of ego development which was then used to develop a projective test in 1970 called the Washington University Sentence Completion Test (WUSCT or SCT). Respondents of the SCT are required to answer incomplete sentence stems which are then scored according to rules set by Loevinger and her associates. The SCT focuses on ego development which has been generally defined as a combination of; the way people perceive themselves & others, interpersonal interactions, people's frame of reference, and moral judgement (Dill & Noam 1990; Hauser, 1976; Loevinger, 1979b, 1985; Lorr & Manning, 1978; Young-Eisendrath, 1982).

Use of the SCT has grown since it's inception in 1970. Topics such as reliability and validity,

interrater reliability, scoring of the SCT, Loevinger's theory of ego development, and the existence of different forms of the SCT have been researched by several authors (Holt, 1980; Loevinger, 1985; Picano, 1987) but no collective analysis is available. Conclusive evidence can be found in support of most aspects of the SCT.

Two manuals have been developed to aid in the use of the SCT, volume one and volume two. Volume one of the manuals includes a self-training program which allows people to teach themselves how to score and interpret the sentence completions (Loevinger & Wessler, 1970). Volume two is the scoring manual.

The SCT has been researched by numerous authors (Browning, 1987; Dill & Noam, 1990; Hauser, 1976; Holt, 1980; Loevinger, 1979a, 1985; Lorr & Manning, 1978; Novy & Francis, 1992; Novy et al., 1994; Picano, 1987; Redmore & Waldman, 1975; Vaillant & McCullough, 1987; Waugh, 1981; Weiss et al., 1989; Young-Eisendrath, 1982), however, a synthesis of information including validity, reliability, explanations of ego development theory, discussions of different forms, and scoring has

not yet been done. This paper is an attempt to synthesize these aspects of the SCT.

Literature Review

Jane Loevinger and associates developed the Washington University Sentence Completion Test (WUSCT or SCT) in 1970. Although it's original use was for women (Loevinger & Wessler, 1970), it was revised (see Appendix A) for use with both men and women in 1970 (Loevinger & Wessler, 1970). The scoring manuals were written for use with women but are also used with men (Loevinger, 1985).

In 1985, Loevinger revised the SCT. Two additional forms (versions) of the test now exist. From the original 36 item form, 12 item (Holt, 1980) and 18 item (Loevinger, 1985) forms have been developed which have been researched for accuracy (Holt, 1980; Loevinger, 1985; Picano, 1987).

Since the development of the SCT there has been increased use of the concept of ego development. The SCT has been applied to different areas of study (Borders & Fong, 1989; Browning, 1987; Dill & Noam, 1990; Young-Eisendrath, 1982). It has been used to study psychiatric treatment choices (Dill & Noam, 1990;

Weiss, Zilberg, & Genevro, 1989) counseling ability of trainees (Borders & Fong, 1989), relationship to socioeconomic status (Browning, 1987), as well as applying concepts of ego development to educational planning (Young-Eisendrath, 1982). Young-Eisendrath (1982) also suggested the use of the SCT for assessing a client's level of ego functioning.

Various aspects of the psychometric properties of the SCT have been reviewed and studied extensively (Hauser, 1976; Holt, 1980; Loevinger, 1979a; Novy & Francis, 1992; Novy et al., 1994; Waugh, 1981; Weiss et al., 1989). Reliability results appear to be consistent across studies (Hauser, 1976; Holt, 1980; Waugh, 1981; Weiss et al., 1989) however the validity of the measure is still questioned (Loevinger, 1979a; Weiss et al., 1989). Interrater reliability for the SCT appears to be overwhelmingly acknowledged (Holt, 1980; Loevinger & Wessler, 1970; Weiss et al., 1989).

Theory of Ego Development

An integral part of Loevinger's SCT is her theory of ego development. Loevinger's idea of ego consists of many parts. The developmental stages are the central aspect of her theory of ego development.

According to Loevinger (1979b), no precise definition of "ego" exists. However, she has referenced the process of development which occurs when moving from stage to stage as a possible definition. Loevinger (1976) does not specify certain ages for each developmental stage. While Loevinger (1970) and Young-Eisendrath (1982) posit that people progress through stages in one sequence, other authors (Hauser, 1976; Lorr & Manning, 1978) disagree insisting instead that no evidence of this sequence exists. Each person is believed to have a core level of ego functioning (Hauser, 1976; Loevinger & Wessler, 1970).

Loevinger's theory consists of nine stages: a) Presocial/Symbiotic Stage; b) Impulsive Stage; c) Self-Protective Stage; d) Conformist Stage; e) Conscientious-Conformist Stage; f) Conscientious Stage; g) Individualistic Stage; h) Autonomous Stage; and i) Integrated Stage. Each stage is characterized by five qualities: impulse control, character development, interpersonal style, conscious preoccupations, and cognitive style (Loevinger & Wessler, 1970; Loevinger, 1976). Each stage also has a code (e.g. Conformist Stage I-3) assigned for the purpose of scoring the

Sentence Completion Test (see Appendix B) (Loevinger & Wessler, 1970; Loevinger, 1976).

The first stage is known as the Presocial/Symbiotic Stage (I-1). It is characterized by infants separating themselves from objects in their surroundings (Loevinger & Wessler, 1970; Loevinger, 1976). Infants differentiate themselves from their environment and realize there are inanimate objects other than themselves (Loevinger & Wessler, 1970; Loevinger, 1976). Infants who do not separate themselves from other objects are often described as autistic (Loevinger & Wessler, 1970; Loevinger, 1976).

During the Impulsive Stage (I-2) children are driven by their own impulses (Loevinger & Wessler, 1970; Loevinger, 1976) which are controlled by rewards and punishments (Loevinger & Wessler, 1970; Loevinger, 1976). They experience people as being either "mean" or "nice" and act accordingly (Loevinger & Wessler, 1970; Loevinger, 1976). Sexual and aggressive impulses also occupy children at this stage (Loevinger, 1976). Children may experience intense emotions during this time however, they are usually felt physiologically. (Loevinger, 1976). During the Impulsive Stage children

are most often concerned with occurrences of the present (Loevinger, 1976). Mystic ideas may also be present (Loevinger & Wessler, 1970; Loevinger, 1976). When children are in this stage for a long period of time they may be considered by others to be behaviorally unmanageable (Loevinger, 1976). An example of a completed stem (i.e. an answer on the sentence completion test) at this level is, "A good mother...is nice" (Loevinger & Wessler, 1970, p. 56).

The next stage is the Self-Protective Stage (Delta). At this stage children begin to control their impulses by recognizing that rules exist along with rewards and punishments (Loevinger, 1976). Children become aware of rules with a primary goal of ["not getting caught"] (Loevinger, 1976, p. 17). They begin to be aware of the concept of blame but continue to place responsibility on others (Loevinger & Wessler, 1970; Loevinger, 1976). Competition and manipulation are themes that emerge at this stage (Loevinger & Wessler, 1970; Loevinger, 1976). A completed sentence stem at this level would include, "What gets me into trouble is...running around with the wrong group" (Loevinger & Wessler, 1970, p. 61).

At the Conformist Stage (I-3) children begin to identify themselves with others (e.g. family, adults, and peers) (Loevinger & Wessler, 1970; Loevinger, 1976). Children must have trust for those around them in order for the transition from the Self-Protective Stage to the Conscientious Stage to occur (Loevinger & Wessler, 1970; Loevinger, 1976). At this stage, children realize there are rules for all people that must be followed (Loevinger & Wessler, 1970; Loevinger, 1976). Children tend to group people together at this stage and see rules as rules for the group (Loevinger & Wessler, 1970; Loevinger, 1976). Fear of punishment is no longer the guiding force for following rules (Loevinger, 1976) but instead the fear of disapproval from others becomes paramount (Loevinger & Wessler, 1970; Loevinger, 1976). Children conform to norms which they see as socially approved (Loevinger & Wessler, 1970; Loevinger, 1976) (e.g. women take care of the children and men work and make money). Groups are defined externally such as by gender or race (Loevinger, 1976) and individual differences are essentially ignored (Loevinger & Wessler, 1970; Loevinger, 1976). Those who are perceived as unlike

the person's at this stage are often shunned. There is high concern at this stage for superficial or surface level things and ideas such as appearance and material belongings (Loevinger & Wessler, 1970; Loevinger, 1976). Internal feelings (inner life) are observed in ordinary terms (e.g. happy, sorrow, love) versus being observed essentially physiologically (e.g. sick) at lower stages (Loevinger & Wessler, 1970; Loevinger, 1976). Cooperation is valued at the Conformist Stage versus competition at the Self-Protective Stage (Loevinger, 1976; Loevinger & Wessler, 1970). "A wife should...act like a wife" (Loevinger & Wessler, 1970, p. 66) is an example of a completed sentence stem rated at this stage.

The biggest difference at the Conscientious-Conformist Stage (I-3/4) is an "increase in self-awareness and acknowledging many possibilities for one situation" (Loevinger & Wessler, 1970, p. 5; Loevinger, 1976, p. 19). Inner life is still seen somewhat simply however feelings now focus more on relations with others (e.g. lonely and self-conscious) (Loevinger, 1976). Consciousness of self is evident at this stage (Loevinger, 1976). Norms and rules are no longer

concrete, but have exceptions which continue to be based on group rather than individual differences. (Loevinger, 1976). An example of a person rated at this stage may answer the sentence stem "Sometimes she wished that...she could do more for others" (Loevinger & Wessler, 1970, p. 74).

At the Conscientious Stage (I-4) people begin to differentiate inner life (Loevinger & Wessler, 1970). Feelings of guilt are exhibited when rules are broken (Loevinger & Wessler, 1970; Loevinger, 1976) representing development of a sense of responsibility for actions (Loevinger, 1976). This guilt stems not necessarily from breaking the rules but more from the effect it may have on others (Loevinger, 1976). People begin to think about the impact their actions may have on others (Loevinger, 1976). ["Long term goals and ideals are present at this stage"] (Loevinger & Wessler, 1970, p. 5; Loevinger, 1976, p. 20) which seem to indicate futuristic thought and planning. Rules are totally internalized at the Conscientious Stage and people realize they can evaluate and decide on rules based on individual choice and not simply as a way to avoid disapproval (Loevinger & Wessler, 1970;

Loevinger, 1976). Choice is a theme throughout the Conscientious Stage not only in regard to rules but also to responsibilities and obligations (Loevinger & Wessler, 1970; Loevinger, 1976). At the Conscientious Stage, achievement is important in relation to each persons standards and not compared to the actions of others (Loevinger & Wessler, 1970; Loevinger, 1976). This stage is also characterized by recognition and understanding of other's opinions (Loevinger, 1976). "A rich and differentiated inner life characterizes the conscientious person" (Loevinger, 1976, p. 21). People are also aware of psychological development at this stage - a concept which is extremely rare at lower stages (Loevinger & Wessler, 1970). At the Conscientious Stage, people also recognize that others have motives for their behaviors (Loevinger, 1976). A completed stem rated at this stage may read, "Education...is an enriching life experience" (Loevinger & Wessler, 1970, p. 81).

The next stage is the Individualistic Stage (I-4/5). This stage is "marked by heightened sense of individuality and concern for emotional dependence" (Loevinger & Wessler, 1970, p. 6; Loevinger, 1976,

p.22) People become aware that emotional dependence can exist even when there are no physical or financial needs (Loevinger & Wessler, 1970; Loevinger, 1976). Inner conflict begins to arise internally, however some of the conflict remains external (Loevinger & Wessler, 1970; Loevinger, 1976). An example of external conflict would be holding the thought or belief that changing a person or societal attitude would end conflict (Loevinger & Wessler, 1970; Loevinger, 1976). This implies the belief that conflict is resolved externally without internal resolution. Individuals are more able to endure paradox and contradiction (Loevinger, 1976) and they begin to distinguish or discern differences between concepts such as "process and outcome" and "psychological responses" (Loevinger, 1976, p. 23). Psychological causation and development are recognized at this stage (Loevinger & Wessler, 1970; Loevinger, 1976). "Education... continues throughout life" (Loevinger & Wessler, 1970, p. 92) is an example of a completed stem rated at this level.

At the Autonomous Stage (I-5) individuals acknowledge inner conflict and are able to cope with it internally as compared to the response at the

Individualistic Stage where conflict remains partly external (Loevinger & Wessler, 1970; Loevinger, 1976).

There is a realization that not all conflicts have resolutions (Loevinger & Wessler, 1970). The need for autonomy on the part of both the self and others is recognized at this stage (Loevinger, 1976).

Individuals recognize their inability to control others and that others need to make their own decisions in life (Loevinger & Wessler, 1970). Motives of others are seen as resulting from their own life experiences (Loevinger, 1976) and not as competition for self gain.

The idea of self-fulfillment is recognized at this stage (Loevinger & Wessler, 1970; Loevinger, 1976).

Individuals have an awareness of the various roles they play in different environments (Loevinger, 1976).

Individuals are described as ["aspiring to be realistic and objective of himself and others"] (Loevinger, 1976, p. 26; Loevinger & Wessler, 1970, P. 6). Abstract ideas also are present such as liberty and faith (Loevinger, 1976). An example of a stem which would be rated at this level is, "Raising a family...is a full time job full of joys and sorrows and regrets for

certain mistakes on my part" (Loevinger & Wessler, 1970, p. 98).

The final stage is called the Integrated Stage (I-6). Reaching this stage is very rare (Loevinger & Wessler, 1970; Loevinger, 1976). Not many cases have been studied (Loevinger, 1976), therefore the stage is difficult to describe (Loevinger & Wessler, 1970; Loevinger, 1976). This stage is characterized by the same aspects as the Autonomous Stage but also includes a strong sense of identity and concern with the present and future (Loevinger, & Wessler, 1970). This stage is likened to Maslow's final stage of Self-Actualization (Loevinger, 1976) and described as "transcending conflicts" (Loevinger, 1976, p. 26; Loevinger & Wessler, 1970, p. 6). Individuals are aware of their own unique traits and are completely accepting of themselves (Anastasi, 1988). An example of a completed sentence stem rated at this level is, "A woman should always...as should a man, treat other individuals with respect and work toward the betterment of the whole of people not just of herself" (Loevinger & Wessler, 1970, p. 107).

Training and Scoring

Self-Training Program

The self-training program is thorough including information on how to score single and compound responses and how to rate responses which do not clearly fit in a specific stage (Loevinger, 1970). It also addresses how to code and rate responses and lists possible sources of bias (Loevinger, 1970). The manual also includes practice items for both rating items and deriving a Total Protocol Rating (TPR). These sections include example items as well (Loevinger, 1970). Sources of bias can encompass rater characteristics, subject characteristics such as spelling errors and grammar, number of words, and word choice (Loevinger, 1970).

Scoring

Details on the entire scoring process can be found in the scoring manual (Loevinger & Wessler, 1970). Loevinger & Wessler (1970), discuss three paradigms of scoring possibilities. The first paradigm involves using the highest score on the sentence completion as the TPR (Loevinger & Wessler, 1970). The second paradigm consists of using the most common score on the

protocol or the mode as the person's level of ego development (Loevinger & Wessler, 1970). Finally the last paradigm involves summing the items and averaging them to determine level of ego development (Loevinger & Wessler, 1970).

However, Loevinger & Wessler (1970) decided on a fourth way of scoring the SCT. Each stem on the test is given a rating using the codes for each stage (e.g. I-4) with the resulting score reflecting a Total Protocol Rating (TPR) (Loevinger & Wessler, 1970). All stems must be given a rating even if the stem is left unanswered (Loevinger, 1976, 1987). TPR can range from I-2 to I-6. I-1 is not used as a scoring level on the SCT since that very early level is rare beyond childhood (Loevinger, 1976). The TPR represents the person's level of ego development (Loevinger & Wessler, 1970). For example, a person may get a TPR of I-3 which indicates the person is functioning at the I-3 or Conformist level of ego development. This aspect of the scoring procedure has been addressed by several authors (Holt, 1980; Loevinger & Wessler, 1970). Automatic ogive rules (see Appendix C) were developed to more accurately score the SCT (Loevinger & Wessler,

1970). The ogive rules portray a distribution of scores which determines an individual's TPR or core level of ego functioning. Hence TPR is guided by where the sentence completion fits in the ogive rules (Loevinger & Wessler, 1970).

Different Forms

Originally the sentence completion test consisted of 36 items. However, several versions (forms) of the test now exist. There are 12 (see Appendix D) and 18 item forms (Holt, 1980; Loevinger, 1985) which have been widely used. According to Holt (1980), a short form of Loevinger's SCT can be reliably used in place of the 36 item form. Although the short form is consistent and reliable for both males and females, the 36 item SCT is still recommended (Holt, 1980; Loevinger, 1985).

There are two main concerns with using the short 12 item form. The first stems from the fact that TPR's must be derived from a modified version of Loevinger's original automatic ogive rules (Holt, 1980) and the modified version can be unstable (Holt, 1980). Due to this instability it is necessary for only very skilled

and experienced raters to score short forms of the SCT's correctly (Picano, 1987).

Picano (1987) compared TPR's of 12 item and 36 item forms. The 12 item form proved to be a reliable estimate of the TPR of the 36 item form (Picano, 1987, 122).

In attempting to revise the SCT for equal use with men and women, Loevinger (1985) developed an 18 item form called Form 81 (see Appendix E). The new version involved splitting the 36 item form into two halves, each 18 items, so the test could be used as both a 36 item form and also as two shorter 18 item forms (Loevinger, 1985). Supplementary manuals have been published for this new version. Loevinger (1985) found the new measure to be applicable to both men and women. There appears to be no difference in validity between items for men and women on the 18 item forms (Loevinger, 1985).

Psychometric Properties

Reliability

The issue of reliability for the SCT was studied by Hauser (1976). There were several findings including high reliability between scoring either by

personally trained raters or raters trained by the manual only (Hauser, 1976). Weiss et al. (1989) also found strong support for reliability of the SCT.

Holt (1980) found the SCT "reliable, feasible, and useful for research" (p. 916). Holt (1980) used a sample from the Yankelovich Youth Study consisting of 343 college and 623 noncollege subjects. Subjects were given 12 item forms of Loevinger's SCT (Holt, 1980). A rigorous scoring regimen was developed which included some SCT's being scored by a highly trained rater at Loevinger's laboratory to check agreement (Holt, 1980). The median interrater reliability was 81.5% for females and 76% for males which is slightly higher than Loevinger's data (Holt, 1980). Correlational reliabilities, using intraclass correlations, were medians of .825 for women and .78 for men (Holt, 1980).

Weiss et al. (1989) found support for internal consistency of the SCT. Using the split-half method of internal consistency, Waugh (1981) found estimates of ".91 for the male form and .79 for the female form" (p. 486). Waugh (1981) found that the SCT "is generalizable...in terms of interrater reliability and

internal consistency across normal clinical populations" (p. 486).

Validity

It is difficult to establish validity of projective measures (Anastasi, 1988; Weiner, 1996). Unidimensional tests measure only one construct such as intelligence so there is only one level of validity to prove (Weiner, 1996). Since projective tests are multidimensional and measure many constructs, there are many levels of validity to prove (Weiner, 1996). Validity of projective measures often tends to be "impressionistic averaging" (Weiner, 1996, p. 207) and inconclusive (Anastasi, 1988).

Loevinger (1979a) reviewed the construct validity of the SCT. The SCT is a projective measure. However, given the structure of the test and the specific scoring process in the manual the SCT "is psychometrically simpler than other projective tests" (Loevinger, 1979a, p. 284). According to Loevinger (1979a) the SCT has content validity. Interrater reliability also speaks to the validity of the construct (Loevinger, 1979a). Loevinger & Wessler (1970) compared both "self-trained" inexperienced

raters and raters trained in research settings with much experience. Few differences were found between self-trained and experienced raters (Loevinger & Wessler, 1970).

The SCT measures more than verbal fluency or intelligence (Hauser, 1976; Vaillant & McCullough, 1987) which has been a criticism of the measure. Sources of unreliability such as subject noncooperation and rater difference "put an upper limit on validity of the test" (Loevinger, 1979a, p. 35). The upper limit also exists when using the SCT in conducting research (Loevinger, 1979a). According to Loevinger (1979a), there is evidence for the external component of construct validity. The SCT has sufficient validation for use with research, however, for use with clinical samples, confirming data would be necessary (Loevinger, 1979a). Lorr & Manning (1978) & Novy et al. (1994) found support for the construct validity of the developmental process.

Sequentiality

Sequentiality which refers to people progressing through stages in one particular order with no stage being skipped (Loevinger, 1979a) is another important

aspect to mention. Loevinger (1979a) found support for sequentiality which strengthens construct validity. Loevinger (1979a) found item distributions are more alike at adjacent stages, (with age, mean ego level during adolescence rises for both longitudinal and cross-sectional studies). Longitudinal studies even beyond six years of length have significant test-retest correlations (Loevinger, 1979a).

Interrater Agreement

Loevinger has developed a manual for using the SCT. The manual includes a self-training section so raters can train themselves on how to score the sentence stems. The manual also includes a section on interrater agreement. Interrater reliability was supported by Weiss et al. (1989) in a study of the SCT.

Holt (1980) found that it is possible to accurately score items with or without a manual specific to the gender of the subject. Holt (1980) found agreement 10% lower for items without the manual. This indicates the manuals are a necessary guide but, an understanding of the theory is also necessary for accurate scoring of the SCT.

Conclusion

The use of the SCT has become widespread (Loevinger, 1979a). The SCT has been translated into many different languages (Loevinger, 1979a) as well as used in many different cultures (Loevinger, 1987). Loevinger and her associates have set forth very clearly defined stages of ego development which were used to develop the Sentence Completion Test. The SCT has been found reliable by a variety of sources (Hauser, 1976; Holt, 1980; Waugh, 1989; Weiss et al., 1989). The development of different, shorter forms of the SCT have made its use easier in some settings. A danger exists when using shorter forms due to the reconfiguration of the automatic ogive rules. There remains a need for validation on several aspects of the SCT. The SCT can be used for many different purposes and can yield valuable information. It is important to carefully determine what information is hoped to be gained by using the SCT. If the purposes are clinical, using other measures is important to obtaining an accurate assessment.

References

- Anastasi, A. (1988). Psychological testing. New York: Macmillan Publishing Company.
- Borders, L.D. & Fong, M.L. (1989). Ego development and counseling ability during training. Counselor Education and supervision, 29, 71-83.
- Browning, D. L. (1987). Ego development, authoritarianism, and social status: An investigation of the incremental validity of Loevinger's Sentence Completion Test (Short Form). Journal of Personality and Social Psychology, 53, 113-118.
- Dill, D. L. & Noam, G. G. (1990). Ego development and treatment requests. Psychiatry, 53, 85-91.
- Hauser, S. T. (1976). Loevinger's model and measure of ego development: A critical review. Psychological Bulletin, 83, 928-955.
- Holt, R. R. (1980). Loevinger's measure of ego development: Reliability and national norms for male and female short forms. Journal of Personality and Social Psychology, 39, 909-920.
- Loevinger, J. (1979a). Construct validity of the sentence completion test of ego development. Applied Psychological Measurement, 3, 281-311.

Loevinger, J. (1976). Ego development. San Francisco: Jossey-Bass.

Loevinger, J. (1979b). The idea of ego. The Counseling Psychologist, 8, 3-5.

Loevinger, J. (1987). Paradigms of personality. New York: W. H. Freeman and Company.

Loevinger, J. (1985). Revision of the sentence completion test for ego development. Journal of Personality and Social Psychology, 48, 420-427.

Loevinger, J. & Wessler, R. (1970). Measuring ego development. Volume one: Construction and use of a sentence completion test. San Francisco: Jossey-Bass.

Lorr, M. & Manning, T. T. (1978). Measurement of ego development by sentence completion and personality test. Journal of Clinical Psychology, 34, 354-360.

Novy, D. M. & Francis, D. J. (1992). Psychometric properties of the Washington University Sentence Completion Test. Educational and Psychological Measurement, 52, 1029-1039.

Novy, D. M., Frankiewicz, R. G., Francis, D. J., Liberman, D., Overall, J. E., Vincent, K. R. (1994). An investigation of the structural validity of Loevinger's model and measure of ego development. Journal of

Personality, 62, 87-118.

Picano, J. J. (1987). Automatic ogive scoring rules for the short form of the sentence completion test of ego development. Journal of Clinical Psychology, 43, 119-122.

Redmore, C. & Waldman, K. (1975). Reliability of a sentence completion measure of ego development. Journal of Personality Assessment, 39, 236-243.

Vaillant, G. E. & McCullough, L. (1987). The Washington University Sentence Completion Test compared with other measures of adult ego development. American Journal of Psychiatry, 144, 1189-1194.

Waugh, M. H. (1981). Reliability of the sentence completion test of ego development in a clinical population. Journal of Personality Assessment, 45, 485-487.

Weiner, I. B. (1996). Some observations on the validity of the Rorschach Inkblot Method. Psychological Assessment, 8, 206-213.

Weiss, D. S, Zilberg, N. J., & Genevro, J. L. (1989). Psychometric properties of Loevinger's sentence completion test in an adult psychiatric outpatient sample. Journal of Personality Assessment, 53, 478-486.

Young-Eisendrath, P. (1982). Ego development:
Inferring the client's frame of reference. Journal of
Contemporary Social Work, 63, 323-332.

Appendix A

Form 11-68 for Men

SENTENCE COMPLETION FOR MEN (Form 11-68)

Name _____ Age _____

Marital Status _____ Education _____

Instructions: Complete the following sentences.

- | | |
|---|--|
| 1. Raising a family | 19. Rules are |
| 2. When a child will not join in group activities | 20. When they talked about sex, I |
| 3. When they avoided me | 21. Men are lucky because |
| 4. A man's job | 22. My father and I |
| 5. Being with other people | 23. When his wife asked him to help with the housework |
| 6. The thing I like about myself is | 24. Usually he felt that sex |
| 7. If my mother | 25. At times he worried about |
| 8. Crime and delinquency could be halted if | 26. If I can't get what I want |
| 9. When I am with a woman | 27. My main problem is |
| 10. Education | 28. When I am criticized |
| 11. When people are helpless | 29. Sometimes he wished that |
| 12. Women are lucky because | 30. A husband has a right to |
| 13. What gets me into trouble is | 31. When he thought of his mother, he |
| 14. A good father | 32. The worst thing about being a man |
| 15. A man feels good when | 33. If I had more money |
| 16. A wife should | 34. I just can't stand people who |
| 17. I feel sorry | 35. My conscience bothers me if |
| 18. A man should always | 36. He felt proud that he |

Appendix B

Stage and Code Names

Stage	Code
Impulsive	I-2
Self-Protective	^
Conformist	I-3
Conscientious- Conformist	I-3/4
Conscientious	I-4
Individualistic	I-4/5
Autonomous	I-5
Integrated	I-6

Appendix C

Automatic Ogive Rules

**AUTOMATIC RULES FOR ASSIGNING TOTAL PROTOCOL RATINGS
TO THE OGIVE OF ITEM RATINGS (18 ITEMS)**

TPR is:	If there are:
I-6*	No more than 17 ratings at I-5
I-5	No more than 16 ratings at I-4/5
I-4/5	No more than 15 ratings at I-4
I-4	No more than 12 ratings at I-3/4
I-3/4	No more than 11 ratings at I-3
I-2	No more than 3 ratings at I-2
△	No more than 3 ratings at △
△/3	No more than 3 ratings at △/3

*To receive an I-6 rating, the I-5 criterion must also be met.

Appendix D

12 Item Sentence Completion Tests

Stems for women:

1. For a woman a career is
 2. A girl has a right to
 3. The thing I like about myself is
 4. Education
 5. A wife should
 6. Rules are
 7. When I get mad
 8. Men are lucky because
 9. I am
 10. A woman feels good when
 11. My husband and I will
 12. A woman should always
-

Stems for men:

1. If I had more money
2. A man's job
3. The thing I like about myself is
4. Women are lucky because
5. A good father
6. A man feels good when
7. A wife should
8. A man should always
9. Rules are
10. When his wife asked him to help with the housework
11. When I am criticized
12. He felt proud that he

Appendix E

Form 81

1. When a child will not join in group activities
2. Raising a family
3. When I am criticized
4. A man's job
5. Being with other people
6. The thing I like about myself is
7. My mother and I
8. What gets me into trouble is
9. Education
10. When people are helpless
11. Women are lucky because
12. A good father
13. A girl has a right to
14. When they talked about sex, I
15. A wife should
16. I feel sorry
17. A man feels good when
18. Rules are
19. Crime and delinquency could be halted if
20. Men are lucky because
21. I just can't stand people who
22. At times she (he) worried about
23. I am
24. A woman feels good when
25. My main problem is
26. A husband has a right to
27. The worst thing about being a woman (man)
28. A good mother
29. When I am with a man (woman)
30. Sometimes she (he) wished that
31. My father
32. If I can't get what I want
33. Usually she (he) felt that sex
34. For a woman a career is
35. My conscience bothers me if
36. A woman (man) should always

* Stems for men and women are identical except for those with a word in parentheses.