

The Same Old Song?—Stability and Change in Relationship Schemas From Adolescence to Young Adulthood

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Relationship schemas are core elements of personality that guide interpersonal functioning. The aim of this study is to examine stability and change in relationship schemas across two developmental epochs—adolescence and young adulthood—in the stories that people tell about their interactions with others. Using the Core Conflictual Relationship Theme Method, relationship themes were coded from semistructured interviews conducted in adolescence and again at age 25. The sample consisted of 40 participants in a longitudinal study of adolescent and young adult psychological development. There was considerable stability in the frequency with which particular themes were expressed in the narratives of adolescents and young adults. Significant changes from adolescence to young adulthood included a decrease in the perception of others as rejecting and of the self as opposing others. Young adults saw themselves and others more positively, and used a broader repertoire of themes in their relationship narratives than they had as adolescents. The basic continuity and particular changes in relationship schemas found in this study are consistent with knowledge about the adolescent-to-young-adult transition derived from other empirical and clinical findings. Relationship schemas may be rich units of study for learning about the development of interpersonal functioning.

KEY WORDS: relationship schemas; adolescence; adult development.

INTRODUCTION

That the present is shaped by the past is one of the oldest and most enduring concepts in our understanding of human relationships. Psychoanalytic theory, social psycho-

logy, cognitive neuroscience, and folk wisdom are among the lenses through which students of human nature repeatedly observe that people internalize memories of their most important early relationships, and that these internalized memories may profoundly affect their experiences

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of and behaviors with significant others in the present. Such internalized models of relationships, or relationship schemas, are thought to be core elements of personality that are enduring and slow to change (Baldwin, 1992; Thorne and Klohnen, 1993).

Throughout the psychological literature we find the idea that people approach others with preformed expectations about what relationships will be like. Freud conceived of each person as having a central relationship pattern—"a stereotype plate (or several such), which is constantly repeated—constantly reprinted afresh—in the course of the person's life" (Freud, 1912, pp. 99–100). According to Freud's concept of transference, we approach new people with personal relationship templates comprised in large measure of wishes and expectations left over from earlier attempts at need gratification. The idea of a central relationship pattern is reflected in Sullivan's concept of parataxic distortion (Sullivan, 1953), in Tomkins' work on nuclear scripts (Tomkins, 1963), and in Bowlby's internal working models of attachment (Bowlby, 1969).

Relationship schemas generally include (1) representations of the self, (2) representations of the other person, and (3) an interpersonal script that links self and other. This script—like the script of a play—contains declarative elements (e.g., expected dialogue) and procedural elements (e.g., habitual behaviors) for both actors in the relationship, and includes feelings and wishes. People who experience specific patterns of relating to others repeatedly in early life may overlearn these patterns and apply them to situations in the present, even when those situations are inappropriate (Baldwin, 1992).

Empirical research has demonstrated that individuals' relationship schemas are correlated with how they behave. For example, Simpson *et al.* (1992, 1996) have shown that knowing individuals' typical attachment patterns allows one to predict with some accuracy how they will behave toward their romantic partners when placed in a stressful situation. In the realm of developmental psychopathology, maltreated children have been found to generalize negative representational models to new situations and relationship figures, thereby increasing the likelihood that they will perpetuate their relationship histories (Lynch and Cicchetti, 1991; Toth *et al.*, 1997; Toth and Cicchetti, 1996; Waldinger *et al.*, 2001). There is empirical evidence suggesting that core images of self in relationships may discriminate between patients with Borderline Personality Disorder who make suicide attempts and those who do not (Chance *et al.*, 2000).

Empirical evidence also points to the fact that our relationship schemas are slow to change. Research on memory demonstrates that people preferentially notice and recall information for which they have relevant

schemas. Failure-based memories may be particularly likely to become part of the personality and to shape expectations about the future (Cantor and Zirkel, 1990; Markus and Nurius, 1986). Moreover, we know that well-developed relationship schemas often lead people to disattend to or explain away information that is inconsistent with their expectations in relationships (Baldwin, 1992; Kulik *et al.*, 1986; Swann and Ely, 1984), thereby promoting conservation of these schemas and distorting memory (Fiske *et al.*, 1991; Markus, 1977; Swann and Read, 1981). Numerous studies have demonstrated that social behavior often produces responses from others that confirm our interpersonal expectations and in this way reinforce previously formed relationship schemas (Miller and Turnbull, 1986; Snyder, 1984).

Although it is of considerable importance for our understanding of interpersonal functioning, the question of how relationship schemas develop through the life cycle remains largely unexplored. The present study focuses on the transition from adolescence to young adulthood, a period believed to be pivotal in the development of close relationships and in the establishment of enduring patterns of relating to others (Erikson, 1959; O'Connor *et al.*, 1996). In contrast to the sizeable body of research on adolescence, relatively few developmental studies have examined the transition from adolescence to young adulthood (Sherrod *et al.*, 1993). With the exception of one investigation using retrospective data (Thorne and Klohnen, 1993), there have been no studies that focus explicitly on relationship schemas across this developmental transition.

Developmental theory posits that adolescents are concerned with achieving greater intimacy and a more coherent sense of who they are in relation to others. According to Erikson (1959), the most important tasks of adolescence include formation of one's own identity, the development of new relationships outside of the family, and increased autonomy from parents. Blatt and Blass have conceptualized personality development as a dialectic between (1) the development of increasingly intimate and satisfying relationships and (2) the development of a differentiated, stable definition of self (Blatt and Blass, 1996). Concerns about closeness and self-definition coexist throughout adolescence, and there is growing empirical evidence that a state of "autonomous-relatedness" with parents and others is an optimal interpersonal outcome of this dialectic (Allen *et al.*, 1994, 1997). The successful integration of individuality and relatedness is seen as laying the groundwork for the capacity to form mutual, reciprocal relationships with others in adulthood (Blatt and Blass, 1996). Although adolescence is a time of psychological growth and change, studies have found moderate stability in interpersonal needs (Holmlund, 1991; Teichman and

Teichman, 1987), personality traits (Bachman *et al.*, 1978; Block, 1971; Stein *et al.*, 1986), and affective experiences of parent-child relationships (Tubman and Lerner, 1994) during the transition to young adulthood. These findings suggest that core images of relationships may change in some respects but remain stable in others as people move through adolescence and into young adulthood.

One aspect of relationship schemas that appears to be stable over this period is the desire to be close to others. Interpersonal needs and wishes vary across time and across individuals (Luborsky *et al.*, 1999), but empirical evidence suggests that the desire for interpersonal closeness is normative and increases throughout adolescence. Behaviorally, adolescents spend increasing amounts of time with peers (Crockett *et al.*, 1984; Csikszentmihalyi and Larson, 1984), and they report that their relationships shift toward greater intimacy with more reciprocal disclosure of personal information (Berndt, 1996; Parker and Gottman, 1989; Savin-Williams and Berndt, 1990). In the one empirical study that has directly examined relationship schemas in adolescence and early adulthood (Thorne, 1995; Thorne and Klohnen, 1993), young adults were asked to recall relationship episodes from childhood through age 23. In participants' memories of relationships, wishes for closeness with others became increasingly prevalent over the transition from childhood to adolescence and remained prevalent in young adulthood.

Images of the self and the formation of a solid sense of one's own identity are central aspects of psychological development during adolescence and young adulthood. Early adolescents are likely to describe themselves using conflicting images (e.g., shy and outgoing), but these discrepancies tend to decline in later years as adolescents form more consistent views of themselves (Harter and Monsour, 1992). Increased contact with peers affects how adolescents view themselves, as peer social support is a major component of adolescent self-esteem, and self-esteem has been found to improve steadily throughout adolescence (Harter, 1990a). Thus, images of self may become less discrepant, more integrated, and more positive over the transition from adolescence to early adulthood.

Images of other people in relationship schemas are also likely to change from early adolescence to early adulthood. The use of immature psychological defenses (e.g., splitting, projection) decreases during this period (Tuulio-Henriksson *et al.*, 1997), and young adults rely more heavily on mature defenses (e.g., humor, sublimation), resulting in less distorted perceptions of others. The balance between competition and prosocial behavior (e.g., sharing, helping) shifts toward increasing cooperation during this period (Berndt and Perry, 1990), suggesting that

concerns about others as opposing or rejecting may wane over the course of adolescence. In general, perceptions of relationships with others have been found to become more positive over the transition from adolescence to young adulthood (Elliott *et al.*, 1989; Kandel and Davies, 1982).

The processes of integration and maturation described above are thought to allow for the development of friendships that are increasingly complex and psychologically rich (Berndt and Perry, 1990). Empirical research supports the theory that representations of others in significant relationships become more complex and multifaceted over time (Markus, 1977; Sande *et al.*, 1988). Similarly, the concept of self undergoes differentiation into multiple facets of the self, with more categories of self-description and more trait labels added to one's repertoire over the course of development from childhood through adolescence (Harter, 1990b; Hauser, 1976b; Montemayor and Eisen, 1977; Rosenberg, 1986). One might expect, therefore, that narratives about relationships with others would reflect this increasing complexity over time.

Gender differences in relationship development are of great theoretical interest, and the extent to which male and female relationships differ in quality and quantity is the subject of considerable debate (Jordan *et al.*, 1991; Osherson, 1986; Pollack, 1998). Tannen (1990) has popularized the theory that females are more concerned with connection and males are more concerned with status. In empirical research, increasing intimacy in adolescent and young adult relationships has often been cited as more prototypical for females than for males (Furman and Buhrmester, 1985; Sharabany *et al.*, 1981; Youniss, 1980). However, other work suggests that gender differences may have more to do with style than with the substance of relationships. For example, the work of Buhrmester and Furman (1987) and that of McNelles and Connolly (1999) suggest that the validation and interpersonal sensitivity that many adolescents seek in relationships may be achieved for boys through shared activities rather than through the disclosure of thoughts and feelings. Benenson (1996) suggests that both males and females are concerned with connection in adolescence and young adulthood, but that males connect with one another through mutual assertiveness and females through mutual empathy. In light of conflicting theories and empirical findings regarding gender differences in relationship development, we did not formulate specific hypotheses about gender in the current study, but nonetheless explored this potentially important variable.

Although empirical work is underway that explores possible links between forms of psychopathology and particular images of relationships (Diguier *et al.*, submitted; Luborsky *et al.*, 1999), little on this topic has been

published to date, and results are inconclusive. Cierpka *et al.* (1998) reported that the severity of psychopathology correlated with the consistency of CCRT themes, but Wilczek *et al.* (2000) found no relationships between *DSM-III-R* diagnosis and CCRT themes. Looking more generally at psychiatrically hospitalized versus nonhospitalized groups of adolescents, Hauser and his colleagues found that hospitalized adolescents demonstrated less self-image complexity than did their nonhospitalized counterparts (Hauser, 1976b). They also found that self-image complexity was positively correlated with level of ego development (Hauser *et al.*, 1983). Adolescent psychopathology has been associated with arrested ego development (Hauser *et al.*, 1991), and may therefore be associated with less complex relationship schemas.

To our knowledge, this is the first study to use longitudinal data collected during 2 developmental epochs to examine relationship narratives across time. In order to examine stability and change in relationship themes among individuals across a broader range of psychological functioning than would typically be available in a representative sample, we included participants who were psychiatrically hospitalized as adolescents as well as participants without psychiatric histories (see Method section for a more detailed description of sample characteristics).

In formulating our research questions, we aimed to account for the developmental processes described above: the increasing importance of peer relationships, integration of wishes for autonomy and closeness, improving self-esteem, and increasingly complex images of self and other. Change (and stability) in relationship schemas may occur in both qualitative and quantitative domains (Lerner *et al.*, 1996), so our questions and hypotheses address both the types and frequency of particular themes expressed in stories about relationships:

1. How common is change in an individual's most frequently expressed relationship themes from adolescence to young adulthood? We hypothesized that participants would demonstrate considerable stability in relationship themes over the decade from adolescence to young adulthood.
2. What are the most frequently expressed interpersonal wishes in adolescence and do they change from adolescence to young adulthood? We hypothesized that the wish to be close to others would be the most frequently expressed wish in both eras.
3. Do the most frequently expressed images of self and other in relationship narratives change from adolescence to young adulthood? We predicted that conflicting perceptions of self and other (e.g.,

good and bad, close and distant) would be more common in adolescence than in young adulthood. We also hypothesized that images of self and others would be more predominantly positive in young adulthood than in adolescence.

4. Do the complexity of relationship narratives and the breadth of an individual's repertoire of interpersonal themes change over time? We hypothesized that young adults would tell more complex stories using a broader repertoire of perceptions of self and others than they did as adolescents. We also hypothesized that those with histories of psychiatric hospitalization in adolescence would tell less complex stories than those without such histories during both developmental epochs.

Findings from prior research guided the *method* we chose for studying relationship themes. Relationship schemas have most often been studied by attempts at direct assessment, asking people to report on what they expect in their dealing with others (e.g., Hazan and Shaver, 1987; Rempel *et al.*, 1985). Such methods are relatively labor-efficient and allow for the study of large samples. However, a major disadvantage of self-reports in this domain is that some people are likely to distort their responses to direct questions about relationship patterns for defensive reasons (Main *et al.*, 1985; Westen, 1991). Because we expected that some themes (e.g., the wish to be helped, the perception of the self as anxious and depressed) might not be consonant with a participant's self-image or might be outside of a participant's awareness, we chose a second major approach to the study of relationship schemas—the so-called *idiographic* mode—which offers less opportunity for response bias. Idiographic coding procedures involve collecting stories about relationships from individuals' pasts or from their current day-to-day lives (Carlson and Brincka, 1987; Horowitz, 1989; Luborsky *et al.*, 1986) and examining these stories for consistencies in themes, inferring that these consistencies constitute "stereotype plates" or overlearned patterns. Using manualized coding systems, judges rate the presence or absence of particular themes in relationship narratives based not only on what the speaker explicitly says, but also on what the speaker is judged to imply in a particular portion of a narrative. (For example, the standard wish "to be helped" might be coded from the explicit statement, "I wanted to get help from him"; or from the less direct statement, "I hoped he would show me how to fix my bicycle.") Requiring extensive training and coding time, idiographic methods are much more labor intensive than are self-report methods, and thus limit the numbers of participants who can reasonably be studied in any one project. The trade-off

is that these methods may provide less biased and more valid data. The most widely used idiographic method for extracting relationship schemas, the Core Conflictual Relationship Theme (CCRT) Method (Luborsky and Crits-Christoph, 1998), is the method used in this study and is described in the Method section below.

METHOD

Design

This study is a secondary analysis of data collected from participants in a longitudinal study of psychological development conducted between 1978 and 1991. Transcribed interviews collected from participants in adolescence (ages 14–16) and again at age 25 were analyzed using the CCRT Method (Luborsky and Crits-Christoph, 1998) described below.

Sample and Timing

The 40 participants in this study comprise a subsample of 146 predominantly Caucasian individuals first seen in 1978 as part of the Across Generations Project, a longitudinal study of individual and family psychological development (Hauser *et al.*, 1991). On entering this study, participants (mean age = 14.6 years) were members of primarily middle-class and upper-middle-class families. Approximately half were recruited from the freshman class of a local high school ($n = 76$), and half were nonpsychotic, nonretarded psychiatrically hospitalized adolescents ($n = 70$). There were 73 males and 73 females. The rationale for sampling from these 2 contrasting groups was to obtain a range of levels of social and psychological functioning. The psychiatric sample was classified retrospectively using *DSM-III-R* through systematic chart review (Rappaport and Ismond, 1990; Spitzer and Williams, 1987), into the following diagnostic groups: disruptive behavior disorders (e.g., attention deficit/hyperactivity disorder, conduct disorder) = 33; affective disorders = 18; anxiety and stress-related disorders = 11; and other diagnoses = 8. The high school freshmen were selected to match demographic characteristics of the psychiatric group. The groups did not differ in terms of age, gender, birth order, number of siblings, or number of parents living at home. Observational, self-report, and interview data on ego development and other aspects of psychological and interpersonal functioning were collected on 146 adolescents over the period from age 14–17. Ninety-eight percent of the original participants were studied again at age 25, using age-appropriate measures of psychological and interpersonal functioning.

The subsample used in this study was limited to 40 for reasons of feasibility, given the labor-intensive nature of the procedures for identifying and coding relationship narratives in interview material. The 40 participants (20 males and 20 females) were selected in equal numbers from the normal and psychiatrically hospitalized groups to span a broad range of psychological and interpersonal functioning within each cohort. Selection was done based on overall scores (item sum scores) on the Loevinger Sentence Completion Test (SCT). The SCT measures ego development, a construct that encompasses an individual's social and emotional development, including his or her ways of perceiving the self, significant others, and the surrounding social world, and predominant style of impulse control (Hauser, 1976a). There is much published evidence for the reliability and validity of this instrument (Hauser *et al.*, 1991; Loevinger, 1979). Participants were selected to assure a range of scores among the 20 participants in each of the 2 cohorts.

Assessments

Relationship narratives in adolescence were collected using the *Adolescent Clinical-Research Interview* (Hauser, 1978). This semistructured 1-h interview consists of open-ended questions that probe for adolescents' descriptions of their current lives and past experiences, including relationships with parents and siblings, friendships, school, and other activities. Participants were interviewed at ages 14, 15, and 16 by clinically trained interviewers (psychiatrists, psychologists, and social workers) who were blind to all other assessments of the adolescents (e.g., ego development level, family interactions). Interviews were audiotaped and transcribed. Relationship narratives were culled from transcripts of interviews at age 14 and 15, and if necessary, age 16, to collect the minimum of 7 codable narratives required for CCRT scoring (see description of CCRT Method below).

Relationship narratives in young adulthood were collected using the *Early Adult Close Peer Relationship Interview* (Schultz *et al.*, 1990). This audiotaped semistructured interview lasts 1–2 h and is designed to elicit participants' networks of social relationships and then focus intensively on their 2 closest peer relationships (1 romantic relationship and 1 nonromantic friendship). Within each of these close relationships, experiences of connection, intimacy, autonomy, and conflict resolution are probed with questions about recent experiences with these peers (e.g., "How much time do the two of you spend together?"; "What is the biggest decision you two have ever made together?"). Interviews were conducted by trained interviewers who were blind to all adolescent data about

the participants (e.g., psychiatric history, ego development level). No adult phase interviewer interviewed a young adult participant whom they previously interviewed as an adolescent. Interviews were audiotaped and transcribed.

The Adolescent Clinical-Research Interview included stories about nonpeers (parents, teachers, and other adults) as well as peers, while relationship narratives from the Early Adult Close Peer Relationship Interview were exclusively about peers. Consequently, our study focused on the comparison of narratives about peers from each epoch.

Relationship themes were scored from the relationship narratives in adolescent and young-adult interview transcripts using the CCRT Method. The CCRT Method is an assessment system for reliably extracting relationship schemas from narratives about interpersonal interactions (Luborsky and Crits-Christoph, 1990, 1998). It has been empirically demonstrated that the CCRT Method guides the delineation of relationship elements that have considerable stability over time and across relationships (Luborsky et al., 1986), and there is good evidence for the reliability and validity of this instrument (Crits-Christoph et al., 1988; Levine and Luborsky, 1981; Luborsky et al., 1986; Luborsky and Diguier, 1998). Quantitative studies reveal extensive similarities between the CCRT Method and other methods of measuring central relationship patterns, including the Structural Analysis of Social Behavior (Benjamin, 1974) and the Role Relationship Models Configuration (Horowitz, 1989). Accurate delineation and interpretation of CCRT Themes in psychotherapy is positively correlated with improvement in psychotherapy (Crits-Christoph et al., 1988).

Relationship episodes (REs) are identified in interview material, in which the participant speaks of an interaction with another person in sufficient detail to enable scoring of specific components. The CCRT rater identifies wishes, responses from others, and responses of the self in each relationship episode describing an interaction with another person. Each wish, response of other, and response of self is then rated as best represented by 1 of 8 standard themes (see Table I; these standard themes were derived by Luborsky and Crits-Christoph, 1998, from cluster analysis of a wide range of relationship narratives.) Raters assign a theme to each identified wish, response from other, and response of the self in a relationship episode based on a judgment about which standard theme best matches the particular portion of the narrative being coded. In cases where an item is judged to fit into more than 1 standard category, raters assign both a “best-fitting” and a “next-best-fitting” theme. For each individual, predominant relationship themes are then defined as the wishes, responses of other, and responses of self occurring most frequently

Table I. CCRT Categories

Wishes	Responses of others	Responses of self
To be independent	Strong	Am helpful
To oppose others	Controlling	Am unreceptive
To be helped	Upset/angry	Feel respected/ accepted
To be distant	Bad	Oppose others
To be close	Rejecting	Feel self-confident
To be loved	Helpful	Feel helpless
To feel good	Likes me	Am disappointed/ depressed
To achieve and help others	Understanding	Feel anxious

over the entire set of the individual’s relationship episodes. (The following is a sample CCRT formulation based on the most frequently occurring themes in an interview transcript: “I wish to be close to the other person [wish]; but the other person is rejecting [response of other], and I am disappointed and depressed [response of self].”) Responses of other and responses of self are also rated as positive or negative from the participant’s perspective, resulting in ratios of positive to negative responses of other and responses of self for the entire transcript.

Complexity of stories about relationships was conceptualized in two ways: (1) as the number of components used in each participant’s relationship episodes, computed by summing the number of wishes, responses of other, and responses of self coded for each participant and dividing by the number of that participant’s relationship episodes; and (2) as the breadth of the repertoire of themes expressed in each participant’s relationship episodes, computed as the sum of the number of *different* wishes, responses of other, and responses of self used by each participant to describe relationships. So, for example, a participant may tell stories with many components, but with monotonous themes, yielding a high score on mean number of components, but a low score for breadth of repertoire.

Raters were undergraduate or recently graduated psychology majors who were trained using both standardized interview materials provided by Dr Luborsky and interview transcripts from participants in the Across Generations Project who were not part of the subsample used in this study. The data for each of the 40 participants was derived from 2 sets of interviews: Adolescent Clinical Research Interviews conducted yearly between age 14 and 16, and the Early Adult Close Peer Relationship Interview conducted at age 25. Data from the age 14 and 15 interviews (and where necessary, the age 16 interviews) were used in order to obtain a total of at least 7 codable relationship narratives from adolescence, a number sufficient

to establish a pattern of recurrence in relationship themes (L. Luborsky, personal communication, July 1993). All young adult interview transcripts yielded 7 or more relationship episodes. Adolescent relationship narratives were about peers, parents, and a variety of other people, while young adult narratives were solely about peers. Based on prior research demonstrating that CCRT patterns differ according to the type of other person discussed (Connolly *et al.*, 1996), we limited our analyses of adolescent narratives to those about peers. Although this reduced the number of relationship narratives included in our adolescent database to fewer than 7 for some participants, all data could be included in analyses that examined themes in the sample as a whole. Raters had no information about these participants beyond that in the interview transcripts, and raters did not code the narratives of the same individual participants in adolescence and again in young adulthood.

Interrater Reliability

Interrater reliability was achieved for rating responses of other and responses of self as positive or negative from the participant's point of view, and for categorizing wishes, responses of other, and responses of self according to 8 standard categories⁸ (Luborsky and Crits-Christoph, 1990). Interrater agreement in rating responses of others and responses of self as positive or negative was 98%. To assess reliability in assigning standard categories to individual wishes, responses of others, and responses of self, weighted Cohen's kappas were calculated for each pair among the independent raters. According to Cohen (1968), when certain disagreements are less important than others, kappas may be weighted in order to have a more reliable estimate of the reliability. This weighting has been used in several studies on the CCRT (Luborsky and Diguier, 1998). In counting matches between judges, the following weights were used: (a) agreement between judges on the best-fitting CCRT category was given a weight of 1.0; (b) a weight of 0.66 was given when the match was based on agreement between the best-fitting CCRT category of judge 1 and the next-best-fitting category of judge 2; (c) when the match was based on agreement between the next-best-fitting categories of the

⁸The CCRT scoring system uses approximately 30 individual categories to classify wishes, responses from others, and responses of self. Using cluster analysis, Luborsky and his colleagues (Barber *et al.*, 1998) reduced these individual categories to 8 clusters of wishes, 8 clusters of responses from others, and 8 clusters of responses of self. In this paper, we use "standard categories" to refer to Luborsky's clusters. Raters scored narratives using the more finely grained individual categories, and these were then aggregated into clusters both for purposes of reliability testing and for data analysis.

2 judges, a weight of 0.33 was given. Kappas for reliability of pairs of judges ranged from 0.73 to 0.85. These are comparable to those obtained in other studies (Luborsky and Diguier, 1998).

RESULTS

Question 1: How Common is Change in an Individual's Most Frequently Expressed Relationship Themes From Adolescence to Young Adulthood?

Change in each participant's most frequently expressed wishes, responses of other, and responses of self over time was scored by examining his or her most frequent and the next-most-frequently expressed categories in adolescence and young adulthood. Analyses were in terms of a continuous scale from 0 to 1, where 0 was no change (complete agreement) between the two developmental eras, and 1 was complete change (lack of any observed agreement). When, for example, a participant's most frequently expressed and next-most-frequently expressed wishes in adolescence were, respectively, the wish to be independent and the wish to be close, and if these same two wishes occupied the same rank order in young adulthood, the change score was 0. When the most frequently expressed wish was the same at both times, but the next-most-frequently expressed wish was not the same, the change score was 0.25. When the participant's most frequently expressed wish in adolescence was the next-most-frequently expressed wish in young adulthood, the change score was 0.50. When the most frequently expressed wish differed, but the next-most frequently expressed wish was the same at both times, the change score was 0.75. When both the most and next-most frequently expressed wishes differed from adolescence to young adulthood, the change score was 1.

Mean change scores were calculated for wishes, responses of other, and responses of self for all participants. These change scores for wishes, responses of other, and responses of self were not significantly correlated, and ANOVAs were performed to examine the change scores for these 3 variables in terms of gender and cohort. No significant main effects and no significant interactions were found. Thus, gender and psychiatric status were not associated with the degree to which an individual's most frequently expressed relationship themes changed between adolescence and young adulthood.

Two specific questions about change were posed:

- a. *Do the most frequently expressed wishes, responses of other, and responses of self change from*

adolescence to young adulthood? t values were calculated on the change scores described above in order to determine whether they were significantly different from zero. The alpha level was set at 0.0167 for individual tests of significance, using the Bonferroni correction to maintain an overall alpha level of 0.05. These t values revealed that the scores for wishes, responses of other, and responses of self changed significantly (i.e., change scores were significantly different from zero) over this developmental transition: for *wishes* ($n = 36$), mean change score (x) = 0.50, $t = 9.02$, $p < 0.0001$; for *responses of other* ($n = 40$), $x = 0.55$, $t = 9.00$, $p < 0.0001$; and for *responses of the self*, ($n = 40$), $x = 0.30$, $t = 14.23$, $p < 0.0001$.

- b. *Do some components change less over time than others?* Again setting the alpha level at 0.0167 for individual tests of significance, t tests were conducted between change scores of each of the 3 pairs of components (wish–response of other, wish–response of self, response of other–response of self). These showed no differences between wishes and responses of other ($t = -0.33$, $p = 0.74$, $n = 36$), or between wishes and responses of self ($t = 2.30$, $p = 0.03$, $n = 36$). However, there was a significant difference between responses of other and responses of self ($t = 3.36$, $p = 0.002$, $n = 40$), indicating that responses of self changed less between adolescence and young adulthood than did responses of other.

Question 2: What are the Most Frequently Expressed Interpersonal Wishes in Adolescence, and Do They Change From Adolescence to Young Adulthood?

As noted above, each wish, response from other, and response of self was coded for the best fitting and the next-best fitting standard category, yielding 2 coded categories for each component. Using both scores for each component, frequencies were calculated as the proportion of relationship narratives containing a particular theme, and ranged from 0.06 to 0.48. Adolescents expressed the wish to be close to others with greatest frequency ($x = 0.48$, $SD = 0.28$), followed by the wish to achieve ($x = 0.41$, $SD = 0.32$), and by the wish to be distant from (e.g., to reject) others ($x = 0.40$, $SD = 0.28$). In young adulthood, the wish to be close remained the most frequently expressed wish ($x = 0.35$, $SD = 0.22$), but the next most frequently expressed wish in young adulthood was the wish to be independent (e.g., “to be my own person”)

Table II. Most Frequently Expressed CCRT Themes in Adolescence and in Young Adulthood

	Adolescence	Young adulthood
Wishes		
“I wish . . .”	To be close to others To be distant from others To achieve	To be close to others To be independent
Responses from others		
“The other person is . . .”	Opposing and rejecting Bad	Opposing and rejecting Understanding
Responses of self		
“I feel . . .”	Unreceptive Independent Disappointed	Helpful Respected

($x = 0.20$, $SD = 0.12$). These findings are summarized in Table II.

Question 3: What are the Most Frequently Expressed Images of Self and Other in Relationship Narratives in Adolescence and Do They Change From Adolescence to Young Adulthood?

With respect to participants’ perceived responses of other, adolescents most frequently saw others as opposing and rejecting ($x = 0.48$, $SD = 0.20$), followed by the perception that the other was bad ($x = 0.20$, $SD = 0.13$). In young adulthood, participants continued to see others as opposing and rejecting with the greatest frequency ($x = 0.27$, $SD = 0.11$), but their next-most-frequent perception was that the other was understanding ($x = 0.16$, $SD = 0.08$). Adolescents saw themselves in their dealings with others as independent ($x = 0.20$, $SD = 0.12$), disappointed ($x = 0.20$, $SD = 0.12$), and unreceptive ($x = 0.18$, $SD = 0.12$), while in young adulthood, these same participants saw themselves most frequently as helpful ($x = 0.23$, $SD = 0.12$), followed by feeling respected by others ($x = 0.18$, $SD = 0.12$). These findings are summarized in Table II.

Some images of self and other were not the most frequently expressed themes in either era, but nevertheless changed significantly over time in the frequency with which they appeared in relationship narratives. To examine these changes, we analyzed change from adolescence to young adulthood in the extent to which each of the 8 categories of responses from others, and 8 responses of the self pervaded participants’ narratives about relationships. The dominance or *pervasiveness* of each type of response of other and response of self in each developmental

era was calculated by summing the number of times a participant expressed a particular theme and dividing by the total number of themes he or she expressed in that category. The pervasiveness of the perception of the other as rejecting, for example, was generated using the total number of times a participant expressed the response of other “rejecting” in all relationship narratives, divided by the total number of responses of other he or she expressed.

For each category (responses of other, responses of self), repeated-measures ANOVAs were carried out examining developmental era, gender, and cohort, along with possible interactions among these 3 variables. To maintain an overall alpha level of 0.05, the Bonferroni correction was used and the alpha level for individual tests was set at 0.00625. (*Note:* Numbers of observations vary with each analysis, because not all relationship episodes were coded as containing all elements.)

Adolescents expressed the perception of others as rejecting significantly more often than they did in young adulthood (mean T1 = 48.1, SD = 19.7, mean T2 = 27.1, SD = 11.4, $F(1, 36) = 59.70, p = 0.0001$). In addition, participants expressed the perception that others liked them more frequently in adolescence than they did in young adulthood (mean T1 = 12.7, SD = 10.8, mean T2 = 6.2, SD = 3.6, $F(1, 30) = 7.65, p = 0.0001$). No significant differences were found with respect to the other 6 categories of responses from others. There were no significant interactions among developmental era, cohort, and gender. Adolescents perceived themselves as opposing others more frequently than they did in young adulthood (mean T1 = 17.5, SD = 10.4, mean T2 = 9.5, SD = 4.7, $F(1, 23) = 14.22, p = 0.001$). There were no other significant differences in responses of self across time, and no significant interactions among developmental era, cohort, and gender.

We also examined the balance between positive and negative views of self and other in each era. The mean valence (positive vs. negative rating) of each participant’s responses of other and responses of self was calculated, weighting a negative as -1 and a positive as +1. There was a significant correlation between the valence of responses of other and of responses of self ($r = 0.51, n = 79, p = 0.0001$). We therefore conducted a repeated-measures MANOVA, and found a significant main effect for change between adolescence and young adulthood ($F(2, 34) = 12.87, p = 0.0001$). Separate follow-up repeated-measures ANOVAs examining developmental era, gender, cohort, and their possible interactions revealed significant shifts from more negative to more positive responses of other and responses of self from adolescence to young adulthood: for *responses of others*: mean (T1) = -0.46, SD = 0.49; mean (T2) = -0.06,

SD = 0.33; $F(1, 36) = 25.46, p < 0.0001$; and for *responses of self*: mean (T1) = -0.10, SD = 0.57; mean (T2) = 0.29, SD = 0.33; $F(1, 35) = 11.65, p < 0.002$. No significant differences in valence were found between men and women or between the hospital and high school cohorts, nor were there significant interactions among these variables. Thus, perceptions of self and other were more positive in young adulthood than they had been in adolescence, regardless of participants’ gender or initial psychiatric status.

Question 4: Do the Complexity of Relationship Narratives and the Breadth of an Individual’s Repertoire of Interpersonal Themes Change Over Time?

We performed a repeated-measures ANOVA to examine links between the number of components used in each participant’s relationship episodes and developmental era, gender, and cohort (high school vs. hospital). The difference between the mean number of components used in adolescent relationship episodes and young adult relationship episodes was not significant. There were no significant differences on gender or cohort, and no significant interactions among these variables.

We next explored the breadth of the repertoire of themes expressed, comparing the number of different wishes, responses of other, and responses of self used by each participant across all relationship episodes in adolescence with those in young adulthood. Because the numbers of wishes, responses of other, and responses of self were correlated (Pearson correlations ranging from 0.45 to 0.66), we performed a repeated-measures MANOVA on these 3 variables together, along with gender and cohort, and developmental era. Participants differed significantly with respect to developmental era ($F(3, 30) = 30.07, p = 0.0001$). ANOVAs then revealed that young adults used a significantly broader repertoire of wishes, responses of other, and responses of self in their relationship narratives than they had as adolescents, as shown in Table III. We found no differences for gender or cohort in

Table III. Breadth of Repertoire: Mean Numbers of Different Components Used in Relationship Narratives

	<i>n</i>	Adolescents	Young adults	$F(1, 32)$	<i>p</i>
Wishes	36	2.89 (1.55)	5.08 (1.38)	49.09	0.0001
Responses of others	40	4.80 (1.76)	7.03 (0.92)	36.50	0.0001
Responses of self	40	5.80 (1.59)	7.45 (0.88)	24.37	0.0001

either the number of components per relationship episode or the number of different themes used in relationship episodes.

DISCUSSION

The present study applies a psychometrically rigorous method for the assessment of interpersonal themes to longitudinal data spanning a crucial developmental decade between adolescence and young adulthood. To our knowledge it is the first use of such a method to move beyond the clinical context of psychotherapy studies to explore relationship schemas as a normative developmental phenomenon.

Our findings support the hypothesis that there is moderate stability in relationship needs and concerns over the period from adolescence to young adulthood. Stability was about as common as change in the most frequently expressed wishes and perceptions of others over this time period, while perceptions of the self were somewhat more stable. These findings are consistent with the work of other investigators, who have found moderate stability in interpersonal needs and personality traits (Bachman *et al.*, 1978; Block, 1971; Holmlund, 1991; Stein *et al.*, 1986; Teichman and Teichman, 1987), over the period from adolescence to adulthood.

As predicted, the wish to be close to others was the most frequently expressed wish in relationship narratives in adolescence and in young adulthood. This finding is consistent with other CCRT findings (Luborsky and Crits-Christoph, 1998). It is also consistent with the large body of empirical work documenting the importance of close peer relationships in adolescence and young adulthood. However, closeness was by no means the only dominant theme in these narratives. Both adolescent and young adult narratives were laden with concerns about the individuality as well as connection to others. After the wish to be close, the most frequently expressed wish in adolescence was "to be distant," and the most frequently expressed wish in young adulthood was "to be independent."

As predicted, there appeared to be some diminution in the polarization of images of self and others over the period from adolescence to young adulthood. Adolescents saw others as liking them more frequently than they did as young adults, but they also saw others as bad and rejecting more frequently than they did as young adults. While "opposing and rejecting" was the most frequently expressed perception of others both in adolescence and young adulthood, the extent to which this perception dominated relationship narratives decreased significantly over this period, from 48% of all expressed perceptions of others in

adolescence to 27% in young adulthood. In addition, while the next-most-frequently expressed perception of others in adolescence was that they were "bad," in young adulthood it was that others were "understanding." Adolescents saw themselves as responding to others with opposition more frequently than they did as young adults. These changes may reflect the comparatively less well-integrated images of self and others that are part of the developmentally normative adolescent search for identity (Erikson, 1963; Hauser *et al.*, 1984). They may also reflect adolescents' developmentally appropriate concerns with establishing autonomy and their sensitivity to peer rejection (Allen *et al.*, 1994; Grotevant and Cooper, 1985), concerns which are typically less pressing as one moves into adulthood. Young adults' two most frequently expressed wishes were for closeness and for independence, suggesting that the struggle to achieve autonomous-relatedness does not end with adolescence.

Adolescents' perceptions of self and other in stories about relationships were, as a whole, more negatively tinged than they were a decade later. This is consistent with findings from empirical research on both relationship functioning and self-esteem across these 2 developmental epochs (Elliott *et al.*, 1989; Harter, 1990a; Kandel and Davies, 1982). It is also consistent with clinical findings: changes in relationship schemas toward more positive perceptions of others have been found to be pivotal to positive outcomes in some forms of psychotherapy (Grenyer and Luborsky, 1996; Luborsky and Crits-Christoph, 1990). The shift toward more positive perceptions of self and other may reflect processes of ego maturation common to both normal development during the adolescent-to-young-adult transition and psychological change during successful interpersonal therapy.

Participants' narratives about relationships grew more complex and elaborative over time (Lerner *et al.*, 1996), in the sense that young adults told stories that included a greater variety of wishes, responses from others, and responses of self than they did as adolescents. This may reflect progressive ego development over this decade (Hauser, 1976a), as well as young adults' greater experience with close relationships that prompts more complex perceptions of self and other in relationships (Hauser and Greene, 1987). Findings of this study did not support our prediction that participants in the hospital cohort would show less change over time in the breadth of their repertoires of themes than those in the high school cohort. In retrospect, this finding makes sense in light of our deliberate selection of participants in each cohort who would encompass a broad range of levels of psychological functioning. Random selection from each cohort might have resulted in confirmation of the hypothesized differences

between the hospitalized and nonhospitalized groups. Another possibility, however, is that analysis of relationship narratives using the CCRT method taps into basic issues in the development of interpersonal schemas—issues that are not tied specifically to one's level of psychological distress.

Males and females did not differ in the complexity of their relationship narratives or in the themes they expressed most frequently in those narratives. Both in adolescence and in young adulthood, males and females told stories that were comparable in length and in the number of different observations contained in each narrative. While many recent discussions of gender differences have focused on women's greater investment in and orientation toward close interpersonal connections (Chodorow, 1978; Jordan *et al.*, 1991), others argue that men are equally invested in relationships, but that the types and quality of these relationships may differ from those of females (Buhrmester and Furman, 1987; Osherson, 1986; Pollack, 1998). The finding of no gender differences in our study needs to be replicated, but it suggests that, when thinking about and discussing their lives, males and females may differ less in their concerns about and perceptions of relationships than some theorists believe.

The results presented here must be interpreted in light of several important limitations. The CCRT method is labor-intensive, and our study included only 40 participants, limiting our power to detect differences. Data from the adolescent and young adult eras came from semistructured interviews that were overlapping but not identical in their focus. The Adolescent Clinical Research Interview covered several developmentally relevant domains, including school, family life, relationships with friends, and future plans. The Early Adult Close Peer Relationship Interview focused on only 1 of these domains—relationships with friends and romantic partners—asking open-ended questions about experiences with two specific people identified by the participant as important in his or her life. Young adult relationship narratives were taken from the peer interview conducted at age 25. In order to collect a sufficient number of narratives for adolescents, data from 2 (and, as needed, 3) interviews conducted between age 14 and 16 were pooled, and only narratives about peers were included in data analyses. These differences between the adolescent and young adult interviews are one possible source of differences in relationship themes across time periods. Given these differences, the considerable stability in relationship themes across developmental epochs observed in this study is noteworthy.

This study is the first to apply a method of analyzing relationship narratives to longitudinal data spanning the decade from adolescence to young adulthood. Many of the

findings are consistent with knowledge about adolescent development and the adolescent-to-young-adult transition derived from other empirical sources. In their capacity to shed light on inner representations of the self and others, relationship schemas may be rich units of study for developmental psychology and, particularly, for learning about the development of interpersonal functioning. The CCRT Method is a tool that lends itself to the analysis of longitudinal data, in that it can be applied to a wide variety of narrative materials. Further research in this area has the potential to enhance our understanding of links between relationship schemas and other psychological variables (e.g., ego development, self-esteem), and how these links may change over time. In addition, the analysis of relationship narratives in combination with observational data on interpersonal behavior could make valuable contributions to our understanding of the connections between how we perceive relationships and how we behave in them.

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