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Themes of Generativity in Adult Life Stories

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THEMES OF GENERATIVITY
IN ADULT LIFE STORIES

by
Rachel Albrecht

A Thesis Submitted to the Faculty of the Graduate
School of Loyola University of Chicago in
Partial Fulfillment of the Degree of
Master of Arts

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VITA

The author, Rachel K. Albrecht, is the daughter of Fred and Judith Heilizer. She was born on December 29, 1962 in Boston, Massachusetts.

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CHAPTER I

REVIEW OF RELATED LITERATURE

The purpose of this project was to develop and refine a measure of generativity as a multidimensional construct, and to relate individual differences on psychological measures (TAT, ego development, psychological well being, and masculinity, femininity and androgyny) to generativity. The main goal of this study was the development of a reliable, sensitive and valid measure of generativity through the content analysis of the Life Story Interview (McAdams, 1985).

THEORETICAL REVIEW

In the Iliad of Homer, Priam, the King of Troy, grieves the death of his son.

"I have gone through what no other mortal on earth has gone through;/I put my lips to the hands of the man who killed my children;/So he spoke, and stirred in the other a passion of grieving for his own father ... and the two remembered"

(Lattimore, p.488).

Writers dating back to Homer's time have recognized the importance of an individual's need to create his/her

image in a manner of lasting endurance. Whether the individual's image is manifested through offspring, art or other, the individual that is faced with his/her own mortality strives to leave his/her indelible mark on the world. The concept of generativity provides a framework by which to understand the creative and procreative urges that commonly arise when the individual confronts his/her own mortality.

E.H. Erikson (1963) is often credited with the recognition of the importance of generativity in human development. In general, Erikson attempts to explain human development through an eight stage psychosocial scheme. Each of these eight stages is characterized by a specific conflict that must be resolved by the individual. The resolution of the specific conflict at a particular stage provides the foundation for the individual's movement toward the next developmental stage. It should be noted, however, that the eight stages are not independent of one another. Rather, the successful resolution of the conflicts that exist at each of the stages unite to provide the individual with the cumulative strength to continue to the next developmental stage.

Erikson locates generativity as the seventh stage

in his eight-stage developmental scheme. Generativity is the longest of Erikson's stages and encompasses the span of middle adulthood. As was stated previously, Erikson's theory assumes the interdependencies of all stages. Thus, the resolution of the stages prior to generativity ultimately affect the manner in which generativity is realized. For example, the conflicts of identity and intimacy, which lie at the fifth and sixth stages respectively, lay the foundation upon which future generative actions are built.

The epigenetic diagram depicts a system of stages that are dependent upon each other. Each psychosocial strength is systematically related and dependent on all the other stages, and exists in some form before its critical time normally arrives. The diagram delineates a specific sequence to be followed, but also makes room for "variations in tempo and necessity" (Erikson, 1963, p.271). An appreciation of the empty boxes is important to a total understanding of this scheme. That is, each psychosocial issue is continuously present in some form; its experience affects the manner in which the crisis is realized. Ultimately, the epigenetic scheme represents a general, global way of conceptualizing development.

While having children is the prototypical generative action, the term generativity is conceptually

Figure 1

An Epigenic Diagram

VIII.	Maturity							ego integrity vs. despair
VII.	Adulthood						generativity vs. stagnation	
VI.	Young Adulthood					intimacy vs. isolation		
V.	Puberty and Adolescence				identity vs. role confusion			
IV.	Latency			industry vs. inferiority				
III.	Locomotor- Genital		initiative vs. guilt					
II.	Muscular- Anal	autonomy vs. shame and doubt						
I.	Oral Sensory	trust vs. mistrust						

much larger than mere procreation. Generativity encompasses non-biological productive and creative endeavors as well: "Generativity, then, is primarily the concern in establishing and guiding the next generation ... the concept of generativity is meant to include such more popular synonyms as 'productivity' and 'creativity', which, however, cannot replace it" (Erikson, 1963, p. 267).

In addition, Erikson suggests that a "belief in the species" is an essential component of generativity. Generativity demands a faith, hope and trust in humankind and a belief in the continuity of generations. Erikson's (1969) case study of Gandhi is an example of how generativity can exist distinct from the procreative realm and extend to the welfare of generations of present and future people. Erikson describes how Gandhi's capacity to be a great leader rests on his ability to create for himself and others "new choices and new cares" (p. 395). As a "father" of modern India, Gandhi was able to create a legacy in his people to whom he passed down and taught his values.

Erikson describes the failure in generativity in terms of "stagnation". The root of this failure is likely to be multidetermined, or the result of some

combination of lack of generative desire, skill or opportunity. "The reasons [for not being generative] are often found in early childhood impressions; in faulty identifications with parents; in excessive self love based on a too strenuously self made personality; and finally, in the lack of some faith, some 'belief in the species' which would make a child appear to be a welcome trust of the community" (Erikson, 1959, p. 103). Erikson originally did not elaborate on the experience of stagnation, except to suggest that it represents generativity unfulfilled. Recently, however, Erikson has recast the notion of 'stagnation' to include the concept of 'self absorption' thereby highlighting the narcissistic aspect of being non-generative.

Several other theorists have developed somewhat different ideas of generativity. Kotre, (1984) for example, defines generativity as the "desire to invest one's substance in forms of life and work that will outlive the self." (p. 10). While appealing for its' generality and clarity, this definition does not incorporate the "care" and "faith" that is an integral part of Erikson's conceptualization of generativity. Kotre suggests that generativity is both psychosocial and instinctual and that it seeks biological as well as

cultural outlets. Ultimately, according to Kotre, the desire to be generative is in great part motivated by the desire to achieve immortality. Kotre, however, makes the distinction between generativity and creativity. This distinction hinges on the fact that creativity involves creating something new, while generativity involves passing on something old that is nurtured and developed.

Kotre (1984) delineates four types of generativity. The first, biological generativity, involves conception, birth and nursing of the generative object: the infant. Kotre distinguishes the second type of generativity, parental, from the biological component by suggesting that parental generativity involves the nurturing and disciplining of one's offspring and his/her initiation into family traditions. The generative object is the child. The third type of generativity, technical, involves the teaching of cultural skills to successors. In this type of generativity, the generative objects are not only the skills themselves but the apprentice through which the skills will endure. Cultural generativity, the fourth type suggested by Kotre, involves the creation, renovation and conservation of a system of symbols that is later passed to successors.

Kotre sees this fourth type as the "mind" of the culture. In the cultural type of generativity, the generative objects are the disciples or the culture itself. Kotre's conceptualization of generativity moves the concept from a stage-grounded focus, as proposed by Erikson, to one which spans all of the adult years. It is particularly interesting that Kotre identifies the generative object as separate and distinct from the generative act; this type of conceptualization pays credence to the difference between the act of generativity and the target of such an act.

Kotre (1984) also discusses the positive and negative aspects of generativity. That is, generativity can represent both a virtue as well as a vice. Kotre quotes Shakespeare's Mark Antony to emphasize that "the evil that men do lives after them" (p. 9). An example of this is the malignant cultural generativity fostered by Hitler's 3rd Reich. Kotre concludes that generativity should be viewed as an impulse whose energy can be channeled into vice or virtue; the quality of the acts that "outlive the self" can be positive and helpful or negative and destructive. Perhaps the lack of the component of care in Kotre's discussion of generativity renders his notion capable of tolerating the negative or

destructive aspect of generativity. However, many theorists may challenge this conceptualization and maintain that generativity should be a positive attribute that implicitly carries ethical weight.

Becker's (1973) notion of heroism is similar to both Erikson and Kotre's conceptualization of generativity. According to Becker, heroism rests on the premise that the fear of death becomes paramount during adulthood. He suggests, however, that this fear is so terrifying that it is repressed, thereby providing the fuel by which individuals are motivated to produce and create. Immortality can be achieved and the finality of death averted through created acts that will outlive the self; that is what Becker means by "heroism". Becker states: "the hope and belief is that the things that man creates in society are of lasting worth and meaning, that they outlive or outshine death and decay, that man and his products count" (Becker, 1973, p. 5).

Gould (1978;1980) concurs with Becker that the fear of death is a major concern, issue and motivator during adulthood. According to Gould, recognizing and accepting the reality of one's own mortality prompts the individual to become more "authentic". The process of adult development is predicated on authenticity because

it forces the individual to evaluate long-held assumptions in light of experience. Generativity, in turn, is realized because, through this "authenticity" the adult promotes an enduring positive role model that is passed onto the younger generation.

McAdams (1985) expands Erikson's and Becker's ideas to suggest that generativity is a two-step process. The first step involves generating, producing or creating a product that represents an extension of the self. The second step involves surrendering the self, or "giving up" the product; it is at this point the creator renounces control and grants the product autonomy. In other words, creation represents a powerful or agentic expansion of the self, while the process of surrender represents an intimate exchange with the community or receiver of the generative acts. McAdams states: "generativity affords the opportunity for adults to experience strength and closeness, mastery and surrender, power and intimacy, at the same time" (McAdams, 1986, p. 802).

Levinson (1977; 1978) also explores the existence of generative behavior in his model of adult development. This model is based on the concept of individual "life structures" which refers to "the

patterning or design of the individual life at a given time" (1977, p. 99). Life structures are a broad concept that includes various aspects of the "adult self", including roles and relationships. Adult development is predicated on the evolution of these life structures. Levinson suggests that the mid-life transition, which occurs during the 40's, marks formal entry into middle-adulthood and witnesses the most comprehensive transformation of the life structures. At this stage of development the primary questions become: "What have I done with my life? What do I really get from and give to my wife, children, friends, work, community - and self? What is it I truly want for myself and others?" (Levinson, 1978, p. 60). Levinson recognizes that Erikson's stage of generativity coincides with the mid-life transition. Because the generative act of parenting is, however, typically limited to early adulthood, the mid-life adult must find "new ways to combine authority and mutuality" (Levinson, 1978, p. 29). In short, Levinson recognizes and focuses on the mid-life urge that is the seed of generative behavior.

As can be seen, many theoretical angles exist from which to evaluate the concept of generativity. While

this presentation has been conceptually somewhat diverse, aspects of the theories may unite to provide a more comprehensive understanding of generativity than any of the theories do individually. One interesting concept suggested by the literature is that a difference may exist between the generative act and the generative object of such an act. Kotre most clearly delineates this difference in his discussion of the various types of generative actions and the objects to which they are directed. Other theorists, however, (i.e., Erikson, Levinson) distinguish between the act of creating and the object or the goal of such a creation.

Another intriguing observation concerning generativity is McAdams' (1985) integrative idea of generativity as a two step process in which one first creates a product which represents an extension of the self and then "gives" the product up, or renounces ownership in an effort to grant the product autonomy. This theory suggests that perhaps generativity is a process where one first creates a product and then "lets go" and grants the product autonomy, enabling it to exist on its own. This second step in the generative process of "letting go" may represent a more mature form of generativity than the mere act of creating.

Additionally, the literature suggests that the other side of generativity, stagnation, must be further explored to enhance our understanding of generativity. Two extreme theoretical views of stagnation presented suggest that on one hand the expression of generative can actually prove to be a vice (Kotre, 1984) versus the view of stagnation presented by Levinson (1978) who suggests that the recognition of generative "limits" is more of a positive attribute. Regardless of which view is more accurate, it nevertheless seems necessary to more fully understand the implications of the state that exists when generativity is not realized. The current study will explore each of these areas in an effort to develop an appropriately comprehensive and sophisticated method for understanding and evaluating generativity.

Empirical Review

The concept of generativity has been the subject of limited, yet growing empirical work. A detailed examination of five studies will be presented to illustrate the empirical status of the concept of generativity.

Vaillant and Milofsky (1980) examined Erikson's life cycle model by reviewing two 40-year prospective studies. The first followed 392 men from high-crime

core city neighborhoods, and the second followed 94 successful college students. Clinicians blind to all other ratings categorized the men into one of Erikson's psychosocial stages, based on subject responses to a semi-structured two hour interview. Vaillant and Milofsky (1980) proposed a new stage entitled "career consolidation" located developmentally between intimacy (stage #6 of Erikson's scheme) and generativity (stage #7). Career consolidation was defined as "stable career specialization but little responsibility for others" (p. 1353) and was denoted as stage #6a. This stage contained 33% of the college sample and 32% of the city sample. Stage #7, generativity, defined as "clear responsibility for others" (p. 1353), had 41% of the college as opposed to 31% of the city population as members. The authors did not indicate whether this difference was statistically significant. These findings were relatively independent of chronological age and social status. The fact that these researchers felt it necessary to delineate a separate "career consolidation" stage, which seemed to involve basic identity issues, may highlight some of the problems with Erikson's developmental scheme as it applies to adults. Specifically, the issues of identity, intimacy,

generativity and ego integrity all seem to be simultaneously present in adulthood. While the issue most paramount is thought to subsume all other issues at that time, they all consistently ebb and flow, and hence occupy different relative positions of importance throughout adult development at any one time.

Erikson's notion that the developmental tasks of adult life must be mastered sequentially was supported in this study. Specifically, in order to have successfully resolved the crisis of generativity, the men in this sample had to successfully resolve the preceding stages. Of the 121 men in the study, 96% deemed generative had mastered the tasks involving career consolidation and intimacy. The results of this study support the notion that generativity represents a complex and sophisticated level of development. The greater percentage of the college population who advanced beyond the career consolidation stage to the stage of generativity suggests that the capacity to look beyond one's personal needs and "care" for others may have its roots in the developmental, socio-cultural and class differences between these two populations of men.

This study, however, can be criticized for its rather simplistic measurement of generativity. The

overriding differentiating characteristic that guided the authors' placement of subjects into the generative stage was a "clear responsibility for others" (p. 1353). This is much too narrow a distinction, for it does not address the issues of hope for the future and belief in the species that have been deemed theoretical necessities for a comprehensive understanding of generativity. While the authors claim to have "adhered to the spirit, not the letter, of Erikson's model" (p. 1352) in classifying subjects, they gave no indication of their methodology or decision criteria for others to evaluate. As their inter-rater reliability was .61 for the college sample and "not determined" for the city sample, it suggests that a great deal of arbitrariness may have been guiding stage placement. The vague quality of this type of measurement, and the lack of reporting decision criteria and technique, renders this procedure methodologically questionable and of little help for those who wish to replicate these procedures.

Ryff and Migdal (1984) conducted an empirical investigation of Erikson's theory as it applies to women. Particular attention was focused on the psychological changes during the transition from young to middle adulthood. Fifty young women (mean age, 22.1

years) and 50 middle aged women (mean age, 47.3 years) were administered the Personality Research Form (PRF) (Jackson, 1967) and the Jackson Personality Inventory (JPI) (Jackson, 1977). Intimacy was measured by the "affiliation" and "succorance" scales from the PRF and the "interpersonal affect" scales from the JPI. Generativity was measured by the PRF scales of "dominance" and the JPI's "breadth of interest" and "innovation" scales.

The authors hypothesized that the young adult women would score higher in the measures related to intimacy than the older cohort, and that the older women would score higher on the measures of generativity than the younger women. These hypotheses are consistent with Erikson's stage related notion of development: intimacy is the paramount issue of young adulthood, while generativity is the major concern of middle adulthood.

Three randomly selected groups were formed, each of which were given different instructions. One group from each of the younger and older cohorts was asked to fill out the forms according to their present experiences (concurrent ratings). The remaining younger cohort was asked to fill out the forms according to how they thought they would feel in the future 25 years

(prospective ratings). The remaining older cohort was asked to complete the forms according to how they felt 25 years ago (retrospective ratings). The results indicated that scores on the intimacy scales were significantly higher for the young cohort than the middle aged cohort. The generativity scale scores were higher for the middle aged women making concurrent ratings than retrospective ratings. This lends modest support to Erikson's notion that the issues of intimacy and generativity are most salient in early and middle adulthood, respectively. The finding, however, that the younger cohort's concurrent generative ratings were higher than their prospective ratings was somewhat unexpected. The authors suggested that these results may be a function of the young women's failure to answer the questions in a prospective manner, rather than that the theory of generativity is inappropriate for women. The authors concluded that this study provides partial support for Erikson's developmental scheme, particularly as it applies to the issues of adulthood.

This measurement of generativity can also be criticized for its simplicity. The authors stated that dominance "reflects Erikson's stress on the tendency in middle age to assume responsibilities for leadership,

direction and supervision and to seek out means by which to extend one's influence", breadth of interest "captures Erikson's thoughts on the gradual expansion in middle age of interest and involvement in various activities", and innovation "serves as a measurement for the attention given during middle age to productivity and creativity in both one's goals and one's accomplishments" (p. 475). While these are important dimensions to assess in the measurement of generativity, they miss the fundamental aspects of "care", "belief in the species" and "hope for the future" that are fundamental to Erikson's notion. Further, the scales were never designed to measure generativity in the first place, and their use represents the authors' application and interpretation of Erikson's theory to an existing assessment device; this ultimately renders their measurement of generativity incomplete. In addition, Ryff and Migdal's additive combination of the aforementioned scales disregards the importance of the generative challenge in all of these areas. That is, a high generativity rating could result from a high score in one of these scales, rather than the equity and comprehensiveness across scales that the concept demands. Thus, while these scales lend themselves to

better measurement operationalization, than for example subjective placement based on an interview, their use does not adequately assess the depth and breadth of dimensions demanded by this concept.

McAdams (1985; McAdams, Ruetzel & Foley, 1986) interviewed 50 mid-life adults according to the Life Story Model of Identity. The Life Story Model suggests that adult identity is best conceptualized as a narrative construction embodying standard story elements such as setting, scene, character, plot and theme. McAdams (1985) suggests that in late adolescence individuals integrate various elements of the self within a dynamic lifestory which provides their lives with a sense of unity and purpose. The identity narrative integrates one's personal past, present and anticipated future that, in turn, provides temporal coherence to understanding the self. Thus, the life story enables the individual to make sense of the past in terms of the present and anticipated future.

Subjects' overall plans for the future were coded for the degree and complexity of generativity expressed; the generativity score was also related to data from a number of psychological tests. A hierarchical scoring system was developed, where a score of "1" was given to

scripts which manifested little or no generativity, "2" for intermediate levels of generativity, and "3" for high levels of generativity, or where the subject possessed an awareness of responsibility to others and a strong concern for the next generation. This measurement can also be criticized for its simplicity, as well as its isolated attention to future generative acts. This system did not acknowledge past or present generative projects, and had no way of evaluating if and how the future scripts outlined by subjects will be carried out.

Overall, 20% of the subjects demonstrated high levels of generativity, while 46% showed moderate and 34% had no generativity in their scripts for the future. No sex differences were found in the sample. Contrary to prediction, generativity ratings were found to be unrelated to ego development (as measured by Loevinger's, 1976 scale). Ego development assesses one's overall framework for understanding the world. Higher stages of ego development indicate greater cognitive complexity as assessed by the capacity to tolerate ambiguity and contradictions. Thus, cognitive complexity did not appear to be associated with generativity in this sample. Generativity was

positively related, however, to the combined Thematic Apperception Test (TAT) scores on Power and Intimacy motivation, suggesting, according to McAdams,

"that generativity implies a blending of agency and communion in human experience ... it (generativity) challenges us as adults to be both powerful and intimate, expanding the self and surrendering to others in the same generative act"

(McAdams, 1985, p. 800; McAdams, 1986, p. 274).

In a recent study, Snarey, Kuehne, Son, Hauser and Vaillant (1987) used the concept of generativity to guide their evaluation of 343 men examined for evidence of fertility difficulties. "The criteria that differentiated generative men was their assumption of responsibility for other adults beyond the sphere of the nuclear family" (p. 596). Once again, this definition implicitly narrowed the focus of generativity, and thereby ignored potential generative outlets of children, job, and other community organizations. In addition, the notion of "care" and "belief in the species" was also absent from this scheme. The findings suggested that the parenting experience served as a foundation (although not a sufficient condition) for subsequent generativity in mid-life. Generativity,

however, was not merely associated with the biological process of becoming a father, as suggested by the highest rates of generativity among infertile adoptive fathers. High generativity ratings were also more often associated with marital happiness. The authors concluded: "to varying degrees both parenting substitutes and parenting outcomes make a contribution to predicting the achievement of generativity beyond the family sphere" (Snarey et al., 1987, p. 602).

The most recent study examining generativity is a doctoral dissertation at Loyola University of Chicago completed by Van de Water in 1987. The purpose of this study was to investigate how the attitudinal prerequisites of hope and faith, personality traits of dominance, nurturance and leadership, and psychosocial development of identity and intimacy related to generative attitudes and behaviors. Van de Water defined generativity as "both attitude and behavior indicative of leading, educating, nurturing and caring for later generations" (p.38).

Subjects were adult middle-class male and female volunteers between the ages of 22 and 72. Generativity was assessed through a number of different measures. The first method for assessing generativity relied upon

subjective means, where subjects were asked to list and describe up to four personal commitments. Each commitment was scored for involvement with other people on a 0 to 2 point scale, as well as for generative content on a 0 to 3 point scale. Low scores in each content area indicated a lack of interpersonal involvement or generativity, while high scores reflected a commitment to others and generative content. Generativity as defined by these commitments, was the sum of the two scores across the subject's commitments. Generativity scores, therefore, could range from 0-5 for each commitment, and 0-20 for total generativity scores.

Subjects were next asked to list up to three creative "projects" in which they were currently involved. Projects were scored for generative content on a 0-2 point scale in a similar manner to the commitment responses. Generativity in this creative realm was represented as the sum across the creative endeavors. Total generativity scores could range from 0-6.

Finally, subjects were asked to write a brief unstructured essay about their future plans, goals, and desires. These essays were coded for generative content on a 0 to 3 point scale, again with higher scores

representing more generative content than lower scores.

Generativity was assessed objectively through "generativity vs. self absorption and stagnation" subscale of Ochse and Plug's (1986) measure. This is a 10 item self-report scale in which the subject rates the extent of agreement on a 4 point continuum from "0" (never applies to you) to "3" (applies to you very often. Faith and hope was assessed through two self report measures: Tipton, Harrison and Mahoney's (1980) "faith in people" subscale of the Faith Scale, and Ochse and Plug's (1986) "trust vs mistrust" subscale. Hope for the future was objectively assessed via Nuttin's (1985) Revised Time Attitude Scale, which measures global affective evaluation of the future. Higher total scores suggest higher levels of optimism toward the future. Self absorption was assessed through Raskin and Hall's (1979;1981) Narcissistic Personality Inventory. Nurturance and dominance scales of the Personality Research Form (Jackson, 1977) were used to measure the degree of subject's "care"; this was generally used in an exploratory fashion to assess the relationship between the characteristics of nurturance and dominance and generativity.

While Van de Water's measurement of generativity

should be recognized for its creativity and comprehensiveness, it was not without its limitations. For example, the different generativity measures generally did not correlate well with each other, suggesting that they may not be measuring the same construct. In addition, most generative subjects seemed to focus on faith and hope not in others but in themselves; in this manner, generativity was seen as one's confidence in his/her abilities to affect his/her world. This is counterintuitive to Erikson's theory, and suggests that these measures may have been tapping into more of a self-confidence dimension than generativity per se. Finally, Ochse and Plug's (1986) measure of generativity vs. stagnation, while the only generativity self report scale available, has not proven to be psychometrically sound. It seems to have good face validity and reliability, but demonstrates poor discriminant validity; for example it correlates fairly highly with social desirability and a number of other stage scores. Thus, the use of these measures may not have evaluated the concept of generativity in an empirically meaningful manner.

Van de Water's (1987) results revealed a number of interesting findings. First, hope for the future and

trust were highly correlated with generativity and with each other, but, contrary to theory, not to faith in the people. Nurturance and leadership were both positively correlated with generativity, while dominance was not. Identity, intimacy and self absorption were found to be related to generativity. Van de Water identified a trend for individuals with children to generally appear more generative than those without children. It must be asked, however, if more generative people tend to have children than less generative people, or if this evaluation of generativity tapped into more of the familial and parental characteristics likely to be found in people with children. Van de Water concluded with a tentative profile of generativity, where

"generative individuals are more hopeful ... more trusting ... have less faith in others, and more in a supreme being; they have resolved the intimacy vs. isolation crisis of young adulthood, and ... most importantly, they are more nurturant than others"

(p. 91).

The research on the concept of generativity, while limited, suggests that the concept has empirical merits. Generativity was found to represent an advanced level of development (Vaillant & Milofsky, 1980; Ryff & Migdal,

1984) in addition to being related to the combined TAT scores of power and intimacy (McAdams, Ruetzel & Foley, 1986). Snarey et al. (1987) empirically demonstrated that generativity was not merely associated with biological creativity, but to a greater extent with the process of becoming a father. This again moves the fulfillment of generativity away from the rather limited, future-oriented, procreative scope it traditionally embraced, to include more of the complexities the concept demands. Finally, Van de Water's (1987) diverse and comprehensive measurement of generativity yielded a constellation of behavioral and attitudinal correlates associated with generativity. Thus, the conclusion that "it (generativity) demonstrates certain theoretical issues that can be translated into research questions" (Ryff & Migdal, 1984, p.479) has been supported by these initial works.

Each of these preceding studies, however, contains methodological and conceptual shortcomings. As discussed earlier, they typically involve a too simplistic and narrow operationalization of the concept of generativity, and thereby undermine the richness of this concept. Proper empirical measurement that pays credence to the complexity, richness and multifaceted

nature of generativity is the next necessary step in the scientific exploration of generativity.

Background and Problem of Current Study

In 1984-85 Dan P. McAdams, Ph.D. collected Life Story Interviews and a number of psychological measures from two adult cohorts: young adults in their 20's who had their first child in the preceding 12 months, and older adults in their 40's whose oldest child had first left home (for college, work, marriage, etc.) in the preceding 12 months. The purpose of this project was to extend the exploration of adult life stories in these two critical adult developmental periods, and evaluate the relationship between the Life Stories and the psychological measures.

The current study, while of different purpose, was developed within the confines of the prior data collected. Additional data were collected on volunteer subjects. The purpose of the current study was to develop a measure of generativity as a multidimensional construct. The main goal of this study was the development of a reliable, sensitive and valid measure of generativity through content analysis of the Life Story Interview (McAdams, 1985). The internal consistency of this measure of generativity was explored

in an effort to evaluate the adequacy with which it approximated the multidimensional nature of generativity posited in this study. Individual differences on psychological measures (Thematic Apperception Test, Ego Development, Psychological Well Being, Masculinity, Femininity and Social Desirability) were related to this refined measure of generativity. Finally, a comparison of the life stories of the two cohorts was made in a purely exploratory fashion to determine whether subjects in these two stages of parenthood demonstrated different generative themes in their life stories.

CHAPTER II

METHOD

Subjects

Subjects for this study were drawn from two sources: archival data funded by a grant and collected between 1984-1985, and new data collected in 1988. The archival data collected originally contained both male and female subjects; however, as this data had too few men to equate the samples, the choice was made to only study women rather than introduce a sex confound. The archival data used in the present study included 10 young female adults in their mid 20's who had their first child in the preceding 12 months, and 14 older adults in their mid 40's whose first child left home for the first time (i.e., for college, marriage, work, etc.) in the past year. New data were collected in January, 1988 on one woman from the older cohort, and five from the younger cohort; aside from recruitment and payment procedures, these data were collected in the same manner as the archival data. Thus, the total number of women in each group equalled 15. The use of women exclusively did not alter the theoretical orientation or empirical

evaluation of generativity. Rather, as past data suggests (Ryff & Migdal, 1984; McAdams, 1986) the issue of generativity is equally salient for both men and women.

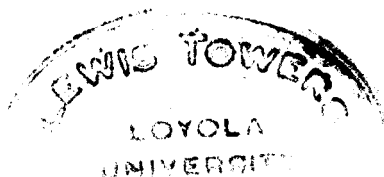
Subjects from the initial study were recruited from the Rogers Park/Edgewater area of the north side of Chicago through advertising in community newspapers. These subjects were paid \$35.00 for participating in the two sessions comprising the procedure. Testing and interview appointments were arranged by phone with a graduate student in Clinical Psychology enrolled at Loyola University of Chicago and serving as the primary research assistant for the project. The more recent data were collected on volunteers who fit the requirements dictated by the archival data. These volunteers were primarily friends and family members of the research team, and were not paid for their time. All additional subjects were recruited from the Chicago area.

Given the in-depth nature of the study and the small number of subjects used, it was impossible to get a truly representative sample of an "average" population. Therefore, subjects were limited to middle class, female adults who reported no history of serious mental illness in an attempt to minimize the confounding

effects of social class and education. The major classificatory variable in this study was a composite of age/family status (new parent vs. mid life parent of child first leaving home).

Procedure

The procedure for the archival data consisted of each subject's participating in two lengthy individual sessions. In the first session, subjects were asked to complete a number of paper and pencil questionnaires: a demographic questionnaire, the Thematic Apperception Test (TAT), Loevinger's Sentence Completion task, the Bem Sex Role Inventory, and Bryant and Veroff's Psychological Well Being questionnaire. This took approximately 1 1/2 to 2 hours. In the second session, scheduled 2-4 weeks after the first, subjects were individually interviewed by a graduate research assistant according to the Life Story Model of Identity (McAdams, 1985). Interviews lasted approximately 60 to 90 minutes and were tape recorded. The volunteer subjects spent only one session with the researcher during which time they were interviewed in the same manner as described above and given the TAT. The other questionnaires were explained to them, completed at their convenience and returned to the researcher via



self addressed stamped envelope.

Measures

TAT. The Thematic Apperception Test (TAT) consists of six specially chosen pictures in response to which the subject creates imaginative stories. The standard set used in research on power and intimacy motivation is made up of six ambiguous, black and white pictures portraying people doing a variety of typical, routine activities. The subjects were given five minutes to write one story in response to each of the six pictures (Atkinson, 1958). Thus, the entire set took approximately 30 minutes to complete. Subjects were asked to construct imaginative stories that tell what is happening in the picture now, what led up to the present situation, what will happen in the future, and what the characters are thinking and feeling. These TAT stories were scored for power, intimacy and achievement motivation by undergraduate coders trained to high levels of reliability.

Subjective Mental Health. In an effort to delineate separate measures of subjective mental health, Bryant and Veroff (1984) did factor analyses utilizing data from a 1976 nationwide sample collected by the Survey Research Center. Multiple regression analyses

demonstrated the discriminant validity of the six dimensions: unhappiness, lack of gratification, strain, vulnerability, lack of self confidence and uncertainty. Most of the items correspond to a forced-choice format, while some of them allow for more open ended responses. Higher scores indicate more endorsed items in these areas. This scale took approximately 30 minutes to complete.

BSRI. The Bem (1975) Sex Role Inventory is comprised of 60 adjectives and descriptive phrases, each of which the respondent rates on a 1-7 Likert scale specifying how well each descriptor accurately describes her. Of the items, 20 are designated masculine, 20 feminine, and 20 are assumed to carry no sex role connotation and evaluate social desirability. This is one of the most popular measures of sex role behavior to date and took only approximately 10 minutes to complete.

WUSCTED. The Washington University Sentence Completion Test for Ego Development was developed by Loevinger and Wessler (1978) to operationalize Loevinger's (1976) model of stages of ego development. Loevinger conceives of the "ego" as one's overall framework of meaning for making sense of the world. Loevinger delineated a hierarchical stage

approach that ranges from the low stages, in which simplistic views of the world are paramount, to the highest levels of development, in which one's understanding of the world and issues enables the inclusion of ambiguity and contradiction. The sentence completion test employed in the present study was an 18 item abbreviated version designed by Loevinger and her colleagues. All scorers were trained and demonstrated high reliability (.80's).

The Life Story Interview. The Life Story Model of Identity is based on the premise that adult identity is best conceptualized as a narrative construction embodying standard story elements such as setting, scene, character, plot and theme. Drawing upon Erikson's major work on identity (1959, 1963, 1968) as well as synthesizing a number of diverse theoretical writings (i.e., Adler, 1927; Bruner, 1960; Hankiss, 1981; Murray, 1938; Steele, 1982; Tomkins, 1978), McAdams (1985) formulated a Life Story Model of Identity that specifies key content and structural dimensions of understanding the self. McAdams suggests that beginning in late adolescence individuals integrate various elements of the self within a dynamic life story which provides their lives with a sense of unity and purpose.

The identity narrative enables the individual to make sense of the past in terms of the present and expected future. Thus, the Life Story serves both a function of promoting a sense of temporal coherence as well as an immediate, "snapshot" experience of life at this moment.

The life story interview proposed by McAdams (1985) is divided into nine sections. In the first section, an analogy is drawn between the subject's life story and a book. Thus, subjects were asked to become a biographer of the self and divide their life story into chapters that end up promoting a cohesive whole. Subjects were asked to provide names for each chapter, describe briefly the content of each chapter, and highlight any turning points that marked the end of one chapter and the beginning of another. This is the main part of the interview, and typically took between 25-45 minutes.

After this was completed, subjects were asked to describe "key events" of their life that stand out in their mind as a specific happening, critical incident, or significant episode in their past. Key events are particular moments set in a particular time and place, complete with particular characters, actions, thoughts, and feelings. Subjects were asked to come up with

between 4 and 6 key events. In the third section of the interview, subjects were asked to describe a few significant others who have made a major impact on their life. For each person designated as a significant other, the subject was asked to describe the kind of relationship and the specific manner in which the significant other influences the subject's life.

The subject's plan for the future was the next section of the interview, and represents future chapters that have yet to be written. Subjects were encouraged to describe plans, dreams, goals, hopes and aspirations which may guide their future choices. In the fifth section of the interview, subjects were asked to describe how their future plan may allow them to be creative. Creativity was defined as "any action in which we 'give birth' to something, in which we 'make something' or 'produce something' which exists as our creation." Past creative events were also inquired about, in much the same manner as future creative endeavors. The seventh section of the interview asked subjects to consider that all life stories include significant conflicts, unresolved issues, problems to be resolved, and periods of great stress. Subjects were asked to discuss current stresses, describe the nature

of the stress or problem in some detail, a brief history of its development and plan for dealing with it in the future. The next section of the interview is called "personal ideology". This section is somewhat philosophical and probed for the subject's most fundamental beliefs and values about life and the world. Subjects were asked to describe their views about God, religion, continuity and discontinuity in their beliefs over time, political orientation, and fundamental human values. The ninth and final section of the interview asked the subject to evaluate and describe overall life themes or messages that summarize or best represent their autobiographical text as presented thus far. Typically one rather pithy statement was made that spoke to a major theme in the interview as presented by the subject.

CHAPTER III

CONCEPTUAL FRAMEWORK

The current project sought to develop and refine the measure of generativity as a multidimensional construct. The main goal of this study was the development of a reliable, sensitive and valid measure of generativity through the content analysis of the Life Story Interview. Inter-rater reliability was the primary manner by which this rating system was evaluated. The second aim of the study was twofold: first, to compare the themes of generativity between the two cohorts, and second, to relate this measure of generativity to the psychological constructs as measured by the TAT Power and Intimacy motives, Ego Development, Psychological Well Being, and Masculinity, Femininity and Sexual Androgyny.

The author, however, recasted the theoretical parameters of generativity to include more than merely a stage of middle adult development. In this study, the expression of generativity was hypothesized to involve a lifelong developmental process whereby the individual moves from being the generative object (the object or

receiver of others' generative acts) to the generative creator. The experiences as object will, in turn, influence the expression of generativity. This notion is not entirely new. For example, Erikson states: "the reasons (for the inability to be generative) are often to be found in early childhood impressions; in faulty identifications with parents; in excessive self love based on a too strenuously self-made personality, and finally in the lack of some faith, some 'belief in the species', which would make a child appear to be a welcome trust of the community" (Erikson, 1959, p.103). Thus, Erikson suggests that the experiences as a child, or generative object, may influence the expression of future generativity. Erikson does not, however, simply place the burden upon the parents for the child's experience as generative object, but rather calls upon the child's acceptance into a community or society that will be the place where future generative acts are carried out.

As stated before, Kotre (1984) distinguishes between the generative object and the generative act; the child is the object of biological and parental generativity. This distinction is in deference to the difference between the generative act itself, and those

to whom that act is directed: the object.

The developmental framework of generativity proposed recognizes the significance of the past in the establishment of present and future generative acts; ratings were made in five major areas. First, this model assumes that in childhood, people experience generativity from the standpoint of being the generative "object" or the product of others' generativity. Children are generated by parents, then nurtured, guided and taught. They are also integrated into a community of caring, whose main representatives include parents, role models and other older people who care for them, instruct them, and serve as vehicles of socialization. The first task in evaluating generativity from this perspective involved discerning the quality of the subject's experience as the generated object. This has two aspects: the subject's image of those older people who have been the major creators/generators/socializers in his or her life and the subject's image of self as a generative creation. These images are conceptualized to range on a continuum running from generally positive to negative.

The second major aspect of this rating system evaluated the present state of the subject's generative

affairs. What are the current generative projects or products the subject is working on? How does the subject currently contribute something of generative value? Thus, significant areas investigated included family, work, community and religious involvement as well as leisure activities. An important aspect of "generativity present" involved an attempt to quantify McAdams' (1985) notion of generativity as a two step process. A continuum, from the pregenerative "planning" to be generative stage, to the point when the product was let go and granted its own autonomy, was delineated. The more sophisticated or mature products were conceptualized to be in the process of attaining autonomy. Thus, for example, a generative product such as one's work or children would be viewed as more sophisticated and mature if it existed on its own, as separate and autonomous from its creator. The level of this development may provide useful information about the maturity or sophistication of the subject as a generative creator and was included in an evaluation of "generativity present". The third aspect of this developmental framework focused on the future. What is the particular problem or challenge in generativity facing the subject in the future? How aware is the

subject of his or her generative challenges and how likely is he or she to fulfill these challenges? This is an important aspect to explore because many of the generative acts may have yet to be accomplished. This area focused on future generative acts.

The fourth area this developmental framework of generativity explored were the threads of continuity that existed between past, present, and future. Generativity involves bringing something forward from the past, through present, to future generations. The generative adult promotes traditions, institutions, and other signs of continuity over time. The aspects of the subject's past that are preserved and passed on provides the continuity across people and generations that is fundamental to the concept of generativity.

Belief and faith in the species represents the final area this developmental framework of generativity evaluated. While Erikson (1963) suggests that a belief in human progress and the inherent worthwhileness of the human endeavor is a prerequisite for healthy generativity, most of the research in this area has neglected this component. Subject's view of human nature, relative optimism/pessimism about life, extent to which subject felt her life should be governed by

some higher ideals and overall view of human progress were conceptualized to be fundamental to a belief in the species and were thus evaluated. Based on this developmental notion of generativity, a scoring system was proposed to evaluate these various components of generativity, and thereby strike a balance between the richness of the concept and the need for empirical investigation. This system has been developed for use with the Life Story Interview (McAdams, 1985). It evaluated and quantified the individual's experience on the dimensions outlined: past (experience as generative object), present (current generative commitments) and future (planned generativity). In addition the threads of continuity or consistency that seemed to be major generative themes were explored and rated according to the relative success of the preservation, as well as an overall belief in the species that the subject portrayed. While this scoring system was exploratory, an evaluation of the antecedents of generativity can only help further the rather limited understanding of this powerful concept.

Coding the interviews for generativity

As stated before, the coding of these interviews for generativity followed a developmental model. The

Figure 2

A Developmental Framework of Generativity

I. Generativity Past

1. Image of Creators (up to three) evaluated according to the following dimensions:
 - a. nature of creator's influence on subject
 - b. scope of creator's influence on subject
 - c. extent to which subject likes/admires creator
 - d. subject satisfaction with relationship with creator
 - e. subject identification with creator
 - f. rater evaluation of subject similarity with creator

2. Image of creations evaluated according to the following dimensions:
 - a. overall tone of childhood
 - b. influence of childhood on current functioning
 - c. salience of specific emotions from childhood

II. Generativity Present

1. Child/children evaluated as generative project according to the following dimensions:
 - a. distinct emotions present at planning/pregnancy stage
 - b. distinct emotions present immediately after birth
 - c. specific ideas about parenting
 - d. similar parenting style to parents
 - e. satisfaction with children
 - f. level of autonomy allowed to children
 - g. amount of "care" display toward children

2. Child/children and up to 2 more generative projects evaluated according to the following dimensions:
 - a. satisfaction with project
 - b. project as unique contribution
 - c. project as contribution to others
 - d. appreciation of project
 - e. stage of generativity of each project

Figure 2 (continued)

III. Generativity Future

1. Subject's future generative problem rated according to the following dimensions:
 - a. awareness of problem
 - b. rater's evaluation of subject's success with problem

IV. Threads of Continuity

1. Aspects of subject's past brings forward and reinstitutes in present or future rated according to the following dimensions:
 - a. success in preserving threads of continuity
 - b. rater's judgment of subject's success reinstituting threads of continuity
 - c. overall strength of generativity in life story

V. Belief in the Species

1. Subject's view of human nature
 2. Optimism/pessimism about life
 3. Extent to which subject believes people's lives should be governed by higher ideals
 4. View of human progress
-

coding system was divided into five major sections, and ratings were made according to a Likert scale format. The first section was generativity past. In this section the three most significant people, or creators, in the subject's life who served as role models for generativity were initially agreed upon by two independent raters who listened to the entire tape. These people were chosen for the significance of their contribution and influence on the subject during childhood; they may have had a positive or negative influence on the subject. Typically, these role models included parents, grandparents and teachers. It is conceivable, however, that a person younger than the subject could have served as a generative role model. It is also plausible that a nonhuman entity (i.e., "Church" or "college") could have been designated as a generative role model in a person's life. The only requirement for the designation as generative creator was the mutual agreement between raters based on the factors outlined above. After the two raters agreed on the three most significant creators in a given Life-Story Interview, they independently rated each creator according to a Likert scale format on a number of dimensions. Specific categories of creator ratings

included: nature of creator's influence on subject, scope of this influence, the extent to which the subject liked and identified with the creator, and the extent to which the rater viewed the subject as having similar attitudinal and personality characteristics as the creator. The ratings of Generativity Past concluded with an evaluation of the quality of the subject's experience as generative object (child), the extent to which the subject was currently influenced by childhood experiences, and the salience of specific emotions from childhood.

The second section of the rating system involved an evaluation of generativity present. Consensual agreement was initially obtained on the three most significant generative projects in the subject's life. Typically these projects included children, work and community or creative involvement; however they were not limited to these areas. Raters independently rated each of these projects on a Likert scale according to a number of dimensions that included: satisfaction with and uniqueness of project, extent project enabled subject to contribute something of worth to others and subject's feeling of appreciation for her generative efforts. An evaluation of generativity present

concluded with a rating of where on the (McAdams, 1985) continuum of creating the product versus giving the product up and allowing it to develop its own autonomy each project stood.

Generativity future was the third aspect of the scoring system. This section was somewhat more open-ended in that it sought to determine the particular generative problem or challenge each subject faced. The raters consensually agreed on what the problem was and described the problem in a few sentences. Evaluations were simply made on the extent to which the subject was aware of this problem, and the rater's judgment of the extent to which the subject would be successful in this future generative endeavor.

The fourth aspect of the scoring system united the themes between the subject's generativity past, present and future. This section was based on the notion that generativity involves a creation for a community, which accepts the creation as a gift. The rater judged the subject's overall view of the human community as the context within which she functioned as both a generated object (child) in the past as well as a creator in the present. Ratings involved an evaluation of the threads of continuity present in the subject's generative acts

and the raters' judgment of subject's success in preserving these threads of continuity as described in the life story.

Belief in the species represented the fifth area of generative evaluation. Ratings based on the entire interview were made in the following four areas: view of human nature, relative optimism/pessimism about life, extent to which subject felt that people's lives should be governed by higher ideals, and view of human progress. These ratings were made independently by each rater.

Two raters trained in the use of the scoring system listened independently to the audio-taped life story interviews and independently listed up to three creators and generative projects they deemed influential and important to the subjects. Raters also independently evaluated the subject's generative challenge for the future. Before ratings were made, the raters conversed with each other to reach agreement on the creators, projects and generative challenges made independently. Disagreements were discussed and resolved by mutual consent. After consensual agreements were made on the three creators, three projects, and future generative challenge, each rater independently rated these

variables on the dimensions outlined. This was followed by raters' comparison of their independent ratings. Disagreements were resolved by discussion.

Condensing the Ratings

Once again, this project was, by nature, exploratory. While it was proposed that these items should be combined in the manner presented, a main purpose of this study was to evaluate how well the items related and united to measure the concept of generativity in the comprehensive developmental manner outlined.

Subject scores were on a continuum in each of the five areas outlined: generativity past, present, future, threads of continuity and faith in the species. Each of these major areas was comprised of many Likert scale scores, as described previously. Composite generativity scores were delineated for each of the areas outlined above deemed to be significant in the evaluation of generativity. This process served to condense the numerous Likert scale ratings the system yielded.

1. Generativity Past (childhood)

A. Quality of Generative Role Models

Scores on the following dimensions were added within and averaged across creators: 1) nature of

creator's influence on the subject, 2) the extent to which the subject liked or admired the creator as a person, 3) the extent to which the subject was satisfied with her relationship with the creator.

B. Scope of Creator's Influence

An evaluation of the interactive relationship between the nature and scope of creator's influence on the subject was desired. A 5 X 5 matrix was created that plotted "nature of creator's influence on subject" on the ordinate, and "scope of creator's influence" on the abscissa. This method was created based on the assumption that the nature of the creator's influence (negative to positive) as well as the scope of that influence (narrow to broad) together influence the quality of the subject's experience with her creator. Thus, for example, two subjects could have creators with equally negative or positive influences; however, the creator with the broadest scope of influence was deemed to be more important or significant in the subject's development merely due to the pervasive quality of the influence. This interactive effect of creator's scope and influence was evaluated through this matrix plotting. Creator's scoring in the "very negative" to "mixed" range on nature of influence and "broad" on

scope were given a score of "1" for this combination to indicate the pervasively negative extent of this influence. Creators who received ratings in the "narrow" scope range regardless of nature of their influence received a score of "2", to indicate the limited focus and varied quality of their influence. Creators who were rated as "positive" or "very positive" on nature of influence and "broad" in scope received a score of "3" to reflect the positive and broad nature of their influence on the subject. This matrix scoring system thus broke down the nature of influence and scope dimensions into three groups: negative/broad (received a score of "1"), mixed/narrow (received a score of "2"), and positive/broad (received a score of "3"). The average of these matrix scores across creators were determined (up to 3 creators) and yielded the cumulative nature and scope of the creators' influence across creators as experienced by the subject.

C. Tone of Childhood

One 5-point Likert scale rating reflecting the quality of the subject's experience as the object of others' generativity ranging from "very negative" to "very positive" was made. This variable was seen as a

descriptive measure of the quality of the subject's childhood.

2. Generativity Present

A. Satisfaction with Current Generative Projects

Ratings reflecting: 1) subject "satisfaction" with project and 2) "appreciation of efforts" regarding project were summed within projects and averaged across generative projects (up to 3).

B. Uniqueness of Project as Contribution

Ratings that evaluated: 1) the extent to which the project enabled the subject to create or produce something in a personally unique way, and 2) the extent to which the project enabled the subject to contribute something of worth to others, were summed within projects and averaged across projects.

C. Children as Generative Products

Likert scale ratings reflecting the subject's ideas and attitudes about parenting and extent of subject's parental "care" exhibited toward her children were combined and evaluated in this rating. Ratings in the following areas were averaged for each subject: 1) the extent to which the subject expressed specific ideas about parenting, and 2) quality of care of subject's

children, ranging from "neglect" (1) to "very caring" (5).

D. Stage of Generative Products

Ratings on the continuum from pregenerative (which received a score of "1") to accepting the loss and recreating (received a score of "5") were averaged for all the rated products.

E. Cumulative "Generativity Present" Score

Scores generated in areas A - C were summed for a "total" generativity present score. The stage of generative products was left as an independent variable that did not enter into the cumulative present score.

3. Generativity Future

The brief, open ended generative challenge that was consensually agreed upon by the two raters was initially rated on a 1 - 5 Likert scale for the quality of generativity inherent in it, where higher scores reflected more generativity than lower scores. This score was added to the Likert scale ratings made in the following areas: 1) the extent to which the subject was aware of this generative problem/challenge, and 2) the extent to which the rater believed the subject would be able to address this problem/challenge in a successful or fruitful manner in the future. The final

score represented the total of the ratings in these three areas, that together reflect an evaluation of future generativity.

4. Threads of Continuity

After consensual agreement was reached between raters regarding the particular threads of continuity significant in each subject's life, these threads were classified according to the following dimensions in relation to the subject's childhood: 1) the extent to which the subject broke a negative generative experience from her generative creators, 2) the extent to which the subject continued a negative thread passed down via her creators, 3) the extent to which subject broke a good generative thread, and 4) the extent to which the subject continued a good thread. Each dimension was given a number associated with it according to the 5-point Likert scale rating: "1" for breaking a good generative thread, "2" for continuing a bad generative thread, "3" for mixed (did not fit into any category), "4" for continuing a good generative thread, and "5" for breaking a bad generative thread. These numbers were assigned based on the premise that, for example, it is more difficult or better with respect to generativity to

break a bad generative thread and pass down healthy, positive generative experiences, rather than, for example, break a good generative thread and thereby fail to promote positive generative experiences between generations. This score was then added to Likert scale scores in these two areas: 1) subject's success in preserving these threads and 2) rater's belief in subject's future success in this regard.

5. Belief in the Species

The following four 5-point Likert scale ratings were added to assess the subject's belief in human progress and the inherent worthwhileness of the human endeavor: 1) subject's view of human nature (bad - good), 2) subject's optimism/pessimism about life, 3) the extent to which the subject believed that people's lives should be governed by higher ideals, and 4) the subject's view of human progress (worse - better). The sum of these scores reflected the subject's overall "belief in the species".

6. Total Generativity Score

A total generativity score was delineated for each subject. Subjects' score in "scope of creator's influence" (generativity past, part B) was used to represent "generativity past" in the cumulative

generativity score, as this score was seen as the best single evaluation of subject's experience as generative object. This score was added to the total scores in each of the other categories: generativity present, generativity future, faith in the species, and threads of continuity. The score derived for each person reflected the averaging across many categories as outlined above, and attempted to approximate the developmental focus of the framework as described. This scoring system attempts to address the criticisms levied against the other studies for their simplicity and lack of depth. Utilizing the Life Story Interview as the basis for data collection ensured that the data collected were comprised of rich, subjective and personally relevant life experiences; these were the type of data such a comprehensive and rich theoretical concept as generativity demanded. The scoring system combined attention to depth and comprehensiveness other studies failed to address, as well as empirical utility demanded by good research.

Hypothesized Relationship Between Generativity and Other Personality Variables

Once again, the main purpose of this study was to establish a reliable and valid measure of the

multidimensional construct of generativity. Reliability of the scoring system was determined through inter-rater coefficients of agreement, while validity was evaluated by a measurement of internal consistency as well as the extent to which generativity related to other psychological measures. The following hypotheses address this latter relationship.

Specifically, based on McAdams et al. (1986) study, four hypotheses concerning the relationship between the current ratings of generativity and the psychological measures were delineated. This served as a beginning step in establishing the validity of this measure. In general, it was expected that generativity involves a complex union of a variety of characteristics. For example, it was thought that generativity may incorporate a blending of Bakan's (1966) duality of human existence: agency (expanding, asserting the self) and communion (becoming part of a larger environment). The two general ways the idea of agency and communion were viewed were via the Power (Winter, 1973) and Intimacy motivation scores (McAdams, 1980). In addition, there were measures of Ego Development (Loevinger, 1976), Psychological Well Being (Bryant & Veroff, 1984) and Sex Role Identity (Bem, 1975). The extent to which

these measures related to the outcome measure of generativity was of interest; hypotheses that spoke to this relationship were advanced accordingly.

The concept of generativity as currently proposed was hypothesized to represent the culmination of many developmental experiences. High ratings on generativity were expected to involve the complex union of a variety of traits. The first hypothesis predicted that high scores on Power and Intimacy motives (together) would be related to high levels of generativity. This was because the qualities of power, mastery and separation as well as intimacy, surrendering and union are fundamental to the proposed concept of generativity. The second hypothesis suggested that sexual androgyny (high masculinity and femininity) would be related to high generativity scores. This hypothesis was based on the premise that generativity represents a tolerance for the subject to incorporate both the traditional masculine (aggressive, ambitious) as well as traditional feminine (warm, nurturant) characteristics. High scores on Ego Development involve a capacity to understand a range of issues and ability to tolerate contradiction and ambiguity; the individuality of self and other is accepted and even cherished by those with high ego

development. The third hypothesis suggested that generativity demands this tolerance as well, and thus high Ego Development scores would be related to high generativity scores. Fourth, as the capacity to be generative seems to mandate a relative experience of personal psychological health, positive Psychological Well Being was also hypothesized to be related to high generativity scores.

CHAPTER IV

RESULTS

The main purpose of this study was to develop a comprehensive, sensitive and reliable measure of generativity. Further, the extent to which this measure of generativity actually approximated the multidimensional construct upon which its' theory was based, differences in expressed generativity between new and older parents, and individual differences in generativity, were all evaluated. Content analyses of Life Story Interviews (McAdams, 1985) provided the data for this exploration. The results are presented in four sections that address these varying levels of exploration: reliability, internal consistency, group differences and correlations with other measures.

Reliability

While the Life Story Interview format was not developed for use in the study of generativity, researchers were interested in the success of this application. As will be recalled, researchers separately listened to audio-taped Life Story Interviews from which they excerpted the following information: up

to three of the most important generative creators from the subject's past, up to three current generative projects, and the subject's generative challenge or plan for the future.

The results of the inter-rater reliabilities comparing these independent selections support the idea that content analyses of Life Story Interviews is a method that can be taught to others and utilized in an empirically sound manner. Specifically, initial percent agreement on creators chosen by the two raters was 93% ($\kappa=.84$), while current generative projects and the future generative challenge had rater agreement levels of 96% ($\kappa=.91$). The few discrepancies between these initial choices were resolved by mutual consent between the raters.

Upon determination of the major creators from the past, current projects and future generative aspirations, researchers then rated the various areas outlined in the text that corresponded to generativity past, present, future, belief in the species and threads of continuity. The specific subscales that comprised each of these major areas were as follows: quality of generative role models, scope of creator's influence, tone of childhood (generativity past); satisfaction with

current generative projects, uniqueness of projects as generative contributions, average stage of generative projects (generativity present); generativity future, belief in the species and threads of continuity. Inter-rater reliability coefficients corresponding to these various content areas reflect the extent to which raters independently agreed on the component ratings that comprise these categories. The usefulness of this method of evaluating generativity is predicated on high inter-rater reliabilities because it reflects the extent to which raters, given initial agreement on the creators, products and future generative acts, independently agreed on the component ratings that make up these more general categories.

The results of these inter-rater reliabilities are quite satisfactory, and range from a low of .75 for the percent agreement of the future category to a high of .86 percent agreement for the category assessing uniqueness of project as contribution. The other inter-rater reliabilities for the different categories are presented in Table 1. The reliability scores for generativity subscale categories were expected to be lower than the initial percent agreement between the raters choices of creators, projects and future because

Table 1

Inter-rater Reliabilities on the Various Generativity
Categories

Percent agreement on initial ratings:
(Kappa coefficient of agreement in parentheses)

- 1) creators: 93% (.84)
- 2) products: 96% (.91)
- 3) future: 96% (.91)

Generativity subscale measures:

- 1) Quality of Generative Role Model: .82
 - 2) Scope of Creator's Influence: .84
 - 3) Tone of Childhood: .84
 - 4) Satisfaction with Product: .83
 - 5) Uniqueness of Project as Contribution: .86
 - 6) Average Stage of Product: .84
 - 7) Generativity Future: .75
 - 8) Belief in the Species: .79
 - 9) Threads of Continuity: .85
-

they reflect the addition and averaging of many ratings across numerous categories. Overall, however, the initial agreement between the raters stands as a testimony to the low error of measurement of this method of evaluating generativity, and allowed further exploration of its' internal consistency and validity to take place.

Internal Consistency

The second goal of this study involved a more detailed exploration of how the various component and total generativity scores related to each other. The developmental framework presented in this study was based on the assumption that generativity is a multifaceted construct; proper measurement, therefore, is predicated on the demonstration that the various dimensions of generativity correlated with each other in some meaningful manner.

The results of these analyses demonstrated that the various dimensions of generativity are highly correlated. The results are presented in Table 2. Specifically, it was found that the components evaluating generativity past (quality of generative role model, scope of creator's influence, and tone of childhood) were all correlated with each other. The

Table 2

Correlations Among Generativity Sub-Scale and Total Scores (Only significant correlations reported)

	1	2	3	4	5	6	7	8	9	10	11	12
1. Quality of Generative Role Models	XXX	.82**	.60**						.32			.44*
2. Scopte of Creators' Influence		XXXX	.40									
3. Tone of Childhood			XXXX	.35	.58**			.41	.31	.58**		.61**
4. Satisfac-tion with Current Generative Products				XXXX	.65**	.34		.72**	.45*	.37	.38	.71**
5. Uniqueness of Products as Contri-butions					XXXX	.67**	.38	.91**		.43		.76**
6. Children as Generative Prodcuts						XXXX	.33	.87**	.31			.64**
7. Average Stage of Products							XXXX					

(continued)

Table 2 (continued)

	1	2	3	4	5	6	7	8	9	10	11	12
8. Cumulative "Generativity Present" Score								XXXX	.38	.35	.38	.82**
9. Future									XXXX			.60**
10. Belief/Faith in the Species										XXXX	.33	.71**
11. Threads of Continuity											XXXX	.62**
12. "Generativity Total" Score												XXXX

* $p \leq .01$

** $p \leq .001$

quality of the generative role model significantly correlated with scope of creator's influence and tone of childhood, $r=.82$, $p<.001$. Tone of childhood was also significantly correlated with scope of creator's influence, $r=.40$, $p<.05$. Quality of generative role model was also correlated with generativity future, $r=.32$, $p<.05$, and the total generativity score, $r=.44$, $p<.01$. Tone of childhood proved to be a fruitful dimension in terms of its' relation with the other categories. Specifically, tone correlated with the generativity present dimensions of satisfaction with current generative projects, $r=.35$, $p<.05$, uniqueness of the project as a contribution, $r=.58$, $p<.001$, and the cumulative present score, $r=.41$, $p<.05$. In addition, the tone category was also significantly related to generativity future, $r=.31$, $p<.05$, belief in the species, $r=.58$, $p<.001$, and the total generativity score, $r=.61$, $p<.001$. This suggests that the dimension of generativity past has internal coherence, as well as relating to the other generativity dimensions.

The dimensions in the generativity present category were also highly correlated with each other. These included the component scores of satisfaction with current generative projects, uniqueness of project as a

contribution and children as generative projects. Satisfaction with current generative projects correlated with uniqueness of project as contribution, $r=.65$, $p<.001$, as well as with children as generative projects, $r=.34$, $p<.05$. Uniqueness of project as generative contribution was related to children as generative projects, $r=.67$, $p<.001$. Needless to say, satisfaction with generative project, uniqueness of project as generative contribution and children as generative projects were all significantly related to the total generativity present score, $r=.72$, $.91$, $.87$, $p<.001$, as this total present score was derived from the sum of the three component parts.

In addition, the component generativity present scores were also correlated with a variety of other generativity scores. Specifically, satisfaction with current generative projects was significantly related to many of the other dimensions including generativity future, $r=.45$, $p<.01$, belief in the species, $r=.37$, $p<.05$, threads of continuity, $r=.38$, $p<.05$, and the generativity total score, $r=.71$, $p<.001$. Uniqueness of project as generative contribution was significantly correlated with belief in the species, $r=.43$, $p<.01$, average stage of generative products, $r=.38$, $p<.05$, and

the generativity total score, $r=.76$, $p<.001$. Children as generative projects was significantly related to the dimensions of generativity future, $r=.31$, $p<.05$, average stage of generative products, $r=.33$, $p<.05$, and the total generativity score, $r=.64$, $p<.001$. The cumulative present generativity score also correlated with many other generativity dimensions, including: future, belief in the species, threads of continuity, $r=.38$, $.35$, $.38$, $p<.05$, as well as the total generativity score, $r=.82$, $p<.001$.

The final three generativity dimensions, future, belief in the species, and threads of continuity, were not made up of separate component scores. The dimensions already mentioned as being significantly related to the generativity future category, (quality of generative role models, tone of childhood, satisfaction with current generative projects, children as generative projects and the cumulative present score), suggests that the developmental framework of generativity may have some empirical support. Specifically, there seems to be consistency between those rated as having been products of generativity in their past and currently expressing relatively high levels of generativity as well as the anticipation of performing generative acts

in the future. In addition, generativity future was significantly correlated with the total score, $r=.60$, $p<.001$.

Belief in the species represented the next major generativity category, and has already been reported to have been significantly correlated with tone of childhood, satisfaction with current generative products, uniqueness of project as generative contribution, as well as the cumulative present generativity score. In addition, the belief in the species category was found to be correlated with threads of continuity, $r=.33$, $p<.05$, as well as the total generativity score, $r=.71$, $p<.001$. Again, this suggests that the dimension evaluating subjects' belief or faith in the species was related to dimensions from generativity past, present, threads of continuity and the total generativity score.

The final generativity category, the threads of continuity that subjects brought forward from their past to present and anticipated future generative acts, has already been discussed as being related to satisfaction with current generative projects, cumulative present generativity scores, and belief in the species. Further, it correlated with the total generativity

score, $r=.62$, $p<.001$. Again, while not related to all other generativity dimensions, the threads of continuity were related to aspects of generativity present, belief in the species and the total score, suggesting that these dimensions are related to each other.

The total generativity score was derived from the cumulative of some, but not all the various generativity subscale scores. Thus, it was expected that the total score should be highly correlated with the dimensions upon which it was based. In fact, this is what the correlations bore out. Specifically, the generativity total score correlated with nine of the eleven generativity component measures (eight at highly significant levels): quality of generative role model, $r=.44$, $p<.01$, tone of childhood, $r=.61$, satisfaction with current generative projects, $r=.71$, uniqueness of project as contribution, $r=.76$, children as generative products, $r=.64$, cumulative present generativity score, $r=.82$, generativity future, $r=.60$, belief in the species, $r=.71$, and threads of continuity, $r=.62$; all significant at $p<.001$. The only two subscale scores that were not significantly correlated with the total generativity score was the scope of creator's influence and the average stage of the subject's generative

projects. Overall, this suggests that conceptualizing generativity as a multidimensional construct has merit, as the dimensions seem to be related in an internally coherent way.

Group Differences

Cohort differences in overall generativity between new mothers and women whose oldest child had recently first left home were not necessarily supported by this reconceptualization of generativity. Traditional theorists (i.e., Erikson) describe generativity as a stage that becomes realized in middle adulthood, and thus would predict that older people would be rated higher on generative themes than younger cohorts. The current theoretical reconceptualization of generativity, however, does not support this notion of overall differences in generativity based merely on the subject's age. Rather, a consequence of the idea that the expression of generativity is the result of a lifelong developmental process is the understanding that younger people may be more generative than older people. Thus, the analysis of cohort differences were done merely on an exploratory basis, with no specific hypotheses guiding their conduct.

Based on the fact that the various generativity measures were not independent, but, in fact theoretically and statistically related, a MANOVA was conducted to evaluate cohort differences in generativity, with each of the generativity component scores entered in as dependent variables. The overall F-test comparing the difference in generativity scores between the two cohorts was not statistically significant, suggesting no meaningful differences in generativity existed between the two cohorts. The results are presented in Table 3. Young parents had a mean generativity total of 60.4, while the older parents' mean was 57.4. This is consistent with the developmental framework and suggests that age is not necessarily related to generativity per se.

Univariate F-tests were conducted to determine if any of the component generativity scores differed from each other. These differences were of moderate importance as the overall F-test did not prove statistically significant. Generativity future, as measured by the cumulative total of overall generative challenge for the future, the extent to which the subject was rated as being aware of this challenge, and the rater's judgment of the subject's success at

Table 3

Means and Standard Deviations by Cohort for Generativity Variables

	Younger Cohort		Older Cohort		F
	<u>Mean</u>	<u>SD</u>	<u>Mean</u>	<u>SD</u>	
Quality of Generative Role Models	11.34	1.30	10.99	2.25	.28
Scope of Creators' Influence	2.42	.45	2.21	.62	1.10
Tone of Childhood	3.47	.74	3.07	1.34	1.03
Satisfaction with Generative Products	7.13	.88	6.75	.99	1.24
Uniqueness of Products as Contributions	7.65	.81	7.61	1.45	.01
Children as Generative Products	6.87	1.46	7.20	1.78	.31
Cumulative "Present"	21.65	2.42	21.57	3.78	.00
Average Stage of Products	3.13	.43	3.74	.56	11.18**
Future	10.73	1.53	9.60	1.30	4.77*

(continued)

Table 3 (continued)

	Younger Cohort		Older Cohort		<u>F</u>
	<u>Mean</u>	<u>SD</u>	<u>Mean</u>	<u>SD</u>	
Belief in Species	14.53	2.56	12.93	2.15	3.43
Threads of Continuity	11.07	1.28	11.13	1.77	.01
Total	60.40	5.28	57.45	6.99	1.70

*p < .05

**p < .01

achieving that generative challenge in the future, was rated significantly higher for the younger parents than the older parents, $F(1,12)=4.78$, $p<.05$. The young cohort had a mean generativity future score of 10.7, while the older cohort had a mean of 9.6 out of a possible 15. This suggests that the younger cohort had not only more generative content in their plans for the future but were rated as being more likely to carry out these planned generative endeavors.

The second major cohort difference found was in the generativity present category and implicated the stage at which the subject was in terms of granting her product autonomy. An important aspect of generativity, as conceptualized by this model, was an attempt to quantify McAdams' (1985) notion of generativity as a process that can be evaluated according to placement along a five point continuum, ranging from the planning to be generative stage to the point where the product is let go and granted its own autonomy. Cohort differences in this area indicated that older subjects' generative projects were rated as having statistically significantly higher levels of autonomy than younger subjects, $F(1,12)=11.18$, $p<.01$. This suggests that older subjects were rated as having relinquished more

control over their products than the younger subjects. The implications of these cohort differences will be addressed in the discussion section. All other cohort differences were nonsignificant.

Correlations Among Non-Generativity Measures

The next step of data analysis addressed the extent to which the non-generativity psychological measures of Agency, Communion, Achievement, Ego Development, Sex Role Identity, Social Desirability and Psychological Well Being correlated with the various generativity subscale and total measures. Before proceeding to the presentation of these results, however, it is important to determine the extent to which the non-generativity psychological measures listed above correlated with each other; that is, it was necessary to demonstrate their relative independence in order to proceed as though they were in fact measuring different constructs.

In general, as would be expected, most of these psychological constructs did not significantly correlate with each other. As these correlations were not expected, and no corresponding hypotheses were advanced, significant results were merely reported in Table 4. Of most interest and probable importance are the significant correlations between Social Desirability and

Table 4

Correlations Between Generativity and Non-Generativity Measures (Only significant correlations reported)

	Achiev- ment	Pow- er	Inti- macy	Ego Dev.	Mascu- linity	Femini- nity	Soc Des.	UnHap- piness	Lack Grat.	Lack SelfC.	Vul- ner.	Un- Strain Cert.	Well- Being Total
Quality of Generative Role Models						.34						-.33	
Scope of Creators' Influence													
Tone of Childhood												-.38	
Satisfaction with Current Generative Products													
Uniqueness of Products as Contribu- tions		.37		.33									
Children as Generative Products		.32	.41			-.37							
Average Stage of Products		.33	.36					.52**			.35	.36	.42

(continued)

Table 4 (continued)

	Achiev- ment	Pow- er	Inti- macy	Ego Dev.	Mascu- linity	Femini nity	Soc Des.	UnHap- piness	Lack Grat.	Lack SelfC.	Vul- ner.	Un- Strain	Un- Cert.	Well Being Total
Cumulative "Generati- vity Pre- sent" Score		.34	.34											
Future								-.47*						-.36
Belief/ Faith in the Species					.31			-.48*			-.33	-.56**	-.38	-.47*
Threads of Continuity					.46*	.33	.42						-.42	
"Generati- vity Total" Score								-.37						

* $p \leq .01$

** $p \leq .001$

Masculinity, $r=.33$, $p<.05$, Femininity, $r=.53$, $p=.001$, and Achievement motivation scores, $r=.32$, $p<.05$.

However, the high correlations between Social Desirability and Masculinity and Femininity may reflect a testing artifact because they were all measured on the same scale (Bem Sex Role Inventory). Thus, a response bias may have been operative, such that people who tended to endorse masculine and feminine adjectives may have done the same for the social desirable descriptors as well. The significant positive correlation between Achievement motivation and Social Desirability cannot be so easily addressed, and reflects the situation that subjects with many achievement themes in their TAT stories also tended to describe themselves in socially desirable terms.

The other interesting and significant correlations between the non-generativity measures involved the Psychological Well Being subscales. Specifically, it was found that subjects experiencing higher levels of lack of gratification scored lower in their Ego Development and Masculinity ratings, or conversely, subjects scoring higher in Ego Development and Masculinity reported less lack of gratification than others, $r=-.35$, $r=-.33$, $p <.05$. Additionally, those with

more Femininity self report characteristics tended to score lower in the strain subscale, suggesting that less strain was associated with more feminine self attributes. The remaining significant correlations involved the relationship between the various Psychological Well Being subscale measures; this, however, was to be expected because they were all measuring various components of the general construct of well being. Overall, the minimal extent of the correlations between these measures supports the contention that they are evaluating relatively independent constructs.

Correlations Between Generativity and Non-Generativity Measures

The following section will present the significant correlations between the non-generativity psychological measures and the various component and total generativity scores. Only the most meaningful and interesting significant results will be highlighted; the complete results can be found in Table 5.

Quality of generative role model was the first dimension rated in the generativity past section and was developed to assess the nature of the creator's influence on the subject, the extent to which the

Table 5

Correlations Among the Non-Generativity Measures (Only significant correlations reported)

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Achievement ^a	XX						.32						
2. Power ^b		XX											
3. Intimacy ^c			XX										
4. Ego Development ^d				XX					-.35				
5. Masculinity ^e					XX		.33		-.33				
6. Femininity ^f						XX	.53**					-.36	
7. Social Desirability ^g							XX						
8. Unhappiness ^h								XX		.33	.50*	.56**	.34
9. Lack of Gratification ⁱ									XX	.52*		.45*	.52*
10. Lack of Self-Confidence ^j										XX	.42		.44*
11. Feeling Vulnerable ^k											XX	.54**	.41*
12. Strain ^l												XX	.48*
13. Uncertainty ^m													XX

*p ≤ .01 **p ≤ .001

a-c TAT motive categories

d Washington University Sentence Completion Test for Ego Development

e-g Bem Sex Role Inventory categories

h-m Subjective Mental Health Indices and Total

subject liked or admired the creator, and the extent to which the subject was satisfied with her relationship with the creator. This dimension was significantly correlated with Femininity, $r=.34$, $p<.05$, and negatively correlated with the Psychological Well Being component of strain, $r= -.33$, $p<.05$. This provides partial support for the fourth hypothesis which suggested that higher levels of psychological well being would be related to more expressed generativity; those subjects who were rated as having more positive generative role model experiences in their past described themselves with more feminine self descriptors and as experiencing less strain in their current lives than others.

Tone represented a rating that reflected the quality of the subject's experience as the object of others' generativity, and was part of the generativity past section of the scoring system. This dimension was the only other subscale of generativity past that correlated significantly with any of the non-generativity measures, and did so negatively with the Psychological Well Being subscale of strain, $r= -.38$, $p<.05$. Once again, this suggests that those subjects who appeared to have more positive experiences as children experience less strain in their current lives

than others, lending modest support to the hypothesized relationship between psychological well-being and generativity. Generativity present was evaluated by three dimensions, two of which proved to be significantly correlated with some of the non-generativity measures. The dimension uniqueness of project as contribution evaluated the extent to which the subject's generative project enabled her to create/produce something in a unique way and to contribute something of worth to others. This dimension correlated significantly with Power as measured by the TAT, $r=.37$, $p<.05$, as well as Ego Development, $r=.33$; $p<.05$. This was the only generativity dimension that was significantly correlated with Ego Development, lending little support to the hypothesis that Ego Development is related to more general expressions of generativity. The lack of a relationship between Ego Development and generativity was also found in McAdams (1985) study. This finding highlights the observation that those people who produced and contributed more unique generative projects to others had higher levels of agency or power themes in their TAT stories and had a greater capacity to tolerate ambiguity and contradictions than those who did not produce and

contribute their products in this manner.

Children as generative products was the other dimension in the generativity present category that related to some of the non-generativity measures. These ratings reflected the extent to which the subject expressed specific ideas about parenting and the quality of care the subject portrayed to her children. This dimension correlated positively with both Power, $r=.32$, $p < .05$, and Intimacy, $r=.41$; $p < .05$, and negatively with Femininity, $r=-.37$, $p < .05$. Thus, subjects who had clear ideas about parenting and exhibited care towards their offspring seemed to possess the combined qualities of agency and communion, while at the same time being low in feminine self descriptor characteristics.

Cumulative present generativity scores were derived from the two dimensions mentioned above in addition to a rating that determined the satisfaction the subject displayed with her project and subject's experienced appreciation of effort regarding her projects. The generativity present cumulative score correlated significantly with both Power, $r=.34$, $p < .05$, and Intimacy, $r=.34$, $p < .05$, as measured by the TAT. This finding supports previous research (McAdams, 1985), and lends partial support to the first hypothesis advanced

that suggested high scores on both Power and Intimacy on the TAT would be related to high levels of generativity. Interestingly, this relationship was only supported in the generativity present category, which suggests that the qualities of agency and communion together are more relevant to one's current generative expression than generativity as it exists across the lifespan.

Another dimension that was based on subject's current generative projects but that did not directly feed into the generativity present score was the stage at which subject's projects were located on the McAdams (1985) continuum, from pregenerative, to letting the project go and granting it autonomy. This dimension was derived by taking the average stage of all of the subject's projects. This dimension proved particularly fruitful in terms of the correlations with various non-generativity measures. Specifically, it correlated with Power, $r=.33$, $p < .05$, and Intimacy, $r= .36$; $p < .05$, and positively with the Psychological Well Being components of unhappiness, $r=.52$, $p=.001$, vulnerability, $r=.35$, $p < .05$, strain, $r=.36$, $p < .05$, and the total well being score, $r=.42$, $p < .05$. Again, this supports the previous findings that generativity involves the unique combination of agency and communion; however, somewhat

unexpectedly, it also suggests that this process of "letting go" may be associated with psychological turmoil and distress.

The dimension labeled generativity future was derived from the ratings made on the quality of the subject's generative challenge in her future, in addition to the extent to which she was aware of this challenge and rater's judgment of the extent to which she would successfully achieve this generative challenge. This dimension negatively correlated with the Psychological Well Being dimension of unhappiness, $r = -.47$, $p < .05$, as well as the total psychological well being score which was represented by weighted additions of the subscales, $r = -.36$, $p < .05$, and suggests that a more generative outlook towards the future may be associated with more positive and optimistic state of well being. This also provides partial support for the fourth hypothesis, which suggested that a relationship may exist between higher levels of psychological well being and generativity.

Belief in the species was the dimension that evaluated the subject's belief in human progress and the overall worthwhileness of the human endeavor; subjects' views of human nature, optimism/pessimism about life,

belief that life should be governed by higher ideals, and view of human progress were all part of the "belief in the species category". This dimension correlated positively with Masculinity, $r=.31$, $p<.05$, and negatively with a few of the Psychological Well Being components: unhappiness, $r= -.48$, $p<.05$, vulnerability, $r= -.33$, $p<.05$, strain, $r= -.56$, $p=.001$, uncertainty, $r= -.38$, $p <.05$, and the total psychological well being score, $r= -.47$, $p<.05$. Again, this was consistent with the generative future results, and also provided partial support for the notion that higher levels of well being were related to generativity in the dimensions of future and belief in the species.

Threads of continuity was the next generativity dimension included in the developmental framework. This component was based on the notion that generativity involves bringing something forward from the past, through present, to future generations and that the aspects of the subject's past that are preserved and passed on provides continuity across people and generations that is fundamental to the concept of generativity. This component was evaluated according to the following dimensions: initial classification of the identified thread (i.e., whether subject was continuing

a good thread or breaking a bad thread, etc.) in addition to the subject's success in preserving these threads and the rater's belief in subject's future success in this regard. This dimension significantly correlated with: Masculinity, $r=.46$, $p<.05$, Femininity, $r=.33$, $p<.05$, and Social Desirability, $r=.42$, $p<.05$. It was hypothesized that the characteristics of traditional masculine (aggressive, ambitious) and feminine (warm, nurturant) would together be related to generativity. This relationship between masculine and feminine characteristics was only found in the threads of continuity category of generativity, suggesting that those people who strove to make connections with their past in order to make sense of the present and perhaps anticipate the future embraced the co-existing qualities of traditional masculine and feminine characteristics. In addition, this dimension correlated negatively with the Psychological Well Being component of uncertainty, $r= -.42$, $p<.05$, which suggests that those people who sought to preserve the threads of continuity in their lives currently experience less personal uncertainty.

The generativity total score was derived from additions of various parts of the previously mentioned subscale scores. This dimension reflects the

averaging across many categories for each person and attempts to address the developmental focus of this project. The total score correlated negatively with the Psychological Well Being component of unhappiness, $r = -.37$, $p < .05$. As the generativity total score was comprised of many different components, it was difficult to determine exactly what factor influenced this finding; however, it does suggest that those subjects who scored higher in this comprehensive assessment of generativity across the lifespan, experienced less unhappiness than those scoring lower in these various generativity categories. Implications of these findings will be addressed in the discussion section.

CHAPTER V

DISCUSSION

The purpose of this project was to develop and refine the measure of generativity as a multi-dimensional construct. Content analysis of the Life Story Interview (McAdams, 1985) was utilized to establish the value, reliability and validity of this reformulation. The high inter-rater reliability coefficients that reflect independent ratings in the various initial classificatory as well as the generativity subscale categories stands as a testimony to the potential usefulness of this methodological technique. That is, people trained in the theoretical conceptualization upon which this model is based and in the use of the scoring manual should be able to independently listen to Life Story Interviews and generally agree on each other's assessments of the various category ratings. In the current study, independent raters attained inter-rater reliability coefficients in the mid .90's on initial classificatory ratings, and subscale ratings ranging from .75 to .86. The author believes that future researchers in the area of generativity could adopt these guidelines and achieve

the same, if not better, results.

Throughout this study, generativity has been described as a multidimensional construct; proper empirical measurement, therefore, is based on a comprehensive evaluation of these various dimensions in an internally meaningful manner. That is, the dimensions of generativity assessed in this study should be related to each other to the extent that this promotes overall coherence; too much of a relationship, however, between the dimensions would undermine the multidimensional premise upon which this study of generativity is based. Thus, a fine line exists between internal coherence supporting the multidimensional nature of this construct, and too much shared variance that would suggest more of a unidimensional construct.

The correlations among the various generativity subscale and total scores lends some support to the notion that the developmental framework proposed has internal coherence. First, the dimensions of generativity that were assessed through multiple categories (past and present) were all highly correlated with each other. This suggests that each category was measuring some similar aspects of generativity. In addition, dimensions of the categories of generativity

past and present were related to the generativity future category, suggesting that the developmental perspective may be a useful way to conceptualize generativity. Specifically, quality of generative role model was correlated with future, tone of childhood was correlated with dimensions of generativity present and future, and the cumulative present category was correlated with generativity future. The remaining dimensions of belief in the species and threads of continuity were each related to at least two of the other generativity categories, suggesting, again, some overlap exists in these various dimensions. Finally, the generativity total category, as expected, was related to a number of the underlying dimensions upon which it was based. Thus, it appears as though in the current study, generativity was evaluated from a multidimensional perspective.

The examination of cohort differences in generativity, albeit exploratory, led to some interesting findings. It must be noted at the outset, however, that these cohort differences may reflect a subject selection artifact rather than more general cohort effects. The small number of subjects and the unusual characteristic of the groups based on parental

stage is a weakness of this study and limits the generalizability of the results. The study of generativity would be well served by future studies that used more subjects with different characteristics. In this study, however, significant cohort differences were found in the generativity subscales of future and average stage of generative products. Specifically, the younger cohort of women who recently gave birth to their first child were found to be rated higher than the older cohort in terms of the quality of generativity inherent in their challenge or plan for the future, their awareness of this challenge, and the rater's estimation of the subject's success accomplishing this challenge in the future. This suggests that the younger cohort seems to experience a certain optimism or faith in their generative potential for the future; perhaps, ultimately, this is due to the fact that the younger cohort has more of a future in which to realize these goals than does the older cohort.

The second significant cohort difference found in the generativity subscale measures was the average stage of the generative product in terms of its' location on the continuum delineated by McAdams (1985) that ran from pregenerative to giving up the product and granting it

autonomy. The older cohort, or women whose oldest child had first left home within the year prior, had generative products that were rated as being located at a more advanced level on this continuum than did the younger cohort. On the average, the younger cohort's generative products were rated in the constructing/producing stage, while the older cohort's products were rated as more toward the losing/observing the separation stage. This suggests that the older subjects may be more psychologically "ready" to give up their projects than their younger counterparts, who, perhaps, have not been creating and generating as long as the older cohort. It must be noted, however, that due to the nature of the autobiographical material obtained in the interviews, the raters often became aware of the subject's cohort placement; thus, the ratings were subject to biases that could result from such knowledge.

Together, these results add interesting information to the developmental process of generativity delineated in this study. That is, they lend some support to the notion that generativity is a process that proceeds along and is influenced by a person's developmental level. The results suggest that people who have more of

a future in which to realize their generative potential (as in the younger cohort) may feel as though they are in an atmosphere that is rich with possibilities and thus become more optimistic about that which they can achieve. However, as people get older, they may begin to relinquish the control they once had over their generative efforts, and learn to sit back and grant their products more autonomy than their younger counterparts who are still in the business of constructing and creating. It is also interesting to note that none of the other generativity subscale measures proved to differ significantly by cohort, which suggests that these dimensions were not so affected by age.

This next section will discuss the implications of the results that evaluated the relationship between the generativity and non-generativity measures. The generativity past section was predicated on the notion that children are generated by parents, and nurtured, taught and guided into a community of older people (parents, grandparents, teachers, etc.), who care for them, instruct them, and serve as vehicles of socialization. Thus, at this point, children experience generativity from the standpoint of being the generative

"object" or "product" of others' generative actions. The subject's image of those older people who have been the major generators in her life, the quality and extent of this influence, and the subject's impression of the affective tone of her childhood were all elements that became part of this assessment of generativity past.

Taken together, the results of these analyses suggest that subjects who described themselves in more feminine terms (such as warm, gentle and tender) and who seemed to be experiencing relatively low levels of strain in their current lives, had more positive and satisfying experiences with their generative role models as children. Additionally, those who currently described themselves as experiencing lower levels of strain were rated as having had a more positive childhood than people currently experiencing higher levels of strain. An obvious problem with these ratings are the retrospective account upon which they are based. That is, people who experience less strain may be happier in general than those experiencing more strain, and thus may be more likely to interpret their past in a positive manner. The opposite interpretation could also be advanced, suggesting that people who had positive experiences with their generative role models and

overall happy childhoods may be less likely to be experiencing strain and more likely to describe themselves in feminine terms as adults. However, the direction of the causality of this interpretation cannot be determined through these correlational analyses. Ultimately, what can be understood from the current results suggests that adults who see themselves as caring, gentle and tender, and who are experiencing relatively low levels of strain in their current lives, perceive their childhood and the significant others in their lives as children more positively than others.

The results of correlations between ratings in the generativity present category and non-generativity measures are consistent with the results of prior research and some of the hypotheses advanced. Specifically, it was found in this study that the subjects rated high in the categories evaluating children as generative products, cumulative generative present ratings, and the average stage of the product on McAdams (1985) continuum, all had high numbers of Power and Intimacy themes in their TAT stories. This result was obtained in McAdams (1986) study, and supports the observation that the expression of generativity involves a unique combination of the capacity to be

simultaneously powerful and intimate. While these two tendencies may seem to intuitively contradict each other, the capacity to be generative may involve the unique ability that unites the capacities to be powerful and create, while and the same time be intimate and give to others. These results support McAdams' (1985) observation that "generativity challenges us as adults to be both powerful and intimate, expanding the self and surrendering to others in the same generative act" (p. 274).

Another interesting finding involved with the generativity present category was based on results of the average stage of the subject's products on the McAdams (1985) continuum. People who were rated as having generative projects that were closer to the letting go and granting the product autonomy stage rated themselves as experiencing significantly higher levels of unhappiness, vulnerability, strain, and overall psychological distress than others. While life changes in general are often considered to be stressful, the process of letting go and giving up that which has been considered to be an important expression of self (generative products) may promote particular feelings of sadness or general psychological distress. Perhaps this

is a process, whereby once control over the product is fully relinquished these signs of distress diminish; however, it seems as though the experience of giving up that which has been a significant investment of time, energy and commitment, at least initially while the giving up is still taking place, may have a series of negative side effects.

The remaining generativity category ratings, generativity future, belief/faith in the species, threads of continuity and generativity total scores were all found to be negatively correlated with various subscale measures of psychological distress, as measured by the Psychological Well Being Scale (Bryant & Veroff, 1984). People experiencing less unhappiness were found to receive higher ratings in the categories of future, belief in the species, and the generativity total score; subjects with fewer vulnerability and strain self descriptors were rated as having more belief and faith in the species; ratings that reflected higher levels of belief in the species and threads of continuity were found in subjects who had lower levels of uncertainty in their current lives; and finally, those with overall lower levels of psychological distress, as represented by the weighted total of component scales were found to

have more generative challenges inherent in their future plans as well as more belief in the species.

These results, taken together, suggest that general psychological well being may promote an increased capacity to be generative in these various dimensions of future, belief in the species, threads of continuity, and overall generativity composite ratings. Conversely, these findings indicate that the experiences of psychological distress may, in fact, interfere with the expression of generativity in these areas; thus, the extent to which one's generative potential is realized may be partially determined by her overall psychological well being. This interpretation, however, must be tempered due to the correlational nature of the data. Intuitively, this finding makes some sense when it is considered that the expression of generativity does not occur in a vacuum, but rather, is effected by and a product of a person's total psychological health. This is not to suggest that generativity, as currently conceptualized, is analogous to aspects of psychological health. Rather, the dimensions of psychological health evaluated in the current study were found to relate differently to various aspects of generativity across the lifespan; thus while these two processes may be

related, they do not seem to be measuring the same construct. It is possible, for example, that psychological distress such as unhappiness, vulnerability, strain and uncertainty may have the effect of eroding a person's capacity to feel as though she has generative potential in her future, has belief and faith in inherent worthwhileness of humankind, and her recognition and preservation of the threads of continuity connecting past experiences to present and anticipated future life.

In sum, these results provide interesting information regarding the developmental framework of generativity delineated in this study. That is, it appears as though people experiencing less psychological distress in their current lives retrospectively view their childhood as happier and their generative role models or significant others in their childhood more positively than those experiencing higher levels of distress. Additionally, those people experiencing less distress also appear to have more attainable generative potential to realize in their future, have more faith and belief in the goodness of humankind, are aware of the threads of continuity linking their past to present and future, and work to preserve these threads and

reinstitute them in their futures, and have more consistent themes of generativity throughout their lives than those experiencing higher levels of psychological turmoil. Age, or status as a new parent, may have something to do with optimism toward generativity in one's future, as it was found the younger women were rated higher in this category. This suggests, not surprisingly, that the expression of these components involved in generativity may be predicated on one's psychological well being or health. On the contrary, those people experiencing increased levels of distress and upset may tend to abort their generative outlets as a consequence of their distress.

The generativity present category yielded different results that implicated the person's capacity to be simultaneously powerful and intimate in the expression of generativity. That is, the creating and giving of one's self involved in generativity seems to demand a combination of the characteristics involved in the expression of agency and communion, or self expansion and self surrender. Interestingly, subjects' levels of psychological distress were not implicated in the expression of generativity in the present, which suggests that very different processes are going on when

one creates and generates in the present, than when one reconstructs the past or looks forward to the future. However, psychological distress was associated with the process of letting go of all generative projects, not merely children; this suggests that subject's may experience a psychological loss when they let go of the creations that demanded their combined efforts of power and intimacy. The process of letting go of generative products, or the capacity to do so may be influenced by a person's age, as it was found that older people had let go of significantly more of their projects than the younger people.

Ultimately, the results lend support to the notion that generativity is a multidimensional construct embracing a developmental theme. The method of analysis employed in this study appeared to have some empirical merit, as demonstrated by the high inter-rater reliability coefficients associated with the various classifications and categories. Further analyses also supported the notion that generativity can be considered a developmental process, whose past and future are affected by the relative psychological health of the subject, and whose present expression is influenced by the person's capacity to be simultaneously intimate and

powerful in the same generative act. As has been stated throughout, this study of generativity has been based on the adaptation of the Life Story Interview (McAdams, 1985). That is, generative themes corresponding to past, present, future, threads of continuity and belief in the species were distilled from subjects verbal autobiographies, the structure of which had been developed for other purposes. While the identification of the various components of generativity and the corresponding adaptation proved fruitful in this study, an interview that more directly addresses these components of generativity would seem a meaningful potential for further empirical exploration. Taking what has been learned from this study, then, the author proposes the following suggestions toward a more direct study of generativity.

The format of the Life Story Interview which encourages the subject to become a biographer of self and create his/her own "life story" according to the structure of a book with chapters, has been quite fruitful in eliciting the type of rich, qualitative, self-narrative data that is fundamental to this type of study of generativity. The author thus suggests maintaining this original structure while making a few

simple adaptations. First, the developmental framework of generativity proposed in this study is based on evaluating generativity across the lifespan, from past to present and future. Thus, it would be useful in the context of narrative chapters to ask the subject where he/she would separate his/her past or childhood from his/her present or adulthood. In the current study, for the sake of consistency, a rather arbitrary division of late adolescence guided this decision. However, in the spirit of keeping subject information as qualitative and idiosyncratic as possible, subject appraisal of this decision would seem most useful. Based on this division in the life story, subjects' past experiences would be explored in the following manner: specific role models important to the subject, qualitative descriptions of the quality and quantity of this influence, and overall impression of childhood. Present life or adulthood would be explored in a similarly open ended manner. Subjects would be asked to describe areas in their adult lives where they have felt they created or contributed something to others, the nature of quality of that contribution, and at what stage of the generative stage continuum (McAdams, 1985) subjects would locate their efforts in regards to this project. Additionally,

inquiries would be made evaluating subjects experiences and feelings as a parent and impressions of their children as creations. All of these inquiries should be made in an non judgmental and open ended fashion in order to elicit the most truthful and meaningful responses.

Exploration of the other categories identified in this study of future, faith in the species, and threads of continuity would be directly incorporated as part of the Life Story Interview format. For example, in its' current form the Life Story Interview has a section labeled "future" in which the subject is asked to outline his/her hopes, dreams or plans for the future. A natural adaptation to the exploration of generativity can be made at this section of the interview where the subject would be asked to more specifically outline generative plans or challenges in his/her future if the original open-ended format did not yield data specifically regarding generative plans. Additionally, subject's estimation of the likelihood involved in his/her success attaining this generative challenge should be determined.

Further adaptation of the Life Story Interview that assesses subject's faith in the species could be made

rather directly and at a number of places toward the end of the interview. Specifically, this category could be inquired directly by asking the questions in the generative rating scale under the faith in the species subscale: view of human nature, optimism/pessimism about life, belief in higher ideals and view of human progress. The inquiry of threads of continuity, on the other hand, should be modified somewhat from its' present form in the rating system. Specifically, after the subject has completed his/her biography of self and has described the chapter projecting in the future, the salience of the continuity the subject experiences from past to present and future should be determined. In the current study the threads of continuity were evaluated according to the extent to which subjects were maintaining good or bad generative behaviors from their past to their future. However, it is more in the spirit of the theoretical foundation of generativity to evaluate how much the individual works to make the connections upon which threads of continuity are based. Additionally, it would be important to evaluate the subject's own appraisal of his/her success in keeping these threads alive in his/her current and future life.

The new interview that will result from this study

looks to preserve the rich, qualitative data obtained through the Life Story Interview format. However, guiding some of the inquiries in the suggested direction should help facilitate a more thorough investigation of the components of generativity by focusing the material on the subject's own self appraisal and less on researcher's interpretation and judgments. This adaptation, thus, adheres to the spirit of open ended self disclosure encouraged by the Life Story Interview, but better focuses the evaluation of generative themes throughout the lifespan. The author believes, based on the work presented here, that this adaptation will serve to more explicitly explore and define the components of generativity that have been proven to be salient in this study.

Future work in the area of generativity can build upon the developmental framework advanced in this study or pursue completely different generative avenues. A number of possibilities exist if further research were to be conducted within the developmental framework presented here. First, it would be interesting to use the same format with a male and female sample in order to make gender comparisons between cohorts. The model of generativity as presented here is gender neutral, and

thus is not predicated on the notion of sex differences; work in this area would be exploratory but potentially quite revealing. Additionally, as parenthood is becoming an activity adults are engaging in later, it would be interesting to compare the older cohort from this study whose oldest child had first left home within the past year, to the same cohort who were first beginning families. Thus, these two groups would be of the same age but at very different stages in terms of their childrearing. It would also be interesting to determine if any differences in generativity exist between younger people who decide to have children at an early age, as was the case with our younger cohort, and younger people who either do not have children or do so at a later date.

Generativity was presented in this study as a multidimensional construct whose expression is based on a variety of personal, familial and societal experiences. In an attempt to pay credence to the complexity and multidimensional nature of generativity, this study evaluated generativity from a number of different perspectives. Future work in the area of generativity does not need to adhere to this developmental framework, nor use critical stages of

parenthood as delimiting factors. As was found in this study, the expression of generativity appears to be the result of a process that is greatly influenced by a person's life experiences. Ultimately, other areas may be found to be fundamental to the conceptualization of generativity than the one's presented here. This study merely provides a small glimpse into the complex and multidimensional nature of generativity. Future studies that focus on a particular aspect of generativity as has been typically done in the past, or studies such as this one that attempts to provide a comprehensive analysis based on interpretation of theoretical discussions of generativity, can only help elucidate some of the factors involved in how and why people seek to produce and create that which will defy mortality and exist into and through the next generation.

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The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the Committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

10/19/88
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