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Present and Future in Generativity

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PRESENT AND FUTURE IN GENERATIVITY

by

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VITA

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CHAPTER I

INTRODUCTION

Present and Future in Generativity

Generativity is the quality of being procreative, productive and creative, in the present, for the benefit of others in the present and in the future. That is to say that generativity involves creating a legacy (Erikson, 1963). Generativity is both a "need" and "task," with concomitant attitudes and behaviors. It is believed to be a salient issue of the middle adult years. The prototypical form of generativity is parenting, although variations of generativity include creating a piece of artwork, being a mentor, and teaching. Essential to generativity is "belief in the species" (Erikson, 1963, p. 267), faith, hope and trust in the continuity and inherent goodness of humankind. With faith and hope for the future, for ourselves and for others, there is hope that work done now for the benefit of others will be worthwhile. This study will explore how faith, hope for the future, present personality traits, and psychosocial development influence what is done now for the benefit of others.

Individuals who are not generative, whose behaviors and attitudes are not indicative of nurturing, leading and caring for others, are considered by theorists of generativity (e.g., Erikson, 1963; Kotre, 1985) to be self-absorbed and stagnant. They seem to lack a primitive trust or faith in the merits of the continuity of humankind. The

deficit in trust or faith may be a function of failing to resolve psychosocial issues of adolesence and young adulthood, specifically identity and intimacy. Their procreativity, productivity, and creativity may be aimed purely at self-advancement. Such people do not show behaviors and attitudes suggestive of delaying present gratification in order to benefit others in the future.

With respect to generativity, contemporary adults encounter a unique set of sociohistorical events (e.g., Hiroshima, the cold war, Vietnam, and rapidly changing technology) which have produced profound uncertainty about the future (Lasch, 1979; 1984). This, in combination with the contraceptive revolution and increased life expectancy, has produced a generation who may be doubtful about the benefits of reproducing themselves; and who, because of increasing life expectancy, and smaller families, may spend fewer of their middle years raising children (if they even choose to have them). In what ways, therefore, can adults be generative today? What are the correlates and possible predictors of generativity? What changes in generativity occur as we move through the life span? What cohort differences can be observed?

Need for the Study

Erikson's theory of psychosocial development is a widely accepted heuristic for understanding human growth and and development. In this theory, generativity is both a primary need and task of adulthood. The principles set forth for understanding generativity in the middle adult years (Erikson, 1963; 1982) have been incorporated into the theories of several other researchers (e.g., Gould, 1978; Levinson, 1978; and Vaillant, 1977). It is curious, therefore, that few empirical studies

exist regarding the concept of generativity (Ryff, 1984; Vaillant & Milofsky, 1980).

To date, there has been only one study attempting to identify correlates of generativity (McAdams, 1985) and three studies attempting to identify cohort differences (Ryff & Heinke, 1982; Ryff & Migdal, 1984; Wolfe & Kolbe, 1980). The present study seeks to investigate some attitudinal prerequisites (hope and faith), personality traits (dominance, nurturance, and leadership), and previous psychosocial stage resolution, that may serve as correlates and predictors of generativity. The study will also explore potential cohort differences in generativity.

Kotre (1984) has argued that research conducted to date has yet to verify that generativity is a dominant issue throughout middle adulthood as proposed by Erikson. Although the present study is a cross sectional design, it will be possible to generate hypotheses regarding the prevalence and scope of generativity throughout the middle adult years. Erikson (1982) and Vaillant and Milofsky (1980) have argued that previous psychosocial stage resolution is necessary in order to be generative, while Kotre (1984) provided a counterargument. This study will also provide a partial empirical test of Erikson's psychosocial stage theory of generativity in adulthood.

Lastly, individuals who are not generative, according to Erikson, are self-absorbed and stagnant. It is not clear, however, if they are self-absorbed because of unresolved identity and intimacy issues, because they lack faith in humankind, or because of some combination thereof. This study will also provide some insight into this intriguing and complex aspect of psychosocial development.

Description of the Study

Generativity displays itself in both attitude and behavior. Therefore, this study will assess generativity with one objective and three subjective, semi-projective measures. The objective measure is Ochse and Plug's (1986) "generativity vs. self-absorption" subscale. The three semi-projective measures were designed specifically for this study. They are written descriptions of (1) commitments, (2) creative endeavors, and (3) the future.

The first general hypothesis to be tested is that high levels of personal hope and faith should predict generativity. The present study tests this hypothesis by relating objective and semi-projective measures of faith in humankind, faith in self, and hope for the future to generativity. Hope for the future will be assessed with Nuttin's (1985) Revised Time Attitude Scale. Faith in humankind will be assessed in two different ways: (1) the "faith in people" scale of Tipton, Harrison and Mahoney's (1980) Faith Scale and (2) the "trust vs. mistrust" subscale of Ochse and Plug's (1986) validation study. Generativity also requires faith in the individual's own self-efficacy. This attribute will be measured with the "faith in self" subscale of Tipton et al.'s (1980) Faith Scale.

The second general hypothesis is that high levels of identity and intimacy should also predict generativity. Resolution of the identity and intimacy stages will be assessed with Ochse and Plug's (1986) subscales of the same names.

Third, generativity should show a positive correlation with certain personality characteristics, specifically nurturance, dominance, and leadership. Individuals not demonstrating attitudes and behaviors

indicative of generativity are expected to be self-absorbed and stagnant. In terms of psychosocial development, these individuals are expected to be dealing with earlier psychosocial issues, most notably identity and intimacy, rather than generativity. Self-absorption, the proposed antithesis to generativity, will be assessed through the self-absorption/self-admiration factor of Raskin and Hall's (1979; 1981) Narcissistic Personality Inventory.

In addition, cohort differences are anticipated. Theoretically, generativity becomes increasingly important as we move through middle adulthood. Therefore, older individuals are expected to show higher levels of generative attitudes and behaviors than are younger individuals.

Further, multiple regression and discriminant analysis techniques will be used to assess whether predictors, in this case, personality characteristics, faith, hope, and psychosocial development are indeed predictive of generativity.

Seventy adult men and women participated in the present study. They were requested to complete an eight-part questionnaire and provide some demographic information. Part one requested that the participants complete Tipton, Harrison, and Mahoney's (1980) Faith Scale, providing objective assessements of faith in people, and faith in self. Part two asked the adults to describe three creative products with which they are currently involved. Part three included the nurturance and dominance scales of Jackson's (1974) Personality Research Form, providing an objective assessment of two possible personality correlates of generativity. Part four requested that they describe four important commitments in their lives, providing further insight into generative

behaviors and attitudes. Part five requested that participants complete Raskin and Hall's (1979; 1981) Narcissistic Personality Inventory, providing insight into individual levels of self-absorption and leadership. Sixth, respondents discussed (in essay form) their picture of the future, providing additional subjective information about generativity. Part seven asked the adults to complete the Revised Time Attitude Scale (Nuttin, 1985), providing an objective assessment of hope for the future. And part eight requested that the participants complete the psychosocial development and social desirability items from Ochse and Plug's (1986) validity study. These items were designed to assess how well the first seven Eriksonian psychosocial stages, including generativity, have been mastered. It was from this questionnaire that the data for this study were collected.

Overview of the Thesis

Chapter I includes an introduction to the thesis, an explanation of the need for the study, and a description of the study and its hypotheses.

Chapter II proceeds with a review of the literature. Psychosocial development is explored along with related empirical approaches. Special emphasis is placed on the role of identity and intimacy in psychosocial development. The concept of generativity as well as related empirical investigations, are reviewed in depth. Self-absorption and stagnation, the hypothesized antithesis to generativity, is then reviewed. The role of hope toward the future in generativity is also included in this section. The chapter concludes with an overview of the present study and its hypotheses.

Chapter III reviews the methodology of the study. Data collection involves both subjective and objective measures. This section begins with a description of the subjects and proceeds with a review of the measures. An explanation of the procedure adopted for the present study concludes the chapter.

The results of the study are examined in Chapter IV. The results begin with an analysis of generativity as assessed by one objective and three subjective measures. The roles of hope and faith in generativity are explained. Nurturance, dominance, leadership, and self-absorption and their relationship to generativity will are the next topic. Psychosocial development and generativity are reviewed. Characteristics of generative individuals summarize the results. Chapter IV concludes with a summary of the study and its results.

The discussion and implications of the study are the basis of Chapter V. It includes the following: a discussion of the design and results, implications for theories of adult development, and implications for future research.

CHAPTER II

REVIEW OF THE LITERATURE

Psychosocial Development

E.H. Erikson's perspective on generativity comes from his work in formulating a stage approach to psychosocial development. The primary psychosocial task of adulthood is to assist in establishing and guiding the next generation, to be generative (Erikson, 1980a). Generativity is the generation of new products and ideas as well as "a kind of self-generation concerned with further identity development" (p. 67).

Generativity is but one element of Erikson's epigenetic perspective. This is a sequential stage approach. At each stage a new strength is added which will later be reintegrated in light of the present stage. The theory focuses both on the individual and the generation (Roazen, 1976). The individual is seen as a link in the generational chain, contributing and receiving strengths and weaknesses from others.

Generativity arrives after the individual has experienced the crises of basic trust vs. mistrust, autonomy vs. shame and doubt, initiative vs. guilt, industry vs. inferiority, identity vs. identity confusion, and intimacy vs. isolation. Successful resolution results in the strengths of hope, will, purpose, competence, fidelity, and love, for each of the respective stages (Erikson, 1982). Typically, these stages are resolved in the above order with time duration varying among

individuals, and the strengths carry the person through to adulthood. Successful resolution of the next stage, generativity vs. self absorption and stagnation, results in the strength of care. This is the longest stage, encompassing all of middle adulthood. The psychosocial crisis which follows is integrity vs. despair, with healthy resolution resulting in the acquisition of the basic strength of wisdom.

"Crisis" as used by Erikson does not connote a threat or catastrophe, rather it represents a turning point, "a crucial period of increased vulnerability and heightened potential" (1968, p. 96). It implies a potential for growth and further differentiation, but at the same time the possibility of retardation. Each new stage brings with it the legacy of the previous stages (Maddi, 1968). Inadequate resolution of an earlier stage may jeopardize resolution of the current or future stage.

The conflictual nature of each stage is always present and never completely resolved. The tension or conflict is modified in terms of the present developmental stage. Each psychosocial strength is renewed in terms of the currently dominant conflict. For instance, although the infant ideally achieves a sense of hope during the trust vs. mistrust period of infancy, as cognitive and socioemotional development progress so too does the sense of hope. These ego strengths provide the individual with the ability to integrate. They are a means of conscious experience amenable to introspection, they are observable behaviors as well as unconscious states assessable through tests and analysis (Erikson, 1980a). The term strength suggests positive, unifying, and mutual "sympathetic trends" (Hulsizer, Murphy, Noam, Taylor, Erikson, & Erikson, 1982). But each sympathetic trend is associated with an

"antipathic trend." For example, in the adolescent period of identity, successful resolution involves some role repudiation and in young adulthood, intimacy is associated with exclusivity.

A recent cross-cultural validation of Erikson's theory was conducted by Ochse and Plug (1986) in South Africa with black and white men and women (aged 15 to 60 years). The authors constructed a 93-item self report questionnaire covering the theory's first seven stages. Ochse and Plug (1986) found that scores on the Erikson subscales were positively related to both well-being and social desirability. It was hypothesized that individuals scoring high on the psychsocial subscales were also likely to score high on a scale measuring social desirability, not because they want to appear good, but because they honestly believe well of themselves and their self images.

A three-way analysis of variance to determine the effects of age, sex, and ethnic group did not show a main effect for age on those components postulated to develop in childhood except for initiative, which had scores progressively declining over time. The authors hypothesized that those psychosocial strengths theorized to develop in childhood had become integrated into the personality system during adolescence. Or, this may reflect the overlap of the psychosocial stage constructs put forth by the theory. There were, however, main effects for age on the components that theoretically increase with age, i.e., intimacy and generativity. Significant main effects for sex on intimacy, autonomy, initiative, and industry were found. Men scored higher on autonomy, initiative, and industry than did women. The intimacy scores for women rose from ages 15 to 39 and began to drop off after age 40, while the scores for men remained relatively constant.

Identity was the only component which showed a significant main effect for ethnic group. The data showed black respondents perceived less sense of identity than the white respondents. Overall, the results showed that the strengths established in each stage are interrelated and those that develop in childhood are independent from those that develop in adulthood. This finding is somewhat contradictory to Erikson's theory. Despite differences in ethnic background, the underlying factor connecting all of the stages appears to be identity.

Identity

For Erikson (1963, 1968, 1980a, 1982) the pivotal period in psychosocial development is late adolescence and young adulthood, when we establish a personal identity. Identity development involves an integration of one's experiences as a child, student, lover, parent, coworker, and adult into some sort of cohesive whole. We assemble, manipulate, interpret, arrange, and collect our selves from the past, present, and anticipated future to form our identities. Identity is that part of ourselves which provides us with unity and purpose. It allows us to feel a sense of personal continuity over our life spans. We develop these feelings of unity and purpose (a sense of wholeness) with occupational, ideological and relational resources provided by our society (McAdams, 1985). Identity is a dynamic phenomenon. So we see that identity is not only what we are, but how we feel about what we might be in the future, in light of what society expects and allows us to be.

Identity evolves out of the psychosocial accomplishments of the school age. During the school age, children develop initiative and

mastery, competence and gamesmanship. As such, identity is shaped by the current state of technology and societal values. Through our identification with various aspects of a group, we develop a set of expectations regarding how and what we will be like in later years. Over time, we will seek to verify this identity (Erikson, 1968). "This is why cultural and historical change can prove so traumatic to identity formation: it can break up the inner consistency of a child's hierarchy of expectations" (p. 159). Kiesler (1977) explained that our society's increasing depersonalization has lead to a loss of individuality, individual uniqueness has ceased to exist. Our individuality becomes submerged, "but there is no real group identity within which to submerge one's identity" (p. 328).

Identity also includes the awareness that one is a member of a community (Erikson, 1974), being a member of its future as well as its history (e.g., its mythology). So we see psychosocial identity has many forms: our perceptions of ourselves, continuity of personal character, unconscious ego synthesis, and identification and solidarity with a culture's ideals, and group identity. Lastly, two interlocking components predominate, our own awareness of self-sameness and continuity over time as well as others' awareness and recognition of this sameness and continuity. Baumeister (1986) has provided further clarification. First, continuity (or, unity) allows us to maintain some sort of unification over time. Second, differentiation permits us to distinguish ourselves from others.

There have been many empirical studies exploring the concept of identity. The most prominent work in the field comes from Marcia (e.g., 1966, 1980) and others (Orlofsky, Marcia, & Lesser, 1973; Schiedel &

Marcia, 1985), who have explored identity statuses in terms of crisis and committment in occupation, political and religious ideology, and intimacy. Marcia's methodology explores the processes of questioning (crisis) and resolving questions (comittment) concerning occupational choice and ideology. Basically, four statuses have been identified: diffusion, foreclosure, moratorium, and achievement. Identity statuses have been related to personality characteristics such as anxiety, self-esteem, moral reasoning, and interpersonal behaviors. The statuses are dynamic and subject to change with later development. More recently, and in a different vein, McAdams (1985) has explored identity in terms of our life stories, narratives that provide us with a sense of who and why we are. During adolescence we become biographers of our selves, we begin to construct the stories of our lives. Essentially, there are four components of our life stories, of our identities. The first component is the ideological setting; second, the imagoes (characters); third, nuclear episodes; and fourth, the generativity script. It is beyond the scope of this study to review these works in detail; however, they do highlight the importance of identity in psychosocial development.

Identity is an issue which remains prominant throughout the lifespan. Erikson (1968; Erikson, Erikson, & Kivnick, 1986) points out that adults may indeed experience variations of the identity crisis even though they had "resolved" the conflict earlier in adolescence. It is of special importance in the generativity issues of middle adulthood.

Intimacy

Following the identity vs. identity diffusion crisis of adolescence is the intimacy vs. isolation crisis of young adulthood. As Erikson wrote in Childhood and society (1963):

> Thus, the young adult, emerging from the search for and the insistence on identity, is eager and willing to fuse his identity with that of others. He is ready for intimacy, that is, the capacity to commit himself to concrete affiliations and partnerships and to develop the ethical strength to abide by such commitments, even though they may call for significant sacrafices and compromises. (p. 263)

The antithesis to intimacy is isolation, the avoidance of relationships resulting in a commitment to another. "The avoidance of such experiences because of fear of ego loss may lead to a deep sense of isolation and consequent self-absorption" (Erikson, 1963, p. 264).

There has been a tremendous amount of empirical research concerning the intimacy construct, both as a developmental phenomenon and as a lifelong personality trait. Marcia's (1966) identity status interview has been extended to include the Eriksonian concept of intimacy (Orlofsky, et al., 1973; Orlofsky, 1978). Orlofsky et al. (1973) operationalized the construct with the following criteria: 1) presence or absence of close relationships with friends of both sexes; 2) presence or absence of a permanent sexual relationship; and, 3) deep versus superficial peer relationships. Based on these criteria, five intimacy statuses have been identified (Shiedel & Marcia, 1985): Isolate, Stereotyped, Pseudointimate, Preintimate, and Intimate. Individuals classified as Isolates live in an interpersonal void with only casual acquaintances. Stereotyped people are pleasant, but convential and shallow. Pseudointimate people are similar to Stereotyped except they are engaged in a permanent sexual relationship

that is typically defined by convential roles rather than self-disclosure and sharing. Preintimate individuals have close, open, and understanding relationships with others, but are ambivalent about commiting themselves to a permanent sexual relationship. Lastly, Intimates have close, open and understanding relationships with others, and are involved in a committed, long-term sexual relationship. As with the identity statuses, the intimacy statuses are descriptive of temporary developmental states. They are not descriptive of a style of interpersonal interaction.

Ochse and Plug (1986), as part of their larger validation study of Erikson's theory, created a self-report scale to assess the degree to which the developmental crisis of intimacy vs. isolation has been mastered. Their results indicated, for whites, that women score higher than men on intimacy and women show intimacy scores increasing until middle age and decreasing thereafter. Men's scores show increases throughout adulthood, although even in old age, they are not scoring as high as women. Blacks, on the other hand, showed a somewhat different pattern. The men's scores were higher for all age groups. Similar to the white women, black women showed scores increasing until middle age, when there was a slight drop.

Like identity, intimacy is an issue which remains prominant throughout the rest of the life span. As Erikson et al. (1986) recently wrote:

> Throughout the life cycle, a balance between the capacity for intimacy and the need for some isolation enables the individual to engage with others whom he or she can love and be loved by, with true mutuality. (p. 104)

And, similar to identity, adults may experience variations in the

content and form of their intimate relationships, even if they had "resolved" the conflict in young adulthood. Theoretically, intimacy is also of special importance in the generativity issue of middle adulthood.

Generativity

In middle adulthood, the individual encounters a new identity crisis, which may be summarized "I am what survives of me" (Erikson, 1968, p. 141). An individual's identity provides the framework for identifying, creating, and leaving a legacy behind. The previous stage of intimacy vs. isolation provides the intimate relationships (not necessarily sexual) that result in "new productive identities" with which the next generation can be assisted. An intimate relationship "leads to a gradual expansion of ego-interests and to a libidinal investment in that which is being generated" (Erikson, 1963, p. 267). Continued identity development leads to a more integrated, stronger sense of self which may include parenthood and its accompanying generative roles (Colarusso & Nemeroff, 1981).

Generativity is clearly the longest of any of Erikson's stages, typically spanning several decades. With its concomitant procreativity, productivity, and creativity (Erikson, 1982; Holsizer et al., 1982), it is not simply the generation of children. In Erikson's (1974) own words,

> in youth you find out what you care to do and who you care to be -even in changing roles. In young adulthood you learn whom you care to be with - at work and in private life, not only exchanging intimacies but sharing intimacies. In adulthood however, you learn to know what and whom you can take care of. (p. 124)

Generativity is not an ever-present personality issue.

Individuals are not necessarily conscious of being generative. Generativity is seen in terms of a number of related concepts. To quote Erikson again (Holsizer et al., 1982):

> The generational cycle links life cycles together by confronting the older generation's generativity with the younger one's readiness to grow. This has three dominant aspects: the procreative one which gives birth and responds to the needs of the next generation; the productive one, which integrates work life with family life in the political and technological framework; and the creative one, which elaborates cultural potentials within the emerging world image. (p. 269)

Individuals choosing not to become parents, must decide how they will be generative; how they will participate in the education and leading of later generations. The steadily declining birth rate imposes on the generativity issue. Erikson (1964) proposed that most individuals resolve the conflict through childrearing, although it is clearly stated that having children does not automatically result in adequate resolution. With more and more adults opting not to marry and/or have children, they need to participate "otherwise in the establishment, the guidance, and the enrichment of the living generation and the world it inherits" (Erikson, 1974, p. 123). The generative "drive" needs to be put to use constructively.

As a group, adults take care of others by becoming ritualizers of the parental, instructional, productive, and remedial roles. Through identification with the attitudes of teachers and leaders, generative individuals set themselves apart from others. In this way, they transmit societal norms to the next generation (Erikson, 1982). Generativity, therefore, is logically an issue of middle age. As Neugarten (1968) pointed out, middle age is a period of heightened sensitivity to one's positions and roles in the environment as well as a

period of self reassessment. The time left to live and get things done becomes a primary concern. In addition, younger generations demand the assistance of more experienced and educated adults. As such, the antipathic counterpart to generativity is rejectivity. The generative individual can only care for so many people and/or ideas, thus the need to reject others (Holsizer, et al., 1982).

The psychosocial strength postulated to emerge with adequate resolution of this stage is care. Erikson (1964) defined care as "the widening concern for what has been generated by love, necessity or accident; it overcomes the ambivalence adhering to irreversible obligation" (p. 131). When we care (whether it be for a person or a project), we trust and hope that the other will flourish (Knowles, 1986). To use the prototypical example of parenthood, care is expressed through the unintrusive support and facilitation of the child's independence, sexuality and separateness (Colarusso & Nemeroff, 1981). Ideally as children grow up, care will be extended to their mates and their children as well. With this may come modifications in identity, from being provider and protector to being a facilitator. In addition, as the children become increasingly independent, the parent comes to realize that he or she is no longer absolutely necessary or powerful. Colarusso and Nemeroff (1981) highlighted the classic picture of the middle-aged father searching for immortality through his children, particularly his sons. The father projects his ego ideal's aspirations onto his sons and unconsciously anticipates his future self-realization in them.

Care is also demonstrated in the mentor role (Colarusso & Nemeroff, 1981). Implicit in that role is the realization that one will

eventually be replaced by a younger individual. Hostility and aggression toward this younger person are transformed into teaching, training and facilitating. Erikson, at al. (1986) recently wrote:

> We understand middle adulthood's generative responsibility for the "maintenance of world" in terms of the interrelated realms of people, products and ideals. It is therefore the responsibility of each generation of adults to bear, nurture, and guide those people who will succeed them as adults, as well as develop and maintain those societal institutions and natural resources without which successive generations will not be able to survive. (pp. 73-74)

It should be noted that, unlike intimacy (the previous psychosocial stage), caring may not be immediately reciprocated. It is hoped that gratitude will be expressed by passing on the caring (Knowles, 1986). Mayeroff (1971), a philosopher, wrote:

> To help another person to grow is at least to help him care for something or someone apart from himself, and it involves encouraging and assisting him to find and create areas of his own in which he is able to care. (pp. 10-11)

There have been several other theoretical discussions of generativity. Kotre (1984) defines it as the "desire to invest one's substance in forms of life and work that will outlive the self" (p. 10). Generativity is both instinctual and psychosocial. It is strength embedded in imagination, reason, conscience, and will. Generativity enables the individual to achieve "material and symbolic unity with an extensive and enduring future" (p. 10). In other words, generativity enables us to achieve a kind of immortality.

Kotre (1984) identified four forms of generativity. The first is biological generativity. It involves conceiving, bearing, and nursing children. The generative object is the infant. Parental generativity consists of nurturing and disciplining one's offspring and introducing them to family traditions. In this case, the generative object is the

child. This confirms Guttman's (1980) proposal that parenthood requires assuming responsibility for the care of offspring whose very existence is dependent upon caretaking. The child's development is then a reflection of that caretaking.

Kotre (1984) next discussed technical generativity, teaching skills (the "body" of a culture) to successors. Kotre referred to "implicitly passing on the symbol system in which the skills are embedded" (p. 12). Here, the generative object is the apprentice and/or the skill. The last is cultural generativity. Cultural generativity encompasses creating, renovating and conserving a symbol system (the "mind" of a culture) and then explicitly passing it on to others. The generative object here is the disciple and/or the culture. From this perspective, generativity is both action and attitude. Kotre's four part definition provides criteria for the proposal that generativity is the link between and individual's life cycle and the cycle of generations.

Like Erikson, Becker (1973) argued that adults are driven to create products that will outlive them. Becker declared that heroism is the primary motivation of adulthood. Heroism is defined as "first and foremost a reflex of the terror of death" (p. 11). Becker argued that this fear of death is repressed. As such, the fear is turned on its back and individuals use it to produce and create. A hero can create something of lasting worth and meaning, something that will continue to exist after his or her death. Parents can live on through their children, loved objects, and other works. By creating a legacy, a kind of immortality is achieved. However, immortality also requires that one offer the legacy up to others as a gift.

Drawing on Erikson and Becker, McAdams (1985) saw generativity as a two step process: first, creating the legacy that will outlive the self (a powerful act) and second, offering the legacy up to others so they may benefit from it (a loving act). Furthermore, in order to be generative, one must have some fundamental faith in the species, some kind of hope that human beings will progress and flourish (Erikson, 1963). In other words, one needs to be hopeful about the future world.

Similar to Becker, Gould (1978; 1980) found that fear of death is a prime motivator in adulthood. Based on interviews conducted within a private psychiatric setting, Gould argued that the forties present a period of life when we become aware of the time limits of our life span. With this recognition we realize that our own interests, motivations and values must be addressed before time runs out. Resolving these issues enables us to be more authentic adults, true to ourselves and to others. At the same time, we demand authenticity from those around us. Gould argued that by doing this we automatically become generative. We are generative because we are providing role models and therefore providing younger, less experienced individuals with the opportunities to learn more about life from us.

Levinson (1978; 1986; Levinson & Gooden, 1985) proposed a midlife transition for men which occurs approximately between the ages of 40 and 45. The period brings with it a new set of developmental tasks. The midlife man asks questions such as

> 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? (p. 60)

According to Levinson, this marks a time of life when "actual desires, values, talents and aspirations can be expressed" (p. 60). Resolving

any transition depends upon the underlying process of individuation. Midlife individuation involves resolution of four polarities: young/old, destructive/creative, masculine/feminine, and attachment/separation. Resolution is a process of overcoming and integrating these polarities (Levinson, 1978). Although generativity is not specifically adressed, we can see several similarities.

Resolving the young/old polarity requires the recognition that the man himself is responsible for later generations. He becomes aware of who he is and what matters most to him, prompting an awareness of his own mortality. However, he can achieve some measure of immortality by creating a legacy. The legacy not only allows for a measure of personal fulfillment but also adds to the quality of life of succeeding generations.

Closely related to the young/old polarity is the destruction/creation polarity, resolved by bringing the legacy to life. Whatever he chooses to create, he must allow it to take on an independent existence, so that others may benefit from it whether or not its creator is present.

In becoming a mentor, the man begins to resolve the masculine/feminine polarity. Prior to becoming a mentor, the man had supressed his nurturant, sensitive, creative personality traits (his feminine side) and openly acknowledged the ambitious, powerful and driven masculine side. By caring for a younger individual, without competing and without fear of being surpassed, he can help another to achieve and to grow. Thus, allowing for a healthy mix and balance of the two polarities, which heretofore had been impossible.

Lastly, the attachment/separation polarity is resolved by

accounting for the man's own wants and needs. With middle age comes the recognition that there is not an infinite amount of time left to live out goals and dreams. If he is to be at peace with himself, he must begin to satisfy and live out his own "dream." Levinson (1986) points out that resolving the polarities and becoming more individuated pushes men to be more compassionate, reflective, and caring. It is during middle adulthood that men find themselves responsible for their own work, the work of others, and "also for the development of the current generation of young adults who will soon enter the dominant generation" (Levinson & Gooden, 1985, p.5). Failure to become further individuated leaves the man feeling that his life has become stagnant and meaningless. This confirms the findings of Kolb and Wolf (1980) who found midlife to be a period of attention to our own natures and possibilities, rather than blindly abiding by the demands of others' expectations.

In a more empirical vein, Neugarten (1968) interviewed 100 "well-placed" men and women about their own experiences with middle age. Neugarten stated that most respondents indicated an awareness of their responsibility to "the creation of social as well as biological heirs" (p. 95). Women who participated in the study also expressed the recognition that middle age marks a time when previously unexpressed talents and capacities could be resurrected. They were now able to be creative and productive in areas other than childrearing. This finding was amplified in Sheehy's (1976) popular Passages and (1981) Pathfinders. Gould (1978) also discussed a similar finding with his sample of middle-aged women.

Marginally related is Dennis' (1968) study of creative

productivity in 738 people who lived to be at least 79-years-old. Subjects were scholars, scientists, and artists whose works could be counted. The purpose of the descriptive study was to assess when, in the course of the life span, these individuals were most creative and productive. Of sixteen categories of individuals, thirteen (81.25%) had their most productive decade in either their 40's or 50's, decades typically considered to be middle age. This is followed by Jacques (1973) argument that individuals who are most creative from about 35 to 45 find that their creativity changes. After 45 it becomes more reflective, more scupltured and less spontaneous. Before this time, the creative process appears more implusive and impetuous, and creative products are relatively "unrefined."

One of the first documented studies specifically assessing the Eriksonian concept of generativity was conducted by Ryff and Heinke (1983). Their sample included 90 young (mean age, 20.6 years), 90 middle-aged (mean age, 47.85 years), and 90 old-aged (mean age, 69.35 years) adults. The groups included equal numbers of men and women. Based on Erikson's theory, the authors developed scales to assess generativity. Generative responses were described as follows:

> Expresses concern in establishing and guiding the next generation; possesses awareness of responsibilities to children or those younger in age; views self as a norm-bearer and decision maker; shows awareness of leadership role and has a sense of maximal influence capacity. (p. 809)

The individual who is not generative:

> Views self as having little impact on others; shows little interest in sharing knowledge or experience with others; reveals excessive self concern and self-preoccupation; feels no obligation to guide younger generation. (p. 809)

Differential instructions were given to members of the three age

groups. Young adult subjects were divided into three groups. One group was requested to rate themselves in the present, the second as they anticipate being in middle-age, and the third as they anticipate being in old age. Three groups of middle-aged subjects rated themselves in the present, as they thought they might have in young adulthood, and as they anticipate doing in old age. Three groups of old-aged subjects rated themselves in the present, as they thought they would have rated themselves when they were middle-aged, and when they were young adults. It was hypothesized that middle aged individuals would rate themselves higher on generativity in the present rather than retrospectively and prospectively. It was also hypothesized that the young adults would anticipate being more generative in middle age than in the present or in old age. Likewise, it was predicted that the old-aged individuals would recall being more generative in middle age than young adulthood or in the present.

The results showed a main effect for age such that subjects expected generativity to be most salient in middle age, regardless of the temporal orientation of the instructions. There were no sex differences. In addition, Ryff and Heinke (1983) found that the generativity scales correlated significantly (r=.33) with a scale of complexity, as derived from Neugarten's (1968) discussion of executive processes. Complexity involves elaborate planning and scheduling of work and personal activities and controlling a diverse environment.

Ryff and Heinke's (1983) results echoed the 1980 cross sectional findings of Wolf and Kolbe (1980). For these authors, generativity involved attaining a broad perspective and making a contribution to society, to community affairs, and to the next generation. Surveying

494 professional men and women, ranging in age from 24 to 63, the sample provided information on educational and career history, learning and adaptive style, critical skills involved in work, and the current importance in life of 24 developmental tasks. The results showed that there is little interest in tasks related to generativity during young adulthood. It was found that during the midlife transition, adults questioned the relevance and value of their occupations, thus prompting the search for an understanding of one's self and one's place in society. It was not until a "posttransition" period that generativity truly became a major developmental task. By becoming a senior member of an organization (not just in the work world), they had the opportunity to guide and help those who were younger and less experienced.

A later study by Ryff and Migdal (1984) investigated Erikson's theory as it relates to women, specifically the transition from the young adulthood focus of intimacy to the concern of generativity characteristic of middle age and, whether or not women perceive themselves to be changing in accordance with the theory. Fifty young women (mean age, 22.1 years) and fifty middle-aged women (mean age, 47.3 years) were administered scales from the Personality Research Form (PRF) and the Jackson Personality Inventory (JPI). Intimacy was measured with the affiliation and succorance scales of the PRF and the interpersonal affect scale of the JPI. Generativity was assessed with the PRF scale of dominance and the JPI scale of breadth of interest.

Ryff and Migdal (1984) hypothesized that the combined intimacy scales would show self-perceived decreases from young adulthood to middle-age. They also hypothesized self-perceived increases in the combined generativity scales from young adulthood to middle age. To

test these hypotheses, the subjects were randomly divided into three groups and completed the questionnaire on the basis of differential instructions. One group of young adult and middle-aged women rated themselves in the present (concurrent). One group of middle-aged women were asked to respond as they would have when they were twenty-five years old (retrospective). A last group of young adult women were requested to answer the questionnaire as they thought they might when they were forty-five years old (prospective).

An analysis of variance indicated that intimacy was more important to young adult women than middle-aged women, regardless of the temporal orientation of instructions. However, the attributes measured by the generativity scales were significant only for the concurrent scores of middle-aged women. The young adult women showed an unexpected pattern, their concurrent scores were higher than their prospective scores. These young women perceived themselves as being more generative in the present than they anticipated being in the future. Ryff and Migdal (1984) postulated that perhaps the young women failed to answer the questions in a prospective mode, instead they answered as they felt at the time of the study.

An earlier study by Vaillant and Milofsky (1980) followed up on two 40-year prospective studies. The first followed 392 men from high-crime core-city neighborhoods and the second followed 94 successful college graduates. Based on a two-hour psychiatric interview, the men were categorized into one of Erikson's psychosocial stages. Using these results, the authors argued for stage 6a (career consolidation) and stage 7a (keepers of the meaning). Career consolidation is a product of the men making clear, specialized career identifications. Vaillant and

Milofsky stated that career consolidation is typically achieved through the internalization of mentors. These individuals, who were not yet classified as generative, did assume responsibility for the growth, well-being, and leadership of others. It was not until they had achieved some form of career consolidation that they could be generative, in the Eriksonian sense. Based on data provided by the college sample, Vaillant and Milofsky (1980) added stage 7a. It was argued that after the men had achieved generativity there was a need to transmit societal norms and values, similar to Kotre's (1984) technical and cultural generativity. Vaillant and Milofsky perceived the mentor role as an additional aspect of generativity.

All of the subjects, at age 47, were classified into one of the following stages: identity, intimacy, career consolidation, or generativity. Of interest here are the men who were classified in the generativity substages. Career consolidation, defined as "stable career specialization but little responsibility for others" (p. 1353), showed 33% (N=31) of the college sample and 32% (N=126) of the core city sample as members. Generativity, defined as "clear responsibility for others" (p. 1353) contained 41% (N=39) of the college sample and 31% (N=121) of the core city sample. Socioeconomic status seems to have had little bearing on progression through the stages. All other subjects were still struggling with issues of identity and intimacy. An interesting finding here was that in order to successfully resolve the crisis of generativity, it was neccessary for the men to have successfully resolved the preceding stages. This supports of Erikson's theory. Kotre (1984) has argued that resolving the crisis of identity and intimacy prior to generativity is not necessary.

Most recently, McAdams (1985; McAdams, Ruetzel, & Foley, 1986) interviewed thirty women and twenty men between the ages of thirty-five and fifty (mean age, 39.6). Working out of his life-story model of identity, generativity was seen as one aspect of identity rather than a separate stage. In a discussion of their life stories, subjects were asked to describe their scripts for the future, how the scripts enabled them to be creative, and how they were able to make a contribution to others. Using Ryff and Heinke's (1983) criteria for generativity, scripts were rated for high, moderate, or low levels of generativity.

The results showed no statistically significant differences between men and women in the sample. Only ten subjects (20%) showed high levels, and twenty-three (46%) showed moderate levels of generativity. This left seventeen (34%) showing no generativity at all in their scripts for the future. Interestingly, McAdams (1985) also found that the generativity ratings were unrelated to ego development as measured by Loevinger's (1976) sentence completion task. However, when subjects' Thematic Aperception Test scores for power and intimacy motivation were combined, it was found that those who scored highest on generativity also tended to score high on power and intimacy. McAdams (1985) concluded "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).

Self-Absorption and Stagnation

As was stated earlier, each of Erikson's (1963) psychosocial stages is presented in terms of a bipolar conflict. The middle adulthood conflict is generativity vs. self-absorption and stagnation.

Individuals who are unable to give of themselves, either because of unsuccessful passage through earlier psychosocial stages or because of poor identification with generative purposes and ideals, find themselves with "an obsessive need for pseudo-intimacy...often with a pervading sense of stagnation and interpersonal impoverishment" (Erikson, 1980a, p. 103). Generative individuals recognize that they need to be needed. The individual who fails to turn out to others and "care" for them, turns the need inward and "becomes his own infant and pet" (Erikson, 1964, p. 130). Further, Erikson (1963) has stated:

> The reasons are often to be found in early childhood impressions; in excessive self-love based on a too strenuously self-made personality; and finally (and here we return to the beginnings) in the lack of some faith, some "belief in the species," which could make a child appear to be a welcome trust of the community. (p. 267)

Less generative individuals, according to Erikson, lack a trust or faith in humankind. This is somewhat supported empirically with the recent work of Watson, Hood, and Morris (1984) and Watson, Hood, Morris, and Hall (in press) who found that intrinsic religiosity (which may be equated with faith) correlated negatively and specifically with the maladaptive exploitiveness dimension of narcissism.

There has been little research conducted specifically with regard to self-absorption and stagnation. Much of the available literature is philosphical and theoretical rather than empirical. Gould's (1978; 1980) discussion of development (transformations) in middle adulthood revolves around authenticity and generativity, the organizing principles of the transformation process. Problems with authenticity and generativity are resolved through involvement in the work world. When work fails to provide an authentic and generative role, a crisis period

ensues, permitting one to derive an acceptable frame of reference. Erikson (1980a) might argue that an emphasis on work is overcompensation for a weak sense of self:

> Many adults feel that their worth as people consists entirely in what they are doing, or rather in what they are going to do next, and not what they are, as individuals. (p. 85)

In a chapter entitled "Reflections on Dr. Borg's life cycle," Erikson (1978) described a fictitious character from Igmar Bergman's film "Strawberry Fields" who had inadequately resolved the psychosocial conflicts of identity and intimacy. Dr. Borg overextended his occupational and civic roles, which in turn limited his choice of methods to satisfactorily resolve the crisis of generativity. Dr. Borg defined himself in terms of roles rather than a wholeness derived from roles, ideology, and interpersonal relationships. When we assume an identity based entirely in occupational pursuits, we inevitably fall short of our expectations. There does not exist a system of roles, an institution or an organization that fully accounts for the psychological complexity of the human individual (Wolfe & Kolb, 1980).

Erikson's psychosocial theory links the individual with society and history. Individuals are generative because they are hopeful, both for society and themselves. With hope for the future there is the recognition that one's legacy (caring for future generations) will serve a worthy purpose. Social critic Christopher Lasch (1978) noted that "we are fast losing the sense of historical continuity, the sense of belonging to a succession of generations originating in the past and stretching into the future" (p. 5). As such, there is no need for hope, it is best to live for the moment and for oneself.

In his book The Culture of Narcissism, Lasch (1978) highlighted

that adults in today's modern American society who hold no hope for the future manifest "a narcissistic inability to identify with posterity or feel oneself part of a historical stream" (p. 51). With this negative or pessimistic attitude toward the future, questions are raised regarding the value of reproduction, teaching, and mentoring. There is no interest in creating and offering up a legacy for others. In addition, the perceived discontinuity between this generation and later ones prevents the middle-aged individual from aging gracefully: "People cling to the illusion of youth until it can no longer be maintained, at which point they must either accept their superfluous states or sink into dull despair" (p. 213). In other words, they stagnate.

Kotre (1984) postulated that modern society's increased age segregation affects generativity resolution. With increased age segregation, there are few opportunities for individuals to interact with, let alone identify with, those from the past or those who will be the future. Kotre has questioned how it is possible for one to be generative if there is no opportunity to understand how one creates and offers up a legacy, as is possible through imitation of older people. In a chapter entitled "The shattered faith in the regeneration of life" Lasch (1978) proposed that in the past love and work merged together in a concern for later generations. This concern was demonstrated by training younger individuals to carry out the work of the older ones. That way, the older generation could live vicariously through those that they have loved and tutored.

Cottle and Klineberg (1974) discussed how the perceived speed of social change influences our attitudes toward the future:

As the past grows increasingly remote and discontinuous with the

> present, the future, too, is likely to be conceived as unpredictable, its images unsafe as guides for current actions and meanings. (p.11)

Likewise, Stern (1982) proposed that the purpose of culture is to provide us with a sense of ongoingness. We received from the past and at some time we will give to the future. But today, rapid changes in technology leave the older generation with few skills of use to the younger. Combined with the older generation's loss of the parent role, they feel useless and lose all faith and hope in themselves. To quote Stern (1982):

> The spiritual energy needed to transmit understanding, knowledge, and healing love, out of the past and into the future, through us, here, now, in this present, has been broken. Our present has become arid and brittle, nourished no longer by its inheritance from the dead, and stirred no longer by the hunger to pass on to the not-yet-born a gift to make them freer and more loving than we ourselves are. (p. 509)

An interesting counterpoint to Lasch and Stern is Bellah, Madsen, Sullivan, Swindler and Tipton's Habits of the Heart (1985). Bellah et al. (1985) explored the relationship between our goals for a successful private and public life and economic success in a centralized and bureaucratized nation. Modern American culture has evolved from a small-town atmosphere with visible economic and social relationships to an economically, technically, and functionally interrelated society. As individuals, we find it extremely difficult to understand how our activities relate in morally meaningful ways with others. Increasingly, we define ourselves in terms of our work, compounding our alienation from one another. In addition, breaking with past traditions has always been a way of life in the United States, leaving us without any connections to what was, what is, and what will be. Bellah et al. (1985) explored how our past history provides us with hope for the

future:

> The communities of memory that tie us to the past also turn us toward the future as communities of hope. They carry a context of meaning that can allow us to connect our aspirations for ourselves and those closest to us with the aspirations of a larger whole and see our own efforts as being, in part, contributions to a common good. (p. 153)

We need history to build our own sense of self. With our ties to the past weakening, generativity (which is contigent upon ties to the past) becomes an increasingly remote possibility.

In conversations with over 200 Americans, Bellah et al. (1985) found that many of us cannot create an image of the whole society and how we fit in. In addition, the changing role of religion has also impacted on our perceptions of our role in society. Having gotten tangled in the web of current desires and feelings, we have lost sight of long-term commitments both at the personal and societal levels. Lack of commitments stemming from virtues and traditions modeled by others, as well as lack of responsibility to care for others, has produced a self without a narrative (a sense of identity, providing structure to our lives) to draw upon. We are left feeling empty and hopeless. This echoes Kiesler (1977), who wrote, "we have become a nation of observers, paradoxically emphasizing emotional relationships with others, while avoiding any continuing commitment to others" (p. 328). This is what Erikson (1980a) referred to as pseudo-intimacy, a characteristic of those unable to be generative.

Bellah et al. (1985) close their book with a reflection on modern society. Fanatical ideology and oppressive political regimes have grown in strength and proportion unknown in previous history. Scientific advancement has provided us with the means to destroy all life on this

planet. The third world appears to be in a never ending fight to enter modernity. Government bureaucracy threatens to engulf us all, while becoming overly militaristic, rather than maintaining its role as a neutral referee. Despite the apparent hopelessness of modern society, the individuals Bellah et al. (1985) interviewed were still inexplicably optimistic:

> They realize that though the processes of separation and individuation were necessary to free us from the tyrannical structures of the past, they must be balanced by a renewal of commitment and community if they are not to end in self-destruction or turn into their opposites. Such a renewal is indeed a world waiting to be born if only we had the courage to see it. (p. 277)

Hope for the Future

Implicit in any discussion concerning generativity is hope for the future, faith in the continuity and inherent value of humankind. Hope and faith are attitudinal prerequisites for generativity. An attitude of hope and concern for the future appears to be a correlate, and perhaps even an antecedant, of generativity. As Erikson et al. (1986) recently wrote:

> The capacity for grand-generativity incorporates care for the present with concern for the future - for today's younger generations in their futures, for generations not yet born, and for the survival of the world as a whole. (pp. 74-75)

With the loss of a sense of historical continuity, there is a sense of despair both with regards to oneself and to others. This sense of despair can take the forms of loss of hope, mistrust, pessimism, or lack of faith.

Theoretical discussions regarding individuals' attitudes, beliefs, and thoughts about the future have been broken down into two components: future orientation and future time perspective (Schmidt, Lamm, &

Trommsdorf, 1978). Future time perspective refers to the cognitive components of future orientation, specifically the content, placement, and realization of events (Lamm, Schmidt & Trommsdorf, 1976). Future orientation refers to that part of time orientation directed toward the future, more simply, it refers to attitudes toward the future. This discussion will focus on the optimistic-pessimistic, or affective, dimension of future orientation.

Lamm et al. (1976) defined optimism as a positive difference between one's evaluations of the present and the future, while pessimism reflects a negative difference. This is in line with Teahan's (1958) discussion of optimism as the expectation that positive events will dominate the future scene, and pessimism inferring domination by negative events. Using the same definitions, Kiesler (1977) substituted hope for optimism and despondency for pessimism. Fatalism refers to the belief that one is powerless to affect the future. There are few empirical studies identifying the correlates of optimism and pessimism, and how the affective dimension relates to present experience.

Larsen (1973) concluded that individuals demonstrating high personal and social power tend to be optimistic, while those low in social power are more likely to be pessimistic about the future. Based on data provided by a series of studies, Nuttin (1985) has argued that optimism toward the future is associated with present attitudes and behaviors. Individuals optimistic about the future show behaviors and attitudes indicative of planning ahead. They understand, and are willing to work for, delayed gratification.

Saucier and Ambert (1982), Lamm et al. (1976), and Schmidt et al. (1978), studying adolescents and adults, in different countries,

converged upon the same general results. Overall, it appears that middle class individuals, regardless of age, hold more optimistic attitudes toward the future than do their lower class peers. Matters of personal concern are judged more optimistically than political or environmental issues. It appears that if we perceive some control over the issue (as is possible with occupational, family, and personal matters), we also believe we can make it better in the future. Issues which are perceived to be beyond our control, such as politics, are viewed more pessimistically.

Cottle and Klineberg (1974) looked at attitudes toward the future somewhat differently. They proposed that we conceive of ourselves as bridges between the past and the future. The sturdier our ties with the past, the longer the future perspective. When the connections between past, present, and future are threatened, whether it be by social instability, or other external forces, the future becomes unpredictable and therefore more distant and less controllable. This dovetails nicely with Erikson's (1968) discussion of the impact of technological and social upheaval on identity. Drastic change that forces us to redefine ourselves cannot be incorporated into our already crystallized identities. When the future is unpredictable, resulting in feelings of hopelessness or pessimism, we would expect that attitudes and behaviors indicative of generativity (stemming from our identities) would decrease. When we are forced to remain in a number of social settings that are contrary to personal developmental needs, the possibility of being generative may be seriously diminished as is the possibility of being optimistic. If we are unable to experience a sense of effectiveness at home, work or community, for example, than we are

unlikley to feel capable of contributing to their future growth.

The Present Study

Generativity, in the context of this study, has been defined as both attitude and behavior indicative of leading, educating, nurturing, and caring for later generations. Particular forms of generativity are shaped by the individual's identity and intimate relationships. Identity provides the framework for one's skills and beliefs which will be used in generative processes. Generativity is an issue of the middle adult years because it is not until identity is solidified, issues of intimacy dealt with, and experience gained, that one can truly spend the time and have the skills necessary to assist and nurture others. Less generative adults are perceived to be self-absorbed and stagnating. They do not participate, either in behavior or attitude, in planning for the future of humankind. Their interests and work are only for themselves, for the here and now.

The purpose of this study is to investigate some attitudinal prerequisites (hope and faith), personality traits (dominance, nurturance, leadership), and psychosocial development (identity and intimacy), as they relate to generative attitudes and behaviors. This study will seek to uncover some of the correlates and predictors of generativity. The general hypotheses to be tested are discussed below.

Implicit in any discussion concerning generativity is hope for the future, faith and trust in the goodness, continuity, and inherent value of humankind. Hope and faith are prerequisites of generativity. Thus it is expected that high levels of personal hope and faith will predict generativity. The concept of faith was approached from three angles:

(1) faith in self, (2) faith in people, and (3) trust.

Generativity is also expected to be positively associated with the personality traits of nurturance, dominance, and leadership. These are personality characteristics indicative of the construct as proposed by Erikson. Further, in accordance with theory, individuals who are not demonstrating attitudes and behaviors indicative of generativity are expected to be more self-absorbed.

Erikson (1963, 1982) has argued that generativity is an issue of the middle adult years, without specifying an age range. Essentially, it is assumed that the developmental crisis of generativity cannot be satisfactorily resolved until the six prior stages have been addressed adequately. Alternatively, Kotre (1984) proposed that it is not necessary to have resolved the earlier stages, nor is generativity a concern throughout all of middle adulthood. In keeping with Erikson, the present study hypothesizes that high levels of psychosocial development, particularly identity and intimacy, should predict generativity.

In addition, cohort differences are anticipated. Theoretically, the scope of generativity increases as one moves through middle adulthood. Therefore, older individuals are expected to show higher levels of generativity than are those who are younger. They have more or less resolved issues of identity and intimacy, leaving them with a more coherent sense of self. They know better who they are, what they believe in, and with whom they want to maintain an intimate relationship. Older individuals have had more time to resolve the earlier crises of identity and intimacy, making them increasingly minor issues of psychosocial development, thus permitting generativity to

encompass more of the process. Younger individuals are expected to be dealing with issues of generativity, but not on the same scale as the older cohort. For the younger group, identity and intimacy issues are still important enough to inhibit generativity.

To this end, participating adults anonymously completed a packet of paper-and-pencil measures in their free time and mailed the packets back to the author. All participants were volunteers recruited through friends and acquaintances of the author.

Measuring "hope for the future" was Nuttin's (1985) Revised Time Attitude Scale, a 25-item scale assessing optimistic and pessimistic attitudes toward the future, with higher scores indicating higher levels of optimism. Measures of "faith in humankind" were (1) Tipton, Harrison, and Mahoney's (1980) 12-item "faith in people" factor of the Faith Scale and (2) Ochse and Plug's (1986) "trust vs. mistrust" subscale containing 10 items. Faith in one's own abilities is also necessary for generativity. This was assessed with Tipton et al's (1980) "faith in self" subscale. Psychosocial development was assessed with Ochse and Plug's (1986) 93-item Eriksonian personality development scale, with subscales for each of the developmental stages (as well as a social desirability scale) proposed by Erikson.

Generativity was assessed in four different ways. First, Ochse and Plug's (1986) 10-item subscale asessing "generativity vs. self-absorption" was employed, with higher scores indicating greater mastery of the crisis. Second, respondents described (in written form) four important commitments in their lives. Each commitment was coded for its generative content and those scores were summed yielding a generativity score. Third, respondents described (again, in written

form) three creative products or projects (henceforth referred to as "creative endeavors") that they were currently involved with. As with commitments, the creative endeavors were each scored for their generative content. The scores for the three creative endeavors were summed producing another generativity score. Lastly, respondents wrote one- to two-paragraph essays describing their "picture of the future." These too were coded for their generative content.

In addition, participants completed Raksin and Hall's (1979; 1981) 54-item Narcissistic Personality Inventory (NPI). The scale contains two factors of interest for the present study, (1) the 9-item "self-absorption/self-admiration" factor and (2) the 9-item "leadership/authority" factor. Self-absorption, as measured by the NPI, is assumed to a trait in opposition to generativity. Leadership is assumed to be a trait positively related to generativity. Lastly, respondents completed the nurturance and dominance scales, each consisting of 16 items, of Jackson's (1974) Personality Research Form. Nurturance and dominance are two personality characteristics also assumed to be correlates of the generative personality.

CHAPTER III

METHODOLOGY

Subjects

Adult men and women between the ages of 22 and 72 were asked to complete a questionnaire designed to explore issues of adulthood in modern American society. Of 125 questionnaires distributed, 70 were returned, a 56% response rate. Shaughnessy and Zechmeister (1985) claim that a response rate, for mail surveys, between 50% and 60% is good (the typical response rate for mail surveys is around 30%). More women (N=41) than men (N=28) completed and returned the questionnaire, with one unidentified respondent. There were few statistically significant differences between men and women on the variables measured in the present study. When sex differences are significant, the effects will be covaried out to allow unbiased analyses of the construct under study.

The average age of the women was 43.4 years, while the men's average age was 47.5 years, not a significant difference. The majority (87%) of the respondents were married and had at least one child (73.9%). None of the respondents had more than 5 children. On the average, women worked 24.5 hours per week for pay, while men worked 44.4 hours per week, a significant difference, $t(64)= 4.97$, $p<.001$. Average net family income was between $45,000.00 and $54,999.00 for 1985. Overall, respondents were fairly well-educated, with 81.2% having college degrees. And, the majority of respondents were either of a

Protestant faith (N=31) or Catholic (N=26). This and other demographic information are shown in Table 1.

Table 2 presents correlations of social desirability as measured by the Ochse and Plug (1986) subscale, and variables of interest in the present study. Overall, responses appear to be minimally influenced by social desirability. For those variables that are significantly correlated with social desirability (i.e., trust, faith in self, and identity) the argument presented by Ochse and Plug (1986) may well be in order: Individuals scoring high on the social desirability scale may not want appear good, they may honestly believe well of themselves and their self-images.

It should be noted that participating adults were found through the author's personal contacts and through recommendations of other respondents. Participants were not compensated for the time it took them to complete the questionnaire. On the average, it took respondents two hours and thirteen minutes (ranging from 15 minutes to six hours) to complete the questionnaire. This fact may influence the results of the study. It seems likely that those individuals who were willing to volunteer several hours of their time believed that this sort of research was important enough to participate in. Those who chose not to participate may have provided significantly different responses.

Measures

Empirical measurement of the generativity construct and its correlates involves overcoming Erikson's operationally vague descriptions. There are few references to behavioral indicators of stage resolution or mastery. The psychosocial stages are complex, vague

Table 1

Demographic Characteristics of Respondents

Characteristic	Male	Female	Total
Sex	28	41	69*
Marital Status			
Never married	2	2	4
Married	25	35	59
Divorced	1	2	3
Widowed	0	2	2
Number of Children			
0	9	9	18
1	4	6	10
2	8	8	15
3	4	9	13
4	2	6	8
5	1	3	4
Income			
Less than $15,000	0	1	1
$16,000 to 24,999	2	2	4
25,000 to 34,999	1	3	4
35,000 to 44,999	4	8	12
45,000 to 54,999	4	4	8
over $55,000	17	23	39
Education			
High School diploma	1	1	2
Some college	1	10	11
Completed college	7	8	14
Some graduate work	3	7	10
A graduate degree	16	15	31
Religion			
Protestant	10	21	30
Jewish	2	2	4
Catholic	11	15	26
Other (Buddhist)	0	1	1
None	5	2	7

*One respondent failed to provide any demographic information.

Table 2

Relationship of Social Desirability to Measures of Interest in the Present Study

Measure	Correlation Coefficient
Generativity: subscale	.14
Generativity: Commitments	.17
Generativity: Creative Endeavors	.04
Generativity: Future Pictures	.15
Faith: Faith in People	.18
Faith: Trust	.50**
Faith: Faith in Self	.37*
Hope: RTAS	.19
Self-Absorption	-.15
Leadership	.02
Nurturance	.11
Dominance	-.04
Identity	.51**
Intimacy	.10

*p<.005
**p<.001

and overlapping (Ochse & Plug, 1986). Fortunately, there are references available to describe subjective attitudes and feelings descriptive of successful and unsuccessful stage resolution. Hopefully, both subjective and objective measures will provide sufficient input for understanding how an individual feels about the issue (attitude) as well as what they are doing about it (behaviors).

Generativity: Subjective Measures. Generativity was assessed via several different measures. First, participating adults were requested to respond to three open-ended, semi-projective measures designed specifically for this study. The first investigated commitments in their lives, and read as follows:

> Most of us have made some commitments in our lives. In a commitment we feel a sense of responsibility for, or a duty to, a particular person, group, relationship, goal, activity, or thing. Commitments may refer to some of the most important aspects of our lives. They may refer to those things in which we have invested most of our energy, time and thought. By the same token, we may rarely think about some of our most important commitments, probably because they are so essential and basic that we take them for granted.
>
> Please think seriously about the four most important commitments in your life right now. If you cannot think of 4, come up with as many as you can (even 1 or 2 is fine). In your head, rank order these commitments from the "most important, most central commitment in your life" to the "least important, least central commitment in your life." (Note that even the "least important" commitment in your life will probably still be very important to you - or else it probably would not be a commitment.)
>
> On the following pages we ask you to describe each of these 4 commitments. For each commitment we will devote one page of the questionnaire and will ask you four questions about that particular commitment. Please start with your most important commitment on the first page, then the second most important commitment on the second page, and so on.

They were then asked the following four questions for each commitment:

1. Describe in at least one sentence the nature of this commitment. To what (whom) have you made the commitment? What exactly is the commitment? Please be specific.

2. By virtue of having made this commitment, what do you do in order to fulfill your responsibility in this commitment? In other words, what kinds of activities does this commitment involve?

3. Why have you made this commitment? Please think this question through carefully and describe in some detail (2-3 sentences) what you see as the reasons for this commitment.

4. In what ways is this commitment important in your life? What role does it play or how does it function in your life?

The purpose of asking a number of free-descriptive statements was to facilitate the analysis of open-ended written data into organized thematic categories. Each commitment, for each respondent, was scored for generativity using a two step procedure. First, the commitment was scored for involvement with other people as discussed by the respondent (0 to 2 point scale), and then it was scored for its generative content (0 to 3 point scale). The scores were determined after reading all four answers to questions concerning an individual commitment. Scoring criteria, for the respondents' involvement of other people in the commitment, was as follows:

0-No other people are involved directly or indirectly. The commitment is exclusively to an activity, goal, object, or enterprise that has no interpersonal dimension.

1-Other people are involved, but indirectly. The commitment may be to a non-interpersonal endeavor, but it may be made (in part) for the sake of other people (e.g., commitment to career for the sake of the family) or in such a way as to impact on other people (e.g., commitment to job and coworkers and/or boss). In general, the respondent acknowledged an interpersonal dimension to the commitment, but this interpersonal dimension is in some sense derivative or secondary.

2-Explicit commitment to a particular person (other than the respondent), group of people (e.g., family,

community, society), or it is an explicitly interpersonal endeavor (e.g., marriage, helping others).

Commitments receiving a score of 0 for interpersonal involvement were not scored for their generative content. Commitments receiving a score of 1 or 2 were then scored for the extent that they involved generativity. Here, generativity was assumed if the respondent adopted a leadership or helping role vis-a-vis the next generation, therefore promoting some aspect of society's future at large. Scoring criteria was as follows:

0-Interpersonal involvement does not embody generativity.

1-Respondent leads, teaches, helps, nurtures, takes care of or promotes the well-being of others in some way. Here, others refers to peers, siblings, parents, coworkers, lovers, friends, etc., but they may not be children or others described as explicitly younger or of lower "status".

2-Respondent leads, teaches, helps, nurtures, takes care of or promotes the well-being of children or others who may be younger or of lesser status (students, proteges).

3-Respondent leads, teaches, helps, nurtures, takes care of or promotes the well-being of children or others who may be younger or of lesser status but there is an added awareness of a larger perspective in leadership and care. The respondent may speak of caring for the next generation in such a way as to make the future better for them, or to prepare children for the future. The respondent is aware of long-term goals of his or her generative action, either with respect to the particular lives of those who receive care or the well-being of future society or some aspect of future society in general.

Generativity, as defined by respondents' commitments, is the sum of the two scores across the four (or fewer) commitments. For each commitment, generativity scores can range from 0 to 5. Total

generativity scores can range from 0 to 20.

Respondents were also presented with a general statement concerning creative endeavors that read as follows:

> Please think about the different ways in which you are "creative" in your life. By creativity, we do not necessarily mean being an artist or a musician or novelist, though these could be included if you want. Rather, we would like you to consider in what ways, however small or humble, you are able to "create," "produce," "make," or "develop" products or projects in your life. Examples of such creativity could include creating: <u>things</u> (such as building a model airplane, making a delicious dinner, designing a useful system of some kind), <u>ideas</u>, (such as coming up with a new plan, creating good advice for others, telling a good story), and even <u>people</u> (such as raising children, teaching students, serving as an example to others). As you can see, our view of creativity is a very broad one, so even if you generally do not consider yourself a creative person, in an artistic sense, you should be able to come up with a few examples of creativity in your life as we have described it.
>
> Please try to identify up to three creative products or projects in which you are involved in your current life. Please be sure the three are different, which is to say that they involve different creative activities. (In other words, if you have embroidered three very creative wall hangings, tell us only about one of them, since each involves the same sort of creativity.) If you cannot think of three creative products or projects, come up with as many as you can. Even one or two creative products would be just fine. On the following pages we ask you to describe each of these products or projects that you have identified. For each creative product/project, we will ask you to answer three questions. Please be as specific and detailed as you can.

They were then presented with the following questions for each creative project/product:

1. Describe the product or project.
2. Why do you get involved in this kind of product or project? What are the reasons for it?
3. In what ways, if any, does your doing this benefit others or prove useful to them?

Up to three creative "products" or "projects" were scored for their generative content (0 to 2 point scale), similar to the commitment responses. Scoring criteria was as follows:

0-The creative product/project has no interpersonal involvement beyond others observing it.

1-Respondent understands the creative product/project to be a gift for specific others. Or, it is seen as arousing strong positive feelings (such as liking or deep appreciation, simple enjoyment is not enough) in others.

2-The creative product/project involves direct benefit to particular other people or society at large, as determined by the respondent. In some explicit way the respondent believes he or she is helping others, teaching them something, or advancing their well-being in some way.

Generativity, as defined by respondents' creativity, is the sum of scores across the three (or fewer) creative endeavors. Total generativity scores can range from 0 to 6.

Lastly, respondents were also asked to write a brief essay in response to the following:

> We often think about the future. When we think about it, our thoughts range from thinking about ourselves (What will I be like twenty years from now?) to thinking about all of humankind (Is it possible that there will be another world war?). Sometimes our thoughts are somewhere in between, such as thinking about our children, the community we live in, or our country. When you think about the future, what sorts of things do you think about? Use this page to write 1 or 2 paragraphs giving us a picture of what you think the future might look like. You can discuss whatever aspects of the future you want. Please be as specific and detailed as you can.

Essays were coded for generative content as follows:

0-Shows no concern for others, either directly or indirectly. Discussion revolves around activities, goals, objects, or enterprises that have no interpersonal dimensions.

1-Shows concern for others, but indirectly. The concerns may be non-interpersonal in nature, but may (in part) focus on other people (e.g., concerned about future of career for the sake of the family) or impacts on other people (e.g.,

concerned about future of home because children will have no where to live). Overall, the respondent acknowledged an interpersonal dimension to the discussion, but this interpersonal dimension is in some sense derivative or secondary.

2-Explicitly concerned about the future well-being of some other person (other than the respondent) or group of people. The concern cannot be for children, others of "lower" status, or humankind in general.

3-Explicitly concerned about the future well-being of children, those of "lower" status or humankind in general.

In the present study, two raters read each commitment, creative endeavor, and future picture description twice. This ensured that the original scoring methods developed are indeed reliable. Reliability coefficients were all Pearson product moment correlation coefficients.

Table 3 illustrates the intrarater reliability coefficients for the two raters broken down by response type. Intrarater reliability was assessed by correlating scores assigned to the same response by the same rater at different points in time. With correlations ranging from .82 to .94, the reliabilities reflected consistency in scoring. There were a total of 159 discrepant scores compared to 643 nondiscrepant scores among the two readers. Stated differenly, the readers were inconsistant approximately 20% of the time. Given these results, the scoring method used here did indeed achieve acceptable intrarater reliability.

Interrater reliability was assessed by tabulating a Pearson product moment correlation coefficient for scores assigned by the two raters. Table 4 shows the reliability coefficients of scores assigned by Raters 1 and 2. The interrater reliability coefficients, of commitments, creative endeavors, and future picture scores, ranged from .68 to .87, reflecting consistency in scoring. The number of essays

Table 3

Intrarater Reliability Coefficients for Rater 1 and Rater 2 by Commitment, Creative Endeavor, and Future Picture Descriptions

Rater	Response	Correlation Coefficient
1	Commitments	.93*
2	Commitments	.93*
1	Creative Endeavors	.88*
2	Creative Endeavors	.82*
1	Future Picture	.83*
2	Future Picture	.94*

*$p < .001$

Table 4

Interrater Reliability Coefficients Across Commitment, Creative Endeavor, and Future Picture Descriptions for Raters 1 and 2

Response	Correlation Coefficient
Commitments	.87*
Creative Endeavors	.72*
Future Picture	.68*

*$p < .001$

receiving the same score (257) by each of the two raters was greater than the number of essays not receiving the same score (62). Given these results, it therefore can be assumed that the present study achieved a minimally acceptable level of interrater reliability for the semi-projective measures designed specifically for this study.

In light of the acceptable intrarater and interrater reliabilities, scores assigned by Reader 1 (the author) were used for all subsequent statistical analyses.

Generativity: Objective Measures. To assess generativity objectively, respondents completed the "generativity vs. self absorption and stagnation" subscale of Ochse and Plug's (1986) validity study. The subscale contains 10 likert-type agree-disagree (0=never applies to you, 3=applies to you very often) items (e.g., "I feel I have done nothing that will survive after I die." "I enjoy guiding young people."), with higher scores indicating greater mastery of the psychosocial crisis of generativity. Ochse and Plug (1986) reported reliabilities (Cronbach alpha) of .76, .76, and .68 for three different samples using this subscale.

Faith and Hope. Essential to generativity, as proposed by Erikson, is a belief in the species, faith in the goodness of humankind. To assess this, Tipton, et al.'s (1980) "faith in people" subscale of the Faith Scale was utilized. As used in the present study, respondents were asked to rate agreement (1=strongly disagree, 5=strongly agree) with the subscale's 35 statements. For example, respondents were asked to rate agreement with statements such as the following:

> Humans have a lot of problems but none they won't eventually be able to solve.

I feel that chances are very good that I can achieve my goals in life.

The Faith Scale was standardized with 257 subjects, ages 17 to 70 years (Tipton et al., 1980). Using a principal components factor analysis with rotation to Varimax criterion ($r \leq .35$), the authors found that four dimensions emerged: faith in God (or a supreme being), faith in people, faith in self (these items reflect confidence in one's own abilities), and faith in technology (may best be called "faith in the present order of things"). Tipton et al. (1980) have proposed that, together, the four factors are indicative of a basic trust or hope proposed by Erikson to develop very early in life.

In Tipton et al. (1980) correlations with the faith subscales and scores on the Marlowe-Crowne Social Desirability scale ranged from .07 to .13, indicating that responses to the Faith Scale were minimally influenced by social desirability. A moderately low correlation ($r=.36$, $p<.001$) between the faith in self subscale and Levenson's (1974) Locus of Control Scale indicated conceptual similarity. Comparisons of religious and secular groups and liberal and conservative groups strongly supported the construct validity of the faith in God subscale. Members of religious organizations scored higher on the subscale than did those associated with secular organizations. The content validity of the faith in technology factor has been shown to be somewhat weaker than the three other factors (R.M. Tipton, personal communication, September 18, 1986).

A second measure of "faith in people" was Ochse and Plug's (1986) "trust vs. mistrust" subscale, containing 10 agree-disagree items (e.g., "People can be trusted"). These items allowed for an assessment of

respondent's trust in the continuity and inherent value of humankind.

In addition to "belief in the species," generativity also requires confidence that our present behaviors will impact on the future. With optimistic expectations, there is hope that work done now for the benefit of others will be worthwhile. Tipton et al.'s (1980) "faith in self" factor allowed for assessment of positive expectations, or confidence in themselves, that the adults possessed. Again, these items were of the agree-disagree format (e.g., "I can succeed in most any endeavor to which I set my mind").

To assess hope for the future, adults were asked to respond to Nuttin's (1985) Revised Time Attitude Scale (RTAS). This scale presents a series of 25 bipolar adjectives bounding a seven-point continuum (e.g., 1=very pleasant, 7=very unpleasant). This scale measures respondents' global affective evaluation of the future. Higher total scores indicate higher levels of optimism toward the future.

The RTAS is a modification of the Time Attitude Scale (TAS), designed to assess attitudes toward an individual's personal past, present or future. The TAS contains 19 of the 25 pairs of bipolar adjectives found on the RTAS, also rated on a seven point scale. Test-retest reliabilities with two samples of university undergraduates ranged from .44 to .74. Item analyses showed internal consistencies to be over .90 for attitudes toward the past, present and future. When the TAS was administered to 129 university students it showed a .70 correlation with Golrich's (1967) scale for optimism. Van Calster (cited in Nuttin, 1985) found a .92 correlation between the TAS and verbally stated attitudes toward the future with 129 university students. This measure has seen little use outside of the university

setting. Except for a factor analysis of the revised scale, it has not been used in any empirical research.

Self-Absorption. Self-absorption is the proposed antithesis to generativity. To assess self-absorption, respondents were asked to respond to Raskin and Hall's (1979; 1981) Narcissistic Personality Inventory (NPI). This inventory uses a forced-choice format (for instance, (A) I am not sure if would make a good leader, (B) I see myself as a good leader) for its 54 items. The NPI consists of four moderately related factors: exploitiveness/ entitlement, leadership/authority, superiority/arrogance, and self-absorption/self-admiration (Emmons, 1984). Scores from this last factor, containing nine items, were used in the present study. The four factors accounted for 72% of the variance when the scale was administered to university students. See American Psychiatric Association (1980), Coleman, Butcher, and Carson (1984), or Kohut (1977) for further details regarding the clinical manifestations of narcissism as a personality disorder. Auerbach (1984), Biscardi and Schill (1985), Emmons (1984), Prifitera and Ryan (1984), and Watson, Grisham, Trotter and Biderman (1984) have all provided research evidence pointing to strong construct validity of the NPI and its factors.

Psychosocial Development. Erikson argued (1963, 1982) that generativity is an issue of the middle adult years. Essentially, it is assumed that the developmental crisis of generativity cannot be positively resolved until the six prior stages have been adequately addressed. This has empirical support from Vaillant and Milofsky (1980). Kotre (1984) has argued otherwise. It is proposed here that older individuals have had more time to resolve the earlier crises of

identity and intimacy, making them increasingly minor issues of psychosocial development, thus permitting generativity to encompass more of the process. "Identity vs. diffusion" (19 items, e.g., "I feel certain about what I should do with my life") and "intimacy vs. isolation" (8 items, e.g., "I have a feeling of complete togetherness with someone") subscale scores from Ochse and Plug's (1986) validation study will provide for a test of the above hypotheses. As with the generativity subscale, scores provide "a single index of the degree to which the crisis has been mastered" (Ochse & Plug, 1986, p. 1242). The identity subscale showed .83, .84, and .73 reliabilities (Cronbach alpha). The intimacy subscale showed reliabilities of .79, .76, and .62.

Nurturance and Dominance. In addition, participating adults responded to the nurturance and and dominance scales of the Personality Research Form (PRF; Jackson, 1974; Ryff & Heinke, 1983). Together, the two scales consist of a series of thirty-two descriptive statements. Rather than use the true-false format proposed by Jackson, a five-point (1=strongly agree, 5=strongly disagree) continuum was used to increase sensitivity.

According to the manual (Jackson, 1974), individuals scoring high on nurturance give sympathy and comfort; assist others whenever possible, are interested in caring for children, the disabled and/or the infirm; offer assistance to those in need; and readily perform favors for others. All of these are personality characteristics we would expect to find in a generative person. They are indicative of a caring person. Individuals scoring high on dominance attempt to control their environment and influence or direct other people, express opinions

forcefully, and enjoy the role of leader and may assume it spontaneously. Correlations with comparable scales in the California Psychological Inventory and the Guilford-Zimmerman Temperament Survey have provided satisfactory evidence for the scale's construct validity (Anastasi, 1982).

The dominance and nurturance scales were used in the present study in an exploratory fashion to assess the relationship between the personality characteristics of dominance (as was done by Ryff & Heinke, 1983) and nurturance and the generativity construct. The personality characteristic of leadership, as assessed by the NPI (9 items), and its relationship to generativity will also be explored.

Table 5 summarizes all the measures used in the present study and the constructs that they assessed.

Procedure

Potential respondents were given a packet of materials containing the following measures in this order: A cover letter explaining the purpose of the study, thanking the respondents for participating and reassuring them that all information would be kept strictly anonymous and confidential; Faith Scale (Tipton, et al., 1980); open-ended question concerning creativity; dominance and nurturance scales of the PRF (Jackson, 1974); open-ended question concerning commitments; Raskin and Hall's (1979; 1981) Narcissistic Personality Inventory; open-ended question regarding future concerns; Revised Time Attitude Scale (Nuttin, 1985); Ochse and Plug's (1986) psychosocial development items (including social-desirability items); and a request for some demographic information. A large, self-addressed, stamped envelope was included for

Table 5

Constructs and Measures of the Present Study

Construct	Measure
Generativity	Subjective Measures: Commitments Creative Endeavors Descriptions of the Future Objective Measure: "Generativity vs. Self-Absorption" subscale (Ochse & Plug, 1986)
Hope	Revised Time Attitude Scale (Nuttin, 1985)
Faith	"Faith in Self" subscale (Tipton et al., 1980) "Faith in People" subscale (Tipton et al., 1980) "Trust vs. Mistrust" subscale (Ochse & Plug, 1986)
Personality Traits	Nurturance subscale (Jackson, 1974) Dominance subscale (Jackson, 1974) "Leadership/Authority" subscale (Raskin & Hall, 1979; 1981) "Self-absorption/Self-admiration" subscale (Raskin & Hall, 1979; 1981)
Psychosocial Development	"Identity vs. Identity Diffusion" subscale (Ochse & Plug, 1986) "Intimacy vs. Isolation" subscale (Ochse & Plug, 1986)

respondents to return completed questionnaires.

The Revised Time Attitude Scale, psychosocial development subscales, Narcissistic Personality Inventory, and the Faith Scale were scored in their standard manners. The psychosocial development items were scored to yield separate indices for the first seven psychosocial stages. A total psychosocial development score was the sum of the first seven stage scores. This scale also provided a measure of social desirability. The Narcissistic Personality Inventory was scored for its four factors, exploitiveness/ entitlement, leadership/authority, superiority/arrogance, and self-absorption/self-admiration, as well a total scale score. The Faith Scale was scored to yield separate indices for faith in God, faith in people, faith in self, faith in technology, and a total score.

Respondents' commitments, creative endeavors, and pictures of the future were scored by two independent readers, as discussed above. The number of commitments and creative endeavors were also recorded. In addition, each reader rescored all of the semi-projective responses (except for those of one subject), providing assessments of inter- and intrarater reliability.

CHAPTER IV

RESULTS

Generativity

Generativity, in the present study, was assessed via one subjective and three semi-projective methods. The objective method was Ochse and Plug's (1986) "generativity vs. self-absorption and stagnation" subscale. Subscale scores indicate the degree to which the crisis has been mastered. The average score in the present study was 20.37 (SD=3.43), with a range of 12 to 27. Dividing the range of scores possible (0 to 30) into three groups, low (0 to 10), moderate (11 to 20), and high (21 to 30), showed that all of the respondents had begun to resolve this psychosocial conflict. In fact, 34 (52.3%) had scores classified as "high" and 31 (47.7%) showed "moderate" scores, none were "low" in generativity as measured by this scale.

The first semi-projective assessment of generativity to be discussed concerns respondents' commitments. As was reviewed earlier, each respondent was presented with a general statement concerning commitments in their own lives and then asked four questions about their own commitments. Based on answers to these questions, each commitment was scored for involvement of other people in it as discussed by the respondent (0 to 2 point scale), and once for its generative content (0 to 3 point scale). Generativity, as defined by respondents' commitments, is the sum of the two scores across the four (or fewer)

commitments.

Sixty-one respondents discussed an average of 2.70 commitments each. Total commitment scores can range from 0 to 20. The average score in the present study was 8.47 (SD=3.80), with a range of 1 to 17, indicating that, overall, respondents' commitments were not high in generative content, as measured by this semi-projective method. If the range of scores possible is divided into thirds, only six (9.83%) respondents discussed commitments high in generative content (scores ranging from 14 to 20), while 35 (57.38%) discussed commitments of moderate generative content (scores from 7 to 13), and 20 (32.79%) showed low generativity (scores from 0 to 6). However, commitment scores showed a .32 ($p<.01$) correlation with the generativity subscale of Ochse and Plug's (1986) psychosocial development scale. Table 6 presents correlations of the various generativity measures with one another. Table 7 shows types of commitments discussed as well as the number of respondents who chose those particular commitments.

Nearly half (47.9%) of all commitments discussed revolved around families, particularly spouses and children: "My strongest commitment is serving as a successful member of my family. This includes my husband and children, but additionally my parents, in-laws, siblings, aunts, uncles, etc." "My first commitment is to my children. To see to their physical and emotional needs so that they may grow into responsible adults." "Many things can change but everyone has a family. All must stand together for the family to remain as a whole." "To raise a family and supply them with the needed tools to become productive adults." "To be a loving father to my daughter. To raise her in a way that fosters - confidence, desire to learn, independence, intelligence,

Table 6

Correlations Among Various Measures of Generativity

Measure	Generativity: Commitments	Generativity: Creative Endeavors	Generativity: Future Descriptions
Generativity:			
Subscale	.32*	.17	.21
Generativity:			
Commitments		.08	.11
Generativity:			
Creative Endeavors			.39**

*p<.05

**p<.005

Table 7

Types of Commitments Discussed by Respondents

Commitment	N	%
Spouse/Fiance/Marriage	40	21.1
Children/Grandchildren	32	16.8
Career/Education	31	16.3
Family of Orientation/Parents	19	10.0
Self	19	10.0
God/Faith	17	8.9
Volunteer Activities	9	4.7
Friendships	6	3.2
Community/Society	5	2.6
Hobbies	4	2.1
Miscellaneous (e.g., pets, redecorate home, finances)	8	4.2

empathy, pride, etc."

In addition to commitments, respondents were also presented with a general statement concerning creative endeavors. They were then asked three questions concerning their own creative endeavors. These responses were scored for their generative content (0 to 2 point scale). Generativity, as defined by respondents' creative endeavors, can range from 0 to 6.

Sixty-two respondents discussed an average of 2.44 creative endeavors, with a mean generativity score of 3.34 (SD=1.35). Scores ranged from 0 to 6. Dividing the scores into low (0 to 2), moderate (3 to 4), and high (5 to 6) scores, 17 (27.4%) respondents showed low scores, 33 (53.2%) moderate, and 12 (19.4%) high. This generativity score showed almost no relationship with Ochse and Plug's (1986) generativity subscale or generativity as measured by commitments. Table 8 outlines the different types of creative endeavors that respondents discussed. The majority (69.3%) of creative endeavors were activities engaged in at home or work.

The dual themes of love and work were predominate in respodents' commitments and creative endeavors, and they were closely linked with one another. For instance, one man listed his wife and family as his primary commitment. He made this commitment because "the family (parents and children) seem to me to be the great hope for society. My commitment is my small part in the greater whole." This same respondent cited employment as his second most important commitment. While he enjoyed the work, his primary motivation was to support his first commitment - his family. We know that the roles of spouse and worker are critical in the evolution of identity. Without these roles to form

Table 8

Types of Creative Endeavors Disccused by Respondents

Creative Endeavor	N	%
Career	31	18.0
Home	24	14.0
Teaching/Mentoring	21	12.2
Hobbies	19	11.0
The Arts	18	10.5
Family	17	9.9
Cooking/Gardening	13	7.6
Needlecraft	13	7.6
Self	4	2.3
Volunteer Activities	3	1.7
Miscellaneous (e.g., giving advice, planning parties)	9	5.2

a solid foundation for identity, generative attitudes and behaviors have no base from which to develop.

In addition, respondents were also asked to write a brief essay describing their picture of the future. This permitted an assessment of the generative scope of their concerns (0 to 3 point scale). Forty-seven respondents completed this section of the questionnaire. The average score was 2.34 (SD=1.09). This assessment and generativity subscale scores and generativity as measured by commitments were not related, possibly due to the restricted range of scores and a ceiling effect. However, this assessment was significantly related to generativity as measured by creative endeavors. When these scores were divided into three groups, 32 (68.1%) respondents were classified as highly generative (score=3). Only ten (21.3%) respondents showed low generativity (0 to 1), and five (10.6%) showed moderate levels of generativity in their descriptions of the future. Table 9 provides a list of the different topics that respondents covered in their descriptions of the future. Only 20% of respondents discussed the future in terms of themselves, most addressed issues specifically pertinent to others.

Generativity, in descriptions of the future, implied a concern for the future well-being of children or humankind in general. Descriptions often focused on humankind in general: "Although I see progress with the Soviets I am concerned for the world at large." "I would hope some of the medical killers such as cancer and heart disease would be conquered, and there would be a way to prevent all birth defects." "People will have to have a strong sense of personal values, of responsibility to themselves and others to avoid a depersonalized life." "The future of

Table 9

Topics Discussed by Respondents in Their Descriptions of the Future

Topic	N	%
Own Children/Grandchildren	23	16.0
World War/Peace	21	14.6
Own Interpersonal Relationships	15	10.4
Self	15	10.4
Technology	13	9.0
Career	13	9.0
Social Issues	10	6.9
Relationships Among Humankind	8	5.6
Government/Leadership	7	4.9
Medical Advances	5	3.5
Economy	5	3.5
God	3	2.1
Children (not offspring)	1	0.6
Miscellaneous (e.g., space exploration, spouse's success, care of elderly)	5	3.5

the world lies in the continual learning of how to work together toward the common goal of survival; which includes understanding differences, compassion, and understanding of the limited resources of the environment." "The everlasting thought of nuclear war could reverse the entire progress and plunge mankind back into the dark ages."

Whether or not respondents had children made little difference with regard to generativity. Individuals without children were no less generative than those with children, except in their descriptions of the future. A two-way analysis of variance comparing generativity scores, as assessed by descriptions of the future, of those with children and those without, was significant, $F(1,45)=4.20$, $p<.05$. On the average, those with children were more generative ($M=2.55$) than those without children ($M=1.86$). As one respondent wrote:

> I hope I will be alive in twenty years so I can enjoy my family and see their family grow. That my children can fulfill their dreams and accomplish whatever they set their hearts to. I hope that there will be peace for all. So that my grandchildren can enjoy their life.

Subsequent sections of this chapter discuss findings in light of the four measures of generativity reviewed above.

Hope, Faith, and Generativity

Essential to generativity, as proposed by Erikson, is a belief in the species or faith in humankind. To assess the Eriksonian concept of faith in the goodness and continuity of humankind, participants responded to Tipton et al.'s (1980) Faith Scale and the trust scale of Ochse and Plug's (1986) validation study. Means, standard deviations and ranges of the variables to be discussed in this section are shown in Table 10, while a correlation matrix is presented in Table 11. The

Table 10

Means, Standard Deviations, and Ranges for Hope and Faith Measures

Measure	M	SD	Range
Hope: RTAS	113.34	16.31	55 to 149
Faith: Faith in people	37.70	5.36	25 to 46
Faith: Trust	20.31	4.30	11 to 30
Faith: Faith in self	25.94	4.16	12 to 35

Table 11

Correlations Among Measures of Faith, Hope and Generativity

Measure	2	3	4	5	6	7	8
1. Hope: RTAS	.09	.22*	.62****	.51****	.26*	.05	.01
2. Faith: Faith in People		.05	.07	-.09	-.02	-.13	-.13
3. Faith: Faith in Self			.47****	.19	-.02	.08	.10
4. Faith: Trust				.59****	.21	.02	.08
5. Generativity: Subscale					.32**	.17	.21
6. Generativity: Commitments						.08	.11
7. Generativity: Creative Endeavors							.39***
8. Generativity: Future Descriptions							

*p<.05
**p<.01
***p<.005
****p<.001

correlation between the faith in people factor and trust subscale scores was quite low. However, the faith in self and trust subscale scores showed a .47 ($p<.001$) correlation. Apparently trust, as measured here, involves confidence in one's own abilities rather than belief in others.

When we care for another, we trust and hope that the the other will flourish. With optimistic expectations for the future, for ourselves, and for others, we have hope that what is done now for others will be worthwhile. To objectively assess hope for the future, the RTAS (Nuttin, 1985) was utilized. Hope for the future showed significant positive relationships with both generativity as measured by the Ochse and Plug (1986) subscale ($r=.51$, $p<.001$) and generativity as measured by commitments ($r=.26$, $p<.05$). Hope for the future did not correlate with generativity as measured by creative endeavors or descriptions of the future. Nor did hope for the future correlate with faith in people, $r=.08$, ns. As expected, hope for the future did show positive correlations with faith in self ($r=.22$, $p<.05$) and trust ($r=.62$, $p<.001$).

Given the high correlation between hope for the future and trust, those scores were standardized and summed. This new composite hope/trust score showed a .60 ($p<.001$) correlation with generativity as measured by the Ochse and Plug (1986) subscale, .27 ($p<.06$) with generativity as measured by commitments, and no relationship with generativity as measured by creative endeavors or descriptions of the future. The composite hope/trust score also showed a .45 ($p<.001$) correlation with faith in self.

These results provide evidence for the proposal that it is not so much a "belief in the species" that makes for generativity, but a belief

in one's own self and confidence in one's own abilities. Often respondents lacked faith or trust in other people. As one person wrote:

> One has only to follow the news reports, the newspapers, and see man's inhumanity to man, to know that the future will show even more (as history always has) that man is his own worst enemy. I pray that we come to our senses for the sake of my children and grandchildren and for the sake of the whole world, before we annihilate ourselves. The future could hold many more horrors than we have already experienced, but if man would come to his senses, there is always the chance that we could "right" some wrongs. As I write this, I realize that I have not entirely abandoned "hope." No one can predict the future, but the "signs" point toward increased use of hazardous weaponry, increased chance of horrendous wars, and possibility of destroying ourselves.

It was not unusual for respondents to describe the potential for a problematic future, but then balanced with hope and the expectation that it will not come to pass, as exemplified by this respondent (and confirming the findings of Bellah et al., 1985):

> It frightens me a bit, not so much for myself, but for my children who must live in it, independent of the "protective home" environment in which they now live. I worry about the mishandling of nuclear facilities, the rampant use of mind-altering drugs causing uncontrolled violent behavior, and I worry, too, about a generation of young people, farmed out to day-care enters and baby-sitters, denied the minute by minute care and discipline of a loving parent. This all bodes unrest.
>
> And yet--my optimism tells me--that these problems--as bad as they may be--are probably synonymous with other problems of another era--all which are overcome eventually by ingenuity, human resources, and----a pervasive guiding hand of a Supreme Being.

Faith in a supreme being may be an intervening factor in hope for the future. While we have confidence in ourselves, we are aware that we cannot make the future better for everyone, it may take something much more powerful. Three unhypothesized findings support this: faith in God was significantly correlated with hope for the future (as measured by the RTAS, $r=.27$, $p<.05$), faith as measured by Ochse and Plug's (1986) trust subscale ($r=.23$, $p<.05$), and faith in people ($r=.24$, $p<.05$). However, sex differences were evident, males showed less faith in God

($\underline{M}$=33.4) than females ($\underline{M}$=39.78), $\underline{t}(65)=2.35$, $\underline{p}$ <.05.

The relationships among hope, faith, and generativity measures are generally supportive of the generativity construct as discussed by Erikson. However, the focus of faith and hope does not seem to be so much in others as it is in ourselves. These respondents were confident in their own abilities to make an impact on the future. They hoped to influence the development of their families and their work (not necessarily just places of employment). But with regard to large scale social issues, most implied that there is little one individual can do to affect the future course of events. Perhaps faith in others is mediated by the belief that a supreme being will intervene and ensure the continuity of humankind as we now know it.

Personality Traits and Generativity

To asses some personality traits hypothesized to correlate with generativity, participating adults responded to the nurturance and dominance scales of the PRF (Jackson, 1974; Ryff and Heinke, 1983) and the leadership/authority and self-absorption/self-admiration factors of the NPI (Raskin & Hall, 1979; 1981). Basically, high scores on assessments of nurturance, dominance, and leadership were expected to be positively related to generativity, while self-absorption was expected to be negatively related.

The average nurturance score for the sample was 55.41 ($\underline{SD}$=6.90), with a range of 36 to 70. This showed a .31 ($\underline{p}$<.01) correlation with the generativity subscale of Ochse and Plug's (1986) psychosocial development scale. This and other correlations to be discussed below are shown in Table 12. Nurturance also showed a .43 ($\underline{p}$<.001)

Table 12

Correlations Among Measures of Generativity and Personality Characteristics

Measure	Nurturance	Dominance	Leadership	Self-Absorption
Generativity: Subscale	.31**	.09	.14	.28*
Generativity: Commitments	.43****	-.21	-.12	.00
Generativity: Creative Endeavors	.37***	.21	.38***	.07
Generativity: Future Descr.	-.02	.12	.15	.17
Nurturance		-.13	.02	.04
Dominance			.64****	.33**
Leadership				.36**

*p<.05
**p<.01
***p<.005
****p<.001

correlation with respondents' generativity as measured by commitments. The relationship between nurturance and generativity as measured by creative endeavors was also significant (r=.37, p<.005). Generativity, as assessed by respondents' descriptions of the future, showed no relationship to nurturance.

Sex differences were evident in nurturance scores. A two-way analysis of variance comparing nurturance scores of men and women respondents was significant, $F(1,62)=11.52$, p<.005. On the average, men were less nurturant (M=52.08) than women (M=57.63). Analyses of covariance, comparing generativity scores of men and women with nurturance as the covariate, were nonsignificant.

Nurturance was also related to several other variables of interest, hope for the future (r=.32, p<.01), trust (r=.30, p<.01), faith in God (r=.40, p<.005), and faith in people (r=.23, p<.05).

The average dominance score for the sample was 52.34 (SD=11.02), with a range of 26 to 77. This showed almost no correlation with Ochse and Plug's (1986) generativity subscale. Further, dominance showed little relationship with generativity as measured by respondents's commitments, creative endeavors, or descriptions of the future. Dominance, as measured by the PRF, does not seem to be a correlate of the generativity construct, in contrast to Ryff and Heinke's (1983) findings. The relationship between dominance and nurturance further confirms this, r=-.13, ns.

The average leadership score, in the present study, was 4.85 (SD=2.78), with a range of 0 to 9. The personality trait of leadership showed a significant positive correlation with generativity as measured by creative endeavors, but none of the other measures of generativity.

Leadership did show a positive relationship with dominance (r=.64, p<.001), as would be expected.

Theoretically, individuals who are not generative are self-absorbed and stagnant. The relationship between the self-absorption/self-admiration factor of the NPI and the generativity subscale was significant (r=.28, p<.05), but not in the predicted direction. Self-absorption did not show significant correlations with any of the semi-projective measures of generativity. Self-absorption did, however, show significant relationships with dominance (r=.33, p<.01) and leadership (r=.36, p<.01). However, age differences were evident, age and self-absorption were negatively related, r=-.24, p<.05.

The relationships among the variables discussed above provide evidence for the proposal that generative individuals have taken on the attitudes of teachers and leaders. This may help to understand the interesting relationship between self-absorption and generativity. Erikson proposes that our identities provide the framework for identifying, creating, and offering up a legacy. To do so, we need to know who we are, what we believe, and what we excel in. This all involves self-understanding. To help and care for others, we need to know what it is that we can do for them. It should not be surprising, then, that generative individuals show some degree of self-absorption. For instance, one respondent alternates leadership of a weekly Bible Study at a minimum security 'probation camp' for teenage boys. He became involved in this project because:

> I want to follow Jesus. This is a contribution I have adequate experience and talent for. I do not feel like it is a sacrifice because I am blessed as I deliver the message. It is exciting to be inspired. Also, the demand on my time is really minimal. Often, when it is my turn to lead, the experience is the high point of my

week.

It is not clear if we are generative because we are nurturant or if we are nurturant because we are generative. Theoretically, when nurturance is combined with leadership, the kind of creative guidance described by Erikson emerges. In fact, when nurturance and leadership scores were standardized and summed, correlations with generativity as measured by Ochse and Plug's (1986) subscale, commitments, and descriptions of the future did not change much. But the correlation with generativity as measured by creative endeavors increased to .52 ($p<.001$).

Generative individuals do not demonstrate attitudes and behaviors that are dictatorial, rather they show an awareness that younger, less experienced individuals need to think and do for themselves. By guiding and nurturing, generative individuals provide their successors with a sense of responsibility and the skills they need to care for the future world they will inherit.

Psychosocial Development and Generativity

Erikson argued (1963, 1982) that generativity is an issue of the middle adult years. It is assumed that the developmental crisis of generativity cannot be positively resolved until the six prior stages have been adequately addressed. It was proposed, in the present study, that older individuals have had more time to resolve the earlier crises of identity and intimacy, making them increasingly minor issues of psychosocial development, thus permitting generativity to encompass more of the process. Younger individuals were expected to be dealing with issues of generativity, but not on the same scale as those who were

Table 13

Correlations Among Seven Psychosocial Stages of Development as Measured by Ochse and Plug's (1986) Subscale

Measure	2	3	4	5	6	7
1. Trust	.45***	.62***	.62***	.73***	.44***	.59***
2. Autonomy		.41**	.56***	.45***	.08	.25*
3. Initiative			.68***	.47***	.27*	.40**
4. Industry				.65***	.32**	.49***
5. Identity					.67***	.54***
6. Intimacy						.47***
7. Generativity						

*p<.05
**p<.005
***p<.001

older. It was anticipated that for the younger individuals, identity (to a lesser extent) and intimacy (to a greater extent) would still be unresolved psychosocial issues.

Table 13 presents correlations of the first seven psychosocial stages with one another. The mean total psychosocial development score was 160.48 (SD=21.68), scores ranged from 100 to 212. Using multiple regression techniques, the seven psychosocial stage scores were entered as predictor variables and total psychosocial development scores as the dependent variable, in a stepwise procedure. Identity accounted for 90.6% (82.1% adjusted) of the variance, pointing to its key role in psychosocial development, confirming the work of Ochse and Plug (1986). Interestingly, when a simultaneous procedure was used, all the variables except identity were entered into the equation, explaining 97.56% (97.26% adjusted) of the variance in psychosocial development. Further, generativity was the first variable entered into the equation. However, these results should be interpreted carefully, as problems of multicollinearity may be present.

To assess the more specific role of identity and intimacy in generativity, the three semi-projective measures of generativity were correlated with identity and intimacy scores. Only generativity as measured by commitments showed a significant correlation with identity and intimacy, $r=.33$ ($p<.005$) and $r=.27$ ($p<.05$), respectively. Identity showed a .54 ($p<.001$), and intimacy a .47 ($p<.001$), correlation with the objective generativity subscale. These results provide some evidence that mastery of the young adulthood psychsocial stages of identity and intimacy is related to resolution of the generativity vs. self-absorption crisis of middle adulthood.

To examine cohort differences, respondents were divided into three age groups. The younger group consisted of respondents between the ages of 22 and 39 (N=29), the middle aged group was made up of those aged 40 to 57 (N=23), and the older group was those who were between the ages of 58 and 72 (N=17). An analysis of variance (ANOVA) comparing identity scores of the three age groups yielded $F(2,59)=0.48$, ns. An ANOVA comparing intimacy scores yielded, $F(2,63)=2.88$, $p<.06$. This was due to the difference between the young and the old group on intimacy, $t(42)=2.51$, $p<.02$. The younger group showed higher intimacy scores (M=19.59) than the older group (M=16.53). A multivariate analysis of variance comparing the four assessments of generativity of the three age groups yielded $F(8,82)=1.72$, ns. Apparently, age in and of itself, in this group of subjects, has little to do with resolution of generativity as a psychosocial stage or as a psychological construct. The prevalence and scope of generativity seems to remain constant throughout adulthood.

In addition, the scores of the four measures of generativity were standardized and summed yielding a composite generativity score. The reliability coefficient for the composite score was .52 (Cronbach alpha). A three (age) by two (sex) analysis of variance was performed on the composite generativity scores. Neither of the main effects or the interaction was significant.

An analysis of variance comparing the number of children of the three age groups was significant, $F(2,66)=7.90$, $p<.005$. The younger group, on the average, had fewer children (M=1.14) than either the middle aged group (M=2.57) or the older group (M=2.41). Combining this with the finding that there were no age differences on any of the four measures of generativity, leads to the conclusion that having children,

in and of itself, has little to do with resolution of the generativity crisis. The self-report generativity subscale, generativity as measured by commitments and generativity as measured by creative endeavors showed .08, .09, and -.07 correlations with number of children. Those without children were no less generative, except in their descriptions of the future, than those with children. Individuals without children were finding ways to express generative attitudes. Unfortunately, we cannot infer how adults today without children are choosing to be generative based on these data.

The present study originally proposed that less generative individuals are self-absorbed and stagnant. Theoretically, it was not clear if their self-absorption was due to unresolved identity and intimacy issues, because of lack of faith in humankind, or because of some combination thereof. Table 14 presents correlations of measures of identity, intimacy, faith, hope and self-absorption. Given the earlier results that generativity and self-absorption are positively related, it appears that much psychosocial development is related to hope, faith and trust. Identity and intimacy show no relationship to faith in people or self-absorption. But similar to generativity, identity and intimacy development are related to trust, faith in self, and hope.

In fact, the combined hope/trust score referred to earlier showed a .73 ($p<.001$) correlation with identity and a .44 ($p<.001$) correlation with intimacy. The hope/trust, faith in self, and intimacy scores were regressed on identity, using a stepwise procedure. Hope/trust accounted for 53.95% (52.88% adjusted) of the variance in identity. Intimacy significantly accounted for an additional 11.34% (10.74% adjusted) of the variance in identity. So together, hope/trust and intimacy

Table 14

Correlations Among Measures of Identity, Intimacy, Faith, Hope, and Self-Absorption

Measure	2	3	4	5	6	7
1. Identity	.67***	.56***	.73***	.10	.41***	.11
2. Intimacy		.37**	.44***	.10	.28*	.13
3. Hope: RTAS			.62***	.09	.22*	.16
4. Faith: Trust				.07	.47***	.06
5. Faith: Faith in People					.05	-.28*
6. Faith: Faith in Self						.14
7. Self-Absorption						

*p<.05
**p<.01
***p<.001

accounted for 65.27% (63.62% adjusted) of the variance in identity.

Characteristics of Generative Individuals

In light of the previously discussed findings, generativity scores, as measured by the Ochse and Plug (1986) subscale, commitments, and creative endeavors were standardized and summed yielding a new, composite generativity score. Generativity as measured by descriptions of the future was not used in subsequent analyses due to its lack of relationship with predictor variables as discussed above. The reliability coefficient for the new score was .40 (Cronbach alpha). Correlations between variables found to be related to generativity as discussed earlier and the new composite generativity score are shown in Table 15. Clearly, hope (as measured by the composite hope for the future/trust score), care (as measured by the composite nurturance/leadership score), identity, and intimacy are positively related to this new generativity score. Contrary to theory, faith in people and faith in self are not correlates of the generativity construct as assessed here.

A stepwise multiple regression was performed between generativity (the new composite score) as the dependent variable and hope, care, identity, and intimacy as the predictor variables. Care, the composite variable formed by summing standardized nurturance and leadership/authority scores, accounted for an initial 29.00% (27.34% adjusted) of the variance in generativity. Intimacy was the second variable entered into the multiple regression equation. Intimacy significantly accounted for an additional 12.40% (11.29% adjusted) of the variance in generativity. So together, care and intimacy account

Table 15

Correlations Among Predictor Variables and Composite Generativity Score

Variable	Composite Generativity Score
Hope	.40**
Care	.51**
Identity	.38*
Intimacy	.34*
Faith in People	-.06
Faith in Self	.07

*p<.005
**p<.001

for 41.36% (38.63% adjusted) of the variance in generativity, while hope and identity were never entered into the equation.

Norusis (1985) has suggested replicating multiple regression results with different procedures. Using a forced entry procedure, identity, intimacy, care, and hope scores were entered into the equation in a single step. Together, the variables explained 43.21% (37.67% adjusted) of the variance in generativity. The variables were entered into the equation in the following order: intimacy, care, hope, and identity. Essentially, these results replicate the stepwise results discussed above.

Given that the present study is of an exploratory nature, an additional statistical technique was employed to assess the ability of nurturance, leadership, hope, faith, identity, intimacy, faith in people, and faith in self to classify individuals as high or low in generativity. Instead of weighting a set of variables to predict a single dependent variable, as done in multiple regression, discriminant analysis weights the predictor variables to yield maximum discrimination between two or more qualitatively different groups. By identifying a linear combination of the predictor variables, discriminant analysis allows cases to be assigned to groups (Hayes, 1981). Using a median split technique, composite generativity scores were split into two groups, (1) high and (2) low. Table 16 presents means, standard deviations, and F-tests for the predictor variables of high and low generativity.

Of 34 cases used in the discriminant analysis, 15 were classified as "low generativity," of these, 12 (80.0%) were predicted correctly to be members of that group while 3 (20.0%) were incorrectly classified.

Table 16

Means and Standard Deviations of Predictor Variables of High and Low Generativity.

Variable	Generativity	Mean	*SD*	*F*(1,32)
RTAS	Low	108.87	16.38	2.11
	High	116.26	13.56	
Trust	Low	18.67	3.68	5.39*
	High	21.63	3.71	
Identity	Low	38.67	6.85	.40
	High	40.05	5.97	
Intimacy	Low	18.13	4.31	.43
	High	19.05	3.88	
Faith in Self	Low	25.33	3.99	.08
	High	25.68	3.28	
Faith in People	Low	38.20	4.13	1.16
	High	36.21	6.13	
Faith in God	Low	35.20	12.70	1.60
	High	40.16	10.20	
Leadership	Low	5.00	2.62	.12
	High	5.32	2.67	
Nurturance	Low	52.20	5.97	7.90**
	High	57.32	4.66	

*$p<.05$

**$p<.01$

At the same time, 16 of 19 (84.2%) "high generativity" cases were identified correctly, and 3 (15.8%) were misclassified. Overall, 82.35% cases were correctly classified. We would expect a misclassification rate of 50% by chance. The present misclassification rate of 27.27% indicates that the derived discriminant function is fairly effective. It should be noted that a model derived via discriminant analysis usually fits the sample from which it is derived better than it will fit another sample from the same population. Therefore, the percentage of cases classified correctly above is most likely an inflated estimate of the true performance of the population (Norusis, 1985).

Summary

The purpose of this study was to explore correlates and predictors of the generativity construct as discussed by Erikson (1963, 1980b, 1982). Seventy adults completed an eight part questionnaire assembled to investigate some attitudinal prerequisites (hope and faith), some personality traits (dominance, nurturance, leadership), and psychosocial development. Measures included structured, objective ones as well as open-ended, semi-projective questions.

Since the open-ended questions concerning commitments, creative endeavors, and descriptions of the future were designed specifically for the present study, intra- and interrater reliabilities were determined. Intrarater reliability was assessed by correlating scores assigned to the same essay by the same raters at different points in time, while interrater reliability was assessed by correlating scores between two raters. Intra- and interrater reliabilities were quite good. Scores used in statistical analyses were those assigned by the author.

It was hypothesized that hope for the future and faith would be predictive of generativity. It was also expected that nurturance, dominance and leadership would be predictive of generativity, while self-absorption would show a negative relationship. It was also anticipated that identity and intimacy would be positively associated with generativity. Lastly, cohort effects were hypothesized, younger individuals were expected to be dealing primarily with issues of identity and intimacy, while older individuals would be dealing with issues of generativity.

Almost all of the measures, which included the Faith Scale, nurturance and dominance scales of the Personality Research Form, the Ochse and Plug psychosocial development items, and the Narcissistic Personality Inventory were helpful in furthering understanding of the generativity construct. Hope for the future and trust were highly correlated with generativity, as well as one another, while faith in people was not (contrary to theory). Nurturance and leadership were both positively correlated with generativity, while dominance was not (contrary to the findings of Ryff and Hienke, 1983). Self-absorption, the proposed antithesis to generativity, was found to be positively related to generativity, contrary to expectations. And, identity and intimacy were also found to be postively related to generativity.

There was a trend indicating that individuals with children were more generative that those without. Unfortunately, it is not clear if these people are generative because they have children and concerned about their future well-being, or, they had children because of previously established generative attitudes. Nevertheless, this provides additional support for Erikson's (1963) definition of

generativity.

A very tentative profile of generativity, based on multiple regression and discriminant analyses, emerged. Generative individuals are more hopeful about the future than are those who are low in generativity; they are more trusting than mistrusting; but at the same time, they have less faith in others, and more faith in a supreme being; they have resolved the intimacy vs. isolation crisis of young adulthood; and, lastly and most importantly, they are more nurturant than others. This profile should be treated with extreme caution, and interpreted as a heuristic until it is validated in further research.

CHAPTER V

DISCUSSION AND IMPLICATIONS

Discussion

The concept of generativity is highly complex and difficult to define. Identity and intimacy feed into generativity and are then, in turn, forced to reconcile generative attitudes and behaviors. Given the circular nature of these constructs, they become both predictors and dependent variables, making statistical (and conceptual) analyses, in empirical research, quite complicated. Identity, intimacy, and generativity, therefore, are most likely not illustrative of sequential stages. Indeed, we could propose that our intimate relationships are the basis of a significant part of our identities. The creations born of intimate relationships demand generative attitudes and behaviors. As one respondent described child-rearing: "Using my creativity in this manner, is helping to shape and mold our future. These children will process and use the creative information spirited by me and hopefully pass this along to the current and future generations."

Identity is our definition of ourselves, out of it evolves generative attitudes and behaviors ("I have a very good and logical mind. I have a pretty good grasp on life in general. I like the idea of helping someone ease through a problem with less implications and pain"). The idea that generativity evolves out of identity dovetails neatly with the theory of identity as a life story proposed by McAdams

(1985). In this theory, generativity scripts embodied in our projected outlines for the future are but one aspect of the stories of our lives. The anecdotal data presented here support this. It is our identities that provide us with the confidence to engage in truly intimate relationships ("I am committed to my husband and our marriage...This commitment provides a central definition of my identity. It frees me because it provides a solid basis of support and a sense of confidence in my value..."). It is our identities that contain our procreative, creative, and productive selves ("To raise a family and supply them with the needed tools to become productive adults...This commitment <u>is</u> my life. It is what motivates me." "I am committed to my two daughters and to my role as a mother"). We cannot understand generativity without understanding identity. And we cannot develop an identity without being hopeful and trusting about the future. ("I am committed to teaching, especially to the teaching of handicapped young people...I am idealistic and optimistic - I enjoy seeing young people learn - I enjoy being a part of that process").

Hope, theoretically, the first psychosocial strength developed, provides the basic motivation for further development. Development may be fueled by the (perhaps unconscious) belief that where we are going (figuratively speaking) is desirable. Hope is expressed through trust, confidence that future development is worthwhile and desirable. As Erikson et al. (1986) recently wrote:

> The tension between basic trust and mistrust reaches back to the very beginnings of life, when, through ever-growing trust in the reliable supportiveness and responsivenss of the environment, the healthy infant develops the origins of hope. This essential strength matures throughout the life cycle, as the individual struggles to integrate a sense of confidence and belief in the universe, and the relative predictability of its laws, with a discriminating

> cautiousness and skepticism about the same universe and its realistic unpredictabilities. (p. 218)

It is much easier not to move forward in our development, to use previously established modes of dealing with reality rather than develop new ones. By developing new strengths for dealing with reality, we risk making mistakes and it takes confidence in ourselves to take those risks. Without hope there is no reason to take the gamble. With faith in ourselves, we have reason to be hopeful about the future. With hope for the future, the formation of an identity becomes a meaningful endeavor, maintenance of intimate relationships worthwhile, and there is reason to believe that work done now for others and ourselves will prove to be beneficial. Without hope, there is no reason to risk the hurt associated with mistakes made in forming an identity, pain of loss inherent in intimate relationships, and inability to help all others as we might like.

The data presented here allowed for some additional findings. Generativity is highly associated with nurturance, and to some extent with leadership. There are, most likely, other personality traits related to generativity that were not assessed in the present study. Age, in and of itself, is not predictive of generativity or identity. The younger cohort, with less "life experience" were showing themselves to be just as generative as those who were older. The data presented here indicate that it is the quality of experience, time and effort behind the formulation of religious and political beliefs, love shared in intimate relationships, and self put in procreative, creative, and productive endeavors, that combine to make for generativity.

Implications for Theories of Adult Development

Erikson's theory of psychosocial development is a widely accepted heuristic for understanding human growth and development. In this theory, generativity is both a primary need and task of adulthood.

A key finding of the present study was that hope for the future was highly correlated with identity, intimacy, and generativity. Adult psychosocial development may well be motivated by the wish for a meaningful future. Beck, Weissman, Lester, and Trexler (1974) and Beck, Stern, and Shaw (1984) have shown that hopelessness is predictve of depression in the future. Without understanding that building a sense of self, maintaining intimate relationships, and nurturing others will prove beneficial in the future, the middle aged adult may well stagnate.

Not surprising, given the fairly strong relationship between faith in self and hope and trust, was the finding that generativity was associated with self-absorption. Assuming identity provides the framework for identifying, creating, and offering up a legacy, self-understanding becomes a necessity. To nurture and educate others, we need to know who we are, what we believe in, and what we excel in, so we can identify how we will be generative. The net result is that individuals demonstrating generative attitudes and behaviors are not dictatorial, instead they guide and nurture their successors, providing them with a sense of responsibility and the skills they need to care for the world they will inherit.

The roles of identity, intimacy, and generativity in adulthood do not appear to be independent and sequential. Rather, they seem to build upon, and feed back into each other, and cannot be easily

differentiated. The role of spouse cannot be separated from the intimate relationship in which it is founded. The generative behaviors of the parent cannot be differentiated from the individual's sense of self as it is shaped by that role. Clearly, all three psychosocial issues remain prominant throughout adulthood. Any changes in adult roles may affect, in any combination, identity, intimacy, or generativity. These psychosocial issues are not static in adulthood, rather they are constantly influencing one another prompting further development and differentiation.

Lastly, whether or not participants were parents had little to do with their responses in the present study. Given the predominate role that parenting has played in established theories of adult development, it will become increasingly important for us to consider how alternative lifestyles influence adult psychological development. But, at the same time, the present study indicates that despite changes in the sociohistorical climate, the very fundamental values of family and work seem to still be the primary motivations behind much of what we do. Freud reminded us that there are two things essential for healthy adulthood: Lieben und Arbeiten (to love and to work). While the information obtained from respondents in no way denies that other motivations are important, it seems that these respondents were driven by these basic and humble motivations. What is not clear though, is why these two basic motivations, to love and to work, exist. One very simple explanation comes from Darwin (and more currently sociobiology) - survival of the species. Without caring for one another and nurturing our progeny, the human species as we know it would cease to exist. Without work, we cannot gather the food, clothing, shelter, and tools

necessary for survival. Further research can investigate the roles of love and work, as well as other motivations, behind generativity.

Implications for Future Research

Despite some methodological difficulties, several tentative conclusions, and suggestions for future research, can be discussed. While many conclusions appear to be statistically clear-cut, none have been cross-validated and therefore should be considered cautiously. The following methodological limitations of this study need to be recognized: (1) The sample size of the study was rather small, increasing the chances that differences between high and low generativity would not be identified statistically, even if they actually existed; (2) The sample was self-selected in the direction of individuals who found issues of psycholgical development and generativity more important than most people do; (3) Measures of generativity may not have been sensitive enough to capture adequately the many different variations of the construct; and (4) Cross-sectional data do not permit for understanding longitudinal trends. Future research can avoid these methodolgical difficulties by selecting a larger sample that is representative of the general population. An additional worthwhile approach might be to solicit individuals not expressly interested in psychological issues and to select objective and subjective measures that probe more subtle aspects of attitudinal prerequisites, personality traits and psychosocial development.

The finding that hope for the future, trust, identity and intimacy are powerful correlates of generativity provides evidence for the proposal that it is not a "belief in the species" but a belief in one's

own self that makes generativity possible. Clearly, this finding needs to be replicated. The strong sense of faith in self and lack of faith in others appears to be balanced by faith in a supreme being.

Seventeen of sixty-one respondents discussed a primary commitment to their God: "Loyalty to Christ as the model of my life." "To make a contribution to God's world." "The marriage vows I made to God, my husband, and myself." I feel God wants me to live my life with feelings for others...to give and do whenever or wherever I see the need." "As a Christian woman, children were a natural evolution of my love for my husband." "The first and largest commitment in my life is to God; to do my best to my life according to His commands." Perhaps one of the motivations behind generativity is a belief in God. We also know that the themes of love and work are part of the tenets of many of the world's faiths, for example,

> And God blessed them, and God said unto them, be fruitful, and multiply, and replenish the earth, and subdue it; and have dominion over the fish of the sea, and over the foul of the air, and over every living thing that moveth upon the earth. (Genesis, 1.28)

This unhypothesized finding needs to be investigated in a more controlled fashion.

The present study found no age differences in generativity. This runs contrary to theory and results of previous studies (e.g., Ryff and Heinke, 1983), but is in support of Kotre (1985). These individuals all seem to have resolved the assessed psychosocial issues similarly regardless of the impact of historical events on their lives. Several methodological issues may help explain this finding and provide suggestions for later research. First, the subjective and objective measures of generativity simply may not have been sensitive enough to

detect different attitudes and behaviors adequately. Dillman (1978) highlighted that one the most severe shortcomings of mail questionnaires is that respondents often find it more difficult to express themselves in writing and the absence of an interviewer's probes frequently results in answers that are difficult to interpret. Face-to-face interviews should be conducted in the future.

Second, the present study was a cross-sectional design, different individuals of different ages were compared. It is assumed that the attitudes and behaviors of the older group are indicative of how younger groups will eventually behave. Perhaps generative attitudes and behaviors do not become more predominate as we move through middle adulthood. Their strength may remain constant, but their form may change or vice versa. While the groups may appear similar now, that may not have been the case in the past or in the future. There may be some cultural-historical effects, specific to the present era, that make it difficult to distinguish between cohorts. Again, more subtle measures may be necessary. As in all developmental research, some form of a time-lag-sequential design is needed (Achenbach, 1978).

In addition, the sampling procedure used in the present study may have contributed to the lack of cohort differences. Overall, the sample was fairly homogeneous. Further research into the generativity construct will need to use samples more representative of the general population. As was discussed in the literature review, individuals of lower socioeconomic status may be less hopeful and hold less faith in the future, which may impact on generative atttitudes and behaviors. The present study also employed a rather small sample with *Ns* of 29, 23, and 17 for young, middle, and old-aged cohorts, respectively.

Larger sample sizes may result in statistically significant cohort effects.

While sex differences were not hypothesized in the present study, it is a topic that should be pursued in later research. From a psychosocial perspective the strengths that emerge from resolution of identity, intimacy, and generativity crises are all products of the ego (e.g., fidelity, love, care). Erikson (1980b) has proposed that there are no sex diffences in the qualities of ego strengths. However, Erikson has been criticized for presenting a model of male development and simply extending it to include females (Roazen, 1976). The theoretical works of Chodorow (1974) and Gilligan (1982) suggest that sex differences should be evident. Chodorow (1974) proposed that men have traditionally been socialized to achieve and be self-reliant with concomitant denial of emotional connection and responsibility toward others. Women, on the other hand, are socialized to be involved and connected with others. They are also expected to be nurturant and responsible toward others. It is a logical extrapolation then, that the ego strength of care, hence generativity, would be different for men than for women. Gilligan (1982) echoes this in a discussion of female socialization and its effect on moral development. Women are raised to base their interactions with others, as well their own moral decisions, in an ethic of responsible care. Therefore, it can be expected that the generative strength of care would experienced differently, depending on the sex of the individual.

Interestingly, the only variable to show sex differences was nurturance as measured by Jackson's (1974) PRF. Jackson's (1974) norms support this, although the nurturance scores presented here cannot be

compared with norms because of variations in coding (Jackson's norms are based on a true-false scale, while the present study used a five-point strongly agree-strongly disagree format). Given that nurturance was significantly correlated with three of the four measures of generativity, hope for the future, trust, faith in God, and faith in people, the role of nurturance and sex differences in generativity should be further researched.

According to Erikson (1963, 1982) generativity does not become a major psychosocial issue until the previous crises of identity and intimacy have been resolved. This has empirical support from Vaillant and Milofsky (1980). While identity, intimacy, and generativity were all positively correlated in the present study, a causal relationship cannot be determined. The relationship between identity, intimacy, and generativity discussed in the present study must be interpreted skeptically. Measures of identity and intimacy came from the same scale, which thus far, has only been used in one empirical validation study. And, as stated earlier, these three constructs may be interpreted as both independent and dependent variables, making statistical results virtually impossible to interpret. Other measures of identity and intimacy may provide a clearer picture of the role of previous psychosocial development in generativity.

The present study did not assess the role that generative models (i.e., older and/or more experienced individuals) had on respondents. Kotre (1985) and Lasch (1978) have both proposed that our society's increased age segregation has left us with few models of the past or the future to identify with. Few respondents in the present study discussed the role their elders played: "My strongest commitment is serving as a

successful member of my family....The commitment is inbred because of the values with which I was raised and are now part of my fiber." "To raise a family and supply them with the tools to become productive adults....This was a commitment passed on to me from loving and caring parents." The roles of parents, mentors, and teachers should be assessed in later studies of generativity.

The perspective taken when comparing identity, intimacy and generativity is also important. Erikson has proposed a sequential stage approach, with identity first, followed by intimacy, and then generativity. The three psychosocial issues may not be separate. Indeed, it has been proposed by McAdams (1985) that generativity is but one component of identity. The present study points to the three constructs overlapping and feeding back upon one another, supporting findings reported by Ochse and Plug (1986). Many variables hypothesized to correlate with generativity also correlated with identity and intimacy (e.g., trust, faith in self, and hope). Several studies, originating in different theoretical perspectives will provide additional data clarifying this complex and intriguing phenomenon.

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

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

4/7/87
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