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**Canada**

**Generativity and adolescence**

**The Genesis of Generativity: Looking for Signs of the Seventh Stage in Adolescence**

**by**

**Heather Leigh Lawford**

**B.A., Honours Psychology/ English, Trent University, 1999**

**THESIS**

**Submitted to the Department of Psychology**

**in partial fulfilment of the requirements for**

**Master of Arts**

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**2002**

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### Abstract

The purpose of the present study was to investigate Erikson's construct of generativity, defined as care and concern for the next generation and usually viewed as important for midlife adults, in a late adolescent sample using a developmental perspective. Generativity was studied using the seven component model developed by McAdams and de St. Aubin (1992). The current study examined the presence of four components of the generativity model at age 22: generative concern (concern for future generations), generative commitment (commitment to leave a lasting contribution to future generations), generative acts (actions or behaviours that benefit future generations), and generative narration (life story narratives that integrate the other components into an expressed identity). This study also investigated possible factors which may contribute to the development of generativity at ages 17 and 19. Questionnaire and interview data were collected from 30 participants, 22 females and 8 males, over a 5 year period when they were ages 17, 19, and 22. Questionnaires included measures of community involvement (measured generative actions at all three ages), identity development (at all three ages), generative concern (ages 19 and 22 only), generative strivings (measured commitment; age 22 only), and altruism (age 22 only). During all three interviews, participants were asked to discuss a turning point in their life story; participants also discussed a proud moment in their life story at ages 19 and 22.

To measure the narrative component of the model, proud stories and turning point stories were coded for generative themes, according to the system devised by Peterson and Stewart (1996). Turning point stories were also coded for redemption according to the

system devised by McAdams and Bowman (2001). Results indicated that identity development was positively related to generative concern. Also, community involvement, especially at age 17, was positively related to generative concern at age 22. There were no significant gender differences in the generativity measures. Surprisingly, generative concern decreased significantly from age 19 to age 22, whereas community involvement did not differ significantly across time. In the narrative generativity component, generative theme usage did not change over time, but use of redemption structures in turning point stories increased over time. Generative themes were not significantly related to generative concern, but redemption scores at all three times were positively related to generative concern. Results from this study highlight the potential importance of community involvement in the development of generativity. They also indicate that individuals have begun to integrate generative concern into their personal, life story narratives as early as age 17. Finally, results emphasise the need for researchers to adopt a lifespan perspective when studying generativity, rather than simply investigating midlife samples.

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### **The Genesis of Generativity: Looking for Signs of the Seventh Stage in Adolescence**

**Generativity, defined as care and concern for the next generation, is considered by some to be the most complex of Erikson's (1963) psychosocial stages (Kotre, 1984; McAdams & de St. Aubin, 1992). Generativity has important implications for both individuals and their communities. In adults, generativity has been associated with better psychological and social well-being, and more perceived social support (Keyes & Ryff, 1998). Researchers have also found correlations between generative concern and higher levels of religious, political and community involvement (Hart, McAdams, Hirsch, & Bauer, 2001). It may be that promoting generative concerns and behaviours could have positive implications on an individual and societal level.**

**Given the significance of this construct, it is not surprising that it has been studied from many different perspectives, and its implications for adulthood and society have been well explored ( Keyes & Ryff, 1998; Kotre, 1984; Snarey, 1993). However, researchers have not yet extended their ideas of generativity to adolescence. Theoretically, it has been suggested that generativity would be present in some form in adolescence (Erikson,1959; Kotre, 1984). However, the presence of generativity at this stage has not been empirically tested (McAdams, 2001).**

**The following research involves a short-term longitudinal analysis to explore the developmental trends in generativity, from late adolescence to young adulthood, and the implications of this trend in terms of social and identity development. This paper also delineates the importance of using both questionnaire and narrative methods when**

conducting this research. Specifically, this project entails a replication and extension of two earlier, cross-sectional studies. The current research extends components of the cross-sectional study conducted by Frensch (2000), in which she coded late adolescent narratives for generative themes. Additionally, the current study partially replicates McAdams, Diamond, de St. Aubin, and Mansfield (1997), in which they coded adult life stories for themes associated with generativity. However, instead of an adult sample, the current research looks at the relations between generativity and the life story in a younger, late adolescent sample.

Conducting this research project has both theoretical and applied significance. Theoretically, this research helps to investigate how Erikson's psychosocial construct of generativity is represented at different points in the lifespan, and the early development of this construct in adolescence. This research also provides insight into ways that adolescents perceive and interact with society, and how those interactions develop over time.

#### *Erikson's Theory of Psychosocial Development*

In his theory of psychosocial development, Erikson (1963) outlined eight successive "crises" of development across the lifespan. Thus, throughout the life course an individual confronts the issues of trust versus mistrust, autonomy versus shame and doubt, initiative versus guilt, industry versus inferiority, identity versus identity diffusion, intimacy versus isolation, generativity versus stagnation and integrity versus despair. At each step, individuals focus on resolving the challenge of finding an optimal but positive balance between the polar alternatives offered. Successful resolution of the challenge or crisis results in a more positive developmental outcome and the ability to put a greater

focus on the next stage. The primary focus given by individuals corresponds with their biological and psychological states, as well as their position in society. For example, adolescents not only become capable of formal integrated thought processes, they are also psychologically in the process of, or are preparing to make, a significant separation from the family of origin, and society begins to expect them to start making plans for the future (Habermas & Bluck, 2000; McAdams, 2000). Thus, biologically, psychologically and socially, identity versus identity diffusion is the construct on which they are primarily focussed within Erikson's framework. It is important to understand, however, the interconnectedness of each ego element for Erikson. Although people are primarily focussed on the resolution of one crisis, "all stages are present in some form throughout the lifespan." (Erikson, 1959, p. 56). Even if a crisis is not the principal focus of a development stage, some of the qualities of the crisis may nonetheless be relevant. For example, if an individual is attempting to create a balance between generativity and stagnation during the seventh stage, then certain aspects of identity would be implicated in the process. Conversely, when people are establishing their identities, their thoughts about the importance of the next generation, or their feeling of responsibility toward the future, might become an important aspect of their identities, perhaps forming an important element of their life stories (McAdams et al., 1997). Since the focus of the present research is the construct of generativity within the developmental stage of adolescence, only Erikson's constructs of identity and generativity are explored in detail in this paper.

### *Identity*

As mentioned earlier, adolescents commonly focus primarily on the identity crisis. Thus they struggle with trying to achieve a balanced and coherent sense of self in the different aspects of their life (e.g., career, family roles, beliefs, etc.) This construct is now conceptualised following a four-category model, developed by Marcia (1966) and based in Erikson's framework. The categories are based on whether an individual has made a commitment to an aspect of identity, and whether the individual has or is actively engaged in exploration of this aspect. When neither exploration nor commitment is present, an individual is said to have the status of identity *diffusion*. When people have made a commitment, but have never explored different aspects of identity, they are in identity *foreclosure*. When individuals have not made a commitment but are actively exploring, they are said to be in *moratorium*. Finally, when exploration has taken place and a commitment has been made, individuals are *achieved* in their identity. This is the most advanced of these statuses, according to Marcia (1966).

Although the identity crisis is heavily emphasised in the adolescent years, it is also an important issue throughout adulthood (Erikson, 1959). In later years, when a person's focus shifts to issues of intimacy, integrity, and especially generativity, identity is influenced by these changes and must be readdressed (McAdams, Hart, & Maruna, 1998).

### *Generativity*

Generativity is essentially an expression of care and concern for the next generation. It is a characteristic issue in the seventh stage in Erikson's eight stages of psychosocial development, and thus is most often associated with middle adulthood.

People can express their generativity in almost any aspect of their lives, whether it be teaching skills to a new employee at work, relating important values to one's children, or volunteering with an organization committed to supporting or improving the community. The antithesis of generativity is stagnation. Ultimately, someone who fails to achieve generativity "stagnates" by rejecting contributions to the next generation or the community. Essentially, stagnation is characterized by self-absorption and indulgence in oneself (Erikson, 1963).

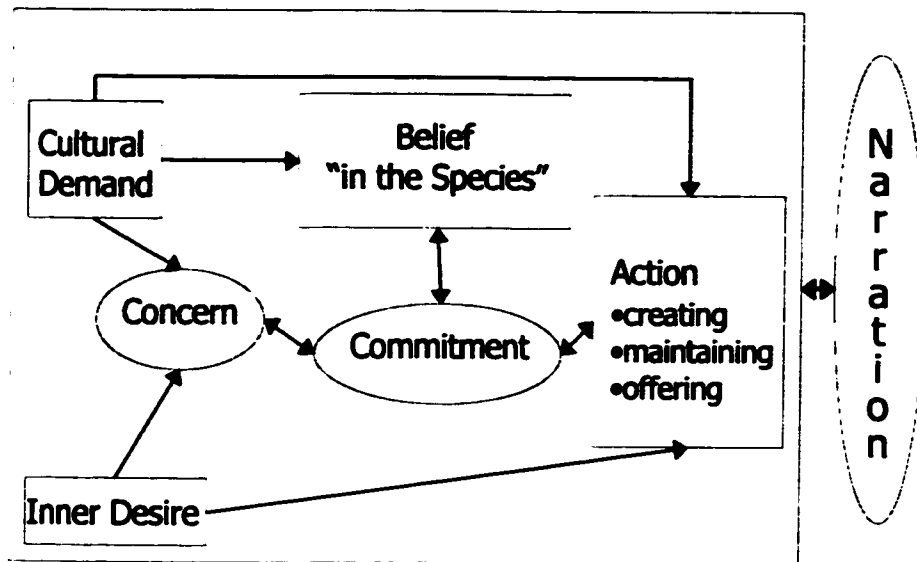
It is important to differentiate generativity from altruism, since, like altruism, a generative act is essentially one which is performed for the benefit of others or society as a whole. However, generativity specifically refers to ideas, concerns, or behaviors that benefit future generations and society even after a person's lifetime, as a *legacy* of the self (Erikson, 1963). Generativity thus refers to a specific subset of altruistic acts, with a particular motivational base.

### *Models of Generativity*

Generativity is often, although never exclusively, linked to parenting. It is generally associated with expressions of productivity, creativity, and contributing to society for the greater good (Erikson, 1959). Because of the complexity of generativity, many researchers have divided the construct up into several categories or components. For example, in his book, *Outliving the Self*, Kotre (1984) divided generativity into four types. *Biological generativity* referred to bearing children, *parenting generativity* was the nurturing and disciplining of children, *technical generativity* included teaching and developing skills, and finally, *cultural generativity*, was defined as creating, renovating and conserving the

symbol system. Thus, for Kotre, not only were children the “object of generativity,” but our wider culture and society were objects of generativity as well. In fact, Kotre asserted that cultural generativity was one of the most interesting and important types of generativity, as well as the one that was most often overlooked. Kotre states that the term “stage” does not adequately describe generativity. Instead, Kotre uses the term “moments,” which can occur from late adolescence to late adulthood. In using this terminology, Kotre hoped to expand the work on generativity by eliminating the constraints of age or specific roles in society (such as parenting) on the expression of this quality.

McAdams and de St. Aubin (1992) developed a different model of generativity that is widely used in current research. Their model of generativity consists of seven components (see Figure 1). The first component is *inner desire*. This desire stems from either a “need to be needed” (Stewart, Franz, & Layton, 1988) or from a need for “symbolic immortality” (Kotre, 1984), that is, the desire to leave something behind. McAdams, Hart, and Maruna (1998) expand on this idea by describing a need for both agency (productivity) and communion (caring) as elements of generativity. These inner desires to be generative are part of what drives all the other components of generativity. In addition to the driving force of inner desire, there is *cultural demand*. Generativity is important to maintaining the traditions and values of a culture. Therefore, societies offer opportunities and encouragement for individuals to make a lasting contribution along these lines. Inner desire and cultural demand for generativity, in conjunction, lead to *generative concern*. This refers to an individual’s felt sense of caring about the next generation, as



**Figure 1.** Seven component model of generativity (McAdams & de St. Aubin, 1992)

well as a legacy of self. Another component of the model is *belief in the species*, an optimistic belief in the future of the human race. This belief is essential for supporting *generative commitment* and *generative action*, two additional components of the model. Generative commitment refers to one's public intentions to act in such a way as to benefit the next generation or society, whereas generative action is an action or behavior which benefits future generations. All of the above aspects are combined in the development of a *generative narrative*. Here individuals create their life stories, by integrating their identities with their generative nature, whether it be through procreation, productivity or creativity, thus giving generativity personal meaning in their lives (McAdams et al., 1997).

*Measuring Generativity*

McAdams (1996) has developed a number of different measures in order to operationalize some of these different generative constructs. For example, generative concern is measured using the Loyola Generativity Scale (LGS; McAdams & de St. Aubin, 1992). This is a questionnaire consisting of 20 items, describing thoughts or ideas which illustrate generative concern. For example, one item reads, "I feel as though my contributions will exist after I die." McAdams and his colleagues (1993) also developed the Generative Behavior Checklist (GBC) in order to measure generative actions. *This measure assesses the frequency of occurrence of 40 generative and 10 non-generative behaviors.* The generative acts include behaviors that correspond to the concepts of creating, maintaining and offering, for example, to teach somebody a skill. The non-generative acts include neutral behaviors such as going to the movies. Finally, generative commitment is measured by asking participants about their current strivings. This measure, developed originally by Emmons (1986), provides brief sentence stems to be completed. These describe what participants report they are typically trying to accomplish or achieve in the personal, professional and social aspects of their daily life. McAdams and de St. Aubin (1992) developed a coding system that analyses these statements for themes related to generativity, such as care and concern.

The narrative aspect of generativity can be seen most clearly in McAdams' life story interview (McAdams et al., 1997). Aspects of the interview, such as turning points in one's life and peak memories, as well as themes throughout the interview, such as bad events having positive outcomes (redemption), a sense of early family blessings, or a

sensitivity to the suffering of others seem to discriminate between people who have integrated generativity as an aspect of their identity and those who have not (McAdams et al., 1997). Narratives also can be coded for evidence of generativity, focussing on themes of creativity, helping, intergenerational involvement and symbolic immortality (e.g., McAdams et al., 1993; see Figure 1).

Narrative work has become an important tool for a number of generativity researchers (Kotre, 1984; McAdams & de St. Aubin, 1992; McAdams, et al., 1998; Peterson & Stewart 1996; Peterson et al., 1988; Snarey, 1993). In fact, narratives were one of the original methods of exploring generativity within this framework. Stewart, Franz and Layton (1988) used the autobiographical writings of Vera Brittain, a British feminist and pacifist, in order to explore how generativity can be expressed in an individual over the life course. The researchers coded Brittain's journal writings for themes of identity, intimacy, and generativity. They found that the themes in the journal writings did seem to follow the developmental course set out by Erikson. Thus, identity was a prominent theme in Brittain's adolescence, while only a few markers of generative themes appeared at this time. Stewart and her colleagues also found that Brittain's life circumstances seemed to contribute to the dominant concerns she focussed on in her writing. For instance, when Brittain was working as a nurse in a hospital, themes of generativity were more prevalent in her writings, presumably illustrating McAdams' and colleagues' notion of "cultural demand."

As in this earlier research, narrative methods remain a useful tool in the current study of generativity. Because the expression of generativity is complex, the use of

narratives is an essential way to capture the more personal layers of meaning that might go unnoticed using questionnaire data. In addition to McAdam's narrative work that was mentioned earlier, Peterson and Stewart (1993) have also developed a coding scheme which uncovers *generative themes* in narratives. These authors looked for passages that indicated three types of themes: productivity, caring, or general generativity, which they coded as markers for generativity. In referring to general generativity, the authors were looking for statements which discussed an "expression of concern about making a lasting contribution, especially to future generations" (p. 197). Thus, in Peterson and Stewart's (1993) study of midlife women, generative narratives expressed concern for the welfare of people (caring), the development of products or ideas which contribute to society (productivity), and an awareness of one's ability to make a lasting contribution (general). These codings were applied to stories that participants generated in response to sentence cues derived from the Thematic Apperception Task (e.g., Ann is sitting looking at the sunset). The authors designated this system as an appropriate measure for McAdams and de St. Aubin's (1992) first component of generativity, inner desire. Peterson and Stewart found that the coding scheme, as will be discussed later, predicted many characteristics associated with generativity, such as parenting involvement as well as reference to communal (in service of others) and agentic (in service of the self) motives.

McAdams and colleagues (1997) compared the narratives of midlife adults with high and low generativity scores as measured by the LGS, the GBC, and by nomination. Participants were administered a 2-3 hour long interview in which they were asked to think of their life as a book with chapters. They were asked to recount their highest and lowest

points in life, a turning point, their earliest childhood memory, and significant moments across their life span. In addition, participants also shared their future goals, areas of conflict and personal ideology regarding religion, politics, values and beliefs. The authors found that several characteristics of the interview were significantly more prominent in the group with high generativity scores. Specifically, compared to the matched group of individuals with low generativity, adults with high generativity told stories that demonstrated more sensitivity to the suffering of others, reported more prosocial future goals, described a sense of early family blessings, demonstrated greater moral steadfastness (commitment to principles) and had more redemption sequences. Redemption sequences are accounts that start out negatively but are followed directly by a transforming positive or optimistic ending. Thus the researchers concluded that their interview method was an effective means of differentiating adults with high and low generativity, particularly in terms of a sense of self and identity. Highly generative individuals appeared to have developed a “commitment script” that expressed their sense of self (McAdams et al., 1997). A commitment script is a life story in which an underlying theme is the commitment that the storyteller has made to society, or to the next generation.

Recently, McAdams and his colleagues have extended their work on examining redemption in stories told about life events (McAdams, Reynolds, Lewis, Patten, & Bowman, 2001). They have found a positive association between individuals who include redemption sequences in their life event narratives and levels of life satisfaction and well-being. McAdams et al. (2001), assert that redemption sequences in life stories are key markers of both generativity and psychological well being. Thus, we wanted to examine

the use of such redemptive sequences in the stories of adolescents as a central aspect of generativity in narrative.

Research on the life narratives of adolescents in this tradition is still relatively limited. Although a number of researchers assert that adolescents are becoming capable of constructing their life stories (Habermas & Bluck, 2000; McAdams, et al., 1993), very little research has explored this concept (Habermas & Bluck, 2000). One benefit of the current research is the contribution it makes to the area of adolescent life narratives and their patterns of development even beyond a specific focus on issues of generativity.

#### *Contributing Factors to Generativity*

When investigating generativity, two additional factors, gender and context, seem to be of particular importance beyond age and the life stage. Research has uncovered some distinct gender differences in the expression of generativity. Interestingly, either men or women have often been studied exclusively (Peterson & Stewart, 1996; Snarey, 1993), but some studies do report gender comparisons. In the life story interviews conducted by McAdams and colleagues (1993), women seemed to express more generative themes than did men. Pratt, Norris, Arnold, and Filyer (1999) found higher levels of narrative generativity, as well as generative concern, among women than among men in a sample of adults across the lifespan. Women also frequently score higher on the LGS than men, particularly childless men (e.g., McAdams & de St. Aubin, 1992; Pratt, Danso, Arnold, Norris, & Filyer, 2001).

Peterson and Stewart (1996) were interested in the precursors of generativity in women only, using a similar coding scheme to that from their earlier paper (Peterson &

Stewart, 1993). They measured generativity by looking for themes of parenting, caring, and productivity, which were coded in the stories that women wrote about ambiguous pictures or scenes (e.g., women talking on the telephone) that they were presented. The authors found that generativity scores at age 48 were significantly positively related to themes of achievement, power and affiliation in the stories the women had written when they were 18 years old. The stories written at age 18 used the same methodology, but used a different coding scheme. Good predictors of high generative theme use in women at age 48 also included answers on questionnaires regarding the personal importance of social movements during adolescence, as well as the presence of a mentor in adolescence. Unfortunately, the generativity coding scheme was not applied to the stories told at age 18, and therefore we do not know whether themes of generativity were present at that time, nor about their significance for later development. Peterson and Stewart (1996) also found that context was an important predictor for generativity. For example, themes of generativity that were present in the generated stories were significantly positively related to work gratification for women who were focussed on their careers. Conversely, generativity themes were significantly related to parenting gratification for women not working in careers. Therefore, it seems that there may be individual differences in where generativity may be expressed, depending on what is important to the individual. Thus, both gender and context seem to be important factors when considering generativity and its expression in adulthood.

*Generativity in Adolescence*

The discussion of the possibility of generativity in adolescence to date has been sparse and somewhat confusing. Some researchers claim that adolescents cannot be considered generative. They assert that adolescents do not experience the societal pressure to be generative, and that they do not consider the idea of creating or nurturing a legacy that will survive them and benefit future generations (McAdams, & de St. Aubin, 1992; McAdams, et al., 1993). On the other hand, some of the theoretical discussions of generativity and psychosocial development suggest that generativity may be present in some form in adolescence. In fact, as already noted, Erikson asserted that all stages exist in some form throughout the life span (Erikson, 1959). Some researchers also claim that generativity may be acquired simultaneously with identity and intimacy (Kotre, 1984; Stewart & Vandewater, 1998), rather than subsequently after these strengths develop, as in Erikson's traditional ego development model.

Many theories on generativity do take a broadly developmental perspective. For example, Stewart and Vandewater (1998) outlined three aspects of generativity developing across adulthood. According to them, the desire to be generative starts out high in early adulthood and decreases in late adulthood, whereas a sense of generative accomplishment builds into late adulthood. Finally, the felt capacity for generativity is lower in both early and late adulthood, but peaks in midlife.

McAdams et al. (1993) found results that were generally congruent with the findings of Stewart and Vandewater (1998), using the McAdams and de St. Aubin (1992) model. They found that scores reflecting generative concern and generative actions were

similar in all age groups (young, middle and older adulthood). Generative commitments were more prominent in middle adulthood, and the generative themes in the narrative component were higher in late adulthood and middle adulthood. Since adolescent samples were not collected in this research, we can only speculate how they would fit into the generativity model. One might expect that adolescents would reflect a similar pattern to that of young adults. That is, they may score high on inner desire and generative concern and not as high on measures of generative commitment.

A paper by Ochse and Plug (1986) was one early attempt to measure generativity in adolescence. The researchers were interested primarily in the relationship between the different psychosocial stages of Erikson. They developed a scale consisting of 102 items which measured all of the virtues of the seven different stages of Erikson, up to and including generativity (integrity, the eighth and final stage, was not included). The items were developed directly from the writings of Erikson. Ten of the items dealt with generativity. The questionnaire was distributed to over 1,000 men and women in South Africa, ranging from 15 to 60 years old. The authors found that the stages of identity, intimacy, and generativity did not occur as sequentially as the other stages. That is, resolution of identity or intimacy was not required for generativity to be prominent. Also, level of generativity was most highly correlated with level of identity, the stage associated with adolescence. This research provides an introduction to the idea that generativity may appear earlier than middle adulthood in the life cycle. However, in this early paper, the authors' concept of generativity was not as fully developed as it has been in more recent research. An exploration of the expression of these issues in different areas in young

adulthood, such as family life and school or work responsibilities, may provide some insight as to what to expect in adolescence.

Generativity in young adulthood has been explored somewhat in the literature. Ryff and Heincke (1983) investigated different constructs, including generativity, complexity (which referred to being actively engaged in a complex environment versus being uninterested or bored in an environment), integrity (the eighth stage of Erikson's theory), and interiority (i.e., reflective or contemplative thought) in young, midlife, and older adults. All participants read statements that reflected high and low levels of each construct. Participants rated the degree to which the statement reflected themselves personally at three different stages in their life: young, middle or late adulthood. Thus, responses could be analysed in terms of both actual age and temporal focus. The researchers found that all age groups predicted the highest levels of generativity to occur in middle adulthood. Moreover, the groups also predicted more generativity than integrity in young adulthood. This study was an early investigation of generativity as a developmental idea. It was stated that a high scorer on generativity expressed concern for the next generation and possessed a sense of responsibility to those younger in age. Recent developments in the study of generativity have demonstrated that a "concern for the next generation" appears in many aspects and forms (Kotre, 1984; McAdams & de St. Aubin, 1992). It is unclear as to the aspect of generativity that Ryff and Heincke (1983) were measuring here. Participants in this study could have been reporting an inner desire, a concern, or a commitment to the next generation. These findings, however, do not contradict the contention that generativity may be present in some form in adolescence. Even given the simple measurement of the

construct, some form of generativity was present in young adulthood.

Peterson and Stewart (1993) were also interested in what ways generativity was present in their sample of young adults (i.e., late twenties). The researchers were interested particularly in how the fusion of agentic and communion motives would contribute to generativity in such a young adult group. They were also interested in gender differences in generativity, particularly in parenting involvement and personal productivity. As discussed earlier, generativity was measured by coding productivity, caring, and general generativity in people's stories of accomplishment. In addition, participants also generated a story from a given sentence cue (e.g., Ann/David is sitting looking at the sunset). These narratives were coded for various agentic and communal motives, such as achievement, power or intimacy-affiliation, all of which the researchers predicted could be related to generativity. In this sample, young adults did discuss generativity issues, much in the same way as is often found in midlife, such as concerns around parenting involvement and societal concern. For women, the power motive (agentic), as well as affiliation-intimacy (communion), seemed to be important factors in having an impact on society, whereas the achievement motive (agentic) was more important for men. Also, men seemed to be concerned about generative issues primarily when they had children, whereas this was not true for women.

Volunteering behaviour in adolescents may provide support for the argument that generativity is present in some form before adulthood. Adolescents are important contributors to political and environmental causes, as well as frequently involved in caring for younger children as babysitters. This type of work is often considered generative when

it is attributed to adults. However it is difficult to determine whether this type of prosocial behaviour is in fact generative, or simply helpful and/or altruistic. Currently researchers are stressing the importance of this behaviour in developing an adolescent's place in society (Pancer & Pratt, 1999; Yates, 1999). Yates (1999) conducted focus groups with male and female adolescents who were volunteering in a soup kitchen. In analysing these conversations, Yates concluded that performing such community service was instrumental in facilitating an understanding in the adolescents of the importance of social, moral, and political issues as they applied to their lives. Pancer and Pratt (1999) found in their qualitative analysis of adolescents that parental support and encouragement was an important factor in maintaining youth involvement in the community. Like Yates (1999), Pancer and Pratt (1999) emphasised the role that volunteering behaviour in adolescence plays as a context "to foster the development of a 'socially responsible' identity" (p. 52) that may then carry on into adult life.

Pancer, Pratt and Hunsberger (2000) have reported evidence for the benefits of youth political and community involvement. In a large sample of adolescents, they administered a questionnaire entitled the Youth Inventory of Involvement (YII), which measures the extent to which an individual has become involved in various activities and organisations over the past. These involvement questions fell into one of four subscales: political activities, community activities, passive involvements (responding to requests for participation) and helping activities (helping others in school or society). A cluster analysis revealed that adolescents' patterns of involvement could be categorized into four groups: activists, responders, helpers and the uninvolved. The activists were the smallest group in

terms of numbers, but they reported the highest levels of involvement of all the groups on all four activity subscales. Responders reported higher involvement on the passive involvements scale than on the other three scales. Helpers were higher on the passive and helping scales than on the politics and community scales. And finally, participants who reported low levels of involvement on all scales were placed in the uninvolved group. Participants who fell into the activist and helper groups reported better adjustment and more advanced identity development than participants who were included in the responder and uninvolved clusters. Individuals who fall into these highly involved groups, the activists and helpers, are demonstrating, through their behaviour, an interest in the future which could be considered generative. These findings may indirectly provide modest support for the comments regarding identity and generativity made by McAdams and his colleagues (1997). If generativity is a core aspect of the identity expressed in a life story, as stated by McAdams, we would expect the activists and helpers to have a more generative developing life story.

One researcher has explored narrative generativity in an adolescent sample directly. Her research suggests that generativity in fact does carry some significance in adolescence. Frensch (2000) looked at stories told by 30 older adolescents (aged 18-22) of events they were proud of, and coded them for the presence of care, productivity or general generativity, as outlined by Peterson and Stewart (1993). Frensch found that 60% of these narratives contained some evidence of generative themes, and that the presence of such themes was positively related to adolescents' volunteering behaviour, as reported on the YII, as well as parents' generativity scores as assessed by the LGS of McAdams and de St.

Aubin (1992). These findings would seem to support the meaningfulness of the generativity construct among older adolescents. However, Frensch only measured generative themes in adolescent stories, and generative concern in the parents. The current study replicates and extends her work by examining generative themes in stories three times over a five year period, as well as comparing the themes to measures of other aspects of generativity such as concern, commitment, and behaviours, as reported by the adolescents themselves rather than the parents.

Although it is not explicitly stated, one may infer from this research that encouraging the development of a socially responsible identity is linked to the “cultural demand” component of generativity discussed by McAdams and de St. Aubin (1992). In fact, McAdams (1996) links identity to generativity quite closely. McAdams asserts that adults struggle with identity issues as they form their “generativity scripts”: future plans to leave a legacy for the self and future generations. Thus it is possible that, although not fully developed, generativity can in fact appear even as early as adolescence, when identity issues become dominant.

### *Purpose and Hypotheses*

Research on generativity provides insight into the ways that we all work to maintain and improve our society for generations to come. Measuring generativity in adolescence is important for a number of reasons. First, we know very little about when and how generativity starts to develop. Looking at adolescents would allow us to ultimately predict the development of generativity into adulthood and may later lead to ways we can encourage more generative behaviour in others. Also, Erikson’s psychosocial

stages are complex and even now not fully understood. For example, McAdams (2001) disputes Erikson's comment on the sequential development of stages, and states that identity integration (usually associated with adolescence) does not occur fully until adulthood, when the individual has created a generativity (or other type of) life script. Looking at Erikson's stages across the lifespan can allow us to explore this theoretical issue more fully. Thus, with this research, we can better understand how the various stages are integrated in the period of what has recently been termed "emerging adulthood" (Arnett, 2000).

This study investigated the presence of generative features in a late adolescent sample, using both questionnaire and interview data. The research used longitudinal data which had already been collected on two separate occasions, as well as a third set of data which was collected on a subsample of 30 participants as part of this thesis. The first data collection occurred in 1997 and the second collection took place in 1999. The third data collection took place in the fall of 2001. Given the evidence outlined above, it seems clear that generativity may be present in some form, and at some level, as early as adolescence. McAdams and colleagues' model of generativity, and their findings with respect to adults, suggest a number of expectations of how generativity will manifest itself in adolescence (McAdams & de St. Aubin, 1992; McAdams, et al., 1997) .

Five hypotheses and one exploratory research question were investigated in this thesis. We began by investigating how personal factors, such as identity development and gender, were related to generativity. Then, we closely examined how the different aspects of McAdams' model, beginning with generative concern, are related to each other and

predict to generativity at age 22. Finally, we were interested in how generative concern, action, and narration developed over this late adolescent time period.

Considering Erikson's assertion that the order of psychosocial stages is predetermined in an individual's development, as well as McAdams' (1996) claim of strong associations between identity and generativity, one might expect generativity to be more prominent in participants with a more advanced identity status (Hypothesis 1). Moreover, since past research suggests that adult women display higher levels of generativity than men (especially men without children), a parallel pattern of gender differences may be expected in the generativity measures of this older adolescent sample (Hypothesis 2).

This study also investigated the role of community involvement, as a type of generative action and as a predictor of generative concern. Past research has emphasised that volunteer behaviour and community involvement play a role in adolescents in cultivating an understanding of the importance of taking social responsibility (Pancer & Pratt, 1999; Yates, 1999). Also, according to McAdams' model, the relationship between generative concern and action is reciprocal, in that each contributes to the development of the other. Thus, our third hypothesis states that the level of community involvement at ages 17 and 19 will predict positively to generative concern at age 22.

The fourth hypothesis regards the developmental trends in generativity. Given past cross-sectional findings, it is expected that generative concern, as measured by the LGS, generative theme scores in narratives, and generative redemption patterns in life stories, will increase significantly over time (McAdams et al., 1998; Ochse & Plug, 1986; Peterson & Stewart, 1993; Ryff & Heinicke, 1983; Stewart & Vandewater, 1998).

Finally, one might expect that the life narratives of the adolescents will demonstrate a similar pattern as the narratives in the adult sample of McAdams et al. (1997). Therefore, the fifth hypothesis states that when the sample is given the Life Story Interview at Time 3, adolescents with high levels of generative concern on the LGS should express more redemption sequences in their discussion of life turning points. Also, it is expected that generativity measures taken at earlier times will predict the presence of a clearer generative identity within the life story, as measured by the presence of more generative themes and redemption codings. Redemption sequences have been identified as a key marker of generativity in several samples (McAdams et al., 1997; McAdams et al., 2001). Therefore, we decided to use the redemption coding for our sample of turning points as an indicator of generativity within the narrative component of McAdams' model.

As will be discussed later, some sections were added to the end of the standard Life Story Interview of McAdams et al. (1997). In these sections, participants were asked about their thoughts on some of the issues of generativity directly, including concern for future generations and leaving a legacy. How these new interview questions would relate to generativity was unclear and simply was explored in the present study. However, it was thought that variations in these responses should show some positive relation to standard generativity measures, such as the LGS, if this construct is really meaningful among older adolescents.

As mentioned earlier, generativity is closely linked with, although theoretically different from, altruism, particularly in that generativity focusses specifically on lasting contributions to *future* generations. Thus, we predicted that, in testing the previous

hypotheses, generativity measures should continue to be significantly related to predicted measures even after effects associated with a standard altruism measure have been statistically removed.

#### Method for Time 1 and Time 2

Please refer to Table 2 (p.31) for a complete list of questionnaire and interview measures used at all three data collection times.

#### *Participants and Procedures*

Questionnaire data for the first phase of this study (the Futures Project) were collected in the spring of 1997. Participants were 896 male and female students who participated during class time with their teachers present, and completed all questionnaires. Students were told that they were participating in research that examined their attitudes, values, identity, and adjustment as they made their transition from high school to post-secondary education, work, or other experiences that followed. There were 37 sessions at 12 different public high schools, and 16 sessions at 4 private schools in the cities of Kitchener-Waterloo, and Cambridge, Ontario. The schools received a token payment of \$2.00 per participating student. The majority of the participants in the study were between 17 and 18 years old (82.7%), but ages ranged from 13 to 21 years old. Most participants were living in two-parent homes (74% of the sample) and 98% of the sample's family financial status was reported by the students as average or above.

Interviews were conducted with 231 of these 896 participants, in May, 1997. Interviews usually lasted for about one hour and were conducted in the schools during class time. Participants received a payment of \$8.00 upon completion of the interview.

The second phase of the study took place in the Spring of 1999. Questionnaires were mailed to 923 students who had agreed during the first phase to complete another set of questionnaires. Participants were informed that returning a completed questionnaire automatically qualified them for a draw of seven cash prizes; 96 males and 238 females (total 334) completed and returned their questionnaires. Participants who completed the second phase of the study had a mean age of 19.5 years.

Out of these second phase participants, 145 participated in a second interview in later 1999 and 2000. Interviews were usually conducted in a research office at Wilfrid Laurier University and took between 30–45 minutes to complete. Participants were paid an honorarium of \$15 for their time. Of the original sample of participants interviewed in 1997, 45 were re-interviewed in 1999–2000.

### *Measures*

At both Times 1 and 2, background information, including family background and school or work plans (Time 1) or current status (Time 2) after high school, was collected. Contact information for future follow-ups was also requested at this time.

#### *Generativity Measures.*

The interviews at Times 1 and 2 included questions about vocational plans, religious, political and community involvement and beliefs, adapted from the work of Marcia (Marcia et al., 1993). These questions were used to investigate identity development. The portion of this interview that will be used for this project includes the individual's story about a turning point incident (Time 1 and 2) and a proud incident (Time 2), both adapted from McAdams and colleagues' (1997) Life Story Interview. See

Appendix A for an outline of the questions included in the turning point and proud story sections of the Time 1 and 2 interviews.

The turning point story (elicited at both Time 1 and Time 2), asked participants to think of “an important situation or experience that you have had that has had a real impact on the kind of values and moral beliefs that you have today.” Participants were probed about the specifics of the event, as well as their feelings about the event and the implications of the incident.

The proud story was included only in the Time 2 interview. Here, participants were asked to “think about a situation or a time when you felt really good about yourself or proud of yourself.” Participants were then probed about the specifics of the event. Specific details of how the stories were coded can be found in the scoring section of the method.

Both the turning point and proud stories have been transcribed, and were coded for generative themes using the system devised by Peterson and Stewart (1993). This coding scheme is intended for measuring “generative accomplishment,” given that the codings are being applied to real-life events that are being recalled from the past by adolescents.

The turning point stories at both interview times were also coded for redemption sequences. A redemption sequence is defined as a life event that begins with an emotionally negative scene but results in an emotionally positive or good outcome (McAdams & Bowman, 2001). For coding purposes, the turning point stories were examined for redemption sequences, which were scored by determining whether an

episode that begins negatively, ends with a positive outcome. McAdams et al. (1997) found redemption sequences to be especially important in distinguishing between generative and non-generative life stories among midlife adults. Similarly, Pratt et al. (1999) found redemptive story patterns to be associated with generative concern on the LGS in a lifespan adult sample. Also, the turning point and proud stories were coded for generative themes, as outlined in Time 2. Note that further detail regarding the coding of narratives will be discussed in the scoring section, following Time 3 methodology.

*The Loyola Generativity Scale.*

The Loyola Generativity Scale (LGS; McAdams & de St Aubin, 1992; see Appendix D) was used at Time 2 to measure generative concern. Only 10 of the items of the original 20-item questionnaire were used, and each was rated on a 9-point scale, from -4 to +4. Items included statements such as "I feel as though my contributions will exist after I die," and "Others would say that I have made unique contributions to society." Cronbach alpha for this measure was .91 in the present sample.

*The OMEIS.*

The Objective Measure of Ego Identity Status (OMEIS; Adams, Shea, & Fitch, 1979) was administered to the participants at Time 1, and was also collected at Time 2. The questionnaire is a 24-item, self-report measure that divides identity into the four statuses developed by Marcia (1966): diffused, foreclosed, moratorium, and achieved (see Appendix B). Each status was measured by six items in the scale. Each item is rated on a 9-point Likert scale, from -4 (very strongly disagree) to +4 (very strongly agree). Identity is measured in the three separate contexts of work, religion and politics. For example, an

“achieved identity” item regarding religion reads: “A person’s faith is unique to each individual. I’ve considered and reconsidered it myself and know what I can believe.” A “diffused identity” item regarding work states: “I’m not really interested in finding the right job, any job will do. I just seem to flow with what is available.” Cronbach alphas at Time 1, taken for each of the four identity statuses, ranged from .52 to .62. Reliabilities for Time 2 ranged from .54 to .72 (see Table 1). While these reliabilities were modest, these scales showed good evidence of validity in the present sample, in that they correlated substantially positively with interview measures of identity status obtained at Time 1 (Mackey, 1999). The OMEIS is a widely used measure which achieves only modest internal reliability but has shown good construct validity (Adams, Bennion, & Huh, 1989).

Table 1

*Alphas for Identity Status Questionnaire*

Identity Phase	Diffused	Foreclosed	Moratorium	Achieved
Time 1	0.52	0.62	0.59	0.55
Time 2	0.56	0.72	0.61	0.54

*The YII.*

The Youth Inventory of Involvement (the YII; Pancer, Pratt & Hunsberger, 2000) was administered at Time 1 as well as Time 2. This questionnaire is a list of 30 activities related to volunteering, the community or politics (see Appendix C). Students rated, on a 5-point Likert scale, the frequency with which they engaged in each of the 30 activities within the last year. Activities included volunteering for school, church, community and

political organizations, helping people on an individual basis, or donating money. The Cronbach alpha for this questionnaire was .90 at Time 1 and .88 at Time 2.

### Method for Time 3

#### *Participants*

For the third part of this thesis study, 22 women and 8 men who took part in both Time 1 and Time 2 interviews were recruited to be interviewed again in the fall of 2001. Participants were selected out of a possible 45 individuals (33 women, 12 men) who had participated in both past interviews. Of the 15 individuals who did not participate, 1 declined out of disinterest, 2 people cancelled their appointments, 4 individuals were busy during the time period the data were being collected and we were unable to speak directly with 8 individuals. All but two of the participants selected for the third interview were born in Canada. Almost all participants came from families whose financial status, as reported by them, was average or above average (88%). The average completed education level of both parents ranged from less than high school to post graduate studies. The average education level of mothers was 3.26 and fathers was 3.77 (3= some college or university, 4= completed college or university). 80% of participants reported that their parents still lived together. Participants at Time 3 differed from others in the main sample of 896 at Time 1 ( $p < .01$ ) on only three measures. They had higher average high school marks, were more likely to report that their parents were strict with them, and were less likely to be in an identity diffused status at Time 1.

#### *Procedure*

The Time 3 interviews were conducted at Wilfrid Laurier University, where

participants were also asked to fill out a small questionnaire packet. One graduate student (Heather Lawford) administered an adapted version of the Life Story Interview (McAdams et al., 1997; see Appendix G), a 90-minute interview which asks the interviewees to think of their lives as a story, while relating and reflecting upon important incidents that happened in the past. Participants received a \$40 honorarium in recognition of their important contribution to this research. Refer to Appendix H for consent form and Appendix I for participant feedback used at Time 3.

### *Measures*

See Table 2 for a list of all measures used throughout data collection times.

Table 2

### *Measures used at three data collection times*

Time 1 (Age 17)	Time 2 (Age 19)	Time 3 (Age 22)
Identity (OMEIS)	Identity (OMEIS)	Identity (OMEIS)
Community Involvement (YII)	Community Involvement (YII)	Community Involvement (YII)
_____	Generative Concern (LGS; 10 items)	Generative Concern (LGS; 20 items)
_____	_____	Generative Commitment (Strivings)
_____	_____	Altruism
Turning Point Story	Turning Point Story	Turning Point Story
_____	Proud Story	Proud Story

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Direct Generativity Questions  
(Future Generations, Legacy)

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*Questionnaire Data.*

The Time 3 questionnaire packet consisted of the OMEIS (see Appendix B), the Youth Inventory of Involvement (YII; see Appendix C) and the complete 20-item version of the LGS (as opposed to the 10-item version that was used at Time 2; see Appendix D). All of these measures were administered previously either at Time 1, Time 2, or both. Scale reliabilities for the identity statuses in the OMEIS at Time 3 were poor, particularly the diffusion scale, which originally had an alpha of  $-.08$ . After conducting an item analysis, item #16 ("I'm really not interested in finding the right job, any job will do. I just seem to flow with what is available") was dropped from the scale, which improved the alpha score somewhat (see Table 3). Note that dropping this item did not alter the pattern of results that was found using the original scale.

An additional measure, titled "generative strivings" was added to the packet (see Appendix E). This is a questionnaire designed by Emmons (1986), which has been coded in the past to measure *generative commitment* (McAdams & de St. Aubin, 1992).

Participants were asked to complete three "I typically try to..." sentences for each of four domains of their life: family, school/work, social/community and personal. A personal striving was described as "the things that you are typically or characteristically trying to do in your everyday life". For each statement, generativity was coded for involvement in or with the next generation, attempting to establish a more positive outcome for others (care), or making a creative or original contribution to society. This coding system was

devised by McAdams and his colleagues (1993). In McAdams' research, the system received an overall inter-rater reliability of .85, and was significantly positively correlated with other measures of generativity, such as the LGS and the Generative Behavior Checklist. In the current study, the strivings of 8 participants (a total of 96 strivings) were coded separately by 2 coders. The inter-rater reliability kappa was .98.

A widely-used altruism scale (Rushton, Chrisjohn, & Fekken, 1981) was also added to the Time 3 questionnaire package (see Appendix F). This questionnaire lists 20 prosocial behaviours, such as "I have donated blood." Participants rate the frequency that they have engaged in each of the behaviours on a 5-point scale. For Cronbach alphas on these measures for Time 3, see Table 3.

Table 3

*Reliabilities for Time 3 Questionnaire Measures*

Measure	Alpha
Youth Involvement Inventory	.90
Loyola Generativity Scale	.80
Altruism	.81
Identity Diffusion	.42
Identity Achievement	.26
Identity Moratorium	.66
Identity Foreclosure	.56

*Interview Data.*

The Life Story Interview is a two hour interview consisting of eight parts in order:

life chapters, specific scenes, important persons, future chapters, tension and conflicts, personal ideology (religion, politics, important values), dominant theme or message, and other (see Appendix G).

A few questions in the original Life Story interview were omitted in the interest of time. The first section, in which interviewees divide their lives into chapters, originally allots 20-25 minutes for this task. In this interview, a shorter time span of 10-15 minutes was used for this section. Also, two events were removed from the second section of the interview titled "Critical Events": an adult memory (Event #7) and another memory (Event #8). In addition, a new section called "Stories and the Life Story" has been added to the questionnaire by McAdams since the 1997 article on which this proposal is based. This section asks interviewees to discuss their favourite stories presented on television, in books, or by family and friends, and was included here.

*Definitions of Generativity.* Two additional questions were added to the end of the interview which asked participants directly about their thoughts on generativity. First, participants were given the following question:

"We've been talking a bit about how you visualize your future. Research has found that sometimes people are concerned about what it is going to be like for younger people far into the future, even after they themselves are gone. Is this something that you think about?"

After responding, the interviewer used the following question in order to inquire about legacies:

"Along the same lines, people often think about or discuss leaving a legacy. That

is leaving behind something that people of the future can remember them by. Is this something that you've thought about?"

These questions were designed to see if those adolescent participants with high generativity scores on standard measures (e.g., the LGS) think more often about issues of caring for the next generation and about leaving a legacy for the future (See Appendix G).

#### *Scoring.*

Life story interviews were coded for generative themes in the proud and turning point stories, redemption sequences in the turning point stories, and finally the added section regarding thoughts on generativity was coded for frequency of thinking about these issues, as well as whether the responses tended to focus on the self or on others.

*Generative Themes.* Turning point and proud stories from all three interviews were coded for generative themes, according to the system devised by Peterson and Stewart (1996) (see Appendix H). In this system, stories are given one point for any clear evidence of caring, productivity or general generativity, for a possible total of 3 points. Caring refers to any expression of concern, protection, or attention to the welfare of other people. A score for productivity would require the participant to express an interest in developing or growing through the generation of tangible products, such as a piece of writing or constructing a piece of furniture. Finally, general generativity refers to the expression of wishing to make a lasting contribution, especially to future generations. See Appendix I for examples of this coding. Reliability between independent two coders on a sample of 32 turning point and proud stories from Times 2 and 3 was  $r(30) = .83$ .

*Redemption Themes.* A redemption sequence is defined as a life event that begins

with an emotionally negative scene but results in an emotionally positive or good outcome (McAdams & Bowman, 2001). The turning point stories in all three interviews were coded, using the system outlined by McAdams, Reynolds, Lewis, Patten and Bowman (2001). Overall, participants were given 1 point if they told a story about a bad event turning into something positive. Additionally, they could receive an extra point if in telling the event, they express insight into how this redemptive happening led to an improvement upon, or a greater understanding of, themselves, their close relationships, or their religious beliefs. Therefore the total possible score for redemption in a story ranged from 0-2. See Appendix J for examples of this coding. Reliability between two coders on a sample of 12 protocols was  $r(10) = .89$ .

*Direct Generativity.* Finally, as no other research has looked at responses to direct questions regarding concern for future generations or leaving a legacy, the coding scheme for analysing these responses was developed based on the responses themselves.

Frequency and focus on others were coded for both the future generation and the legacy questions. Frequency was coded on a 0-2 scale, where 0 indicated “never thinking about the issue,” 1 indicated “sometimes thinking about the issue” and 2 indicated “thinking about the issue often”.

For the “focus on other” system, a score of 2 indicated a primary focus on others (outside of family relationships) or the society/community at large, 1 indicated a mix of focus on self and others, and 0 indicated a focus on the self or one’s own children/grandchildren. Thus, a positive correlation between generativity measures and this system would indicate that individuals who report higher levels of generativity tend

to focus their thoughts of future generations and legacy on individuals outside of themselves and their family. See Appendix K for examples of this coding. Reliability for a sample of 12 protocols was  $r(10)=.90$  between two independent coders for the frequency ratings for future generations, and  $r(10)=.78$  for frequency ratings on the legacy questions. For focal concerns, reliabilities were  $r(10)=.92$  and  $r(10)=.90$ , respectively.

### Results

Results of this study are framed within the hypotheses and research questions outlined above. See Table 4 for the means and standard deviations of measures collected at Time 3. The narratives told by participants at Time 3 which have been analyzed include the turning point story, the proud story and direct generativity questions regarding “concern for future generations” and “leaving a legacy.” In the turning point story, participants discussed a time when they learned something significant about themselves. These narratives included such topics as discussing an experience with abuse, relationships with parents, friends or romantic partners, or developing a greater understanding of religion. Participants also described events that made them happy or proud of themselves (Proud Story). Most participants relayed a school-related experience, such as graduating or winning an award. Other stories included being proud of a drawing or a sculpture, or being proud of their involvement in a business or community organisation. Note that 3 participants did not discuss a turning point at Time 1 since time ran out during the interview. When discussing potential concerns for future generations, some participants discussed global issues such as the environment or world events,

whereas others discussed social issues such as children's attitudes towards authority or violence and drugs in the school systems. When discussing what kind of legacy they would like to leave, most participants stated that they would simply like people to remember, or be influenced by, them. Others discussed leaving a journal or another piece of writing behind.

As stated previously, the current research investigated generativity while partialling out the effect of the altruism scale. The correlation between the LGS at Time 3 and the altruism scale was  $r(28) = .42, p < .05$ . This indicates that generativity and altruism share a moderate level of variance. Therefore, hypotheses involving correlational analyses will also include partial correlations, with the altruism scale scores controlled statistically.

#### *Hypothesis 1: Relationship between Generativity and Identity Development*

Hypothesis 1 stated that generativity measures would be closely linked with Adams et al.'s, (1979) measure of identity status. According to Marcia et al. (1993), adolescents who are advanced in identity development score higher on moratorium and achieved statuses, whereas adolescents who are less advanced in terms of their identity development should score higher in the foreclosure and diffused identity statuses. Therefore, in order to take OMEIS scores from all four identity categories into account, an identity development index was calculated by subtracting total foreclosure and diffused scores from total achievement and moratorium scores (i.e.,  $\text{identity} = (\text{achievement} + \text{moratorium}) - (\text{foreclosure} + \text{diffused})$ ). A repeated measures ANOVA was performed to explore any differences in reported identity development over time.

There was no significant effect for time, indicating that identity scores did not change significantly over time,  $F(2,58)=1.45, p > .10$ .

Table 4

*Means for questionnaires and narrative codings*

	Possible Range	Range of Scores	Mean	SD	N
LGS: Age 19 (10 items)	0-30	7.50-29.25	22.35	4.43	30
LGS: Age 22 (20 items)	0-60	21.00-56.00	41.00	7.64	30
YII: Age 17	0-120	10.00-85.00	39.32	19.40	30
YII: Age 19	0-120	7.00-61.00	34.70	16.25	30
YII: Age 22	0-120	7.00-84.00	35.43	18.73	30
Strivings	0-12	0-5.00	2.00	1.60	30
Altruism	20-100	39.00-84.00	56.23	9.64	30
Identity index: Age 17	-96 - +96	-11.00-67.00	24.52	18.46	30
Identity index: Age 19	-96 - +96	-7.00-52.00	20.73	12.82	30
Identity index: Age 22	-96 - +96	-8.00-49.00	24.77	13.95	30
Redemption: Age 17	0-2	0-2	.44	.70	27
Redemption: Age 19	0-2	0-2	.50	.78	30
Redemption: Age 22	0-2	0-2	.93	.87	30
Generative themes: Age 17	0-3	0-2	.46	.60	27
Generative themes: Age 19	0-3	0-3	.78	.96	28
Generative themes: Age 22	0-3	0-3	.67	.92	30
Future gen.: Frequency	0-2	0-2	1.03		29
Future gen.: Focus on Others	0-2	0-2	.93	.94	30
Legacy: Frequency	0-2	0-2	.86	.93	28
Legacy: Focus on Others	0-2	0-2	1.14	.92	29

However, identity scores at Times 1, 2 and 3 were positively correlated with both

generative concern (LGS) at Time 3 and the generative themes coded in the turning point and proud stories at Time 3. Identity at Times 1 and 2 were also positively correlated with community involvement at Times 1 and 3. These analyses were also run while controlling for altruism. Both correlations and partial correlations are displayed in Table 5. Identity at all three times was significantly positively related to the LGS at Time 3 (age 22). The strongest correlation was the relationship between the LGS at age 22 and identity at age 22,  $r(28) = .46, p < .05$ . This correlation remained significant when altruism was partialled out,  $r(27) = .45, p < .05$ .

Table 5

*Relationship between identity development and generativity over time. Partial correlations accounting for altruism in brackets*

	Identity: Age 17	Identity: Age 19	Identity: Age 22
Identity: Age 17	-----	.72**	.46*
Identity: Age 19	-----	-----	.52**
LGS: Age 19	.30(.23)	.42*(.35)	.41*(.40*)
LGS: Age 22	.39*(.33)	.40*(.31)	.46*(.45*)
YII: Age 17	.40*(.34)	.37*(.27)	.26(.23)
YII: Age 19	.22(.12)	.18(.02)	.19(.15)
YII: Age 22	.40*(.32)	.46*(.34)	.21(.17)
Strivings	.16(.10)	.09(.02)	.11(.09)
Generative themes: Age 17	-.18(-.15)	-.26(-.23)	-.44*(-.42)
Generative themes: Age 19	.01(.09)	.16(.28)	.10(.15)
Generative themes: Age 22	.45*(.47**)	.31(.34)	.47**(.48**)
Redemption themes: Age 17	.31(.29)	.42*(.40*)	-.11(-.13)
Redemption themes: Age 19	.09(.05)	.25(.20)	.30(.29)
Redemption themes: Age 22	.12(.06)	.09(.02)	.05(.02)

$t p < .10, *p < .05, **p < .01$

*Hypothesis 2: Gender Differences in Expression of Generativity*

Hypothesis two stated that based on prior research, women would demonstrate higher levels of generativity than men. This hypothesis was difficult to test, since only 8 out of 30 participants were male. Generativity was measured in terms of generative concern (LGS; at Times 2 and 3), generative commitment (strivings at Time 3), and generative action (YII; at Times 1, 2 and 3). A MANOVA was conducted using all of the generativity variables, with gender as the between subjects factor (See Table 6 for means and standard deviations). Overall, no significant gender effect was found,  $F(6,23)=.65$ ,  $p > .10$ . Altruism, although not a measure of generativity, was also tested for gender differences, since altruism was significantly related to generativity. Surprisingly, an independent  $t$ -test revealed altruism scores differed significantly, with males scoring higher in altruism ( $M=61.88$ ,  $SD=12.25$ ) than females ( $M=54.18$ ,  $SD=7.85$ ),  $t(28)= 2.03$ ,  $p < .05$ .

Overall, generativity did not differ significantly by gender. The hypothesis that females would be higher in generativity than males was not supported. Moreover, it was found that males scored significantly higher on altruism than females.

Table 6

*Means and standard deviations of generativity measures by gender (Females:  $n=22$ ; Male:  $n=8$ )*

	Females		Males	
	Mean	SD	Mean	SD
LGS: Age 19	27.54	4.94	27.75	2.86
LGS: Age 22	40.91	8.22	41.25	6.27
YII: Age 17	38.27	21.20	42.19	14.03
YII: Age 19	32.95	16.33	39.50	16.07
YII: Age 22	32.54	18.42	43.38	18.34
Strivings	1.73	1.61	2.75	1.39
Altruism	54.18	7.85	61.87	12.25

*Hypothesis 3: Generativity will be predicted by earlier measures of community involvement*

The third hypothesis stated that generativity at age 22 would be related to earlier reports of community involvement. To test this hypothesis, the LGS and strivings measures were correlated with the YII at ages 19 and 22. At age 22, partial correlations which took altruism into account were also conducted. Note that whenever the LGS was correlated with the YII, item 5 (I do not volunteer for a charity) was eliminated from the LGS, due to its strong similarity to the items on the YII. Correlations between the LGS and strivings with the YII are presented in Table 7. The strongest correlation was between community involvement at age 17 and the LGS at age 22,  $r(28)=.55, p < .01$ .

Additionally, the strength of this relationship did not change substantially when altruism

scores were partialled out,  $r(27) = .46, p < .05$ .

Table 7

*Correlations between and generative concern (LGS) and strivings with community involvement (YII). Partial correlations accounting for altruism in brackets*

	YII: Age 17	YII: Age 19	YII: Age 22
LGS: Age 19	.53**(.46*)	.34 <sub>t</sub> (.20)	.38* (.20)
LGS: Age 22	.55**(.46*)	.35 <sub>t</sub> (.18)	.49**(.32 <sub>t</sub> )
Strivings	.44*(.39*)	.39*(.34 <sub>t</sub> )	.42*(.37*)

$t p < .10$ , \* $p < .05$ , \*\* $p < .01$

#### *Hypothesis 4: Developmental Trends in Generativity*

In this research, we were interested in examining McAdams' model of generativity from a developmental perspective. First, we studied how levels of generative concern, actions and narratives change over time. See Table 4 for all means and standard deviations, except for generative concern at age 22, where only 10 items were used in the analyses for comparability with age 19 (see below for mean and standard deviation).

Generative concern (LGS) was measured at Time 2 (age 19) and Time 3 (age 22).

Surprisingly, on this 10-item scale, a paired sample  $t$ -test revealed that LGS scores were significantly higher at age 19 ( $M=22.35, SD=4.44$ ) than at age 22 ( $M=19.93, SD=4.54$ ),  $t(29)=4.08, p < .001$ . A repeated measures ANOVA, comparing community involvement (YII) at Times 1, 2, and 3 revealed no significant differences,  $F(2,58)=1.65, p > .10$ .

A repeated measures ANOVA was performed on turning point stories at Times 1, 2, and 3 for use of generative themes. No differences between levels of generative themes

coded in turning point stories across time were found,  $F(2,40)=2.07, p > .10$ . Similarly, there was no significant difference between generative themes coded in proud stories of Time 2 and Time 3,  $t(27)=-.20, p > .10$ . Finally, a repeated measures ANOVA was performed on turning point stories at Times 1, 2 and 3 for evidence of redemption. There was a significant effect of time,  $F(2,52)=4.49, p < .05$ . There were significantly more redemptive themes at Time 3 ( $M=.96, SD=.78$ ) than there were at Time 2 ( $M=.48, SD=.88$ ),  $t(29)=-2.64, p < .05$ , or at Time 1 ( $M=.44, SD=.70$ ),  $t(26)=-2.66, p < .05$ . There was no difference in redemption scores between Time 2 and Time 1,  $t(26)=-.18, p > .10$ .

*Hypothesis 5: The narrative component of generativity*

The fifth and final hypothesis questioned whether the narrative component of McAdams' generativity model was present by age 22. Generative themes coded in the turning point and proud stories, as well as redemption themes in the turning point episodes, were correlated with the LGS, the YII, and strivings. See Table 8 for the complete correlation matrix. Generative theme usage was not correlated with any of the above measures.

As predicted, redemption themes at all three data collection points were significantly related to generative concern scores (see Table 8). Specifically, redemption scores coded in turning point stories at Time 3 were significantly correlated with the LGS at Time 3,  $r(28)=.42, p < .05$ ; however, these redemption scores were not significantly related to any other measures. Redemption was also coded in the Time 2 turning point stories. Here, the codings were marginally significantly related to the LGS at Time 3,  $r(28)=.34, p < .07$ , but not the LGS at Time 2,  $r(28)=.30, p > .10$ . Redemption at Time 1

was significantly correlated with the LGS at both Times 2 and 3 (see Table 8).

Table 8

*Correlations between Generativity questionnaire measures and narrative measures*

	Redemption			Generative Themes		
	Age 17	Age 19	Age 22	Age 17	Age 19	Age 22
LGS: Age 19	.39*	0.3	0.26	-0.24	-0.02	0.17
LGS: Age 22	.42*	.34 <sub>t</sub>	.42*	-0.22	.17	0.26
YII: Age 17	0.24	0.04	0.05	-0.13	-.10	-.07
YII: Age 19	-0.09	-0.06	0.06	-.19	-.23	-.02
YII: Age 22	0.26	0.06	0.06	-0.1	-.21	-0.08
Strivings	-0.01	0.06	-.17	-.13	.10	-0.23

$t p < .10$ , \* $p < .05$ , \*\* $p < .01$   
.01

### *Exploratory Research Question*

We asked adolescents directly in their interviews at Time 3 whether they were concerned about future generations and whether they thought about leaving a legacy for others, in order to see whether they had begun to think about these issues, and to see if their responses were related to scores on other, more established measures of generativity, such as generative concern (LGS), commitment (Strivings), or generative acts (YII). Both the future generation and legacy questions were coded for the frequency with which participants reported they thought about these issues, and whether their ideas or comments focused on themselves or on others. Correlations between these interview measures and the LGS, strivings, and the YII are presented in Table 9.

There was a marginally significant relationship between generative concern at age 22, as measured by the LGS, and the frequency of thinking of concern about future generations,  $r(27) = .36, p = .06$ . There was also a significant relationship between generative concern at age 22 on the LGS and the participants' focus on people outside their family when discussing future generations,  $r(30) = .42, p < .05$ . None of the other correlations was significant (see Table 9).

Table 9

*Correlations between generativity questionnaire measures and direct generativity question narrative*

	Future Generations		Legacy	
	Frequency	Focus on Others	Frequency	Focus on Others
LGS: Age 19	.20	0.29	.32 <sub>t</sub>	-0.16
LGS: Age 22	.36 <sub>t</sub>	.42*	0.27	-0.06
YII: Age 17	.20	.37*	0.19	-0.03
YII: Age 19	-.04	0.27	0.07	0.01
YII: Age 22	.28	0.13	0.29	-0.03
Strivings	0.06	0.02	-.06	0.26

<sub>t</sub>  $p < .10$ , \* $p < .05$ , \*\* $p < .01$

## Discussion

The current study was an exploration of the possible inception of generativity in adolescence and the factors that may contribute to its development over time. In examining questionnaire and interview data collected from a sample of individuals over a

five year period, we were able to investigate this idea from several different standpoints. Overall we found that examining generativity from a developmental perspective was an effective framework. As will be discussed in more detail, generativity does seem to be developing well before midlife adulthood.

Hypothesis 1 suggested that individuals who were more identity achieved according to the OMEIS questionnaire of Adams et al. (1979) would report higher levels of generativity. Our results provided good support for this hypothesis, particularly for generative concern on the LGS. As expected, identity across time was significantly related to generative concern on the LGS at ages 19 and 22. Correlational analysis revealed that the identity measure at age 17 was substantially correlated with the LGS at age 22. These findings are consistent with Erikson's claim in his theory of psychosocial development that more successful resolution of earlier crises can lead to better adaptation in subsequent stages. Note that these effects remain even after the variance associated with altruism is partialled out, suggesting this is quite specific to Eriksonian generativity effects. Conceptually, it makes sense that individuals who have sufficiently explored and have insight into their sense of self would be more likely to begin to focus on their social context, in terms of seeing their role in contributing to younger generations or their community as a whole. This finding also offers some support for McAdams' assertion that generativity can in fact be a component of identity. It is possible that if one is continuing to work towards an achieved identity in terms of one's career, political, and religious decisions, that he or she would also be striving towards an achieved identity in regards to one's generative nature. However, given the correlational nature of the

findings, it is impossible to determine the direction of the relationship. Further caution must be taken in interpreting these findings, given that the identity questionnaire used here demonstrated somewhat inadequate reliability, especially at Time 3. One way to overcome this limitation and provide further support for these findings might be to use a narrative measure of identity in addition to, or in place of, the OMEIS. Results for other generativity measures at age 22 and identity development were more mixed (see Table 5). There were positive relations with generative themes and community involvement at age 22, but not for strivings or redemption themes. The LGS is one of the most commonly used measures of generativity, and generative concern is the first component of McAdams' model that was studied in this research. Thus, these findings may indicate that generative concern is the most concretely developed of all the generativity measures used in this study.

A second hypothesis concerned gender differences in generativity commonly found in previous research (McAdams et al., 1993; Pratt et al., 2000). Unlike previous findings, there were few gender differences in the generativity measures of this study. While the small number of males ( $n=8$ ) included in the sample makes it difficult to draw any strong conclusions from the current data set, there are a number of possible explanations for these tentative findings. For example, males in this sample scored significantly higher than females in altruism, which is a somewhat unusual pattern. Thus, it is possible that the males in this sample are a unique collection of individuals who are also notably higher in generative concern than males in the general population. However, before any conclusions can be drawn regarding gender differences in generativity, it is

important to increase the sample size. In particular, more male participants need to be recruited. Our preliminary findings suggest that gender differences may not be a strong factor in predicting generativity overall, though, especially in older adolescent samples.

In the third hypothesis we examined the role of community involvement in relation to other generativity measures (i.e. generative concern and commitment). The correlation between generative commitment (measured using strivings) and community involvement provides further support for McAdams model, which delineates a reciprocal relationship between these two components. As generative commitment was only measured at Time 3, it is impossible to look at whether community involvement contributes to the development of generative commitment. However, given the strong concurrent relationship found in this study, future research should consider examining the relationship between generative commitment and people's actual actions over time.

This hypothesis also examined the role of community involvement in possibly fostering generative concern. Community involvement played a role concurrently in generativity, although, as will be discussed later, this role becomes more salient when exploring these relationships from a developmental viewpoint. As predicted in the third hypothesis, community involvement, which is conceptualized here as a type of generative action, was also significantly related to generative concern and generative commitment (measured using strivings). In fact, one of the most important correlates of generative concern at age 22 in this data set was community involvement at age 17. The finding is strengthened in that the relationship between involvement at age 17 and generativity at age 22 remained significant even when altruism at age 22 was taken into account. This is

a novel finding that involvement in adolescence predicts to generativity five years later. These results provide additional support for McAdams' model, which indicates that generative action contributes to generative concern as well as the converse (McAdams & de St. Aubin, 1992). Given the correlational nature of this research, it is impossible to determine the direction of this finding conclusively. It is possible that early concern for contributing to society (generative concern) propels individuals to become more involved in their surroundings. Conversely, it is equally likely that being involved in different aspects of the community brings out a sense of personal responsibility that serves as a basis for a need to contribute positively to society (Yates, 1999). In other research, Larson (2000) has asserted that adolescent participation in structured voluntary activities provides an opportunity to combine intrinsic motivation and deep attention, which promotes the development of the capacity for demonstrating initiative. In fact, as noted, in McAdams' model of generativity (McAdams, 2000), the relationship between generative concern and generative action is reciprocal. Accordingly, it may be most likely that community involvement is both an outcome and a contributor to generative concern.

It is important to note that the relationship between community involvement and generative concern (both at Time 3) disappeared when altruism was taken into account. This is surprising, given that partialling out altruism did not diminish this relationship when community involvement was measured at age 17. This is perhaps further support for the assertion that out of the three data collection times, the relationship between generative concern at age 22 and community involvement at age 17 is the strongest. Overall, the findings suggest that community involvement may play a role in adolescence

in developing generative concern throughout late adolescence and early adulthood.

In the fourth hypothesis, we predicted that the components of generativity would increase over time. The most surprising finding was the trend for generative concern to decrease from age 19 to age 22. This finding does not correspond to previous research on generativity (McAdams et al., 1993; Peterson & Stewart, 1996). Nor is it in accord with Erikson's theory that generativity increases until middle adulthood. At Time 2 data collection, participants were around 19 years old, and most were beginning their first year in a post-secondary institution and had gained a great deal more independence from their parents. It is possible that in this transition phase, participants were more focused on their future and considering more seriously what kinds of things they would like to achieve as they enter into adulthood, and therefore were devoting more time to generative concerns that they would like to address as they develop across adulthood. Indeed, context has been cited by other researchers as an important factor in examining generativity (Peterson & Stewart, 1996; Stewart et al., 1988). However, more research is needed in respect to generativity in the context of transitions to post-secondary institutions, or even in the context of moving away from home.

Furthermore, LGS scores for adolescents (age 22) were comparable to those of adults. Pratt, Werner, Pancer, and Hunsberger (2002) studied generativity of the parents of participants in the current sample. They found the mean LGS score for all the parents was 37.90, which is quite comparable to the average LGS score of this sample at age 22 ( $M=40.0$ ). Thus, individuals as young as 19 years old seemed to have developed generative concern to a level comparable to adults in midlife. This study explores whether

other components of generativity, such as generative commitment, action, and narration are developing or are contributing to the overall pattern of generativity in late adolescence to early adulthood.

Perhaps the most interesting element of this research is the narrative component. Participants in this sample told stories of pride and turning points on three separate occasions over a period of five years. The stories were coded at all three times for evidence of care, productivity or general generativity. At Time 1, 9 participants were coded as including generative themes in their turning point stories. At Time 2, generative themes were coded in 12 turning point stories and 9 proud stories. At Time 3, only 9 had evidence of generative themes in the turning point stories and 8 in the proud stories. These findings did not show any developmental trend. It is important to interpret this cautiously, however, as the context of the turning point and proud stories at Time 3 was somewhat different from the interviews at Times 1 and 2. In the Life Story Interview at Time 3, prior to discussing these events, participants gave an overview of their life (Life Chapters). At Times 1 and 2, participants were discussing identity issues prior to telling these stories. Thus these different interview types might have influenced the kind of story that individuals chose to tell at Time 3, especially in terms of content. Future research should use the same interview across data collection times in order to control for these potential influences.

Unlike the generative theme codings, instances of redemption in the turning point stories did increase significantly over time. In particular, redemption was coded more frequently in stories told at age 22 than at ages 17 or 19. In fact, while only 2 participants

scored lower on redemption sequences from Time 2 to Time 3, half of the participants increased the use of redemptive structures in their turning point narratives. In looking more qualitatively at the data, it appeared that participants are at different junctures of developing their “commitment stories”. Some participants are simply beginning to recognise redemption patterns as important (scoring a 1 in the McAdams’ coding system), whereas others are starting to find meaning in their redemption stories and are relating that meaning to the self in a coherent fashion (i.e., scoring a 2). In the future, a larger sample would allow us to look at the different “levels” of redemption patterns that participants exhibit and relate them to their development of generative concern. Scores for redemption may not be influenced by what participants are asked before the turning point story because this type of coding is somewhat less reliant on the content of the story than is the generative theme coding system. Rather, it is concerned with the structuring of emotions in story episodes.

Hypothesis 5 examined how the narrative component was correlated with other measures of generativity. Use of generative themes did not relate to any other components of generativity. This is surprising given that past research with adults has found a positive relationship between use of generative themes and generative concern (McAdams et al., 1993; Pratt et al. 1999). In the current sample, the relationship between generative themes and generative concern did show some tendency to become more positive over time (for example,  $r(30) = .26$  at age 22). Perhaps a larger sample might have revealed a modest, but significant relationship at age 22.

Although the themes codings were not related to generativity, the use of

redemption sequences in stories at all three data collection points predicted positively to generative concern at age 22. These relationships remained significant, or nearly so, even when altruism was partialled out of the correlation. Redemption sequences are one of the key elements that have been found in the life stories of generative midlife adults (McAdams et al., 1997). However, there were no relations between community involvement or generative commitment (strivings) and the use of redemption sequences. Again, generative concern on the LGS appeared to be the key index of patterns of development in this late adolescent sample.

These findings for redemption patterns in the life stories provide clear support for the hypothesis that the aspects of generative identity that appears in life story narratives have begun to develop in late adolescence and early adulthood. McAdams et al. (1997), argue that the meaning that generative concern and actions are given when they are expressed in a person's life narrative feeds back into the model, and ultimately provides a language and a sense of self that may allow for further development of concern, commitment, and action.

Given the sample size, these findings certainly need to be replicated. Also, the current study did not investigate how the other elements that McAdams et al. (1997) found to be pronounced in life stories of highly generative adults appeared in this sample. Thus, future research could focus on how these themes of early blessings, moral steadfastness, and prosocial goals relate to other measures of generativity in adolescent to young adult samples.

In this study, we added two "focused generativity" questions to the end of the

interview because we were interested in whether participants' thoughts on generativity topics would be related to standard generativity indices. In both the section on concern for future generations, as well as the section regarding legacies, we noticed that some people's responses tended to focus on themselves, or their future families (i.e., future children or grandchildren), as opposed to thinking about others more generally, for example, future generations as a whole. Consequently, we coded each section not only for frequency of thinking about the issue, but also as to whether responses tended to focus on the self, on others, or on a mixed response involving both self and others. We found that in the future generations section, both frequency of thinking about future generations and a greater focus on others was significantly positively related to generative concern, as measured using the LGS. On the other hand, questions regarding leaving a legacy did not yield significant relations to the LGS when analysed in this fashion. This is not surprising, given that most participants reported not thinking about legacies very frequently.

These results indicate that participants have been thinking about certain aspects of generativity in a systematic way, particularly in terms of concerns for future generations. This seems evident because their patterns of responses to the future generations question were found to be associated with their scores on the LGS. The findings do not indicate why participants were not thinking more systematically about legacy. Perhaps the legacy factor of generativity is one that develops more clearly later in life. Also, these sort of direct questions regarding generativity have never been asked and coded in this way before. Therefore, it is not possible to compare these findings for older adolescents with

the patterns of responses to such questions in an adult midlife sample, for example.

In testing the hypotheses of this research, altruism was often used as a covariate, in order to attempt to distinguish generative concern from simple prosocial beliefs or behaviours. In many cases, the relationship between generative concern and other measures of generativity remained robust, even with altruism covariance removed. However, further research using a larger sample size would allow us to test this question more fully, by systematically testing the differences in these relations when altruism is taken into account. Nonetheless, the current findings suggest that generativity is not only theoretically different from altruism, but also empirically separable.

Overall, this project was generally successful in exploring the developmental processes of generativity. The findings clearly indicate that generativity and its implications need to be studied from a lifespan perspective, beginning in adolescence. Our research suggests that generativity is meaningfully present, at least by the age of 17. Also, generative commitment is beginning to form by age 22, and generative action is present and may already be contributing to the development of generative concern by the age of 17. Finally, this research suggests that, starting as early as 17, individuals have begun to make meaning of their experiences in a generative way, and are beginning to incorporate this meaning into their narrative identities when retelling their life stories, as revealed by their use of redemptive patterns in stories of turning points in their lives.

### *Limitations*

As has been discussed earlier, sample size is a clear limitation of this study. Also, the sample of participants interviewed came from a pool who had agreed to take part in

long, intensive research interviews, three times over the past five years. It is not unreasonable that these individuals may not be fully representative of the population in terms of prosocial, or even generative, behaviour. Thus, it is important to follow up this research using a replication with a larger, more diverse sample.

The small distribution of the sample in the study also limits us, in that it is difficult to make many comparisons to previous research, which has typically used an older sample which includes a wider range of generativity scores (e.g., McAdams et al., 1997). Two types of control groups would be important to include in future studies, in order to deal with the development of generativity in adolescence. First, comparing the adolescent sample to a matched sample in midlife adulthood would be beneficial. Secondly, using young participants who are nominated as high in generativity by the community versus participants who are low in generativity, as was outlined by McAdams et al. (1997) in their midlife study, would allow us to make stronger claims regarding the predictors of generativity, and the emerging themes of the life stories of adolescents and young adults.

Also, at Time 3, the interviewing, coding and the majority of the transcribing were all performed by the same individual, who was invested in the project. Although the inter-rater reliabilities of the different coding schemes were satisfactory, it should be noted that biases in the coding may be present, due to the coder's familiarity with the hypotheses, as well as with the participants themselves on a more personal level. Future research should use different individuals as interviewers, transcribers, and coders. Also, all of these individuals should be blind to the hypotheses of the research study.

Finally, due to the longitudinal and exploratory nature of this research, certain measures are missing from earlier data collection times which might have strengthened the findings of this project. Specifically, future replication of this study should include a measure of generative concern (LGS) at age 17, as well as a measure of generative commitment (strivings measure) at ages 17 and 19. This would allow for a more systematic exploration of how the different components of generativity develop across this late adolescent period.

#### *Future Directions*

The current research project was an exploration of McAdams' model of generativity, beginning with generative concern. Of course, the components believed to provide the foundation for such concern, such as inner desire, cultural demand, and belief in the species, are also important and should be studied in their own right. Cultural demand may be of particular interest to study in late adolescence. Cultural demand, an important component which is conceptualized as driving many of the other components of the model, refers to society's expectation of individuals to take responsibility for the next generation. McAdams et al. (1998) state that this expectation emerges in the adult years. However, the current findings suggest that society may begin shaping these expectations at an earlier age. For example, in Ontario there is a mandatory volunteer program within the high school system. Further research is needed in order to determine at what developmental point cultural demand emerges, as well as what role it plays in generativity across the lifespan. For example, using already established generativity measures, such as the LGS or the Generative Behavior Checklist, researchers might ask

the participants to estimate at what age they would expect their children, or others in general, to score highly on each item.

This project also looked at generativity from the perspective of Erikson's model of psychosocial development, by comparing it to identity development. However, very little research has looked at these stages in comparison to the stage of "intimacy vs isolation", typical of young adulthood, which links the stages of identity and generativity. Theoretically, it makes sense that developing close romantic relationships and friendships would contribute to generativity, in that these relationships would help provide a stronger link to the community and a capacity to care for others more fully (McAdams, 2001). However, this has yet to be studied systematically. Accordingly, future researchers may wish to consider how the development of peer and romantic relationships contributes to the development of generativity.

Generativity is a construct that encompasses not only the individual, but also the environment, on both a micro- and a macro-level. Therefore, context is an essential component of generativity research. Hence, future research that investigates the development of generativity should also begin to include outside factors, such as parental influences, peer relationships, or even cultural differences.

The purpose of this research was to study the early stages of the development of generativity in adolescence. This research is, in itself, embarking on somewhat new territory, and therefore it is not surprising that the research produced more questions than answers. For example, how do generative concern and generative action feed back on one another? Are they indeed mutually facilitative across the life course? And also, does the generative narrative of the self begin to develop at an even younger age? Nonetheless, this research clearly points to the assertion that generativity is a developing quality that should no longer be thought of as occurring only during a single period in a person's lifetime.

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Appendix A

*Time 1 and Time 2 Turning Point and Proud Story Measures*

**Turning Point**

Please try to recall an important situation or experience that you have had that has had a real impact on the kind of values and moral beliefs that you have today. It could be something recent or not so recent. Please describe this event in as much detail as possible.

**Proud Story**

Describe an event that makes you feel proud or happy about yourself.

**Probes**

- i) When did this occur?
- ii) What led up to this situation?
- iii) What emotions did you feel at the time?
- iv) How do you feel about this, the same or differently?
- v) What kinds of things did you consider in dealing with it?
- vi) How did things finally turn out?

## Appendix B

*Objective Measure of Ego Identity Status (OMEIS)***Work, Religion & Politics**

You will find that some of the items in this scale have more than one part and that you may agree with one part and disagree with another part. You should consider the statement as a whole, without considering the parts separately.

-4 = very strongly disagree      +4 = very strongly agree

-3 = strongly disagree            +3 = strongly agree

-2 = moderately disagree        +2 = moderately agree

-1 = slightly disagree            +1 = slightly agree

1. \_\_\_\_\_ I haven't really thought about politics. It just doesn't excite me much.
2. \_\_\_\_\_ I might have thought about a lot of different jobs, but there's never really been any question since my parents said what they wanted.
3. \_\_\_\_\_ When it comes to religion I just haven't found anything that appeals and I don't really feel the need to look.
4. \_\_\_\_\_ My parents decided a long time ago what I should go into for employment and I'm following through their plans.
5. \_\_\_\_\_ There are so many different political parties and ideals. I can't decide which to follow until I figure it all out.
6. \_\_\_\_\_ I don't give religion much thought and it doesn't bother me one way or the other.
7. \_\_\_\_\_ I guess I'm pretty much like my folks when it comes to politics. I follow what they do in terms of voting and such.
8. \_\_\_\_\_ I haven't chosen the occupation I really want to get into, and I'm just working at whatever is available until something better comes along.
9. \_\_\_\_\_ A person's faith is unique to each individual. I've considered and reconsidered it myself and know what I can believe.
10. \_\_\_\_\_ It took me a long time to decide but now I know for sure what direction to move in for a career.
11. \_\_\_\_\_ I really have never been involved in politics enough to have made a firm stand one way or the other.
12. \_\_\_\_\_ I'm not so sure what religion means to me. I'd like to make up my mind but I'm not done looking yet.

13. \_\_\_\_\_ I've thought my political beliefs through and realize I can agree with some and not other aspects of what my parents believe.
14. \_\_\_\_\_ It took me awhile to figure it out, but now I really know what I want for a career.
15. \_\_\_\_\_ Religion is confusing to me right now. I keep changing my views on what is right and wrong for me.
16. \_\_\_\_\_ I'm really not interested in finding the right job, any job will do. I just seem to flow with what is available.
17. \_\_\_\_\_ My folks have always had their own political and moral beliefs about issues like abortion and mercy killing and I've always gone along accepting what they have.
18. \_\_\_\_\_ I've gone through a period of serious questioning about faith and can now say I understand what I believe in as an individual.
19. \_\_\_\_\_ I'm not sure about my political beliefs, but I'm trying to figure out what I can truly believe in.
20. \_\_\_\_\_ I'm still trying to decide how capable I am as a person and what jobs will be right for me.
21. \_\_\_\_\_ I attend the same church as my family has always attended. I've never really questioned why.
22. \_\_\_\_\_ I just can't decide what to do for an occupation. There are so many that have possibilities.
23. \_\_\_\_\_ I've never really questioned my religion. If it's right for my parents it must be right for me.
24. \_\_\_\_\_ Politics are something that I can never be too sure about because things change so fast. But I do think it's important to know what I believe in.

**Appendix C**  
***Youth Inventory of Involvement (YII)***

The following is a list of school, community and political activities that people can get involved in. For each of these activities, please use the following scale to indicate whether, in the last year,

- 0 -- you never did this
- 1 -- you did this once or twice
- 2 -- you did this a few times
- 3 -- you did this a fair bit
- 4 -- you did this a lot

1. \_\_\_\_\_ visited or helped out people who were sick
2. \_\_\_\_\_ took care of other families' children (on an unpaid basis)
3. \_\_\_\_\_ participated in a church-connected group
4. \_\_\_\_\_ participated in or helped a charity organization
5. \_\_\_\_\_ participated in an ethnic club or organization
6. \_\_\_\_\_ participated in a political party, club or organization
7. \_\_\_\_\_ participated in a social or cultural group or organization (e.g., a choir)
8. \_\_\_\_\_ participated in a school academic club or team
9. \_\_\_\_\_ participated in a sports team or club
10. \_\_\_\_\_ led or helped out with a children's group or club
11. \_\_\_\_\_ helped with a fund-raising project
12. \_\_\_\_\_ helped organize neighbourhood or community events (e.g., carnivals, hot dog days, potluck dinners, etc.)
13. \_\_\_\_\_ helped prepare and make verbal and written presentations to organizations, agencies, conferences, or politicians
14. \_\_\_\_\_ did things to help improve your neighbourhood (e.g., helped clean neighbourhood)
15. \_\_\_\_\_ gave help (e.g., money, food, clothing, rides) to friends or classmates who needed it
16. \_\_\_\_\_ served as a member of an organizing committee or board for a school club or organization
17. \_\_\_\_\_ wrote a letter to a school or community newspaper or publication
18. \_\_\_\_\_ signed a petition
19. \_\_\_\_\_ attended a demonstration

20. \_\_\_\_\_ collected signatures for a petition drive
21. \_\_\_\_\_ contacted a public official by phone or mail to tell him/her how you felt about a particular issue
22. \_\_\_\_\_ joined in a protest march, meeting or demonstration
23. \_\_\_\_\_ got information about community activities from a local community information centre
24. \_\_\_\_\_ volunteered at a school event or function
25. \_\_\_\_\_ helped people who were new to your country
26. \_\_\_\_\_ gave money to a cause
27. \_\_\_\_\_ worked on a political campaign
28. \_\_\_\_\_ ran for a position in student government
29. \_\_\_\_\_ participated in a discussion about a social or political issue
30. \_\_\_\_\_ volunteered with a community service organization

## Appendix D

*Loyola Generativity Scale (LGS)*

Note: 10 items used at Time 2 are marked in italics

Instructions. For each of the following statements, please indicate how often the statement applies to you, by marking either a "0," "1," "2," or "3" in the space in front.

Mark "0" if the statement never applies to you.

Mark "1" if the statement only occasionally or seldom applies to you.

Mark "2" if the statement applies to you fairly often.

Mark "3" if the statement applies to you very often or nearly always.

- \_\_\_ 1. *I try to pass along the knowledge I have gained through my experiences.*
- \_\_\_ 2. I do not feel that other people need me.
- \_\_\_ 3. I think I would like the work of a teacher.
- \_\_\_ 4. *I feel as though I have made a difference to many people.*
- \_\_\_ 5. I do not volunteer to work for a charity.
- \_\_\_ 6. I have made and created things that have had an impact on other people.
- \_\_\_ 7. I try to be creative in most things that I do.
- \_\_\_ 8. *I think that I will be remembered for a long time after I die.*
- \_\_\_ 9. I believe that society cannot be responsible for providing food and shelter for all homeless people.
- \_\_\_ 10. *Others would say that I have made unique contributions to society.*
- \_\_\_ 11. If I were unable to have children of my own, I would like to adopt children.
- \_\_\_ 12. *I have important skills that I try to teach others.*
- \_\_\_ 13. *I feel that I have done nothing that will survive after I die.*
- \_\_\_ 14. In general, my actions do not have a positive effect on other people.
- \_\_\_ 15. *I feel as though I have done nothing of worth to contribute to others.*
- \_\_\_ 16. *I have made many commitments to many different kinds of people, groups, and activities in my life.*
- \_\_\_ 17. Other people say that I am a very productive person.
- \_\_\_ 18. I have a responsibility to improve the neighborhood in which I live.
- \_\_\_ 19. *People come to me for advice.*
- \_\_\_ 20. *I feel as though my contributions will exist after I die.*

## Appendix E

*Strivings*

For this part of the study, we want you to think generally about your life. We are interested in the things that you typically or characteristically are trying to do in your everyday life. Think about the objectives or goals that you are trying to accomplish or attain. We might call these objectives "strivings." Here are some examples:

- Trying to help others in times of need.
- Trying to impress my partner with my intelligence.
- Trying to persuade others that I am right.
- Trying to avoid being noticed by others.
- Trying to overcome my fear of strangers.
- Trying to seek new and exciting experiences.

Note that these strivings are phrased in terms of what a person is "trying" to do, regardless of whether the person is actually successful. For example, a person might "try to get others to like me" without necessarily being successful. Strivings may be fairly broad, such as "trying to make others happy," or more specific, as in "trying to make my daughter happy." Also, strivings may be positive or negative. In other words, they may be about something you typically try to obtain or keep, or things that you typically try to avoid or prevent. For example, you might typically try to obtain attention from others, or you might typically try to avoid calling attention to yourself. Also, a striving should be a repeated, recurring goal, not a one-time goal. Therefore, "trying to get Sue to go to the dance" is not recurring, whereas "trying to get to know Sue better" is.

Please note that we are interested in the kinds of strivings that you have in different domains of your life: home/family, work/school, social/community relations, and leisure/personal. On the next page, we will ask you to list 3 strivings in each of these domains that are important in your life now. Describe each striving in a sentence, by completing the sentence "I typically try to..." In order for you to provide a satisfactory list, here are several important guidelines for you to keep in mind as you do this for each area or domain of your life:

1. Please keep your attention focussed on yourself. Do not mentally compare the things that you typically do with what other people do. Think of your self and your purposes alone. Be as honest and objective as possible.

2. Try to recall instances of your typical behavior and base your statements upon the actual behavior which you intended, as opposed to what might have been the result of the behavior.
3. Try to do this procedure for each of the four domains of your life we've listed separately and in the order requested.
4. It might be helpful to think about the sorts of effects you are typically trying to have on other people.
5. Try not to use examples of strivings given in these instructions. Now, please turn the page and briefly describe 12 strivings that are important in your life.

In my family or home life:

1. I typically try to \_\_\_\_\_
2. I typically try to \_\_\_\_\_
3. I typically try to \_\_\_\_\_

In my work/school life:

1. I typically try to \_\_\_\_\_
2. I typically try to \_\_\_\_\_
3. I typically try to \_\_\_\_\_

In my social/community relations:

1. I typically try to \_\_\_\_\_
2. I typically try to \_\_\_\_\_
3. I typically try to \_\_\_\_\_

In my leisure/personal life:

1. I typically try to \_\_\_\_\_
2. I typically try to \_\_\_\_\_
3. I typically try to \_\_\_\_\_

**Appendix F**  
***Altruism Scale***

Please tick the category on the right that conforms to the frequency with which you have carried out the following acts:

	Never	Once	More than once	Often	Very Often
1. I have helped push a stranger's car out of the snow					
2. I have given directions to a stranger					
3. I have made change for a stranger					
4. I have given money to a charity					
5. I have given money to a stranger who needed it (or asked me for it)					
6. I have donated goods or clothes to a charity					
7. I have done volunteer work for a charity					
8. I have donated blood					
9. I have helped carry a stranger's belongings (books, parcels, etc)					
10. I have delayed an elevator and held the door open for a stranger					
11. I have allowed someone to go ahead of me in a lineup (at Xerox machine, in the supermarket)					

12. I have given a stranger a lift in my car					
13. I have pointed out a clerk's error (in a bank, at the supermarket) in undercharging me for an item					
14. I have let a neighbour whom I didn't know too well borrow an item of some value to me (e.g., a dish, tools, etc)					
15. I have bought "charity" Christmas cards deliberately because I knew it was a good cause					
16. I have helped a classmate who I did not know that well with a homework assignment when my knowledge was greater than his or hers					
17. I have, before being asked, voluntarily looked after a neighbour's pets or children without being paid for it					
18. I have offered to help a physically challenged individual or an elderly stranger across a street					
19. I have offered my seat on a bus or train to a stranger who was standing					
20. I have helped an acquaintance to move households					

Appendix G

*The Life Story Interview*

Dan P. McAdams, Northwestern University

Revised 1995

Revised by Lawford and Pratt 2001-08-23

Introductory Comments

This is an interview about the story of your life. We are asking you to play the role of storyteller about your own life -- to construct for us the story of your own past, present, and what you see as your own future. People's lives vary tremendously, and people make sense of their own lives in a tremendous variety of ways. As social scientists, our goal is to collect as many different life stories as we can in order to begin the process of making sense of how people make sense of their own lives. Therefore, we are collecting and analyzing life stories of "normal" adults from all walks of life, and we are looking for significant commonalities and significant differences in those life stories that people tell us.

In telling us a story about your own life, you do not need to tell us everything that has ever happened to you. A story is selective. It may focus on a few key events, a few key relationships, a few key themes which recur in the narrative. In telling your own life story, you should concentrate on material in your own life that you believe to be important in some fundamental way -- information about yourself and your life which says something significant about you and how you have come to be who you are. Your story should tell how you are similar to other people as well as how you are unique. Our purpose in these interviews is to catalogue people's life stories so that we may

eventually arrive at some fundamental principles of life-storytelling as well as ways of categorizing and making sense of life stories constructed by healthy adults living at this time in history and in this place. We are not interested, therefore, in pathology, abnormal psychology, neurosis and psychosis. We are not trying to figure out what is wrong with you. Nor are we trying to help you figure out what is wrong with you. The interview should not be seen as a "therapy session." This interview is for research purposes only, and its sole purpose is the collection of data concerning people's life stories.

The interview is divided into a number of sections. In order to complete the interview within, say, an hour and a half or so, it is important that we not get bogged down in the early sections, especially the first one in which I will ask you to provide an overall outline of your story. The interview starts with general things and moves to the particular. Therefore, do not feel compelled to provide a lot of detail in the first section in which I ask for this outline. The detail will come later. I will guide you through the interview so that we can finish it in good time. I think that you will enjoy the interview. Most people do.

Questions?

### **I. Life Chapters**

We would like you to begin by thinking about your life as a story. All stories have characters, scenes, plots, and so forth. There are high points and low points in the story, good times and bad times, heroes and villains, and so on. A long story may even have chapters. Think about your life story as having at least a few different chapters. What might those chapters be? I would like you to describe for me each of the main chapters of your life story. You may have as many or as few chapters as you like, but I would suggest dividing your story into at least 2 or 3 chapters and at most about 5. If you

can, give each chapter a name and describe briefly the overall contents in each chapter. As a storyteller here, think of yourself as giving a plot summary for each chapter. This first part of the interview can expand forever, so I would like you to keep it relatively brief, say, within 10-15 minutes. Therefore, you don't want to tell me "the whole story" now. Just give me a sense of the story's outline -- the major chapters in your life.

*[The interviewer may wish to ask for clarifications and elaborations at any point in this section, though there is a significant danger of interrupting too much. If the subject finishes in under 10 minutes, then he/she has not said enough, and the interviewer should probe for more detail. If the subject looks as if he/she is going to continue beyond half an hour, then the interviewer should try (gently) to speed things along somewhat. Yet, you don't want the subject to feel "rushed." (It is inevitable, therefore, that some subjects will run on too long.) This is the most open-ended part of the interview. It has the most projective potential. Thus, we are quite interested in how the subject organizes the response on his or her own. Be careful not to organize it for the subject.]*

## II. Critical Events

Now that you have given us an outline of the chapters in your story, we would like you to concentrate on a few key events that may stand out in bold print in the story. A key event should be a specific happening, a critical incident, a significant episode in your past set in a particular time and place. It is helpful to think of such an event as constituting a specific moment in your life story which stands out for some reason.

Thus, a particular conversation you may have had with your mother when you were 12-years-old or a particular decision you made one afternoon last summer might qualify as a key event in your life story. These are particular moments set in a particular time and place, complete with particular characters, actions, thoughts, and feelings. An entire summer vacation -- be it very happy or very sad or very important in some way -- or a

very difficult year in high school, on the other hand, would not qualify as key events because these take place over an extended period of time. (They are more like life chapters.)

I am going to ask you about 8 specific life events. For each event, describe in detail what happened, where you were, who was involved, what you did, and what you were thinking and feeling in the event. Also, try to convey what impact this key event has had in your life story and what this event says about who you are or were as a person. Please be very specific here.

Questions?

#### Event #1: Peak Experience

A peak experience would be a high point in your life story -- perhaps the high point. It would be a moment or episode in the story in which you experienced extremely positive emotions, like joy, excitement, great happiness, uplifting, or even deep inner peace. Today, the episode would stand out in your memory as one of the best, highest, most wonderful scenes or moments in your life story. Please describe in some detail a peak experience, or something like it, that you have experienced some time in your past. Tell me exactly what happened, where it happened, who was involved, what you did, what you were thinking and feeling, what impact this experience may have had upon you, and what this experience says about who you were or who you are. *[Interviewer should make sure that the subject addresses all of these questions, especially ones about impact and what the experience says about the person. Do not interrupt the description of the event. Rather ask for extra detail, if necessary, after the subject has finished initial description of the event.]*

**Event #2: Nadir Experience**

A "nadir" is a low point. A nadir experience, therefore, is the opposite of a peak experience. It is a low point in your life story. Thinking back over your life, try to remember a specific experience in which you felt extremely negative emotions, such as despair, disillusionment, terror, guilt, etc. You should consider this experience to represent one of the "low points" in your life story. Even though this memory is unpleasant, I would still appreciate an attempt on your part to be as honest and detailed as you can be. Please remember to be specific. What happened? When? Who was involved? What did you do? What were you thinking and feeling? What impact has the event had on you? What does the event say about who you are or who you were?

**Event #3: Turning Point**

In looking back on one's life, it is often possible to identify certain key "turning points" -- episodes through which a person undergoes substantial change. Turning points can occur in many different spheres of a person's life -- in relationships with other people, in work and school, in outside interests, etc. I am especially interested in a turning point in your understanding of yourself. Please identify a particular episode in your life story that you now see as a turning point. If you feel that your life story contains no turning points, then describe a particular episode in your life that comes closer than any other to qualifying as a turning point. *[Note: If subject repeats an earlier event (e.g., peak experience, nadir) ask him or her to choose another one. Each of the 8 critical events in this section should be independent. We want 8 separate events. If the subject already mentioned an event under the section of "Life Chapters," it may be necessary to go over it again here. This kind of redundancy is inevitable.]*

**Event #4: Earliest Memory**

Think back now to your childhood, as far back as you can go. Please choose a relatively clear memory from your earliest years and describe it in some detail. The memory need not seem especially significant in your life today. Rather what makes it significant is that it is the first or one of the first memories you have, one of the first scenes in your life story. The memory should be detailed enough to qualify as an "event." This is to say that you should choose the earliest (childhood) memory for which you are able to identify what happened, who was involved, and what you were thinking and feeling. Give us the best guess of your age at the time of the event.

**Event #5: Important Childhood Scene**

Now describe another memory from childhood, from later childhood, that stands out in your mind as especially important or significant. It may be a positive or negative memory. What happened? Who was involved? What did you do? What were you thinking and feeling? What impact has the event had on you? What does it say about who you are or who you were? Why is it important?

**Event #6: Important Adolescent Scene**

Describe a specific event from your teen-aged years that stands out as being especially important or significant.

**Event #7: Proud Story**

Describe an event that makes you feel proud or happy about yourself.

### **III. Life Challenge**

**Looking back over the various chapters and scenes in your life story, please describe the single greatest challenge that you have faced in your life. How have you faced, handled, or dealt with this challenge? Have other people assisted you in dealing with this challenge? How has this challenge had an impact on your life story?**

### **IV. Influences on the Life Story: Positive and Negative**

#### **Positive**

**Looking back over your life story, please identify the single person, group of persons, or organization/institution that has or have had the greatest positive influence on your story. Please describe this person, group, or organization and the way in which he, she, it, or they have had a positive impact on your story.**

#### **Negative**

**Looking back over your life story, please identify the single person, group of persons, or organization/institution that has or have had the greatest negative influence on your story. Please describe this person, group, or organization and the way in which he, she, it, or they have had a negative impact on your story.**

### **V. Stories and the Life Story**

**You have been telling me about the story of your life. In so doing, you have been trying to make your life into a story for me. I would like you now to think a little bit more about stories and how some particular stories might have influenced your own life story. From**

an early age, we all hear and watch stories. Our parents may read us stories when we are little; we hear people tell stories about everyday events; we watch stories on television and hear them on the radio; we see movies or plays; we learn about stories in schools, churches, synagogues, on the playground, in the neighborhood, with friends, family; we tell stories to each other in everyday life; some of us even write stories. I am interested in knowing what some of your favorite stories are and how they may have influenced how you think about your own life and your life story. I am going to ask you about three kinds of stories. In each case, try to identify a story you have heard in your life that fits the description, describe the story very briefly, and tell me if and how that story has had an effect on you.

#### Television, Movie, Performance: Stories Watched

Think back on TV shows you have seen, movies, or other forms of entertainment or stories from the media that you have experienced. Please identify one of your favorite stories from this domain -- for example, a favorite TV show or series, a favorite movie, play, etc. In a couple of sentences, tell me what the story is about. Tell me why you like the story so much. And tell me if and how the story has had an impact on your life.

#### Books, Magazines: Stories Read

Now think back over things you have read -- stories in books, magazines, newspapers, and so on. Please identify one of your favorite stories from this domain. Again, tell me a little bit about the story, why you like it, and what impact, if any, it has had on your life.

### **Family Stories, Friends: Stories Heard**

Growing up, many of us hear stories in our families or from our friends that stick with us, stories that we remember. Family stories include things parents tell their children about "the old days," their family heritage, family legends, and so on. Children tell each other stories on the playground, in school, on the phone, and so on. Part of what makes life fun, even in adulthood, involves friends and family telling stories about themselves and about others. Try to identify one story like this that you remember, one that has stayed with you. Again, tell me a little bit about the story, why you like it or why you remember it, and what impact, if any, it has had on your life.

### **VI. Alternative Futures for the Life Story**

Now that you have told me a little bit about your past, I would like you to consider the future. I would like you to imagine two different futures for your life story.

#### **Positive Future**

First, please describe a positive future. That is, please describe what you would like to happen in the future for your life story, including what goals and dreams you might accomplish or realize in the future. Please try to be realistic in doing this. In other words, I would like you to give me a picture of what you would realistically like to see happen in the future chapters and scenes of your life story.

#### **Negative Future**

Now, please describe a negative future. That is, please describe a highly undesirable future for yourself, one that you fear could happen to you but that you hope does not happen. Again, try to be pretty realistic. In other words, I would like you to give me a

picture of a negative future for your life story that could possibly happen but that you hope will not happen.

*[Note to interviewers: Try to get as much concrete detail as possible.]*

## VII. Personal Ideology

Now I would like to ask a few questions about your fundamental beliefs and values and about questions of meaning and spirituality in your life. Please give some thought to each of these questions.

1. Consider for a moment the religious or spiritual dimensions of your life. Please describe in a nutshell your religious beliefs or the ways in which you approach life in a spiritual sense.
2. Please describe how your religious or spiritual life, values, or beliefs have changed over time.
3. How do you approach political and social issues? Do you have a particular political point of view? Are there particular issues or causes about which you feel strongly? Describe them.
4. What is the most important value in human living? Explain.
5. What else can you tell me that would help me understand your most fundamental beliefs and values about life and the world, the spiritual dimensions of your life, or your philosophy of life?

### **VIII. Life Theme**

Looking back over your entire life story as a story with chapters and scenes, extending into the past as well as the imagined future, can you discern a central theme, message, or idea that runs throughout the story? What is the major theme of your life story? Explain.

### **IX. Other**

What else should I know to understand your life story?

### **X. Generativity**

#### **Next Generation**

We've been talking a bit about how you visualize your future. Research has found that sometimes people are concerned about what it is going to be like for younger people far into the future, even after they themselves are gone. Is this something that you think about (if yes: how often? What kinds of ideas and thoughts do you have about it?)

#### **Legacy**

Along the same lines, people often think about or discuss leaving a legacy. That is, leaving behind something that people of the future can remember them by. Is this something that you've thought about? (if yes: how often? What kinds of ideas and thoughts do you have about it?) (if no: o.k. maybe you could take a moment right now and think about what you would like your legacy to be)

**HOW DID YOU FEEL ABOUT THIS INTERVIEW?**

## Appendix H

**WILFRID LAURIER UNIVERSITY  
INFORMED CONSENT STATEMENT****Futures Project: The Life Story****researcher: Heather Lawford advisor: Dr. Michael Pratt**

You are invited to participate in a follow-up research study of the Futures Project. The purpose of this study is to gain insight into the way people organise, tell, and think about their own lives. Currently, the data being collected will be used towards the completion of a Masters' thesis. In the future, the data collected here will be used in other important research endeavors.

**INFORMATION**

This study involves about 30 participants selected from the people involved over the past few years with the Futures Project. If you agree to take part in this study, you will be asked to complete a small packet of questionnaires, followed by an 1½ to 2 hour "Life Story Interview" which involves discussing different points of your life and your thoughts and feelings regarding these different experiences you've had over the course of your life. The entire session (including the interview and questionnaires) should take between 2-2 ½ hours. The interview will take place in a private research room. The interview will be tape recorded so that it can later be transcribed. All identifying information on the audiotape will be changed in order to protect your anonymity. Please note also that you have the right to stop the audiotape at anytime. You also have the right to refuse to answer any question during the interview or on the questionnaires.

**RISKS**

The interview used in this study asks participants about both positive and negative events or thoughts. Thus it is possible that some memories or thoughts might come up that cause discomfort. Please note that you have the right to skip any questions or stop the interview at anytime and still receive compensation for your participation. Note also that you are encouraged to contact the supervising researcher (Dr. Michael Pratt) if you have any questions or concerns about the interview.

**BENEFITS**

In participating in this study you will be continuing to make a significant contribution to research on the thoughts, feelings, and experiences of young people after they leave high school. We expect to have finished collecting and analysing the data by the end of April, 2002, at which time you will receive a feedback letter through the mail regarding the findings that you helped to achieve with your participation. In addition to this, individuals who have participated in the past have found telling about their life experiences in this way to be an interesting, positive and sometimes even enlightening experience.

**CONFIDENTIALITY**

All information provided during this interview will be held in the strictest of confidence. Only your ID number will appear on your interviews and questionnaires. Any identifying information will be kept in a locked cabinet within a locked room separate from the data collected. Interview data will be coded and analysed from typed transcripts, and any identifying information on the audiotapes will not appear on the transcripts. Only Heather Lawford and Dr. Pratt will have access to your audiotapes, and the tapes will be erased one year after the data are collected. Only Heather Lawford, Dr. Pratt and research assistants under Dr. Pratt's supervision will have access to the transcripts and questionnaires collected during this study. Transcript and questionnaire data will also be stored in a locked cabinet in a locked research room. Data collected during this session will be destroyed five years after the completion of the Futures project, which is estimated to be completed in April, 2004, in which case the data will be destroyed in April, 2009.

Sometimes stories or comments made during an interview are instrumental in illustrating a point which is important to the research. Therefore, we may use a portion of your interview in reporting this research. We will remove or alter any possible identifying information in these reports. *Please note that absolutely no identifying information will ever be reported, regardless of what you decide.* If you would not like your contribution to be used in this way, it will only be reported in the form of mass data pooled together.

**COMPENSATION**

For participating in this study you will receive \$ 40.00. If you withdraw from the study prior to its completion or if the interview is stopped for any reason, you will still receive the same compensation

\_\_\_\_\_participant's initials

## **CONTACT**

If you have questions at any time about the study or the procedures, or you experience adverse effects as a result of participating in this study, you may contact the supervising researcher, Dr. Michael Pratt, at Wilfrid Laurier University, and 519-884-0710 (ext. 2428); mpratt@wlu.ca. This project has been reviewed and approved by the University Research Ethics Board. If you feel you have not been treated according to the descriptions in this form, or that your rights as a participant in research have been violated during the course of this project, you may contact Dr. Bill Marr, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-0710, extension 2468.

## **PARTICIPATION**

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study before data collection is completed your data will be returned to you or destroyed. You have the right to omit any question(s)/procedure(s) with which you are uncomfortable.

## **CONSENT**

Please initial one of the following statements

\_\_\_\_\_ I agree to allow a portion of my interview to be reported directly solely for research purposes. I understand that absolutely no obviously identifying information will ever be reported.

\_\_\_\_\_ I would like my contribution to this research to appear only in mass data analysis. That is, I do not want any portion of my interview to appear in research reports.

I have read and understand the above information. I have received a copy of this form. I agree to participate in this study.

Participant's signature \_\_\_\_\_ Date \_\_\_\_\_

Investigator's signature \_\_\_\_\_ Date \_\_\_\_\_  
-

#### Researchers' Contact Information

Heather Lawford      phone: 519-884-0710 ext 2986 email: [\\_lawf1865@mach1.wlu.ca](mailto:_lawf1865@mach1.wlu.ca)  
Dr. Michael Pratt      phone 519-884-0710 ext 2428 email: [mpratt@wlu.ca](mailto:mpratt@wlu.ca)

## Appendix I

Feedback mailed to participants May, 2002

Dear

Thank-you for your continued interest and participation in the Futures' project! Your contributions have been invaluable in our research on the transition from adolescence to adulthood. Though we are continuing to examine the interviews and other data in more detail, we wanted to provide you with an update of our findings thus far.

In 1969, Erik Erikson developed a theory of psychosocial development that stated that individuals go through 8 stages throughout the course of their life. The seventh stage, "generativity," was part of the focus of the current study. Generativity refers to the idea of making a lasting contribution to future generations. Most of the research in this area has been done on people ages 30-50. We were interested in whether caring for the next generation (i.e., generativity) was developing at a younger age (age 20-22). You may remember that the last two questions of the interview asked you to discuss what thoughts you might have had about future generations or leaving a legacy of yourself for the future. Basically, we were interested in how you might be thinking about issues related to generativity. We found that overall, the participants in this study were developing their own thoughts and ideas about generativity, particularly in terms of concerns for future generations. Some issues that you discussed were the state of our environment, worries about violence (e.g., in school, on television), and helping children express themselves creatively through art or music. In discussing what you would like your legacy to be, many of you mentioned simply wishing to have a positive impact on others. Others discussed leaving behind their ideas through writing or artwork.

In this study we were also interested in how your thoughts and ideas were developing over time. Therefore, we compared your most recent reports about concern for future generations to your reports of your involvement in school, community and political activities when you first began participating (around age 17). We found individuals who reported being involved in more activities in high school tended to report

higher levels of concern for future generations in the current data collection at age 20-22. This suggests that community involvement at a young age may have lasting effects and is important to a person's development into adulthood.

In the future, and with your help, we would like to continue to explore how these ideas and beliefs are developing over time. Given the interesting findings of this project, we would also like to expand our study to include a larger and more diverse sample of people.

Once again, thank-you for continuing to come in, answer our questions and tell us some of your stories. We have enjoyed working on this project with you. If you have any questions or comments about this study please feel free to contact me (Heather Lawford) or my advisor (Dr. Michael Pratt). Our email and telephone information are listed below.

Hope to see you again!

Heather Lawford: 884-0710 ext 2986 lawf1865@mach1.wlu.ca

## Appendix J

## Coding Scheme for Generativity Themes from Peterson and Stewart (1993)

*Productivity*

Broadly defined, productivity involves any expression of developing or growing through the generation of tangible products or ideas (e.g., published an article, wrote a piece of music, or constructed a piece of furniture).

*Caring*

Instances of caring involve any expression of concern with the capacity to care for, “to take care of,” or “to care to do something for,” those who need protection and attention. Also included in this scoring category are any references to “taking care not to do something destructive.” The focus of this second category is on contributing to the welfare of other people, as opposed to contributing something physical to the world at large.

*General Generativity*

This category is scored whenever there is an expression of concern about making a lasting contribution, especially to future generations. It is scored whenever an image involves a type of generativity not covered under these two rubrics. For example, the sentence “I don’t want this account of my actions to go down to posterity unchallenged” would score under general generative concerns.

**Examples of Proud Stories at Time 3 containing Generative Themes (Care,  
Productivity, and General Generativity)**

***Example of Productivity***

There are a lot of little moments, but I think the biggest moment that, it would have to be I guess, hmm, I think it's in high school. Um, I felt proud for the first time, I guess, {about what I had done}. Um, I made a sculpture, um, and uh, I was commissioned for it, so that like, my sculpture was actually a gift for a retiring teacher. She was very into gymnastics, and um, I made this sculpture and I got \$ 218 for it. (Wow) And I think I was only in grade 11. And I went to their retirement party. I was the only student there, but I presented it to, um, her, and I explained the meaning of this sculpture, and {that} to an audience of other teachers and things like that, and I guess I felt so proud, because someone is willing to pay me for something that I love to do anyway, and um, it's a gift, so, and that people were actually interested in what I had to say, and what the meaning was behind this sculpture. I think that would have to be my proudest moment.

*Example of Care*

I think maybe helping people with their artwork would be an example. Like when they say oh well you know like I can't decide if I want to do this or this or whatever. And um, yeah it's not so much a proud moment I guess as achieving a specific thing we sort of attach a (?) of pride to that but it makes me feel happy because it's like a chance to really go into things and analyse them. And I think it's ... I think a lot of the time people don't really get the attention that they want sometimes from the people around them I think, like living in (place) especially like everyone is just so like you know no one even looks at each other on the street that sort of thing you know so I like that like just really you know taking the time to really look at what people are trying to say and really discuss that with them, and uh yeah so. I guess a specific event like one time this {???} like I had a really good just like discussing with people their, you know, should I put a figure on this or should I not. And it just inspired a very large discussion and, yeah so. Just taking the time to you know listen to people and use my analysis skills which I like to use and taking the time to be affected by stuff a lot. And I think yeah, of course, this has sort of, idealistic overtones for me because it sort of, yeah it is a symbol of people coming together that would otherwise be separate as well because there's so much separation.

*Example of General Generativity*

Um, well, that would probably my daughter again –laughs- (m-hmm) Um, especially now that I see her. She's a year and a half, and she's just like, awesome. Um, I can't believe that I've raised her –well, me and my boyfriend, but I mean, I was with her, I mean I didn't work for six months, no more than that, like a year and a bit, I just went back to work in May. (M-hmm) So I was with her 24 hours a day, and I just see the, like the person she's already becoming, and her, she's so bubbly, and she likes everyone, (m-hmm) so I'm just, um, amazed by her, and proud that I'm her mom, so. (Yeah) Yeah. (Did you, did you live with your parents for a year after you...) No, I was with my boyfriend. (Oh, you were living with your boyfriend at the time?) Yeah, yeah, yeah, but I was off. (Sorry. Um, can you think of a specific, I mean, I'm sure every day is a proud {???) for you, but can you tell me about a specific event when you just felt especially proud or ...) Um... (Sort of proud of yourself for being the mom...) Yeah, um, um, - laughs- that's hard, um (She sat up on her own, one day, and you did something), Yeah, and young, like, yeah, okay, yeah. Or when she first started walking, 'cause she walked at about ten months (wow) Yeah. And she um, she used to well, obviously, hold on to tables and stuff, and then one day she just like let go, and really walked like about ten steps, (wow) and it was just like, 'Oh my gosh,' 'cause you can't, I don't know, every stage comes and goes and you don't really have time to like marvel at first okay yeah. (Yeah) It was amazing, and now she's running around, and so yeah, when she first started walking, that was just, I mean, 'cause it went from almost like baby to toddler, you know, and more um, she's more independent now, and running around and getting into everything, so yeah. When she first started walking.

## Appendix L

## Examples of Redemption scores in Time 3 Turning Point Stories

*Example of Redemption score 2*

Okay, Um, I have one. In high school, I think I had a turning point. I grew up in a Lutheran church, you know with the whole Sunday school everything. And I had a couple friends that had died while I was in high school. And one particular person that I had a huge past with, not relationship-wise but garbage-wise. And he was having a baby with some girl, and at the same time as this one person who was very close to me had passed. And I had like huge issues, like with God and with what was going on in my life and why this and why that and it was like question city. At that time in my life, and it was uh, it was, a turning point, after that happened because I realised you know that you have to live each day. That the person that died, died shortly after his 21st birthday, and shortly after, I had a girlfriend that died just before her 19th. And it was a turning point because it was, I understood, it was a very religious time for me, because I was very angry, like why would that happen, why would you give him a baby and take away him and her, you know? Like I didn't understand that's garbage. But afterwards it's uplifting, because I realised you know what I do have. And you know I'm so lucky to wake up in the morning and be able to go to school, and, you know, be able to go in the classroom and see all the, you know my friends. And, be healthy and, it was a really positive thing that happened out of a lot of negative things that happened to happen around the same time. So uh, that was a turning point for me because it really opened up my eyes that you know I wasn't invisible and, you know, just, I was very thankful. You know and I'd never really felt like that before like, I was so glad that I had parents and glad that I had sisters, and friends and health and life. It's just, it was a eyeopener for me, at that age.

*Example of Redemption score 1*

Other than that, another point would be um when I did in grade 12 I think I got a 60 average or a 64 average and uh, you know my parents instead of being more supportive of it they were more like ha ha see what you got look at what you got yourself into right. And they were kind of more like, I would say almost happy that I failed out you know and that's... Maybe they weren't, maybe that's just me looking from my perspective out. Um, I mean that's what I do. Um, it kind of made me say you know I'm not doing this for my parents I'm not doing this for others, I'm doing this for myself. If I fail, I'm gonna not have the benefits so I mean if I pass, then it's me, I'm gonna have the benefits and reap the rewards of hard work. So, um I think that moment I got the report card, realised I just almost failed grade 12 and university's coming up in one year I better you know, get my butt in gear. So, since then, I've worked for myself, I've strived for myself and I mean there's been a lot of points where I haven't and just kind of forgotten that, but I mean when looking, when doing hard work at school I kind of look back and say what did I do then, what do I need to do now. And so I mean just realising that you could fail and realising that you have to work for yourself. And uh persevere for yourself, and really, you're doing it for yourself when it comes down to it.

*Example of Redemption score 0*

Okay, this is something that I didn't mention in any of my chapters because it's kind of it's too in depth I thought at the beginning point. This would be a definite turning point in my life to really understand who I am exactly. It was just after my mother started recovering from her illness, it must have been 3 or 4 years ago now I guess. She met a man she had known for awhile. You know he seemed like a nice enough guy, I never really liked him but she liked him and she enjoyed his company. But what ended up happening was that he was actually like a con man and he was trying to you know get her to sign her will over, you know all that sort of thing. You know I don't want to get all into it but he turned out to be a very nasty person. Um, and um, there was no legal remedy for what he was doing he was free to do what he wanted. And we basically couldn't stop his attacks. And, at one point I remember I was at home here on (street), my mother was here as well with a friend of hers who happened to be a paralegal. Who was advising her on some things. And this man came over, and he started yelling and stuff because she had the paralegal there as a witness because she you know, started learning some background things about this guy that was making her question and she wanted to make sure there was a witness there while they were talking because they were talking about like some different like legal matters, just having to do with property and stuff. So at that point he was just yelling and what not and, that's when it really came to me that she's really realised who this guy is and stuff. And all along I had a pit in my stomach feeling about it, not always trusting him, not really liking him, trying to, like keeping distance from him because he's conniving in a way and I never really liked him as a person. Um, and at that point, I mean from that point on two things, I felt that um people have to earn trust. That's the big lesson I've learned in my life and that I hold to pretty close to, that people have who earn trust, and for myself anyway, and I keep people at arm's length until I know what they're all about. Because from that point I realised that most people are opportunistic and they're out for something and there's too many people that are very selfish and are out for themselves to let your guard down. And at the same time it taught me to trust my intuition about things. You know if you have a bad feeling you should

probably go with it. And just to trust my feelings about those sort of things. So those would be that would be a time when I really started understanding myself because I realised that for myself and for me to be happy and for me to be safe I really have to keep a watch on (??) and I have to stay to myself until I definitely can trust people. And at the same time just trust intuition, when you have a strong feeling it's usually right.

## Appendix M

*Examples of Self/Other Focus and Frequency in  
Future Generations and Legacy Direct Questions*

*Scored 0 (completely self) on Future Generations Direct Question*

I don't really give a shit. (Yeah?) yeah. I don't like to sound mean but you know what? It's just like, you're gone. I mean if they brought me back to life I'd be like guys try to get along so that when they bring me back to life 50 years from now every thing is hunky dory and apple pie. But do you know what I mean? Like you're gone, you're dead like, let it go.

*Score 1 (mixed self and other) on Future Generations Direct Question*

I don't know, what .. sometimes even just when you see younger people now, I just think of that [umhum]. Because my fiance's sisters are younger, like they're in high school, like early high school age [umhum], so I'm kind of you know, involved, and I'm friends with them, so [umhum] um .. I kind of get to know about what's going on with them and you know um .. I don't know, I don't really give a lot of thought to it but I could say that I don't really like what's happening right now [hm]. Just because I find that um from I remember being that age, because it's not that long ago, and I still feel like I can relate to um kids that are younger [umhum] and know what's still trendy for them and that kind of thing, but kind of what I'm seeing is just um .. that some people are getting lost, like some younger kids are getting lost in um .. you know the idea of things that happen in movies, like gangs and stuff like that. It's like they're getting lost in the idea that that's cool, although that's just an image [umhum]. It's lost in the images that maybe have been um .. given through like the world of like I don't know, celebrities and you know fame and all that kind of stuff. Like just things that you see on, you know different kinds of people that you see on movies and stuff and not being just themselves and not being wrapped up in like what's trendy and that kind of thing, you know. I just think that the language and plus the violence and the drugs that are becoming like (?), see, before it

didn't seem to be something that people would even just experiment with until like later in high school and now it's happening in elementary school, so, it's just like, it seems like you know, you know, they're starting things a lot younger now [hm] and um, that's kind of a fear of mine because .. you know, then my kids are gonna be exposed to things are a lot earlier age which means like I don't know, it's just good, I was you know thinking ahead to being a parent and [umhum] um things that you know, like I'll have to know that you know, like this is coming out a lot earlier, so my talks aren't gonna start later on because it's like oh, I already experienced all that [hm] so, I don't know, I don't really like how it seems to be either way that it seems that every year almost that even you hear kids trying out things like younger and younger, you know, things hap-, you know, kids are getting pregnant when they're still like in grade eight or something [hm], so, I don't know. [Okay.]

*Scored 2 (completely other) on Future Generations Direct Question*

Okay, outside of my lifetime? Um, I think I mean the world's changing as we speak. A month ago we thought New York was the safest place, one of the safest places, and uh um I think that ah, the world's gonna change a lot in the next in the next 10 years, in the next century. Um, it's fine for, people to, I mean you have to set goals and targets and for yourself. It's too big, the next 200 years would be too abstract if you didn't, break it down. But at the same time I do see a lot of surprises, coming up. Um just just given the events that have unfolded recently. I mean one morning you wake up you turn on the tv the world's changed in you know half an hour. Things like that, they are far and few between but uh, events like that no one can predict and you've gotta be ready to accept the impact of those changes. And recognise that the world isn't static in that um, things that um, you know happen in other countries have a big impact on our lives and we have to be able to incorporate those the impact of those events, um into our lives and respond accordingly. What those are I don't know. It could be for the better I mean there's some amazing technological developments coming up. Um, but there's also a lot of negative social aspects going on with uh with terrorism and people's attitudes and uh, yeah I mean

I don't know. I can't say specifically but, all I can say is, things always have changed and will continue to change and and um expect the unexpected I guess.

*Scored 0 (completely self) on Legacy Direct Question*

Yes actually. I just had a conversation with my boyfriend which is very, very funny and very trivial. But we were looking through a public school cookbook. My mom had sent me "[Name]'s Cookies" by [Full Name]. I just thought that was so neat that in a couple of years I mean

this was went I was maybe seven or eight... I'm gonna see that and go "Oh Ya, [Full Name]". Like you know somebody I went to school with in twenty years could be making something... making my cookies. Ya I do think about leaving my legacy. I find it really interesting when there's something that's associated with me at work – some of the documents that I've done – the validation. People will come in years and look back at the instruments and what I did and it gives me a nice accomplishment.

*Scored a 1 (mixed self and other) on Legacy Direct Question*

Yes. Again, going back to my ideal future my being a professor of sorts or a graduate student or a Ph.D, um, but the legacy would be simply discovering some new fountain of knowledge or even understanding of past peoples. I mean history is my interest, so if I can make a mark in my own field that would be just wonderful. Um, professionally at least. Um, I guess on a more personal level, if I can just make my children good people, um productive members of society, just good all round people. That would be just as important maybe even more important than any professional mark that I could leave in the world.

*Scored a 2 (completely other) on Legacy Direct Question*

Yeah, something I'm almost obsessed with. But at the same time I have to give credit to my dad because he will not leave, he will leave a legacy to those people that he's met. Anyone who's met him, there hasn't been anyone who's met him who hasn't profoundly changed, but. He will not leave that Einstein that Mother Theresa legacy. Not British royalty you know. And I think I could be happy with that knowing that I affected change. But at that same time, damn straight I want a legacy. Because a legacy means

that I affected change here, while I was living or I dealt with something in a way that was acceptable, good, profitable not just in terms of money but spiritually and physically and emotionally as well. (Do you know what form you would like that legacy to take?) A favourable one. I don't want to be (name) The Cruel or something like that. Uh, I'd like that legacy to be in the realm of awareness. I opened someone's mind, hopefully everyone's mind, a lot of people's mind to, an idea. A general idea but a fundamental idea of life.

*Scored a 2 on frequency of thinking about future generations*

I do. (yeah? How often do you think about it?) I think about it quite a lot actually. I think because things are changing right now and I'm thinking about my children issue.

*Scored a 1 on frequency of thinking about future generations*

Only if I see a thing on t.v. A show on tv, I think about it and then I don't think about it after. If I hear about it, I'll think about it, but I don't think about it, daily.

*Scored a 0 on frequency of thinking about future generations*

I don't really worry about the future. I mean I know that I'm human and we are all prone to worry. But I know that there is a truth that I need to live by that says do not fear, do not worry about the next day. For any of us I think the worst thing that anyone can say could happen, I guess is death.