The Road Taken: Women's Life Paths and Personality Development in Late Midlife

by

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Abstract

Scholars have focused on the influence that different patterns of women's work and family commitments have on the development of their personality and well-being. The current research sharpens this focus, assessing the association between life paths that are normative or non-normative and personality and well-being outcomes for a particular cohort of women in late midlife. When people follow non-normative life paths, social sanctions may ensue, thus also potentially shaping women's personalities and well-being.

This dissertation examines women's non-normative and normative life paths for the Radcliffe and Smith Classes of 1964, and the Women's Life Paths Study (WLPS). The normative/non-normative distinction is based on three parameters: marital status, having children, and profession. Long-term divorced women with children (N = 54) are compared with long-term married women with children (N = 191); women without children (N = 72) are compared with women with children (N = 501); and women in predominantly male professions (N = 139) are compared with women in predominantly female professions (N = 167). A novel approach to Q-sort analysis - Significance Analysis of Microarrays (SAM; Chu, Narasimhan, Tibshirani, & Tusher, 2007) – identified significant differences in observer-rated personality traits in four categories:

general norm-challenging, female gender-normative, male gender-normative, and unclassifiable. Each group of women who had followed a non-normative life path was rated as having personality traits inconsistent with gender norms; the exact pattern was different for each group. Long-term divorced women with children and women without children were rated lower than their comparison groups on *feminine* norm-related items; women in predominantly male professions were rated higher than women in predominantly female professions on *masculine* norm-related items. Discriminant function analysis identified different personality and well-being profiles for each life path group (three non-normative and one normative).

This research highlights the heterogeneity of life paths in samples of women generally thought of as relatively homogeneous, and shows that these life paths are associated with personality, personality development, and well-being variables in complicated ways. By examining Q-sort, Big Five personality factors, generativity, life satisfaction, and psychological well-being data, unique relationships between specific life paths and personality and well-being outcomes were identified.

Chapter I

Introduction

In the last twenty or so years, many studies have documented women's midlife personalities (e.g., Helson, Jones, & Kwan, 2002; Helson, Stewart, & Ostrove, 1995; Helson & Wink, 1992; Miner-Rubino, Winter, & Stewart, 2004; Mitchell & Helson, 1990; Peterson & Klohnen, 1995; Stewart, Ostrove, & Helson, 2001; Stewart & Vandewater, 1999; York & John, 1992), often acknowledging the influence of different patterns of commitment to work and family (e.g., Helson, Mitchell, & Moane, 1984; Newton & Stewart, 2010; Peterson & Duncan, 2007; Roberts, 1997; Roberts, Wood, & Lodi-Smith, 2005; Stewart, 1980; Stewart & Vandewater, 1993; Vandewater & Stewart, 1997). The current study also focuses on the influence of family and/or work commitments on personality; however, it further sharpens this focus to whether the paths that this group of women followed were normative or not for their cohort. Specifically, the current research assesses the degree to which women who followed non-normative life paths have different personalities than those who followed more normative paths. A related but different question is whether women who pursue normative and non-normative paths differ in well-being in later life.

Young (2008) defines norms as "customary rules of behavior that coordinate our interactions with others" and notes that they "…impose uniformity of behavior within a given social group, but often vary substantially among groups." Thus, what is seen as 'normative' results from implicit and/or explicit norms, specifically through the

prescription of rules or codes for values, beliefs, attitudes, and behaviors. Conformity to norms generally results in rewards, such as approval and social recognition, whereas failure to follow group or societal norms often results in punishment, such as exclusion from or shunning by the group (or society). On the other hand, sometimes willingness to violate norms is valued, respected, or admired; for example, adopting revolutionary or heroic stances on outdated social norms, such as challenging racial segregation. Norms can evolve or vary not only through time but between cultures, social classes, and generations (Young, 2008); that is, what may be acceptable behavior for a certain generation may not be acceptable for earlier or later generations. Thus, for example, cohabitation of unmarried men and women may be uncommon in one generation or cultural subgroup, common as a stage before marriage in another, and accepted as a life choice in a third.

The current research investigates how the life paths and personalities of women in one generation may be related to their acceptance of or resistance to societal and gender norms. The overarching goal of this research is to broaden the body of knowledge concerning the contexts of personality development: how gender, social roles, social events, and cohort are associated with personality. However, it is worth noting that while an association between life paths and personality can be identified, no specific causal relationship or direction of causality can be established. Although the data available do not allow for a direct demonstration of the particular influence of societal views on personality, personality development, and well-being outcomes for women who follow non-normative paths, the impact of social views is implicit in the fact that we can classify normative versus non-normative life paths.

The following sections of this chapter are organized to (1) establish the theoretical underpinnings of the study, beginning with the concept of gendered social roles over time; (2) examine the concept of normativity, with particular focus on heteronormativity, as it relates to social roles, and the constraints it can place on women's choices regarding social roles. In this section, the specific non-normative life paths studied in this dissertation will also be introduced; (3) review empirical evidence concerning the relationship between social roles and personality development, as well as social expectations for how personalities are associated with social roles, and concomitant levels of well-being; and (4) introduce the particular questions of interest in the current research.

Gendered Social Roles and Norms

Social role theory (Diekman & Eagly, 2008; Eagly & Mitchell 2004; Eagly & Sczesny, 2009) states that the social roles men and women occupy are based on the expected division of labor between them; thus, each gender role has a set of societal expectations for its related behavior. At various points in history, societal stereotypes cast men as providers; parallel stereotypes cast women as nurturers because their reproductive role precluded their participation in the provider role. This can be seen most recently in the post-WWII 1950s when women, ousted from their war-effort jobs by returning servicemen, were encouraged to become homemakers, and marriage and childbirth rates dramatically increased (see, for example, Coontz, 1992/2000). Thus, gender roles entail shared expectations of behavior based on sex: they have certain characteristics or requirements attached to, and deemed necessary for, successful

execution of them. For example, to be a mother requires being nurturant. Consequently, because mothers are women, all women are expected to be nurturant.

Similarly acknowledging the influence of society, role congruity theory states that internalizing and conforming to social roles yields societal rewards whereas deviating from these roles incurs punishment. Such rewards and punishments regarding gender-normative behavior have been shown to be related to well-being and positive affect (Diekman & Eagly, 2008). Gender roles also influence expectations for women's and men's personality attributes: women are expected to be more communal and relational because they are nurturers, whereas men are expected to be more agentic and instrumental because they are providers.

Expectations states theory (Correll & Ridgeway, 2003) aims to explain how inequitable power structures emerge, and are maintained, within groups. One way is through gender stereotypes, which define the social expectations we have of men and women. People look for clues concerning what they can add to a certain task, compared to what they perceive someone else can offer. These self-other performance expectations (Ridgeway & Bourg, 2004) create hierarchies of behavior: people become socialized to expect that men (being agentic) are generally and uniformly more competent and have mechanical skill, whereas women (being communal) are better at nurturing.

These theories can be observed in both historical context and current practice, in both home and workplace settings. According to Bernard (1983), the five ground rules or conventions for marriage in Victorian times were that the woman's place was in the home, the husband was the head of the family, the marital bond was permanent, lifelong fidelity and sexual exclusivity were expected, and parenthood was a major component of

marriage (Bernard, 1983). Alongside this, a woman was to be obedient to her husband, and he would work in the outside world of business while she was a homemaker (Reissman, 1990). Despite increases in women's labor force participation, there is still evidence that women do more than half the housework in heterosexual partner households: women may have made headway into traditionally masculine domains, but men seem more reluctant to take on traditionally feminine roles such as housework or childcare (Hochschild & Machung, 2003). Moreover, women face more obstacles to labor force participation even as the number of women in the workforce continues to increase. Organizations are gendered, and a certain hegemonic masculinity still defines them (Acker, 2006; Diekman & Eagly, 2008): men are the ones seen as competent, strong, authoritative leaders. However, as more women enter male-dominated roles, social role theory predicts an increase in agentic behavior in women (Diekman & Eagly, 2008). Although social role theory does not specifically predict that the stereotypical masculine qualities of the role itself will change, it is possible that a sort of feedback loop will be created: as the demographic composition of the occupation changes, so will the appropriate behavior associated with it.

The existence of social roles has also been explored by developmental researchers for quite some time. Neugarten proposed that the "social clock," or the societal expectation of 'on-time' assumption of social roles such as wife and mother (Neugarten, Moore, and Lowe, 1965/1996), may also provoke personality development. Neugarten and her colleagues pointed out that there are widely-shared beliefs and conventions about the usual and ideal flow of life events; they noted social beliefs about the appropriate ages when certain life changes, such as getting married, having children, and retiring, are

made. Similarly, the transition from one specifically gendered social role to another can influence personality development. For instance, the loss of the role of 'wife' and the taking on of 'provider' when women get divorced can have both personal ramifications -- loss of identity, increased personal and fiscal responsibility, lower levels of economic well-being -- and related social expectations for women (Amato & Partridge, 1987; Etaugh & Poertner, 1991; Kohen, 1981; McKelvey & McKenry, 2000). Leaving a marriage and becoming the head of a household presents freedoms and challenges that may not only influence individual personality development but alter the way in which a woman is perceived within society.

Normativity

Given that a norm is a "…customary rule of behavior that coordinates our interactions with others'' (Young, 2008), it is clear that not only are there societal norms for the types of roles that women and men occupy as members of their respective genders, but also prescribed behavior within those roles, as well as a normative time when these roles should be assumed. These gendered norms for the role, the behavior within it, and the timing of it may also be malleable, or at least influenced by era or generation. The cohabitation of unmarried men and women is one example, but the specific condoned behaviors in roles such as wife, mother, and worker can also be influenced by social events and the age at which these social events are experienced.

Different generations may experience norms in different ways; that is, the norms themselves and/or people's adherence to them may change with the times. Major social events such as war or the Civil Rights and Women's Movements may change both norms and how they are followed. Theory and research have shown that we are better able to

understand how individuals are shaped when we understand more about the context of their lives: the era in which they lived, the norms for social roles they experienced and at what age and developmental stage they experienced them, and what influential social events they may have experienced.

For example, a number of researchers have explored the influence of generation on norms and expectations concerning social roles (Duncan & Agronick, 1995; Helson, Mitchell, & Moane, 1984; Neugarten & Datan, 1973; Stewart & Healy, 1989). Stewart and Healy developed a model that incorporates the timing of social events and their influence on role normativity and ultimately, personality development. Their theory is that personality is differentially affected depending on the age at which one experiences the social event, and they posited that events experienced in early adulthood can have lasting effects on identity, particularly if these events mark radical changes from the previous period. However, these same events experienced in mature adulthood will affect opportunities and behavior, but not identity, while those experienced in late adulthood could lead to identity revision. The authors used secondary analysis of data from women who had been graduate students at Columbia University during the postwar period (1945-1951), dividing them into smaller cohort groups based on their age at the time of World War II (WWII): older (born 1906-1914), middle (born 1916-1920), and youngest (born 1926-1930). This enabled the authors to examine the women's experience of WWII and its influence on the family and work patterns they undertook. They found that the older cohort had formed traditional family values and identities that did not encompass both work and family roles. However, the middle cohort, exposed to both altered social and work environments as well as postwar pro-family pressures at a

time of identity formation, experienced the balancing of work and family roles as contradictory, and therefore pursued them sequentially. The youngest cohort of women came of age after this period, when participation in the workforce as well as having a family was more feasible. For the youngest cohort, an identity based on traditional family values but holding non-traditional beliefs concerning working women were compatible; therefore, family and work could be combined. The Stewart and Healy model was used by Duncan and Agronick (1995), who studied the differential impact of the Women's Movement for young and middle-aged women. Women in both cohorts who found the movement meaningful were more assertive and self-confident at midlife than those who found the movement less important; moreover, the meaningfulness of the women's movement was associated with personality change in the middle-aged cohort.

Neugarten and Datan (1973/1996) illustrated the socio-historical influence on the social clock for different cohorts by comparing the different life trajectories of women in 1890 and 1966, concluding that social norms concerning marriage and childbearing are different during different historical periods. Expanding further on Neugarten and colleagues' work and applying it to a more recent cohort of women, Helson, Mitchell and Moane (1984) studied individual differences in patterns of social clock adherence, and highlighted the variability in commitment to social clock projects in a group of women who graduated from Mills College in 1958 and 1960. They found that the women's choice of social clock project in young adulthood was related to their midlife personalities.

In addition to socio-historical influences on social roles and the norms of behavior integral to them, the mechanisms by which these gendered norms of behavior are upheld

are important pieces of the story. One such mechanism is heteronormativity, which Jackson (2006) defined as a "…shorthand for the numerous ways in which heterosexual privilege is woven into the fabric of social life, pervasively and insidiously ordering everyday existence" (p. 108). Heteronormativity is deeply embedded within society; not only does it marginalize those outside its boundaries, but normative heterosexuality regulates people within its boundaries, creating hierarchies of power, values, and subsequently, acceptable behavior. Many institutions function in an implicitly heteronormative way; the traditional family, for example, is seen as reflecting the ideals of heteronormativity, involving marriage between a man and a woman, monogamy, and the presence of children (Elia, 2003; Miall, 1986). Within this regulatory nature of heteronormativity is the specific assumption that women will bear children, an attitude of pronatalism. Parry (2005) observed that pronatalism "…embodies the belief that a woman's social value is linked to her production of biological children" (p.337); in other language, the "Motherhood Mandate" (Russo, 1976) equates "woman" with "mother" (Morrell, 2000). Pronatalism, then, is a type of heteronormativity, which prescribes that women must be mothers.

Thus, heteronormativity can constrain the paths that women take over the life course. Taking a gender non-normative path is, by definition, unusual. Within this framework of heteronormativity, and following from the theory concerning roles and norms reviewed above, the women examined in this study are classified as either following non-normative or normative life paths. Participants are drawn from three samples of college-educated women who graduated in the 1960s and early 1970s: the Radcliffe College Class of 1964, the Smith College Class of 1964, and the Women's Life

Paths Study (WLPS), a group of women from the University of Michigan. "Non-normative" is specifically defined in this dissertation as a perceived lack of fit or inconsistency with the gender roles and norms that society expects women to adopt; for example, challenging the norms of remaining married, having children, and following a gender-congruent career (e.g., secretary, nurse, librarian). How personality development is related to these three particular non-normative paths is examined in a particular cohort of women.

Two important issues are worth keeping in mind in any study of the association between social roles and personality development: The direction of the association, and how -- or even if -- the role was chosen. The relationship between the path a woman follows and her personality is inevitably bi-directional. For example, she may possess the resilience needed to enter a predominantly male profession, and she may need to develop more resilience as she is faced with potential punishments for gender non-conformity as a woman in a man's world. The role of choice in the paths followed is also worth considering: Women may not fully choose their paths; the emergence of a more assertive personality may be provoked by a combination of choice and context, or decision and contingency. Or, in the case of women who do not have children, the outcome may have been intentional or a consequence of unintentional infertility (Chodorow, 2003). Although these issues are not directly addressed by the data analyzed for the current study, they are acknowledged and discussed.

Because normative and non-normative behavior is specific to generations (and cultures), it is important to situate the women in this particular study. All are college-educated women of a transitional cohort (Stewart & Vandewater, 1993); that is, they

were born during or just after World War II, and spent their childhood in a time of "traditional" or old-fashioned gender roles, when men were expected to be employed outside the home and women were expected to work inside the home to create a pleasant environment for their husbands and children. These women were young adults in the United States during the 1960s, a time when both the Women's Movement and the Sexual Revolution came to the fore (Stewart & Healy, 1989; Duncan & Agronick, 1995), thus exposing them as young adults to "second wave" feminist ideas about gender, and increased opportunities for women in graduate education and the labor force. As Stewart and Healy proposed, and Stewart (1994) confirmed in later research, although the age at which these women experienced the Women's Movement was fairly homogeneous, the women were often at different developmental stages. That is, even though this cohort of women found the Women's Movement to be relatively meaningful on average, the immediate influence of the Movement was moderated by their previous social experiences and the degree to which they focused on it. Stewart spotlighted the stories of three very different Radcliffe women's experiences: one whose personal perspective, developed in childhood and adolescence, was confirmed by the advent of the Women's Movement; one who assumed a significantly different worldview because of it; and one who did not immediately engage in it but for whom its meaning was deferred until early midlife. Clearly, the Movement did not change *all* women's lives immediately and irrevocably at the moment of its greatest social visibility.

Extending the research concerning women's social roles, the present study explores the potentially non-normative paths that women may take through adulthood. Specifically for the women in the current study, non-normativity pertains to non-

adherence to the roles of wife, mother, and appropriate female employment. Thus, three groups of women are studied within the generation of college-educated women born predominantly between 1943 and 1952 and who came of age in the 1960s; those who: 1) had children and were divorced by age 40 and did not remarry over the next twenty years; 2) did not have children; or 3) followed predominantly male professions. Arguably, this cohort of women could be defined as non-normative whatever life path they pursued: In 1972, only 16% of women aged 25 – 29 were college graduates, whereas 28% of men in the same age group were college-educated. Thus, young women were only 58% as likely as young men to graduate college.

In the next section, each of these three life paths is considered. In each case, statistical evidence concerning how each life path is atypical is reviewed, as is evidence concerning how each path violates gender norms for women.

Non-normative Life Path: Long-term Divorced Women with Children

While there is a plethora of statistics concerning when and why people get divorced, the literature concerning long-term divorced women with children is sparse. However, it is informative to review some of the history of divorce and how it has been viewed through the years (and, where possible, the history of divorced mothers in particular).

The norm for women in the 1960s was to get married, have children, and stay married (Bernard, 1983). Therefore, women violated this norm if they did not marry, or married and divorced, or if they decided to parent without a partner by either not getting married in the first place, or more commonly, deciding not to remarry. Of married women born in 1940, 24% were divorced by the time they reached 35; similarly, of

married women born in 1945, 29% had divorced by the same age (Schoen, Urton, Woodrow, & Baj, 1985). Of those women who divorced, approximately 73% to 76% remarried. Thus, most women of that particular era did not divorce; most of those who did, remarried; those who divorced and did not remarry are a distinct minority. More recent statistics show that although the numbers are increasing, divorced mothers who do not remarry are still in the minority: According to 2002 data from the United States Census Bureau, 32% of women who were divorced (or widowed) also had children (although this statistic also includes all women of child-bearing age, and is complicated by the presence of widows).

Studies concerning divorce and remarriage for women have examined different specific correlates and their results are often mixed. Many studies have linked divorce to decreased economic well-being (Amato & Partridge, 1987; Hilton & Anderson, 2009; Smock, Manning, & Gupta, 1999); Stirling (1989) observed that divorce often leads to increases in women's labor force participation. Whether women are heads of household in rural versus metropolitan areas can affect economic well-being, as Snyder and McLaughlin (2004) found using U. S. Census data: although the level of poverty for female-headed families declined in the 1990s due to increased earnings, poverty remained high for such families in rural areas.

Non-normative Life Path: Women without Children

Historically, women who do not have children have been viewed at best as lacking in femininity or with pity, at worst as having some sort of pathological problem (Koropeckyj-Cox, Pienta, & Brown, 2007; Letherby, 2002). Although these notions have somewhat lessened in recent years due to changing work and family patterns, whether

choice is involved (as in the case of voluntary childlessness or abortion) or infertility is involuntary, women who do not have children are still often seen as having something wrong with them (Zucker, 1999). This may be especially true for women who were born between 1946 and 1964, given that the huge numbers of babies born during the Baby Boom re-set the bar for expectations of childbearing.

However, there is a growing trend for women to delay childbirth, possibly as a result of women's increased education and workforce participation, and the number of women without children has also increased recently. Specifically, the percentage of women who were childless at age 30 increased from 15 in 1970 to 31 in 1987, although approximately half of those in the 30-34 age group were still intending to have children (Morbidity and Mortality Weekly Report, 1989). Statistics from the United States Department of Health and Human Services (1989) extends this increase to women aged 35: 22% were childless at the end of 1986, up from 9% in 1970. And the Census Bureau reports that from 10% of women aged 40-44 who were childless in 1970, the numbers increased and became fairly stable at about 20% between 1998 and 2004. These figures represent both involuntary and voluntary childlessness; however, there is evidence that purely voluntary childlessness has increased along with involuntary childlessness. The National Center of Health Statistics confirmed that the percentage of voluntarily childless women rose from 2.4% in 1982 to 6.6% in 1995 (the year before most of the women in the current study were asked whether or not they had children). Increases in childlessness have spawned a number of support websites, especially for people who choose to remain childless, such as "Happily Childfree" and "The Childfree Life," although this is a relatively recent phenomenon.

The fact that women who do not have children are a heterogeneous group is often overlooked (Dalton, 1992). Marital status can be conflated with the presence of children (Connidis & McMullin, 1996; Dalton; Kendig, Dykstra, van Gaalen, & Melkas, 2007) in that it is assumed that childless women will be *married* and childless. Although not a focus of the current study, other researchers have attempted to disentangle marital status, having children, and sexual orientation of women without children, examining the characteristics of never married heterosexual women without children and lesbians without children. In this way, a more complex and thorough picture of less-studied populations of childless women has been outlined. For example, Henehan, Rothblum, Solomon, and Balsam (2007) reported the prevalence of non-motherhood as very different for lesbians (61%) compared to heterosexual women (18%); however, Riskind and Patterson (2010) also found that lesbian women were less likely than heterosexual women to express desire to have children, although they were just as likely to express parenting intentions. Similarly, Connidis and McMullin found that never-married women more often attributed their childlessness to choice, whereas ever-married women attributed their childlessness to circumstance.

Whether childless by choice or circumstance, women without children remain in the minority, and certainly challenge what Miall (1986) observed as the continuing traditional norms surrounding fertility for married women: that "…all married couples should reproduce and…all married couples should *want* to reproduce" (p.268).

Non-normative Life Path: Women in Predominantly Male Professions

In the past few decades, occupational and educational opportunities for women have expanded greatly, and societal expectations for gender roles have also changed;

however, this overall change in women's access to better jobs and education is accompanied by a lack of specific change in certain areas. Women are not only expected to take care of family members, but also to have salaried work commitments, as men are similarly expected to participate more actively in childrearing (Carr, 2002). Although the number of women in the workforce has increased from approximately 31% in 1946 (Barnett & Hyde, 2001) to approximately 46% in 2006 (United States Department of Labor, 2007) and men are no longer the sole "good provider" for traditional families (Bernard, 1981), women still face sex segregation in the workplace (Reskin, 1993). On the face of it, this segregation describes the concentration of the numbers of women and men in different occupations, but there are also certain characteristics associated with "women's work," such as lower pay, fewer benefits and promotion opportunities, less on-the-job training, and less opportunity to exercise authority. This means that often, when occupations *are* the same for women and men, women work part-time or temporarily, or are "mommy tracked" (see Ehrenreich & English, 1989).

Although there is evidence of a decline in sex segregation in the work place, it seems to be changing at a glacial pace. Traditional gender role attitudes continue to limit women's educational and professional plans to some extent (Phillps & Imhoff, 1997), as well as career advancement. In a study of two cohorts of graduates from the University of Michigan Law School (graduates from 1972-1978 vs. graduates from 1979-1985) Noonan, Corcoran, and Courant (2008) found that the difference between the numbers of men and women who made partner had decreased. However, men remained more likely to make partner than women at both times: 57.6% (men) and 25.8% (women) between 1972 and 1978, vs. 50.2% and 30.3% (respectively) between 1979 and 1985. Similarly,

by the end of 2010, Cooley (2003) predicted that approximately 30% of all practicing physicians will be women, up from 12% in 1980 (statistics not yet available in 2011), although they predominantly specialize in family practice, pediatrics, and obstetrics-gynecology (Nieman & Gracely, 1999).

The persistence of sex segregation in the professions helps to maintain gender stereotypes for women who violate these norms by following a predominantly male professional path (Heilman, 2001). Women who do so are often punished through performance devaluation, denial of credit for success, and penalized for proven competence through co-workers' personal derogation ('ice queen') or the perception that they're less likeable. Furthermore, in contrast to their home-maker colleagues, female professionals were judged as being competent but cold (Cuddy, Fiske, & Glick, 2004), evoking "envious prejudice" from their male counterparts (Cikara & Fiske, 2009, p.77). And although female professionals with children were seen as less cold, they were also seen as less competent, an ironic twist in the gender-congruent social roles paradigm.

Thus, for women who follow a predominantly male career path, there can be consequences not only for other life domains, but also for how they are perceived. In a longitudinal study of women role innovators, or those who undertook male-dominated careers, Tangri and Jenkins (1986) noted the importance of having a career, attaining more education, not marrying, and having fewer children for participants in the Women's Life Paths Study (WLPS; see Method section for more information concerning this sample). They also commented that:

> …it is noteworthy that [these women] also reported more uncertainty about their career goals in 1970…Since this group was part of the leading edge of women in traditionally male work domains, their aspirations probably met with considerable resistance and challenge in the workplace and in postgraduate education. As such,

> they were more often under pressure to question their choices than were women in the other groups (p. 661).

In sum, women who follow a non-normative life path often exhibit certain personality development outcomes associated with both the particular social roles they undertake and societal expectations of the type of personality associated with the social roles.

Social Roles, Personality, and Well-being

In this section, theory and research concerning personality, personality development, the relationship between social roles and women's adult personality development, and people's expectations for normative behavior associated with women's social roles is reviewed. Additionally, violating norms for social roles by following a non-normative path and how this may be related to personality, personality development, and well-being is also examined.

McAdams and Pals (2006) recommended collecting personality data in multiple ways in order to create a full and rich account of a person, observing that although traits are a valuable and enduring way of capturing personality, they provide a sort of initial snapshot or sketch that needs to be fleshed out. They specifically articulate five principles necessary for "…an integrative science of the whole person" (p.205): evolution and human nature, dispositional signature (i.e., traits), characteristic adaptations (e.g., social roles), life narratives and meaning-making, and the differential role of culture. Each of these principles contributes to the person as a whole. For the purposes of the present study, the most pertinent of the principles are a person's dispositional signature, or the sketched outline of personality provided by traits, and a person's characteristic adaptations, or their responses to time, situations, and social role.

Personality and Personality Development

Personality traits, such as those assessed by the Big Five – Extraversion, Agreeableness, Openness, Conscientiousness, and Neuroticism - are relatively stable across the lifespan (e.g., McCrae & Costa, 1990), and although they may also exhibit consistent patterns of mean-level developmental change over the life course (Roberts, Wood, & Lodi-Smith, 2005), they are stable over time in their relative importance. Research has also shown that the traits exhibited by women and men are expected to be, and often are, different (Costa, Terracciano & McCrae, 2001; Srivastava, John, Gosling and Potter, 2003). In a study of adults aged 21 to 60, Srivastava et al. found that the differences in patterns of change for men and women in Big Five traits over time are complex and related to gendered developmental influences. Women were consistently higher than men on Conscientiousness, Agreeableness, Neuroticism, and Extraversion, but lower on Openness. Like men, however, their levels of Extraversion and Openness remained relatively stable with age; additionally - like men's - their levels of Conscientiousness and Agreeableness increased. However, unlike men, their levels of Neuroticism decreased over time. According to Srivastava et al., this would indicate that women in their early 60s are relatively high in Conscientiousness and Agreeableness, their Neuroticism is comparatively low, and their levels of Openness and Extraversion have not changed since early adulthood.

Costa, Terracciano, and McCrae (2001) also found gender differences in personality, with women reporting higher levels of Neuroticism, Agreeableness, Warmth, and Openness to Feelings, whereas men reported higher levels of Assertiveness and Openness to Ideas. The authors suggest that these differences may reflect behaviors

attributable to gendered role requirements rather than differences in the personality traits themselves. However, they also allude to the difficulties inherent in the Five Factor trait model of personality; that is, the range of facets encompassed by a single factor and how this can cause variant results. An example Costa et al. give is that of Extraversion, which combines elements of dominance and nurturance: Men are higher in assertiveness and excitement-seeking facets, whereas women are higher in warmth, gregariousness, and positive emotion facets. Thus the use of broad factors can result not only in inconsistent gender differences, but also mask within-gender variation. Such findings appear to be consistent with McAdams and Pals's (2006) observation of the need for a more nuanced picture of personality.

The use of Erikson's (1982) epigenetic stage development theory as a framework for personality development in the present study is also consistent with McAdams and Pals's recommendations. Specifically in this research, the penultimate stage of the eight stages is examined: generativity. Generativity (Erikson, 1980) involves producing something that will outlive the self, or contributing to the well-being of the next generation. Erikson believed that midlife is the time when it is most likely that men and women concern themselves with creating such a legacy. However, evidence also suggests considerable variability regarding when generativity first emerges (McAdams, 2001; Peterson & Stewart, 1993), and when it peaks (Stewart et al., 2001; Zucker, Ostrove, & Stewart, 2002). And although commitment to having a family has been found to be associated with generativity (Stewart & Vandewater, 1993), other research has also demonstrated that career women can be generative through occupational mastery and helping others (Peterson & Stewart, 1996), and women providing care for a parent also

exhibited high levels of generativity (Peterson, 2002). Thus, women can express their generativity by not only producing off-spring, but also producing ideas or mentoring; therefore, generativity can be expressed in different ways and to different extents in many of the social roles woman undertake.

Social Roles and Women's Adult Personality Development

The bi-directional association between life path and personality is well-documented, perhaps especially for women, whose life paths often include periods of alternating or concurrent social roles. Researchers have acknowledged that personality not only influences the undertaking of social roles, but is also influenced by such undertakings. Social roles, such as wife, mother, and career woman, and major social events, such as the Women's Movement, are not only associated with personality development (Duncan & Agronick, 1995; Helson, Mitchell, & Moane, 1984; Helson, Pals, & Solomon, 1997; Lodi-Smith & Roberts, 2007; Roberts, Helson, & Klohnen, 2002; Stewart & Vandewater, 1993; Vandewater & Stewart, 1998), but also expectations for normative role change (Helson, Mitchell & Moane, 1984), and the historical era in which personality develops (Stewart, 1994; Stewart & Healy, 1989).

For example, Stewart and Vandewater (1993) found that women who came of age in the early 1960s, who had committed to careers but not families at age 28 had little focus on generativity at age 43. In a similar vein, Vandewater and Stewart (1998) also found that among women of the same cohort, those who were continuously committed to careers showed high levels of instrumentality and assertiveness, whereas those who had never committed to careers showed relatively low levels of instrumentality, high dependence, low ambition, and low self-reliance. This particular study underscored the

wisdom of studying women's patterns of commitments over time, given that single-time personality profiles in relation to social roles may be misleading. That is, women continuously committed to traditional family roles (always married) and those who kept trying such roles (divorced and/or remarried) were most similar to each other regarding positive feelings about social norms, although their life paths were quite different.

Social Expectations Regarding Social Roles and Personality

The deeply-entrenched societal belief that there are appropriate behaviors associated with specific social roles, a concept that has been the focus for many personality researchers, is central to role congruity theory (Diekman & Eagly, 2008). Wood and Roberts (2006) found that people of all ages expected parents to possess relatively high levels of Agreeableness and Conscientiousness; this also held true for grandparents, although they were also expected to exhibit low levels of Extraversion. In studies by Etaugh and colleagues, divorced parents were viewed less favorably than married parents, especially divorced mothers, who were seen as less nurturant, less well-adjusted, and irresponsible (Etaugh & Nekolny, 1990; Etaugh & Poertner, 1992; Kohen, 1981). The existence of negative stereotypes of divorced women and the lack of acceptance as their family authority was also acknowledged by Kohen (1981).

In reviewing the research findings for women who do not have children, it becomes apparent that societal expectations not only prescribe acceptable behaviors, but also the preferred accompanying personality for women without children. Women are expected not only to become mothers (Miall, 1986; Zucker, 1999) but also to be nurturing as well as invested in their motherhood role (Lodi-Smith & Roberts, 2007; Roberts, Wood, & Lodi-Smith, 2005). The inference from this, combined with the research of

Wood and Roberts (2006; see above) is that women who do not have children are expected to be low in Agreeableness, Extraversion, and nurturance. Morrell (2000) and Parry (2005) both found supporting evidence for the generally negative way in which women who do not have children were viewed, as articulated by the women themselves; that is, they were seen as "lacking, incomplete, or inadequate" (Parry, p. 342), or "deficient" (Morrell, p. 313). Therefore it would seem that both long-term divorced women with children and women without children are perceived as 'less feminine.'

Social expectations of women who follow predominantly male professions are also somewhat negative, although more through the perception that they are 'more masculine' rather than 'less feminine.' Similar to Wood and Roberts's' (2006) study regarding expectations of parents' personality characteristics, Mueller and Yoder (1997) found that people's expectations for women in male-dominated professions were that they were less expressive and more socially distant. However, in earlier research, Lemkau (1979) reviewed literature concerning women in male-dominated occupations between 1930 and 1976, and found that these women were high in competence and although no less warm or expressive than women in female-dominated careers, they were more focused on ideas than people. However, more recent research by Cuddy, Fiske, and Glick (2004) found that female professionals were judged overall as being high in competence and low in warmth, and although female professionals who have children were judged as less cold than female professionals who didn't have children, they were also seen as less competent.

Clearly, not only are women's personalities associated with the social roles they are involved in, but also the social expectations for those roles. Moreover, women may

face social disapprobation if the roles they engage in are deemed somehow deviant from the gender norms of society; therefore the present research aims to assess the personalities and well-being of women who took non-normative paths in life, and to compare them to their normative path-taking counterparts. In doing so, this study can also assess the influence of the often-negative societal views of women who take non-normative life paths. However, although other empirical research has documented social views of women who follow non-normative life paths, the current research does not.

Empirical Evidence Concerning Non-normative Life Paths, Personality, and Well-being

Not only are the personalities and well-being of women who have followed non-normative life paths examined in this dissertation, but also the potentially-shared propensity of these women to challenge the status quo regarding general societal norms and how they are perceived to fit (or not) specific gender norms. Previous research supports this notion: Davis and Greenstein (2004) found that for women, holding non-traditional gender ideologies was associated with being divorced; Bram (1984) also found that having a less conventional sex role orientation was associated with childlessness; and women in traditionally male-dominated occupations were perceived by others as 'less feminine' (Lemkau, 1979; Mueller & Yoder, 1997). In all cases, a gender atypical life path was associated with some sort of non-normative personality: one that questioned societal norms regarding gender roles.

Long-term divorced women with children. Much of the extant literature concerning divorced mothers is primarily focused on well-being outcomes (see below), although some researchers have examined the association between personality traits such as Conscientiousness and commitment to stable partner relationships (Neyer & Asendorpf,

2001). A handful of studies have focused on the relationship between divorce and personality in women; these have mostly been conducted after the event and should be considered in light of the consequences of becoming divorced. Spivey and Scherman (1981) found that long-term divorced women, compared with recently-married, long-term married, and recently divorced women were more imaginative, bohemian, and absent-minded, as measured by Cattell's pleasure-seeking/hedonistic factor (Factor F of the 16 Personality Factor (16PF); Cattell, 1956). Fahs (2007), in a study of middle-aged female University of Michigan graduates (WLPS; see Method section for a full description), found divorced women to be more liberal and to have more of an active commitment to feminist identity than their married counterparts.

Both Thomas (1982) and Bursik (1991) found that women who achieved the best post-divorce adjustment showed significantly higher levels of traits such as dominance, assertiveness, self-assurance, intelligence, self-sufficiency, and increased ego development; for women (and possibly men) divorce can also lead to "…increased freedom from gender-role constraints" (Stewart, Copeland, Chester, Malley, & Barenbaum, 1997, p.3). Moreover, the person initiating the divorce can be a key factor (Kohen, 1981; Sakraida, 2005). For example, Sakraida found that the transition to divorce was described as a time of growth and optimism by initiators, whereas non-initiators felt abandoned and engaged in rumination. This last theme of negative personality change was also investigated by Kohen, who found that the transition from married to divorced parent brought about questions of self-identity for women, given that divorced mothers were often treated as "…irresponsible, incapable, childlike, and sexually promiscuous" (p.234). How such assertions are related to divorced mother's

personalities in terms of traits and generativity is one of the concerns of the current research, although there is little theory or research on which to base hypotheses. Additionally – and for all life paths focused on here, whether normative or non-normative - the present study does not include specific data regarding social perspectives on long-term divorced women with children. However, previous research makes it clear that women who violate the norm of remaining married for the sake of the children are perceived as deviant.

Women who do not have children. The types of personalities exhibited by women who do not have children are often confounded with how society views them (Morrell, 2000; Parry, 2005). Similarly, research often focuses on parenthood as an expression of generativity (Erikson, 1980); Srivastava et al. (2003) also observe that Agreeableness, one of the Big Five factors, should be associated with parenting and generativity due to the role's nurturing and prosocial behaviors. Many researchers have also acknowledged the wide variability regarding generativity's emergence (McAdams, 2001; Stewart, Ostrove & Helson, 2001; Peterson and Stewart, 1990; Zucker, Ostrove and Stewart, 2002; Miner-Rubino, Winter, & Stewart, 2004). However, Newton and Stewart (2010) found that, whether women were committed to career, family, or both, levels of generativity increased for all groups from early to late middle age. Thus, whether women have children or not may be less related to their exhibited generativity levels in late midlife than the type of activities in which they have engaged, such as mentoring in the context of their careers.

The pervasiveness in society of pronatalism (Parry, 2005), or the notion that women's social value is linked to their ability (and inherent desire) to procreate (Hird &

Abshoff, 2000; Russo, 1976; Morrell, 2000), creates a challenging environment for women without children, whether by choice or through circumstance. Clearly, to be a childless baby boomer is to be somewhat of an anomaly. Bram (1984) conducted in-depth interviews with 30 childless and 53 intending-to-be or currently parents, finding that childless women were less 'traditional' in their sex role attitudes. However, as with divorce, women's experiences of childlessness are many and varied, and can depend on whether women are voluntarily or involuntarily childless (e.g., Scott, 2009).

Women who choose not to have children are very much aware of the pronatalist attitudes of society: Parry (2005) interviewed 32 women aged 30 to 53 who were childless by choice, and commented that "Many of the participants perceived that pronatalism perpetuated the belief that women without children are considered lacking, incomplete, or inadequate" (p.342). Morrell (2000) also articulated this sentiment in a study of intentionally childless women: "Women who purposefully do not have children are not taken on their own terms but are measured by the idealized standard of motherhood and thus found deficient" (p.313). Thus, societal notions of being somehow lacking, combined with evidence of low generativity and less traditional sex role attitudes, create a limited yet complex picture of the personalities of women without children.

Women in predominantly male professions. Many researchers have examined the relationship between profession and personality for women. In her study of 'role innovators,' or women who had chosen a male-dominated career, Tangri (1972) found that such women were autonomous, individualistic, and achievement-oriented, and saw themselves as more unconventional. Using Tangri's WLPS sample - see current method

section for more detail – Jenkins (1994) found that women high in the need for power were *not* more likely to choose and enter the same careers (journalist, business executive, college faculty) as men high in the need for power, but that high levels of power motivation predicted career progression for women in power-relevant careers. Srivastava et al. (2003) assert that, in general, Conscientiousness has been associated with work performance and work commitment for both women and men. In an earlier study of the Radcliffe Class of 1964, Stewart (1980) found that personality variables – the need for Achievement and Self-definition - predicted career persistence and career type. Reviewing research concerning the personality/occupation relationship, Roberts, Wood, and Lodi-Smith (2004) observed that women who had higher labor force participation showed increases in self-confidence and social dominance; occupational success was related to increases in dominance, and job satisfaction was related to decreases in negative emotionality. Using the California Q-sort (Block, 1971), Clausen and Gilens (1990) found that over a period of 40 years, women high in labor force participation exhibited significantly increasing levels of self-confidence, as well as assertiveness and intellectual investment. And Helson and Picano (1990) found that women who worked between the ages of 20 and 43 demonstrated more positive developmental gains in overall personality traits than home-makers; similarly, Roberts (1997) also found that women who worked more became more agentic.

A recent study highlights the manner in which prescriptive stereotypes still linger for women in professional occupations: Brescoll and Uhlmann (2008) found that 'angry women' were perceived as more competent than 'sad women'; however, both higher status and higher salaries were awarded more often to sad women and angry men than to

angry women. The role of personality in initially choosing a non-normative profession was the focus for Phillips and Imhoff (1997), who observed that women with more instrumental (or agentic) traits, as well as those with more egalitarian attitudes regarding women's social roles, were more likely to choose non-traditional professions. Finally, in a longitudinal study of female physicians who graduated from the University of California, San Francisco, in 1967, Cartwright and Wink (1994) found that women showed a greater tendency to question duties and obligations between their 20s and 30s, whereas between their 30s and 40s they increased in leadership potential.

In sum, these studies show that although personality can play a part in the initial choice of a career, following a predominantly male profession may be a powerful antecedent to women's personality development, particularly one in which specific behaviors are prescribed.

Well-being. How one feels about one's life in general can be a consequence of one's personality, the social roles one has undertaken, or a complex combination of these factors. Many researchers have examined this relationship between personality, life paths, and subjective well-being, especially in women.

Developmentally, changes in women's well-being may be a function of time. In a study of women in 'the prime of life', Mitchell & Helson (1990) observed that women in their 50s described their quality of life as 'first rate' (p. 465). The authors commented that this time of life is characterized as a "post-parental" period, when issues of menopause and empty nest arise, and that their findings run counter to previous work depicting these factors as negative influences on subjective well-being. Although Roberts & Chapman (2000) found that increases in women's dispositional well-being

across the lifespan were small, women who were more satisfied in their work and marriage and who experienced less marital tension had increasing feelings of optimism, confidence, and openness as well as decreasing mood complaints and social anxiety.

The specific types of social roles and contexts in which women engage can alter the developmental arc of well-being. For example, research concerning divorced mothers has shown that they often exhibit lower well-being than their married counterparts, although this can depend on the individual and the type of well-being measured. Other factors, such as education and race, can also be influential: In an Australian study, Amato & Partridge (1987) found that economic well-being was consistently lower for divorced mothers compared to married mothers; however, young, well-educated mothers – whether divorced or married – showed similar high levels of well-being. Comparing African American women and White women, McKelvey and McKenry (2000) found that African American divorced mothers had higher economic well-being and received greater formal support, although White mothers received greater *in*formal support post-divorce.

Interestingly, among women aged 51 to 61, Koropeckyj-Cox, Pienta, and Brown (2007) found no difference in psychological well-being between those who were married, those without children, and those who were married with children; Hoppmann and Smith (2007) also found no difference in well-being between women with or without children. Using Ryff's (1989) psychological well-being measure, which includes the attributes of self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth, Rotrauff and Cooney (2008) found a positive association between Erikson's (1980) concept of generativity and psychological well-being; this association did not differ between women who did or did not have children. Similarly,

using the short form of Ryff's measure, Jeffries and Konnert (2002) found that voluntarily childless women showed higher levels of well-being than involuntarily childless women.

Other factors concerning the well-being of women without children are worth considering. The age of research participants may have an influence on the differences found in comparison groups for childless women; for example, parents of young children were found to have lower well-being than childless couples (Umberson, Pudrovska, & Reczek, 2010), although this difference in levels of well-being may diminish as children grow to adulthood. Measuring the relationship between well-being and childlessness in later adulthood, when childbearing years are past, may make more sense, given that being childless continues well beyond middle adulthood and into the years often devoted to grand-parenting (Connidis & McMullin, 1996). Further potentially relevant influences on well-being for women without children are the myriad 'life situations' of childless women that can influence levels of well-being. These include caring for family members (Connidis & McMullin), and especially for lesbian childless women, decreased support from family of origin due to their sexual orientation (Henehan, Rothblum, Solomon, & Balsam, 2007).

Surprisingly, given the difficulties that women in predominantly male professions often experience –- lower wages, fewer benefits, and fewer promotional opportunities than their male counterparts, 'mommy tracking,' and a potential lack of support for their work on the home front -- psychological well-being for women in predominantly male professions has proven to be remarkably robust. Roberts, Wood, and Lodi-Smith (2004) found that greater labor-force participation for women was associated with greater self-confidence and social dominance. Additionally, Lemkau (1979) found that women in

male-dominated professions were higher in self-competency than their colleagues in gender-congruent professions.

Questions the Current Research Seeks to Address

By definition, a non-normative life path is one that does not conform to societal ideas of expected behavior; for the women in the present research, the expected behavior was that they would marry and remain so, have children, and follow a profession that was gender-congruent, such as nursing or teaching. This may be especially pertinent for women who came of age as the Women's Movement became a widespread phenomenon, as indeed the women in the current study did. The expectations for the social roles women should occupy and how they should behave within those roles, as well as the often stereotypical notions of the types of women who neither followed normative paths nor conformed to normative behavioral expectations, can affect subsequent development of personality and well-being.

For example, women who (1) had children, divorced, and remained that way, long-term; (2) did not have children; and (3) followed a predominantly male profession may share a common disposition to challenge societal norms and a poor fit with gender norms – or they may have developed this disposition by following a non-normative path. Moreover, certain personality characteristics may be associated with pursuing a *particular* non-normative life path. Specifically, given the research on divorce, women in this position may be expected to display personality attributes such as self-sufficiency, self-confidence, and growth as well as optimism, liberalism, and a strong feminist identity. For long-term divorced women who also have children, this may be especially true, as they struggle not only with potential economic hardship but the assumption of a

new role as household head and the negative societal expectations and stereotypes involved in the transition. Similarly, we might expect that women without children would exhibit personality characteristics that reflect having to deal with the societal attitudes that their choice or circumstance elicits. Arguably positive characteristics, such as the tendency to be less submissive or acquiescent, and perhaps more open -- as engendered by greater investment in roles other than motherhood (Lodi-Smith & Roberts, 2007) – may be offset by arguably negative characteristics such as defensiveness, increased self-focus, and lower nurturance. And, following the abundance of research concerning the relationship between women's personalities and the types of careers they pursue, whether male-dominated or not, it may be that the type of women who embark on non-normative career paths are more likely to be concerned with ideas or intellectual pursuits than family. They may also be higher in agency, have high achievement aspirations, isolate themselves from social situations, and question rules.

As far as well-being is concerned, we might expect that this would be uniformly low in women who, due to their non-conformity to societal norms, are continually defined socially at best by norms they do not embody and at worst as being deficient. However, it may be more correct to expect *no* difference in levels of well-being for women who follow non-normative life paths when compared to their normative colleagues. Previous research reviewed here has found that women at a life stage similar to that of women in the current study - late 50s/early 60s – were quite content with their quality of life (Mitchell & Helson, 1990), and that well-being increases across the lifespan (Roberts & Chapman, 2000). Perhaps more pertinent to the current study is research by Amato and Partridge (1987), who found no differences in personal well-

being (which included emotional adjustment and general satisfaction with life) for divorced women with dependent children compared to married women with dependent children. Similarly, Koropeckyj-Cox, Pienta, and Brown (2007) found no differences between the well-being of older women without children and women who have children; and Huang, El-Khouri, Johansson, Lindroth, and Sverke (2007) found no differences in life satisfaction between two groups of Swedish women whose occupations in their 40s were differentiated by their years of education: career women and women who undertook fulltime work.

The studies reviewed here have found little or no difference between normative and non-normative women on measures of well-being, even when considering the wide variations concerning the role of choice in the paths women followed, or how individuals and societal expectations interacted. The women in the current study may also exhibit relatively high well-being (or not), despite or because of the potential difficulties they may have faced in following the life path they did.

Hypotheses

The current study examines five hypotheses concerning the relationship between following a non-normative or normative life path and personality, personality development, and well-being for women in late middle age.

Hypothesis 1: All three groups of women who followed non-normative life paths will be higher than their counterparts who followed normative paths in the observed disposition to challenge norms, as measured by items from the California Q-sort (CAQ; Block, 1961; 1971; 2008). Scoring low on general norm-challenging items such as "Judges self and others in conventional terms like 'popularity,' social pressures, etc.,"

indicates challenging social norms. This pattern will also hold for gender norms: scoring low on feminine norms (e.g., "Genuinely submissive; accepts domination comfortably") or scoring high on masculine norms (e.g., "Values own independence and autonomy") will indicate raters' perception of the women's lack of fit with gender norms.

Hypothesis 2: Based on Erikson's ideas, the relationship between generativity and having children for women following a non-normative life path, perhaps especially those women without children, will be tested. That is, women who followed any of the three non-normative life paths – women without children, long-term divorced women with children, and women in predominantly male professions - will express fewer generativity themes than their colleagues who followed normative life paths. The Loyola Generativity Scale (LGS; McAdams & de St. Aubin, 1992) will be used to measure generativity, as well as two different methods of coding open-ended questions for themes of generativity (Stewart, Franz, Paul, & Peterson, 1991). Additionally, women who remained married but did not have children will exhibit lower levels of generativity than women who remained married and had children, and women in predominantly male professions who have children will also exhibit lower levels of generativity than women in predominantly female professions who have children.

Hypothesis 3: Despite the differences between normative and non-normative life paths for women, it is difficult to make clear predictions about the implications of those differences for broad personality traits. Since there is considerable variability in the role of choice in many life paths, and many combinations of traits are needed for the successful negotiation of different roles, broad, descriptive higher-order personality factors (such as the Big Five) may or may not differ between the groups in this study.

Some researchers (Neyer & Asendorpf, 2001; Roberts et al., 2005; Srivastava et al., 2003; Wood & Roberts, 2006) have argued for differences between each non-normative group and its normative counterpart on the traits assessed by the Big Five personality inventory (BFI; Agreeableness, Conscientiousness, Openness, Neuroticism, and Extraversion; John, Donahue, & Kentle, 1992), while others suggest these higher order traits will not capture differences (Costa, Terracciano, & McCrae, 2001; Helson & Kwan, 2000; Paunonen & Ashton, 2001). The hypothesis that there are broad personality trait differences between groups will be tested.

Hypothesis 4: Similarly, some have argued that there are differences in levels of broad indicators of well-being (such as the Satisfaction with Life scale (Diener, Emmons, Larson, & Griffin, 1985) and the short form (18 items) of Ryff's (1989) Psychological Well-being scale (Ryff & Keyes, 1995)) for women who followed a specific non-normative life path and their colleagues who followed a normative life path (Hoppmann & Smith, 2007; Koropeckyj-Cox, Pienta, & Brown, 2007; Rotrauff & Cooney, 2008). Alternatively, to the extent that every life path offers opportunities for life satisfaction and well-being, there may not be overall differences between these groups (Mitchell & Helson, 1990; Roberts & Chapman, 2000). The hypothesis that well-being does differ will be tested.

Exploratory hypothesis

Hypothesis 5: Each non-normative life path group of women, as well as a normative life path group of women, will exhibit a different personality and well-being profile. That is, there will be different combinations of the constituent personality factors (the Big Five, generativity) as well as well-being factors (life satisfaction, psychological

well-being), for each of the non-normative life path groups as well as the normative life path group of women.

Chapter II

Methods

Participants

This study drew on three samples of women: the Radcliffe College Class of 1964, the Smith College Class of 1964, and the Women's Life Paths Study (WLPS). These three samples were all comprised of college-educated women of about the same age, and affected by the same historical period; where possible they were analyzed as one aggregate sample. Of this overall sample, Radcliffe participants made up 20%, Smith participants 43%, and Women's Life Paths Study participants 37%. However, it was sometimes not possible to use the aggregate group, given the data available for each sample, so sample size differed for each analysis.

Women of the Radcliffe College Class of 1964 have been studied since they were first-year students in 1960, when two hundred and forty-four women took part in the initial survey; since then, over 100 women have participated in each subsequent assessment (see Stewart, 1978, 1980; Stewart & Vandewater, 1993, for fuller descriptions of the original sample). As previous research has shown (Peterson, 2002; Peterson & Stewart, 1996; Stewart & Ostrove, 1993; Stewart & Vandewater; Torges, Stewart, and Duncan, 2008), the women who participated in this study generally came from privileged backgrounds and received an excellent education. In the most recent follow-up, when the women were in their early 60s (2005), 105 women completed a mailed or online questionnaire that sought basic demographic information as well as open- and closed-

ended questions concerning a variety of personality data as well as life events and influences. For this study, data collected in 1986, 1990, and 1996, when the women were (on average) 43 (*N* = 103), 47 (*N* = 149) and 53 (*N* = 119) were also used. No significant differences on twelve variables including demographics, health, yearly income, life changes, and life satisfaction were found between those who did and those who did not participate at all time points.

Women of the Smith College Class of 1964 closely resembled the Radcliffe sample, in that they were born into and experienced the same social events. Both schools were elite single-sex colleges at the time, though the Radcliffe campus was considered "coordinate" with the Harvard campus; that is, Radcliffe students shared some of the facilities available to Harvard students, took some of the same classes (but many were separate) and had no access to the Harvard library. Unlike the Radcliffe sample, the Smith women were not contacted until they were middle-aged; however, as with the Radcliffe sample, women were surveyed in their early 50s (*N* = 150) and early 60s (*N* = 145). Fuller descriptions of the sample are contained in Duncan (1999), Peterson and Duncan (2007), Stewart, Ostrove, and Helson (2001), and Torges, Stewart, and Duncan (2008). Comparisons showed that in terms of eight variables including demographics, health, and life satisfaction, women who participated in both 1996 and 2005 did not differ from those who participated only once (at either time), with the exception of life changes and energy level: those who participated twice had fewer life changes and higher energy levels than those who participated only once.

The sample of WLPS women differed from the preceding two samples in two ways: They graduated from college slightly later (in 1967-1973), and attended a large

coeducational public institution (the University of Michigan). In addition, approximately 33% of the sample was African American, whereas virtually all of the Smith and Radcliffe graduates were White. The most recent data collection took place in 2008 (*N* = 244) when the women's ages ranged from 54 to 63 with a mean age of 62. The present study also used data collected in 1992 (*N* = 215) when the women were between 38 and 47, with a mean of 45. Further details regarding the sample are discussed in Cole and Stewart (1996) Stewart and Vandewater (1999) and Tangri and Jenkins (1986). Comparative analyses revealed that, like the women in the Radcliffe and Smith College samples, WLPS women who participated in all assessments did not differ on six variables that included life satisfaction and most demographics, with the exception of divorce: women who participated in both data collections were less likely than those who participated once to have been divorced. In sum, three of the 26 (12%) comparison analyses were significantly different for those women who participated in all data collections compared to those who participated in fewer waves: Life changes, energy levels, and divorce. Since this was slightly higher than expected by chance, it is possible that these variables may reflect difficulty in contacting the women, or their lower inclination to complete the mailed-out surveys, given their attention to coping with divorce and subsequent life changes.

It should be noted that there are many ways in which women can be 'non-normative' and also many normative groups with which they could be compared; in this study three specific groups were chosen that were non-normative for the generation being studied (i.e., women who were young adults in the late 1960s and early 1970s), as well as three specific normative comparison groups. They were:

- long-term divorced women with children, who were compared to women who remained married to the same man and had children
- women who did not have children – that is, women who did not raise children who were biological, adopted, or step-children - who were compared to women who had children, whether biological, adopted or step-children
- women employed in predominantly male professions (and mainly those requiring a doctoral-level qualification), who were compared to all other women employed in professional occupations that require a master's degree, such as social work or nursing.

Level of education was included as a criterion for employment in a predominantly male profession because it was closely related to the pursuit and attainment of such a job for this sample of women, χ^2 (155) =82.6, p = .00, φ = .73. It was equally important to ascertain whether level of education was related to other decisions pertinent to this study, such as having children and marital status. Education was independent of these decisions, and was also independent of being divorced with children or being long-term married with children. Education was also not related to any of the personality or well-being variables included in the current research.

Across all three samples in the current research, the sizes of the groups compared were as follows:

- 54 women with children who were divorced before they were forty and did not remarry by the time they reached their 60s were compared with 191 women with children who had remained married to the same man;

- 72 women who did not have children were compared with 501 women who had children; and
- 139 women in predominantly male occupations, or those requiring a doctorate level degree and/or were high-level chief executives in large corporations were compared with 167 women who undertook predominantly female occupations, or those requiring a master's degree or less.

In the current sample, 45% of the working women were in predominantly male occupations. Of these women, 36% were academics, 13% were lawyers, 27% were physicians, and 24% had undertaken "other" high status occupations, such as having a private practice as a professional psychologist, or being a partner in a major advertising agency. These figures are based on data collected in 1996 for Radcliffe and Smith, and 1992 for WLPS. Data from the 1990s were chosen for this assessment because at this stage of their lives (when the women averaged 48-53 years of age), most women were in stable positions within their occupations; that is, they were neither taking family leave nor retiring.

Measures

Non-normative Group Membership

Long-term divorced women who had children. For each sample (Radcliffe, Smith, and WLPS), marital status was first ascertained for the women from data collected in their 40s, and checked against data collected at each subsequent follow-up. Thus, the long-term divorced group included Radcliffe women who were divorced by 1986 and remained that way through the 1996 and 2005 data collections. Smith women reported the age of their first divorce in 1996, so women were included as long-term divorced if

they were first divorced by their early 40s, and were still divorced through 2005. For WLPS women, divorce and marriage data were available for both the 1992 and 2008 waves, and women who were divorced by 1992 and still divorced in 2008 were included in the group. For all three samples, marriage and divorce data were combined with presence or absence of children to form the non-normative group of women who were long-term divorced and had children; there were 54 such women (14 (26%) from Radcliffe, 18 (33%) from Smith, and 22 (41%) from WLPS). (It should be noted that very few women were long-term divorced and did not have children: overall, a total of eight women across the three samples were in this group). The comparison sample for the long-term divorced women with children was women who were married throughout the same period to a single man, and who had children. There were 191 women in that group (60 (31%) from Radcliffe, 68 (36%) from Smith, and 63 (33%) from WLPS).

Women who did not have children. For two of the subsamples – Radcliffe and WLPS – answers to two questions were taken into consideration when ascertaining if women did or did not have children: "Have you ever given birth?" and "Have you raised or helped to raise children?" These data were gathered in 1996 (Radcliffe) and 1992 (WLPS) and used to create an indicator of childlessness for these two subsamples. In 1996 the Smith sample reported the "number of children" they had; those who had none were included in the 'women who did not have children' group. Data were taken from the 1990s in all cases because the women were in their late 40s and early 50s, a time at which childbirth is usually past. Overall, there were 72 women who had not had children and 501 who had; of those who had not, 15 (21%) were from the Radcliffe sample, 26 (36%) were from the Smith sample, and 31 (43%) were from the WLPS sample.

Women in predominantly male professions. Membership in this group was based on the Hollingshead and Redlich (1958) classification scheme, which was consistent across all three subsamples, combined with the acquisition of a doctoral-level professional degree (PhD, ED, MD, or JD). These data were taken from the 1996 (Radcliffe and Smith) and 1992 (WLPS) waves of data; the women were in their late 40s or early 50s and relatively stable in their occupations, not likely to be at home with small children or retired. Predominantly male professions were identified from Hollingshead and Redlich's category for "executives and major professionals" (p.390), and 139 (45%) of the women fell into this category and had also gained a doctoral degree. There were 23 women who were categorized as major professionals but who did not have a doctoral-level degree; these were mostly women in the business sector who held positions such as Vice President or Director, or who actually owned their own company, and were included in the group of women in predominantly male professions.

One hundred and sixty-seven women (30%) were classified as working in predominantly female occupations; they were categorized within Hollingshead and Redlich's "minor professionals" group and had also received a master's degree. These two categories seemed of greatest interest for comparison, because they both required some sort of graduate-level degree. However, one important difference between them was that completing a doctoral-level degree at the time meant that women intended to undertake a career in a male-dominated field. Of the remaining categories, there were 124 administrative workers (22%), 22 (or 4%) sales/clerical/technical workers, 10 skilled laborers (2%), 2 semi-skilled laborers, and 3 unskilled workers. Eighty-six women (or 16%) were not working (i.e., they were unemployed, homemakers, or students). In the

current study, all of these categories of employment were excluded from analysis, resulting in a dichotomous variable consisting of predominantly male profession vs. predominantly female profession. Of the 139 women in male professions, 36 (36%) were from Radcliffe, 59 (42%) from Smith, and 44 (32%) from WLPS.

Each of the non-normative life path variables was dichotomous: long-term divorced women with children vs. long-term married women with children; women who did not have children vs. women who had children; and women in predominantly male professions vs. women in predominantly female professions. Some women were eligible for membership in more than one of these three non-normative categories; Table 2.1 shows the numbers of women who took multiple non-normative life paths (as well normative/non-normative life path overlaps). What is evident from this table is that some groups overlapped quite a lot, in all combinations of non-normative and normative, such as women in male professions who also had children (*N* = 65 or 47%). Others overlapped less or more, depending on the combination; that is, numbers of women without children were relatively low in both predominantly male professions and predominantly female professions (*N* = 14 or 10%, and *N* = 21 or 13%, respectively); long-term divorced women with children were almost equally represented in both types of profession (*N* = 13 or 9%, and *N* = 12 or 7%), whereas long-term married women with children were more prevalent in predominantly female professions (*N* = 52 or 31%) than in predominantly male professions (*N* = 30 or 22%). Women in predominantly female professions who also had children comprised the largest overlap (*N* = 98 or 59%). This highlights the difficulty in categorizing women solely as ‘normative’ or ‘non-normative,’ while at the same time underscoring the complexity of women’s life paths.

Table 2.1

Number of Overlapping Non-normative Life Paths, All Three Datasets (Radcliffe, Smith, and WLPS)

	Career	
	Predominantly male professions	Predominantly female professions
Children		
Yes	65	98
No	14	21
Married or divorced with children		
Long-term married with children	30	52
Long-term divorced with children	13	12

Personality

Two personality measures are employed in this study.

The California Adult Q-sort (CAQ). The California Q-sort (Block, 1961) consists of 100 personality descriptors (see Appendix A for a complete list) that are sorted by observers in terms of their ability to capture the target's personality into nine categories ranging from extremely uncharacteristic (category 1) to extremely characteristic (category 9). Descriptors are sorted by trained observers into a forced normal distribution, with a strict number of descriptors for each category: 5, 8, 12, 16, 18, 16, 12, 8, and 5, respectively. In the present research, three independent raters used open-ended survey data concerning major life events, relationships, family, work experiences, and aspirations as a basis on which to sort the 100 items for each participant. Sorters did not have access to other data used in the present study, such as personality or well-being data.

A mean was calculated for each of the 100 items from the three independent sorters' judgments.

Observer Q-sorts were available for the Radcliffe Class of 1964 from the 1996 wave of data collection, and for WLPS from the 1992 data collection. For each sample, raters reached acceptable levels of agreement, which are expected to be neither too high (above .9) nor too low (below .6). Since observers are assumed to differ somewhat in their perspective on individuals, the goal is not perfect agreement; on the other hand, some degree of consistence is assumed, to ensure that all sorters are seeing roughly the same person. To calculate inter-rater agreement, PASW treats each sorter as a variable with 100 'cases' (i.e., Q-sort items). Each variable (or sorter) is correlated with the others, and a Cronbach's alpha is produced as a measure of the three sorters' reliability for each participant's sort. The inter-rater agreement for the Radcliffe 1996 data ranged from .60 to .89, with a mean of .78; similarly, inter-rater agreement for the WLPS data ranged from .53 to .91, with a mean of .78.

In the present study, the mean ratings for each item were used. Forty-two items were identified using a technique unfamiliar in psychology but common in gene research - the Significance Analysis of Microarrays (SAM) technique (Chu, Narasimhan, Tibshirani, & Tusher, 2007; see plan of analysis for further details) – that differentiated the groups of women in at least one of the three non-normative/normative comparisons. Six experts had already classified these 42 items, along with the remaining 58 *not* identified in the analysis, into four categories. These categories represented items that *challenged a general social norm*, were either *feminine norm-related* or *masculine norm-related*, or *unclassifiable* if it reflected a personality characteristic that could be either

feminine or masculine, and/or did not reflect following or challenging a societal norm explicitly. Using these four categories, for example, "[Does not] Judge[s] self and others in conventional terms like 'popularity,' social pressures, etc.," represented a *general norm-challenging* item; "Has warmth; has the capacity for close relationships; compassionate" was categorized as being *feminine norm-related*; "Values own independence and autonomy" was identified as an item for the *masculine norm-related* category; and "Emphasizes being with others; gregarious" fell in the *unclassifiable* category because it neither challenged a general norm nor could it be classified as solely feminine or masculine (see Table 4.4 for the full list and categorization of Q-sort items by the experts). In this way, raters identified six general norm-related items, 20 gender norm-related items (those that either represented a masculine norm or a feminine norm); and 74 Q-sort items that were unclassifiable as norm-challenging in any way. The mean consensus across six raters of categorization on the 42 items that differentiated the non-normative from the normative groups was 81%.

Big Five Traits. The Big Five Inventory (BFI; John, Donahue, & Kentle, 1991) consists of 44 items used to measure the traits of Openness, Extraversion, Conscientiousness, Agreeableness, and Neuroticism. It was created in order to represent both prototypical expert ratings and subsequent factor analytic verification in observer personality ratings (John & Srivastava, 1999). Numerous studies have used the BFI to measure personality in men and women, adolescents and adults of all ages; alpha reliabilities typically range from .75 to .90, with three-month test-retest reliabilities ranging from .80 to .90. In the present study, the completion stem for all items was "I see myself as someone who…"; self-ratings potentially ranged from 1 (disagree strongly) to

5 (agree strongly). Sample items for *Openness* included 'Is curious about many things,' 'Is original, comes up with new ideas'; for *Agreeableness*: 'Is helpful and unselfish with others,' 'Can be cold and aloof' (reversed); for *Conscientiousness*: 'Does a thorough job,' 'Tends to be disorganized' (reversed); for *Extraversion:* 'Is outgoing, sociable,' 'Is sometimes shy, inhibited' (reversed); and for *Neuroticism:* 'Worries a lot,' 'Is relaxed, handles stress well (reversed).' Please refer to Appendix B for the complete list. Reliabilities for the subscales ranged from $\alpha = .75$ to $\alpha = .86$: Openness ($\alpha = .80$), Agreeableness ($\alpha = .75$), Conscientiousness ($\alpha = .79$), Extraversion ($\alpha = .75$), and Neuroticism ($\alpha = .86$). Big Five data were available for Smith and Radcliffe subsamples in 2005.

Personality Development

Generativity, or caring for the next generation, was used as a measure of personality development in this study, and in order to gain a comprehensive picture of participants' generative concerns, it was measured in three ways.

The first method used coded responses to an open-ended question that deals with future goals: 'If you could do anything you wished in the next 10 years what would you do?' The coding system was developed by Stewart, Franz, & Layton (1988) and revised by Stewart, Franz, Paul, and Peterson (1991; see Appendix C for categories and examples). This coding system assesses explicit themes of identity, intimacy and generativity in open-ended text based on Erikson's writings, and has been used extensively to assess these three themes in both examinations of personal documents, such as letters, diaries, and autobiographical writings, as well as open-ended questions in survey studies (Espin, Stewart, & Gomez, 1990; Franz, 1988; Newton & Stewart, 2010;

Peterson, 1993; Peterson and Stewart, 1990). The focus of the current research was on the Eriksonian theme most associated with midlife: generativity. Thus, expressions of goals for the next few years were identified as reflecting this factor in terms of their similarity to the definitions and examples contained in Erikson's accounts. Responses were coded into four categories: General Concern, which includes expressing concerns about making a lasting contribution, especially to future generations, such as "Seeing my children grow well"; Productivity, which includes expressions of concern with developing and growing through the generation of products/ideas which make a lasting contribution, such as "Find a cure for AIDS"; Caring, or expressing concerns with the capacity to care for others, such as "Helping low-income families"; and the Need to be needed, which includes expressing an inner need to be needed by others, or the *rejection* of another's need for them, such as "She needs me and I don't want her to." In the current research the sum of these four categories provided a single generativity score, and was labeled 'overall generativity.'

The second way in which generativity was measured involved coding the same open-ended question outlined above into *legacy* themes. Responses were coded for *personal legacy* if they contained references to children or grandchildren, for example "…continue a happy healthy life with my dear husband, also I wish for similar blessings for our daughter, son in law, and three very remarkable grandchildren." Responses were coded for *broader legacy* if they mentioned a wider circle of care, such as "I'd like to volunteer to teach English to immigrants and do other volunteer activities, hoping to make a positive difference in other people's lives." If there was any mention of broader

legacy (regardless of the presence or absence of personal legacy), responses were coded as reflecting *broader legacy* concerns (see Appendix D for further explication).

The final measure of generativity was the Loyola Generativity Scale (LGS; McAdams & de St. Aubin, 1992), a closed-ended self-report scale consisting of 20 items. Only six of the items were common to all three datasets in the current study, and these items included: "I have made and created things that have had an impact on other people," and "I have important skills that I try to teach others." Each item was rated on a 1 (strongly agree) to 6 (strongly disagree) Likert-type scale. McAdams and de St. Aubin reported high internal consistency for the overall LGS ($\alpha = .84$) and a test-retest correlation of .73 over a span of three weeks (McAdams, de St. Aubin, & Logan, 1993). The item "If I were unable to have children of my own, I would like to adopt children" was dropped because of its inappropriateness for women in their 60s, as well as the fact that the omission of this item improved the scale's internal reliability from $\alpha = .52$ to $\alpha = .72$. The remaining five items referred to mentoring or contributing to others' lives in some way; none of the remaining items mentioned children explicitly. Appendix E lists the final five items used in the current research.

Data for all three ways of measuring generativity were available for all three subsamples (Radcliffe, Smith, and WLPS).

Well-being

Two measures of well-being were used in the current study. The first, the Satisfaction with Life scale (Diener, Emmons, Larson, & Griffin, 1985; Appendix F) is a widely-used 5-item indicator of global well-being, including items such as 'In most ways my life is close to my ideal.' Respondents rated themselves using a 1 (strongly disagree)

to 7 (strongly agree) scale. Diener and colleagues' scale has demonstrated high internal consistency ($\alpha = .87$) as well as high test-retest reliability (.82), and several studies have found moderate relationships between the measure and the Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961; see Pavot & Diener, 2008). For all three datasets combined in the current study, reliability was $\alpha = .91$.

Ryff's (1989) Psychological Well-being scale was the second measure of well-being used in the present study. It was developed as a self-report measure of positive psychological functioning based on life span development theory. The original version of this measure included 20 items for each of six dimensions (for a total of 120 items); the current research, however, employed a shortened 18-item version (Ryff & Keyes, 1995; see Appendix G). Participants rated themselves on each of the items from 1 (strongly agree) to 6 (strongly disagree). This modified version of Ryff's measure has been found to have an internal consistency of .85, and in the current study, overall reliability was $\alpha = .82$. In the present research, Ryff data were available for only Radcliffe and Smith subsamples.

Plan of Analysis

The five hypotheses concerning the association between life path and personality, personality development, and well-being are outlined in further detail below. An overview of planned analyses is also presented in Tables 2.2 and 2.3. Table 2.2 outlines the hypotheses, measures, and analyses used in the current research, and Table 2.3 outlines the comparison groups, datasets, and group sizes. Due to the overlapping or non-discrete nature of the non-normative groups, controlled analyses were conducted wherever possible. For example, when examining possible differences in well-being

between women in predominantly male professions and women in predominantly female professions, whether they had children as well as their marital status were controlled for. However, the use of covariates was not always possible, given the limitations of available data and consequent drop in sample sizes.

Hypothesis 1: All three groups of non-normative women would be higher in the disposition to challenge norms - both societal and gendered - than their respective counterparts, as measured by observer ratings on the items from the California Q-sort (CAQ; Block, 1961). Specifically, challenging general social norms would be indicated by low ratings on items that represent such norms (e.g., 'Judges self and others in conventional terms like 'popularity,' social pressures, etc.,'). Similarly, lack of fit with feminine gender norms would be indicated by low ratings on items relating to these norms (e.g., 'Behaves in a feminine style and manner') or high ratings on items relating to masculine norms (e.g., 'Values own independence and autonomy').

Significance Analysis of Microarrays (SAM; Chu, Narasimhan, Tibshirani, & Tusher, 2007) was used to analyze the 100 items of the Q-sort. Block (2008) recommended the use of a technique - such as a Monte Carlo approach - that addresses the lack of independence of the 100 Q-sort ratings:

> In brief, a computer is iteratively used to randomly generate empirically a sampling distribution of the number of correlations expected to reach a set level of importance simply on the basis of chance…Instead of comparing two meaningfully different groups with respect to the set of Q descriptors or relating a potentially meaningful criterion variable to the set of Q descriptors, the two groups or the criterion variable are iteratively randomized and then related to the set of Q descriptors. With sufficient iterations of this procedure, and recording of the observed findings, a stabilized, randomly based sampling distribution is established. This empirically established sampling distribution provides a relevant frame in which to evaluate chance findings and against which the

> actually obtained set of Q-descriptor correlations can be referenced and appraised (p.79).

SAM is a specific type of permutation test that has been widely used to determine whether changes in gene expression are statistically significant. When used in gene research, SAM identifies statistically significant genes by carrying out t-tests and measuring the strength of the relationship between gene expression and a response variable (i.e., life path in the present study). Because gene data may not be normally distributed and/or the assumption of independent data may not hold, this type of analysis uses non-parametric statistics as well as multiple permutations of the data (i.e., a Monte Carlo method) to identify any potentially significant relationships between the expression of a gene and the response outcome. Thus, SAM is precisely the kind of technique Block recommended, and one which is useful when identifying micro-level or lower-order trait differences.

In the current study, each of the Q-sort items was treated by SAM as a 'gene:' After running Monte Carlo simulations on the data for each non-normative group compared to its normative counterpart, SAM produced a list of those items that best distinguished the groups. SAM identified these as significant positive or negative items, or those items for which the non-normative group was statistically significantly higher (positive) than its counterpart or statistically significantly lower (negative) than its counterpart over 1,000 random samples of the data. Items identified in this way can be considered to be unlikely to have differentiated the groups by chance and therefore to be reliable differentiators between the groups. SAM produced a *q-value,* similar to the

more–familiar *p-value*, that represented the lowest False Discovery Rate (FDA) at which the ‘gene’ was called significant (Storey, 2002).

Hypothesis 2: Women who followed the three non-normative life paths (long-term divorced women with children, women who did not have children or women who pursued predominantly male professions) would express fewer generativity themes than long-term married women with children, those who had children, and those who pursued predominantly female occupations, respectively. It was also hypothesized that women who remained married but did not have children would exhibit lower levels of generativity than women who remained married and had children, and that women in predominantly male professions who had children would also exhibit lower levels of generativity than women in predominantly female professions who had children. These hypotheses were tested using both types of coded data (‘overall generativity’ using Stewart et al.’s 1988/1991 coding system, and ‘legacy’ using the newer legacy coding system also based on Stewart et al.), as well as a short version of the Loyola Generativity Scale (LGS; McAdams & de St. Aubin, 1992). For this group of hypotheses, Multivariate Analyses of Variance (MANOVAs) were used for data coded using Stewart et al.’s procedure and data gathered using the LGS; for data coded using the newer system, chi-square analyses were used.

Hypothesis 3: Because research suggests that broadly descriptive higher-order personality factors may differ between groups used in this study, the existence of differences between each non-normative group and its normative counterpart on levels of the Big Five personality inventory (Agreeableness, Conscientiousness, Openness, Neuroticism, and Extraversion) was examined. That is, long-term divorced women who

had children would differ from their long-term married-with-children counterparts; women who did not have children would differ from women who had children; and women in predominantly male professions would differ from women in predominantly female professions. T-tests were used to test this group of hypotheses.

Hypothesis 4: Each specific non-normative life path group of women was compared with its corresponding normative life path group of women on broad indicators of well-being, which included the five-item Satisfaction with Life scale (Diener, Emmons, Larson, & Griffin, 1985), and a shortened version (18 items) of the Psychological Well-being scale (Ryff, 1989; Ryff & Keyes, 1995). Due to the multivariate nature of the dependent variable, MANOVAs were used to test this hypothesis.

Hypothesis 5: Each non-normative life path group of women, as well as the normative life path group of women, would exhibit a different personality and well-being profile. Discriminant analysis was used, and was appropriate in this case because the life path group variable was categorical and had two or more groups with non-overlapping membership. The aim of this hypothesis was to distinguish clusters of independent variables or dimensions along which the distinct groups within the dependent variable fell (Klecka, 1980; Silva & Stam, 1995; Vandewater & Stewart, 1998; Zucker, Stewart, Pomerlau & Boyd, 2005). Descriptive discriminant analysis produces a number of canonical functions that each correspond to a dimension along which the groups differ, and that contain variables ordered according to their discriminatory power (Silva & Stam, 1995). Usually, a subset of the variables within each function explains most of the differences between the groups. In the current study, discriminant analysis was limited to

data from the Radcliffe and Smith classes of 1964 because only these two samples contained all the relevant variables: the Big Five (John, Donahue, & Kentle, 1991), the Loyola Generativity Scale (McAdams & de St. Aubin, 1992), Ryff's Psychological Well-being scale (1989), and Diener, Emmons, Larson, and Griffin's Satisfaction with Life scale (1985). A four-group categorical variable that represented one normative and three non-normative life paths was created for this analysis, so no group overlapped with any other. The size of each non-normative, as well as the normative, group differed: long-term divorced women with children (N = 16); women without children (N = 20); women in predominantly male professions (N = 37); normative life-path women (N = 75). Women who were classified as following a normative life path were those who had at least two points of data concerning whether they had children, their long-term marriage status, and their occupation. For example, as well as those women who had data for all three normative categories (long-term married with children and in a predominantly female occupation), a woman was deemed normative if she had data in two normative categories (and the third category was missing data), such as being married long-term and having children. Similarly, a woman was also classified as normative if she had children and was engaged in a predominantly female occupation. Although the group sizes were small in some cases, they were adequate for the kind of exploratory discriminant analysis proposed (Klecka, 1980; Kathy Welch, CSCAR, personal communication).

Table 2.2

Overview of Dissertation: Hypotheses, Measures, and Analyses

Hypothesis	Measure	Analysis
1. Women who followed a non-normative life path will be higher in the disposition to challenge norms.	• California Adult Q-sort	• Significance Analysis of Microarrays (SAM)
2. Women who followed a non-normative life path will have lower generativity levels. 2a.Long-term married women without children will have lower generativity levels 2b.Women in predominantly male professions who have children will have lower generativity levels.	• Generativity coded from open-ended question concerning 'next 10 years' • Generativity coded for legacy • Loyola Generativity Scale (McAdams & de St. Aubin, 1992)	• Multivariate Analysis of Variance (MANOVA) and Chi-square analyses
3. Each group of women who followed a non-normative life path will differ from their normative counterpart on levels of the Big 5 traits.	• Big 5 personality factors (John, Donahue, & Kentle, 1991): Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism	• T-tests

Hypothesis	Measure	Analysis
4. Each group of women who followed a non-normative life path will differ from corresponding women who followed a normative life path on the indicators of well-being tested: Satisfaction with Life, and Psychological Well-being.	• Satisfaction with Life (Diener, Emmons, Larson, & Griffin, 1985) • Psychological well-being (Ryff, 1989)	• Multivariate Analysis of Variance (MANOVA)
<u>Exploratory hypothesis</u>		
5. Each group of women who followed a non-normative life path will exhibit a distinctive personality and well-being profile.	• Big 5 • Loyola Generativity • Satisfaction with Life • Ryff psych well-being subscales	• Discriminant Function Analysis

Table 2.3

Overview of Dissertation: Hypotheses, Comparison Groups, Datasets, and Group Sizes

Hypothesis	Comparison groups	Datasets and Ns
		Radcliffe & WLPS
1. Women who followed a non-normative life path will be higher in the disposition to challenge norms.	• Long-term divorced with children/long-term married with children	• *N* = 35/*N* = 72
	• Without children/with children	• *N* = 45/*N* = 272
	• Predominantly male professions/ predominantly female professions	• *N* = 74/*N* = 120
		Radcliffe, Smith, & WLPS
2. Women who followed a non-normative life path will have lower generativity levels.	• Long-term divorced with children/long-term married with children	• *N* = 25/*N* = 122
	• Without children/with children	• *N* = 30/*N* = 238
	• Predominantly male professions/ predominantly female professions	• *N* = 68/*N* = 90
2a.Long-term married women without children will have lower generativity levels	• Long-term married without children/ Long-term married *with* children	• *N* = 4/*N* = 126
2b.Women in predominantly male professions who have children will have lower generativity levels.	• Predominantly male professions, with children/Predominantly female	• *N* = 46/*N* = 71

	professions, with children	
		Radcliffe & Smith
3. Each group of women who followed a non-normative life path will differ from their normative counterpart on levels of the Big 5 traits.	• Long-term divorced with children/long-term married with children • Without children/with children • Predominantly male professions/ predominantly female professions	• *N* = 16/*N* = 80 • *N* = 19/*N* = 168 • *N* = 51/*N* = 36
		Radcliffe & Smith
4. Each group of women who followed a non-normative life path will differ from its corresponding normative life path comparison group of women on the indicators of well-being tested: Satisfaction with Life, and Psychological Well-being.	• Long-term divorced with children/long-term married with children • Without children/with children • Predominantly male professions/ predominantly female professions	• *N* = 15/*N* = 80 • *N* = 19/*N* = 168 • *N* = 47/*N* = 34
Exploratory hypothesis		Radcliffe and Smith
	Single variable containing:	
5. Each group of women who followed a non-normative life path will exhibit a distinctive personality and well-being profile.	• Long-term divorced with children • Without children • Predominantly male professions • Normative	• *N* = 16 • *N* = 20 • *N* = 37 • *N* = 75

Chapter III

Results

For the purpose of testing hypotheses, each of the non-normative groups was treated as having non-overlapping membership; of course, this was not necessarily the case. Therefore, before conducting any analyses, it was necessary to gauge how much overlap between the groups there actually was. For example, as previously outlined, the type of profession a woman followed could also be combined with her marital status and whether she had children or not. Table 2.1 displays the numbers of women in each overlapping group, whether non-normative or normative. The numbers are displayed for women in predominantly male professions who also:

- had children (N = 65)
- did *not* have children (N = 14)
- were married, long-term, and had children (N = 30)
- were *divorced*, long-term, and had children (N = 13)

Similarly, Table 1 also shows the numbers of women in predominantly female professions who also:

- had children (N = 98)
- did *not* have children (N = 21)
- were married, long-term, and had children (N = 52)
- were *divorced*, long-term, and had children (N = 12)

Controls were included where appropriate in analyses; that is, when comparing groups whose membership overlapped in sufficient numbers – such as women in predominantly male professions who had children (*N* = 65); similarly, women in predominantly female professions with children (*N* = 98) – marital status and the presence of children were accounted for. However, other overlapping membership numbers were fairly small, as in the case of women in predominantly male professions who had children but were also divorced long-term (*N* = 13), or their female profession counterparts who also had children and were divorced long-term (*N* = 12); in such cases, analyses were not controlled as sample sizes were too small. Moreover, in all cases, power analyses were conducted in order to assess the degree to which differences could be detected in these samples. Power analyses for this first hypothesis demonstrated that sample sizes were sufficient to detect large differences for the comparison between long-term divorced women with children and long-term married with children, whereas the other two non-normative/normative life path comparisons had sample sizes sufficient to detect medium to large differences.

The first hypothesis concerned differences in observed traits between the groups of non-normative and normative women. Specifically, this hypothesis focused on the general tendency or disposition to challenge social norms, and the lack of fit with gender norms in the three groups of non-normative life path women, and was generally confirmed. In this analysis, personality was measured using observer ratings on the California Q-sort (CAQ; Block, 1961), and Significance Analysis of Microarrays (SAM; Chu, Narasimhan, Tibshirani, & Tusher, 2007) was used to analyze the 100 items. Tables 3.1 to 3.3 show the results of comparisons of each non-normative group's

personality compared to its normative counterpart; Table 3.4 shows similarities and differences for each Q-sort item across the three non-normative groups. When using SAM to compare each of the non-normative groups to its normative counterpart, the False Discovery Rate (FDR or *q*-value; analogous to the alpha significance level or *p*-value in more familiar analysis techniques) was set as close as possible to 5%. The level for *delta*, or the cutoff for significance based on the FDR of 5%, was set between .50 and .60 for each of the three analyses (long-term divorced women with children vs. long-term married women with children; women who did not have children vs. women who did; and women in predominantly male professions vs. women in predominantly female professions). Note that, since the FDR was related to both the delta and the *number* of significant 'genes' – in this case, Q-sort items – it could (and did) vary for each analysis.

It is important to note that out of the 100 Q-sort items, experts (i.e., senior graduate students and faculty at the University of Michigan) identified six items as general norm-related, 20 as gender norm-related, and 74 as unclassifiable. The number of items that the SAM procedure subsequently found to significantly distinguish the non-normative groups from their normative counterparts was three, 18, and 21, respectively; that is, 50% of the experts' identified general norm items were represented; 90% of the experts' gender norm items were represented, and only 28% of the unclassified items were represented. For each of the comparisons outlined below, the percentage of significant norm-related Q-sort items distinguishing the groups was based on those items that the SAM procedure found to significantly differentiate the non-normative and normative groups in terms of perceived social norm-challenging and lack of feminine norm fit, combined (i.e., 21).

Table 3.1

Means (and Standard Deviations) and Significance of Q-sort Items Using Significance Analysis of Microarrays (SAM), for 2 Samples (Radcliffe and WLPS): Marriage and Children

Q-sort item	Marriage and children: Long-term married with children (N = 72)	Marriage and children: Long-term divorced with children (N = 35)	q_1	d
Lower for long-term divorced with children				
Genuinely submissive; accepts domination comfortably	3.58 (1.66)	2.90 (1.32)	.05	.45
Emphasizes being with others; gregarious	6.62 (1.19)	6.04 (1.38)	.05	.45
Is protective of those close to her	7.11 (1.27)	6.34 (1.45)	.05	.56
Has warmth; has the capacity for close relationships; compassionate	7.97 (1.11)	7.32 (1.40)	.05	.51
Has a wide range of interests	6.78 (1.40)	6.09 (1.34)	.05	.51
Behaves in a giving way toward others	7.68 (1.04)	7.08 (1.16)	.05	.55
Judges self and others in conventional terms like "popularity," "the correct thing to do," social pressures, etc	4.62 (1.47)	4.01 (1.24)	.05	.45
Is a genuinely dependable and responsible person	8.22 (0.77)	7.74 (1.15)	.05	.48
Is cheerful	6.02 (0.98)	5.53 (1.11)	.05	.47
Behaves in a feminine style and manner	6.19 (1.70)	5.30 (1.42)	.05	.57
Higher for long-term divorced with children				
Keeps people at a distance; avoids close interpersonal relationships	2.25 (1.26)	3.15 (1.51)	.00	.65
Is basically distrustful of people in general; questions their motivations	3.34 (1.09)	4.10 (1.14)	.00	.68
Values own independence and autonomy	6.31 (1.85)	7.65 (1.33)	.00	.83

Note. q_1: The *q-value,* similar to the more–familiar *p-value,* represents the lowest False Discovery Rate (FDA) at which the Q-sort item is significant.

First, women who had been divorced long-term and had children were compared to women who had been married long-term and had children (Table 3.1). Of the 21 Q-sort items concerning perceived norm-challenging of any kind, eight items (38%) significantly differentiated these two groups. Long-term divorced women with children were rated significantly lower than long-term married women with children on one general and five gender norm-related Q-sort items, including: "Judges self and others in conventional terms like 'popularity,' social pressures, etc" (general norm-challenging); "Genuinely submissive; accepts domination comfortably"; and "Behaves in a feminine style and manner" (feminine norm-related). They were significantly higher than their counterparts on two masculine norm-related Q-sort items: "Keeps people at a distance; avoids close interpersonal relationships" and "Values own independence and autonomy." Overall, the majority of the significant observer-rated norm-challenging items that distinguished long-term divorced women with children from long-term married women with children were lack of fit with feminine gender norm items (88%). It should also be mentioned that there were five unclassifiable items on which these two groups of women differed, although they were not included in the analysis of the propensity to challenge norms.

Next, the SAM procedure identified 15 of the 21 (71%) norm-challenging or lack-of-fit with feminine gender norm Q-sort items that differentiated women who did not have children from women who had children (Table 3.2), many of which were shared by the preceding analysis. Of these 15, three were general norm-challenging and 12 were gender norm-related. That is, women without children were rated lower on two general norm-challenging items: "Tends to arouse liking and acceptance in people," and " Judges

Table 3.2

Means (and Standard Deviations) and Significance of Q-sort Items Using Significance Analysis of Microarrays (SAM), for 2 Samples (Radcliffe and WLPS): Children

	Children			
Q-sort item	No (*N* = 45)	Yes (*N* = 272)	*q*	*d*
	Lower for women with no children			
Genuinely submissive; accepts domination comfortably	2.60 (1.41)	3.16 (1.67)	.00	.36
Seeks reassurance from others	4.10 (1.40)	5.10 (1.29)	.00	.77
Arouses nurturant feelings in others	4.16 (1.22)	4.86 (1.25)	.00	.57
Tends to arouse liking and acceptance in people	5.61 (1.20)	6.22 (1.01)	.00	.55
Judges self and others in conventional terms like "popularity," "the correct thing to do," social pressures, etc	3.83 (1.49)	4.43 (1.41)	.00	.60
Has warmth; has the capacity for close relationships; compassionate	6.22 (1.99)	7.74 (1.17)	.00	.93
Behaves in a sympathetic or considerate manner	6.43 (1.59)	7.01 (1.13)	.00	.42
Emphasizes being with others; gregarious	4.94 (2.04)	6.38 (1.36)	.00	.83
Is verbally fluent; can express ideas well	6.51 (1.48)	7.09 (1.18)	.00	.43
Behaves in a giving way toward others	6.50 (1.87)	7.41 (1.17)	.00	.58
Is protective of those close to her	5.63 (1.30)	6.72 (1.29)	.00	.84
Is turned to for advice and reassurance	5.80 (1.56)	6.46 (1.21)	.00	.47
Interested in members of the opposite sex	5.29 (1.55)	5.87 (1.29)	.00	.39
Has social poise and presence; appears socially at ease	5.78 (1.17)	6.31 (1.07)	.00	.47
Behaves in a feminine style and manner	4.60 (1.77)	5.62 (1.59)	.00	.50

	Higher for women with no children			
Values own independence and autonomy	7.91 (1.59)	6.89 (1.73)	.00	.62
Tends to be rebellious and non-conforming	5.26 (1.95)	4.60 (1.91)	.02	.34
Prides self on being "objective," rational	5.71 (1.28)	5.12 (1.28)	.00	.46
Is basically distrustful of people in general; questions their motivations.	4.18 (1.59)	3.63 (1.12)	.00	.39
Tends to be self-defensive	4.70 (1.30)	4.13 (1.07)	.00	.48
Is fastidious	5.00 (1.06)	4.55 (0.96)	.02	.44
Does not vary roles; relates to everyone in the same way	4.71 (1.45)	4.09 (1.25)	.00	.45
Has hostility toward others	4.95 (1.44)	4.36 (1.37)	.00	.42
Over-reactive to minor frustrations; irritable	4.30 (1.21)	3.73 (0.86)	.00	.54
Shows condescending behavior in relations with others	3.68 (1.50)	3.02 (1.07)	.00	.51
Feels a lack of personal meaning in life	2.95 (1.98)	2.31 (1.40)	.00	.37
Tends to ruminate and have persistent, preoccupying thoughts	4.87 (1.25)	4.36 (1.32)	.02	.40
Is emotionally bland; has flattened affect	4.41 (1.50)	3.67 (1.38)	.00	.51
Is critical, skeptical, not easily impressed	5.57 (1.41)	4.79 (1.32)	.00	.57
Keeps people at a distance; avoids close interpersonal relationships	4.66 (2.37)	2.69 (1.46)	.00	1.00

Note. q_1: The *q-value,* similar to the more–familiar *p-value,* represents the lowest False Discovery Rate (FDA) at which the Q-sort item is significant

self and others in conventional terms like ‘popularity,’ social pressures, etc”; however, they were also rated higher on “Tends to be rebellious and non-conforming.” Although they were rated lower on feminine norm-related items such as “Genuinely submissive; accepts domination comfortably” and “Behaves in a feminine style and manner,” they were also rated higher on masculine norm-related items such as “Prides self on being “objective,” rational” and “Values own independence and autonomy.” Like the long-term divorced women with children, women who did not have children displayed a strong tendency to challenge norms, especially gender norms. That is, of the items on which they were rated lower or higher than their counterparts, 86% were gender-related items. Fifteen unclassifiable items also differentiated the women without children from those who had children. For example, they were rated lower than their comparison group on “Emphasizes being with others; gregarious” and “Is verbally fluent; can express ideas well,” and were rated higher than their counterparts on “Is fastidious” and “Tends to ruminate and have persistent, preoccupying thoughts.”

Results for the third and final non-normative life path/normative life path comparison – women in predominantly male professions and women in predominantly female professions - are presented in Table 3.3. The two groups were differentiated by a total of six norm-related Q-sort items, all of them gender norm-related with no general norm-related items. The percentage of identified items that differentiated this particular comparison was 29%, and the items all related to masculine gender norms. For example, women in predominantly male professions were higher than their counterparts on items such as “Prides self on being “objective,” rational”; “Has high aspiration level for self”; and “Genuinely values intellectual and cognitive matters.” It is noteworthy that these

Table 3.3

Means (and Standard Deviations) and Significance of Q-sort Items Using Significance Analysis of Microarrays (SAM), for 2 Samples (Radcliffe and WLPS): Occupation

Q-sort item	Occupation: Predominantly male profession (N = 74)	Occupation: Predominantly female profession (N = 120)	q	d
	Lower for predominantly male professions			
Is introspective and concerned with self as an object	5.82 (1.24)	6.46 (1.51)	.00	.46
Engages in personal fantasy and daydreams, fictional speculations	4.58 (0.91)	5.09 (1.02)	.00	.53
Is concerned with philosophical problems; e.g., religions, values, the meaning of life, etc	5.16 (2.38)	6.04 (2.42)	.00	.37
	Higher for predominantly male professions			
Appears to have a high level of intellectual capacity	8.13 (0.87)	7.49 (1.00)	.00	.68
Prides self on being "objective," rational	5.89 (1.18)	5.06 (1.30)	.00	.66
Genuinely values intellectual and cognitive matters	7.61 (1.25)	6.87 (1.36)	.00	.57
Has high aspiration level for self	7.71 (1.49)	6.89 (1.80)	.00	.70
Has a rapid personal tempo; behaves and acts quickly	5.49 (1.30)	5.03 (1.25)	.00	.36
Is power oriented; values power in self and others	6.21 (1.62)	5.47 (1.69)	.05	.45
Is productive; gets things done	8.18 (0.83)	7.71 (1.13)	.05	.47

Note. q_1: The *q-value*, similar to the more–familiar *p-value*, represents the lowest False Discovery Rate (FDA) at which the Q-sort item is significant

gender norms were all masculine norm-related; that is, women in predominantly male professions were rated higher than their predominantly female profession colleagues on 60% of the items identified as being masculine norm-related. The two groups of women in this comparison were also differentiated by four unclassified items; in three instances, women in predominantly male professions were rated higher (e.g., "Has a rapid personal tempo"), and in one instance, lower ("Is introspective and concerned with self as an object").

Table 3.4 presents a comparison of the three non-normative groups for the 42 significant Q-sort items, many of which are negatively worded to represent the challenging of a norm or lack of gender norm fit, as well as for ease of comparison. Long-term divorced women with children and women who did not have children were significantly higher than their respective normative comparison groups on some of the same items. For example, they were both rated lower on feminine norm-related items "Behaves in a feminine style and manner" and "Behaves in a giving way towards others," as well as both being rated higher on the masculine norm-related items "Values own independence and autonomy" and "Keeps people at a distance; avoids close interpersonal contact." Additionally, Table 3.4 displays the 42 significant Q-sort items organized by the four categories identified by the panel of experts: challenging a general social norm; lack of gender norm fit, with subcategories of feminine norm-related items and masculine norm-related items; and unclassifiable items. From this organization of the items, it is apparent that long-term divorced women with children and women who did not have children were described as challenging general societal norms as well as not fitting many gender norms – by being rated both relatively low on feminine norms and relatively high

Table 3.4
Thematic Organization by Experts of Q-sort Items into Groups: Distinctive and Shared Items

Q-sort item	Group: Divorced with children	Group: No children	Group: Predominantly male profession
General norm challenging items			
Tends to be rebellious and non-conforming		+	
[Does not] Tend to arouse liking and acceptance in people		+	
[Does not] Judge self and others in conventional terms like 'popularity,' social pressures, etc	+	+	
Lack of gender norm fit			
Feminine Norm-related Items			
[Does not] Behave in a sympathetic or considerate manner		+	
[Does not] Seek reassurance from others		+	
[Does not] Arouse nurturant feelings in others		+	
Is [not] protective of those close to her	+	+	
[Does not] Have warmth; [does not] have the capacity for close relationships; compassionate	+	+	
[Is not] Genuinely submissive; [does not] accept domination comfortably	+	+	
[Does not] Behave in a feminine style and manner	+	+	
[Does not] Behave in a giving way toward others	+	+	
Masculine Norm-related Items			
Is critical, skeptical, not easily impressed		+	
Shows condescending behavior in relations with others		+	
Prides self on being "objective," rational		+	+
Appears to have a high level of intellectual capacity			+
Genuinely values intellectual and cognitive matters			+
Is power oriented; values power in self and others			+
Is productive; gets things done			+
Has high aspiration level for self			+
Keeps people at a distance; avoids close interpersonal relationships	+	+	
Values own independence and autonomy	+	+	

Note. Some items have been re-worded in order to represent all Q-sort items in the same direction as well as present the group comparisons in light of the non-normative groups; alterations are in brackets []. Positive signs (+) denote that the non-normative group is significantly higher than its comparison normative group on this item; negative signs (--) denote that the non-normative group is significantly lower on this item.

Q-sort item	Group		
	Divorced with children	No children	Predominantly male profession
Unclassifiable Items			
Is [not] turned to for advice and reassurance		+	
Over-reactive to minor frustrations; irritable		+	
Feels a lack of personal meaning in life		+	
Tends to be self-defensive		+	
Has hostility towards others		+	
Is fastidious		+	
[Does not] Have social poise and presence; appears socially at ease		+	
Is [not] verbally fluent; can [not] express ideas well		+	
Is emotionally bland; has flattened affect		+	
Does not vary roles; relates to everyone in the same way		+	
[Is not] Interested in members of the opposite sex		+	
Tends to ruminate and have persistent, preoccupying thoughts		+	
Is a genuinely dependable and responsible person	+		
Has a wide range of interests	+		
Is [not] introspective and concerned with self as an object			+
Has a rapid personal tempo			+
Is [not]concerned with philosophical problems, e.g., religions, values, the meaning of life, etc			+
[Does not] Engage in personal fantasy and daydreams, fictional speculations			+
Is [not] cheerful	+	+	
Is basically distrustful of people in general; questions their motives	+	+	
[Does not] Emphasize being with others; [is not] gregarious	+	+	

Note. Some items have been re-worded in order to represent all Q-sort items in the same direction as well as present the group comparisons in light of the non-normative groups; alterations are in brackets []. Positive signs (+) denote that the non-normative group is significantly higher than its comparison normative group on this item; negative signs (--) denote that the non-normative group is significantly lower on this item.

on masculine norms - whereas women in predominantly male professions were most often only rated high on masculine norms and not rated as distinctive on feminine norms. Long-term divorced women with children and women in predominantly male professions

were rated on relatively few unclassifiable items; however, women without children were rated on as many unclassifiable items as those relating to norm-challenging and non-fit with gender norms combined, although the number of items in each was relatively high: fifteen.

In sum, women in all non-normative life path groups displayed a disposition to challenge norms. Perhaps an easier way of understanding these numbers is that of the Q-sort items that distinguished non-normative groups from normative groups, 21 items (50%) related to norms of some sort. Of this 50%, 86% were gender norm-related items, and 14% were general societal norm-related items, although each group of women displayed a different constellation of norm-challenging items. Long-term divorced women with children and women without children were rated high on at least one identified general norm-challenging item, high on one or two identified masculine norm-related items, and also rated low on most of the identified feminine norm-related items; however, women in predominantly male professions were only rated high on many of the identified masculine norm-related items.

The second set of hypotheses dealt with differences in generativity levels. Due to data availability and consequent sample size depletion, the analyses for this set of hypotheses did not use controls. Results displayed in Tables 3.5 to 3.9 show that the majority of these hypotheses were not supported. Power analyses indicated that there was sufficient power to detect large significant differences, and in some cases also medium and small differences. There were no significant differences in generativity levels between long-term divorced women who had children and long-term married women who had children (Table 3.5) on any of the generativity measures: overall

generativity, the Loyola Generativity Scale, and legacy, and the samples were of sufficient size to detect medium or large differences.

Table 3.5
Indicators of Generativity for All 3 Samples (Radcliffe, Smith, & WLPS): Marriage Status with Children

	Marriage and children		
Type of generativity	Long-term married with children	Long-term divorced with children	*F*
Overall generativity	0.46 (0.75)	0.36 (0.68)	0.36
Loyola	-0.01 (0.52)	0.11 (0.38)	1.15
Legacy			χ^2
personal	25	3	1.33
broader/both	54	14	

Note. Means and standard deviations for total generativity and Loyola Generativity Scale are standardized.
*N*s vary depending on type of generativity: Total generativity and Loyola (long-term married with children $N = 122$; long-term divorced with children $N = 25$); Legacy (long-term married with children $N = 79$; long-term divorced with children $N = 17$).

However, generativity levels were significantly different for women who did not have children when compared to women who did have children on one of the three types of generativity (Table 3.6): Women who did not have children were more likely to express a broader type of legacy rather than a personal type of legacy compared to women who had children, $\chi^2(193) = 6.49$, $\varphi = .18$; however, no significant difference was found between the two groups in levels of generativity as measured by either overall generativity or the Loyola Generativity Scale. Here, sample sizes were large enough to find even small significant differences.

Table 3.6
Indicators of Generativity for All 3 Samples (Radcliffe, Smith, & WLPS): Children

	Children		
Type of generativity	Yes	No	*F*
Overall generativity	0.46 (0.80)	0.32 (0.69)	0.88
Loyola	0.07 (0.49)	-0.07 (0.51)	2.07
Legacy			χ^2
personal	40	0	6.49*
broader/both	131	22	

Note. Means and standard deviations for total generativity and Loyola Generativity Scale are standardized.
*N*s vary depending on type of generativity: Total generativity and Loyola (women with children $N = 238$; women without children $N = 30$); Legacy (women with children $N = 171$; women without children $N = 22$).
* $p < .05$.

When women who followed predominantly male professions were compared to women who followed predominantly female professions (Table 3.7), no significant differences in levels of any of the three generativity measures were found, even with sufficient sample sizes to detect small significant differences.

Marriage and children were combined for the results presented in Table 3.8. Although there were only two long-term married women without children, this analysis was included for completeness, given the following analysis regarding *profession* and children (see below). Therefore the generativity levels of long-term married women who also had children were compared to those of long-term married women who did *not* have children. Again, no significant differences between the two groups on any of the three measures of generativity were found, although the sample sizes were large enough to detect medium to large significant differences.

Table 3.7
Indicators of Generativity for All 3 Samples (Radcliffe, Smith, & WLPS): Profession

	Occupation		
Type of generativity	Predominantly female profession	Predominantly male profession	*F*
Overall generativity	0.49 (0.78)	0.47 (0.86)	0.02
Loyola	0.01 (0.53)	0.13 (0.46)	2.06
Legacy			χ^2
personal	14	10	0.20
broader/both	49	43	

Note. Means and standard deviations for total generativity and Loyola Generativity Scale are standardized.
*N*s vary depending on type of generativity: Total generativity and Loyola (predominantly female profession *N* = 90; predominantly male profession *N* = 68); Legacy (predominantly female profession *N* = 63; predominantly male profession *N* = 53).

Table 3.8
Indicators of Generativity for All 3 Samples (Radcliffe, Smith & WLPS): Marriage with Children or Not.

	Married with or without children		
Type of generativity	Long-term married with children	Long-term married without children	*F*
Overall generativity	0.46 (0.74)	0.38 (0.43)	0.04
Loyola	-0.01 (0.52)	0.16 (0.31)	0.76
Legacy			χ^2
personal	25	0	0.87
broader/both	57	2	

Note. Means and standard deviations for total generativity and Loyola Generativity Scale are standardized.
*N*s vary depending on type of generativity: Total generativity and Loyola (long-term married with children *N* = 126; long-term married without children *N* = 4); Legacy (long-term married with children *N* = 82; long-term married without children *N* = 2).

Profession and children were combined for the results presented in Table 3.9: The generativity levels of women in predominantly male professions who had children were compared to the generativity levels of women in predominantly female professions who had children. As with combining marriage status and children, there were no significant differences between these two groups on any of the three measures of generativity, although again the sample sizes were sufficient to detect medium to large significant differences.

Table 3.9
Indicators of Generativity for All 3 Samples (Radcliffe, Smith & WLPS): Profession with Children

Type of generativity	Occupation and profession		*F*
	Predominantly male profession with children	Predominantly female profession with children	
Overall generativity	0.63 (0.92)	0.46 (0.80)	1.08
Loyola	0.16 (0.45)	0.01 (0.55)	2.32
Legacy			χ^2
personal	10	14	0.18
broader/both	29	33	

Note. Means and standard deviations for total generativity and Loyola Generativity Scale are standardized.
*N*s vary depending on type of generativity: Total generativity and Loyola (predominantly male profession with children *N* = 46; predominantly female profession with children *N* = 71); Legacy (predominantly male profession with children *N* = 39; predominantly female profession with children *N* = 47).

In sum, the only differences in generativity levels were found in terms of legacy for women who did not have children compared to women who had children: women without children were significantly more likely to express a broader type of legacy rather than personal legacy. Therefore, hypotheses concerning differences in levels of

generativity were generally unsupported: although one of the major comparisons showed differences on one of three indicators of generativity, the remaining two major comparisons showed no difference on all three indicators, and there were no differences for the two sub-hypotheses.

The next two sets of hypotheses concerned self-reported higher-order traits and well-being among women who had taken a non-normative life path compared with women who had taken a normative life path. Both sets of analyses were conducted using covariates for comparisons between gendered professions only, and not for the other two comparisons (long-term divorced women with children and their counterparts; and women without children and their counterparts) due to their relatively small sample sizes.

Table 3.10
Relationships between Big Five Personality Factors (Radcliffe and Smith only)

	Big Five factors				
Big Five factors	1	2	3	4	5
Extraversion	--				
Agreeableness	.16*	--			
Conscientiousness	.07	.50**	--		
Neuroticism	-.07	-.53**	-.31**	--	
Openness	.25**	.37**	.33**	-.13*	--

Note. $N = 241$.
* $p < .05$; ** $p < .01$.

Hypothesis 3 concerned levels of the Big Five personality factors. Table 3.10 displays the inter-correlations between the factors (Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness), showing comparatively strong relationships between many of the factors, particularly between Agreeableness with

Conscientiousness, Neuroticism, and Openness. Consistent with the previous research that found no differences in higher-order personality factors for women who followed a non-normative life path compared to women who did, no significant differences were found for any of the three comparisons (Table 3.11) except for women who did not have children compared with women who had children on levels of Extraversion and Agreeableness. There was also a trend relationship for women in predominantly male professions to be higher on Conscientiousness than women in predominantly female professions. Otherwise, long-term divorced women with children and long-term married women with children displayed similar levels of all Big 5 factors; women who had not had children and women who had children displayed similar levels of Big 5 factors except for Extraversion and Agreeableness; and the comparison between women in predominantly male professions and women in predominantly female professions also failed to produce any significant differences on the Big Five factors, whether controlling for marital status or the presence of children. Both controlled analyses for gendered professions actually did not have sufficient sample sizes to detect significant differences, so the results are not reliable. Regarding the differences between women with or without children, women without children were significantly lower than their counterparts on levels of both Extraversion, $t(185) = 2.91$, $d = .74$, and Agreeableness $t(185) = 2.19$, $d = .45$; the sample size was adequate to detect large significant differences. However, these were the only significant differences among 15 comparisons (three comparisons on 5 factors).

Table 3.11

Means (and Standard Deviations) for Big Five Traits for Each of the 3 Non/normative groups (Radcliffe & Smith only): Marriage and Children; Children; and Profession.

	Group		
	Long-term married with children (*N* = 80)	Long-term divorced with children (*N* = 16)	*t*
Trait			
Extraversion	3.43 (0.70)	3.42 (0.84)	-0.02
Agreeableness	3.68 (0.65)	3.57 (0.64)	-0.65
Conscientiousness	3.79 (0.61)	3.81 (0.65)	0.10
Neuroticism	2.68 (0.77)	3.01 (0.64)	1.63
Openness	3.81 (0.57)	3.77 (0.71)	-0.26
	Children: Yes (*N* = 155)	Children: No (*N* = 17)	
Trait			
Extraversion	3.45 (0.65)	2.99 (0.60)	2.91**
Agreeableness	3.60 (0.61)	3.36 (0.43)	2.19*
Conscientiousness	3.77 (0.58)	3.75 (0.56)	0.10
Neuroticism	2.69 (0.74)	2.89 (0.51)	-1.16
Openness	3.82 (0.56)	3.68 (0.74)	0.82
	Predominantly female profession (*N* = 21) (1)	Predominantly male profession (*N* = 21) (1)	*F*
Trait			
Extraversion	3.31 (0.81)	3.36 (0.79)	0.06
Agreeableness	3.79 (0.71)	3.73 (0.66)	0.01
Conscientiousness	3.67 (0.61)	3.98 (0.65)	2.89†
Neuroticism	2.71 (0.80)	2.41 (0.75)	2.18
Openness	3.96 (0.54)	3.82 (0.64)	0.47

	Predominantly female profession (N = 35) (2)	Predominantly male profession (N = 48) (2)	F
Trait			
Extraversion	3.36 (0.72)	3.38 (0.76)	0.13
Agreeableness	3.71 (0.66)	3.62 (0.59)	0.31
Conscientiousness	3.72 (0.56)	3.88 (0.62)	1.33
Neuroticism	2.64 (0.78)	2.55 (0.80)	0.39
Openness	3.86 (0.53)	3.87 (0.60)	0.01

Note. Analyses concerning Profession are conducted controlling for (1) marital status, and (2) children.
† $p < .10$; * $p < .05$; ** $p < .01$.

Hypothesis 4 concerned well-being, as measured by satisfaction with life and psychological well-being. Again, covariates (marital status; children) were used in the analysis of gendered professions, and again, the sample sizes were insufficient in terms of power. Results mainly suggested that there were no differences in well-being between normative and non-normative groups, with one exception (see Table 3.12). Thus, two of the three non-normative/normative life path comparisons showed no significant differences in levels of Psychological Well-being (Ryff, 1989) or Satisfaction with Life (Diener, et al., 1985): long-term divorced women with children compared with long-term married women with children, and women in predominantly male professions compared with women in predominantly female professions. However, both psychological well-being and life satisfaction were significantly different for women who did not have children in comparison to women who had children. Women without children had significantly lower levels of psychological well-being, $F(1,185) = 6.90$, $p = .009$, $\eta_p^2 = .04$, as well as life satisfaction, $F(1,185) = 11.70$, $p = .001$, $\eta_p^2 = .06$; the sample size was

sufficient to detect even small significant differences. Life satisfaction was also lower for long-term divorced women with children compared with long-term married women with children, but at trend level only, $F(1,93) = 3.26$, $p = .07$, $\eta_p^2 = .03$; again, a sample of this size can detect even small significant differences.

Table 3.12
Means (and Standard Deviations) for Well-being (Ryff Total Psychological Well-being, and Satisfaction with Life) for Each of the 3 Non/normative Groups (Radcliffe & Smith only): Marriage and Children; Children; and Profession.

	Group		
Well-being	Long-term married with children (N = 80)	Long-term divorced with children (N = 15)	F
Ryff total psych well-being	0.19 (0.97)	-0.06 (0.91)	0.85
Satisfaction with Life	0.29 (0.83)	-0.14 (0.91)	3.26†
	Children: Yes (N = 168)	Children: No (N = 19)	
Ryff total psych well-being	0.16 (0.93)	-0.43 (0.92)	6.90**
Satisfaction with Life	0.15 (0.89)	-0.62 (1.19)	11.70**
	Predominantly female profession (N = 20) (1)	Predominantly male profession (N = 20) (1)	
Ryff total psych well-being	0.23 (1.05)	0.28 (1.06)	0.06
Satisfaction with Life	0.22 (0.91)	0.23 (1.04)	0.02
	Predominantly female profession (N = 34) (2)	Predominantly male profession (N = 47) (2)	
Ryff total psych well-being	0.13 (0.88)	0.18 (0.96)	0.18
Satisfaction with Life	0.14 (0.81)	0.18 (0.92)	0.38

Note. Means and standard deviations are standardized.
Analyses concerning Profession are conducted controlling for (1) marital status, and (2) children.
† $p < .10$; ** $p < .01$.

The aim of the last analysis was to identify an overall profile of personality and well-being for each of the non-normative life path groups as well as the normative life path group, so this hypothesis explored any differences these profiles might show. Variables included in the analysis were those that were scored on continuous scales: the Big Five (Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness), generativity as measured by the Loyola Generativity Scale, and the two indicators of well-being: Ryff's Overall Psychological Well-being scale and Diener et al.'s Satisfaction with Life scale. Discriminant function analysis was used to test this exploratory hypothesis; results are shown in Tables 3.13 to 3.15, as well as Figure 1.

There was support for the notion that not only were particular non-normative life paths associated with different profiles on these factors, but also the constellation of these factors was different for women who had followed a normative life path. Normative women in this analysis were women for whom there were no missing data for their membership in at least two out of the three possible normative groups; for example, women were categorized as normative if they were married with children *and* engaged in a predominantly female profession. Table 3.13 shows the group differences on each of the independent variables, with three variables differentiating the groups: Generativity, $F(3,144) = 2.81$, $p = .04$, $\eta_p^2 = .06$, life satisfaction, $F(3,144) = 4.34$, $p = .006$, $\eta_p^2 = .08$, and Extraversion, $F(3,144) = 2.63$, $p = .05$, $\eta_p^2 = .05$. Although Extraversion was at, rather than less than, the .05 level, it was included here as this becomes relevant when assessing which variables were highly correlated with the identified functions (see below). In this case, the combined sample size was sufficient to detect large significant differences. After having ascertained group differences on each of the variables,

Table 3.13

Non-normative (and Normative) Group Means, Lambdas, and Univariate Tests on Education, Personality, and Well-being Measures (Radcliffe and Smith only)

Personality measure	Divorced with children (N = 16)	No children (N = 20)	Predominantly male profession (N = 37)	Normative (N = 75)	*Wilks' Lambda*	*F*
Big Five traits						
Extraversion	0.15	-0.50	0.15	0.17	0.95	2.63†
Agreeableness	-0.03	-0.22	0.04	0.11	0.99	0.60
Conscientiousness	-0.16	0.21	0.04	-0.06	0.99	0.49
Neuroticism	0.40	0.03	-0.22	0.06	0.97	1.52
Openness	-0.18	-0.16	-0.04	-0.05	0.99	0.11
Generativity	0.11	-0.35	0.18	0.03	0.95	2.81*
Well-being						
Ryff psych well-being	-0.16	-0.29	0.25	0.13	0.96	1.86
Satisfaction with life	-0.32	-0.40	0.22	0.27	0.92	4.34**

Note. All means are standardized.

† $p < .10$; * $p < .05$; ** $p < .01$.

discriminant analysis then produced a number of functions derived from these variables that was equal to the number of groups in the categorical variable minus one. In this case, there were four groups in the categorical variable: women who were either 1) long-term divorced with children (N = 16), or 2) did not have children (N = 20), or 3) were in predominantly male professions (N = 37), or 4) were long-term married with children and in predominantly female professions (N = 75). These were discrete categories, and none of the women were permitted to be members of more than one category for the purposes of this analysis. Thus, the number of unique functions produced in the current analysis was three, and 54% of the participants were correctly classified into four groups; Klecka (1980) describes this as a "considerable improvement" over chance (p.50) when dealing with this number of groups.

Each of the three unique functions was tested for significance and effect size by first saving the scores for each function and then running an ANOVA on these. One of the three functions was significant: Function 1, $F(3,144) = 8.86$, $p = .00$, $\eta_p^2 = .16$; Function 2 showed a trend level relationship, $F(3,144) = 2.57$, $p = .06$, $\eta_p^2 = .05$. The third function did not reach significance, $F(3,144) = 1.84$, $p = .14$. Table 3.14 shows the correlations of each variable with all three Functions; when drawing inferences from these correlations, a benchmark cut-off of .4 is recommended (Laura Klem, Center for Statistical Consulting and Research (CSCAR) consultant, personal communication). Therefore, Extraversion, generativity, and life satisfaction were strongly positively correlated with Function 1 (labeled Extraversion/generativity/life satisfaction). Life satisfaction and psychological well-being were strongly *negatively* correlated with Function 2, whereas Neuroticism was strongly *positively* correlated with Function 2;

therefore, this function was labeled Well-being (in actuality, representing low well-being). Generativity was strongly *negatively* correlated with Function 3; this function is labeled Generativity, although it should be thought of as low Generativity, and again worth noting is that Function 3 was not significant in differentiating the four groups of women.

Table 3.14
Standardized Structure Coefficients

	Function		
	1 Extraversion/ generativity/life satisfaction	2 Well-being	3 Generativity
Big Five			
extraversion	0.52*	0.10	-0.22
agreeableness	0.25*	-0.07	0.11
conscientiousness	-0.19	-0.24*	0.03
neuroticism	0.01	0.76*	0.16
openness	0.07	-0.15*	0.03
Generativity	0.45	-0.16	-0.69*
Well-being			
Ryff psychological well-being	0.34	-0.53*	-0.14
Satisfaction with Life	0.56	-0.70*	0.32

Note. * denotes largest absolute correlation between each variable and any discriminant function.
Non-normative life path groups: long-term divorced women with children (N = 16); women without children (N = 20); women in predominantly male professions (N = 37). Normative life path group: N = 75.

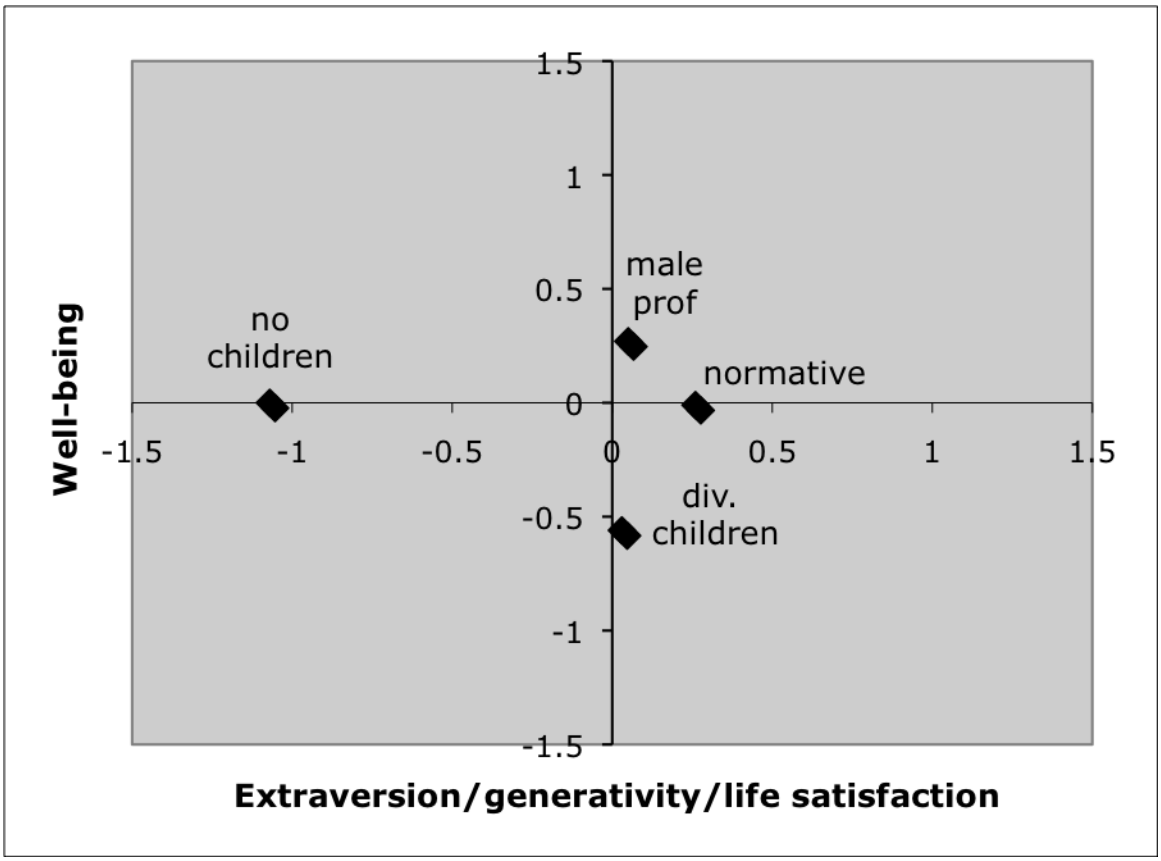
Table 3.15 summarizes the group centroids and provides a comparative standing for each group of women on each of the three Discriminant Functions; Figure 1 plots the group centroids for the significant and trend-level Functions: Extraversion/generativity/life satisfaction, and well-being. For ease of interpretation, not only the label but also the scores for Function 2 – well-being – were reversed in both Table 8.3 and Figure 1; this avoids the problem of the double negative, or the situation where a group of women is "low in low well-being" rather than "high in well-being." Thus, long-term divorced women with children had moderate levels of Extraversion/generativity/life satisfaction, and low well-being, whereas women without children had relatively low levels of Extraversion/generativity/life satisfaction, and moderate levels of well-being; women who followed a predominantly male profession had moderate levels of Extraversion/generativity/life satisfaction, and relatively high well-being. And finally, women who followed a normative life path had relatively high levels of Extraversion/generativity/life satisfaction, and moderate levels of well-being.

Table 3.15
Summary of Non-normative and Normative Group Scores on Discriminant Functions

	Discriminant function		
	Extraversion/ generativity/life satisfaction	Well-being	Generativity
Long-term divorced with children (*N* = 16)	moderate	low	high
No children (*N* = 20)	low	moderate	moderate
Predominantly male profession (*N* = 37)	moderate	high	high
Normative (*N* = 75)	high	moderate	moderate

Figure 1

Group Centroids Plot for Discriminant Analysis



Note. X-axis = Function 1 (Extraversion/generativity/life satisfaction); Y-axis = Function 2 (well-being). Values have been standardized.

Summary of Results

All hypotheses examined the relationship between women's normative or non-normative life paths and personality or well-being out outcomes in a group of midlife women. For the first hypothesis, all three groups of non-normative women were higher than their respective counterparts in the disposition to question both societal and gendered norms. The majority of the significant norm-related items that distinguished long-term divorced women with children from long-term married women with children

were gender norm-related items (88%). Women who did not have children were also differentiated from women who had children by a majority of gender norm-related items; that is, 86% of the norms they did not fit were gender norms. Women in predominantly male professions were rated higher than their predominantly female profession colleagues on 60% of the items identified as being masculine norm-related. Long-term divorced women with children and women who did not have children were rated both relatively low on feminine norms and relatively high on masculine norms; however, women in predominantly male professions were most often only rated high on masculine norms.

The second hypothesis concerned differences in levels of generativity and was generally unsupported: no significant differences were found for long-term divorced women who had children compared to long-term married women who had children, or for women in predominantly male professions compared to women in predominantly female professions. However, women who did not have children were more likely to express a broader rather than personal type of generative legacy compared to women who had children, $\chi^2(193) = 6.49$, $\varphi = .18$. For the two remaining comparisons - long-term married women who also had children compared to long-term married women who did *not* have children, and women in predominantly male professions who had children compared to women in predominantly female professions who had children - no significant differences on any of the three types of generativity were found.

The third hypothesis concerned levels of the Big Five factors (Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness). No significant differences were found for most of the three pairs of comparisons with the exception of women without children compared with women who had children on levels of

Extraversion and Agreeableness: women without children were significantly lower on both, $t(185) = 2.91$, $d = .74$, and $t(185) = 2.19$, $d = .45$, respectively. In sum, two significant differences were found out of 15 comparisons.

The fourth hypothesis concerned well-being. As suggested by some of the literature reviewed, there were few differences, with the exception of women without children, who had significantly lower levels of psychological well being and life satisfaction. Life satisfaction was also lower for long-term divorced women with children compared with long-term married women with children, but at trend level only. For all other comparisons, no differences in levels of well-being were found.

The exploratory hypothesis that particular non-normative life paths would be associated with different profiles on personality (Big Five, generativity) and well-being (psychological well-being, life satisfaction) was supported. Three variables differentiated the three non-normative groups and one normative group: generativity, life satisfaction, and Extraversion. Of the three unique functions produced, one was significant: Extraversion/generativity/life satisfaction. A second function, well-being (comprising low life satisfaction, low psychological well-being and high Neuroticism) showed a trend level relationship, and the third function (generativity) did not reach significance. Each of the groups of non-normative life path women exhibited varying levels of both the Extraversion/generativity/life satisfaction function and the well-being function.

Chapter IV

Discussion

This chapter begins with a short summary of the results of the study as they relate to the hypotheses. Next, each of the results is assessed as it relates to the literature reviewed in Chapter One. Following this, the findings are discussed in terms of the constructs they relate to: perceived norm-rejection or -challenging, traits, generativity, and well-being. Next, the results for each group of women are compared and contrasted, and an example of a participant from each of the non-normative groups as well as the normative group will be used to illustrate these women's lives. Finally, limitations and future research directions are discussed.

Summary of Findings

In most cases, sample sizes were sufficiently large to detect medium to large significant differences, but not large enough to detect small differences between women who had pursued normative or non-normative groups of life paths. First, consistent with predictions, women who followed non-normative life paths displayed a perceived disposition to challenge norms, although they were different norms for different groups of women. Although few general norm-related Q-sort items were rated as being challenged overall, observers viewed all three groups as having qualities inconsistent with gender-related norms for women. Most strikingly, long-term divorced women with children and women who did not have children were rated low on many of the feminine norm-related items that distinguished the groups of non-normative life path women from

normative life-path women, whereas women in predominantly male professions were rated high on the majority of the masculine norm-related items that distinguished non-normative from normative groups.

Contrary to prediction, there were generally no differences in generativity levels for non-normative life path vs. normative life path women, although women who did not have children were more likely than women who had children to express broader – rather than personal - types of legacy.

Consistent with some of the literature concerning higher-order personality factors, there were few differences among the groups in levels of Big Five factors (Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness), although women without children were significantly lower than women with children in Extraversion and Agreeableness.

There were also few differences between the life path groups in life satisfaction or well-being in the early 60s. The only differences in levels of well-being were found between women who did not have children and women who did have children: women without children were significantly lower in both satisfaction with life and psychological well-being.

Finally, as predicted, each of the four groups of women – those who followed one of the three non-normative life paths or a normative one – displayed a different profile in terms of levels of personality traits, personality development, life satisfaction, and well-being. A discriminant function analysis identified three functions: one defined by Extraversion, generativity, and life satisfaction; one defined by well-being (a combination of (low) life satisfaction, Neuroticism, and (low) psychological well-being); and one

defined by low generativity (although this last function was non-significant). Long-term divorced women showed moderate levels of the function defined by Extraversion/generativity/life satisfaction, and were low on the function defined by well-being; women without children were low in Extraversion/generativity/life satisfaction, and showed moderate levels of well-being. Women in predominantly male professions were moderate in their levels of Extraversion/generativity/life satisfaction, and high in levels of well-being, whereas women who followed a normative path (or paths) were high in Extraversion/generativity/life satisfaction, and had moderate levels ofwell-being.

Comparisons with Previous Findings

The first hypothesis dealt with the expectations of personality differences between women who followed non-normative life paths and women who followed more normative life paths. First, the disposition to challenge norms, especially gender norms, was evident, thus supporting previous research concerning women categorized in each of the non-normative life path groups. All three groups were perceived by raters as having personality traits that were either inconsistent with feminine gender norms or consistent with masculine gender norms. These findings are consistent with research by Fahs (2007), who found divorced women to be more liberal and more likely to identify as feminists. Similarly, Bram (1984) showed that women without children had less traditional sex role attitudes, and the relationship between less traditional gender role attitudes and life path choice was also a factor for women who followed non-traditional professions (Heilman, 2001; Noonan, Corcoran, & Courant, 2008; Phillips & Imhoff, 1997). Current and previous research therefore supports the idea that not only does a

woman's personality develop in relationship to the social roles she undertakes, but may also develop in relationship to how society views those roles.

The second hypothesis dealt with comparative differences in generativity. Contrary to prediction, the results showed no difference in generativity between long-term divorced women with children and long-term married women with children. These results suggest that the measures used in the current research were too broad to differentiate between the different sub-types of generativity, such as productivity, mentoring, parenting, and grandparenting; perhaps increased specificity in the items used may have picked up differences in the types of generativity expressed. For example, "overall generativity" consisted of four categories combined: General Concern, Productivity, Caring, and Need to be Needed; the Legacy coding system was also developed based on Stewart and colleagues' coding system, and although it examined different types of generativity, it still lacked precision (i.e., the coding categories were 'personal legacy' vs. 'broad legacy'). Similarly, the Loyola Generativity Scale (LGS) combined different aspects of generativity in its items, such as " I have made and created things that have had an impact on other people," and "I have important skills that I try to teach others." This lack of difference between groups also failed to support previous work concerning the perception of divorced mothers as being less nurturant, a property of generativity (Etaugh & Nekolny, 1990; Etaugh & Poertner, 1992; Kohen, 1981). The results for predictions concerning generativity in women without children – i.e., that there were no differences between them and women who had children on overall generativity and generativity as measured by the LGS, although they were more likely to report broader than personal generative legacy – also suggest that the results concerning

generativity were due to the lack of nuance in the types of questions asked. However, the findings concerning generative legacy also support the idea that expressions of personal generative legacy are often associated with having a family (Erikson, 1980; Stewart & Vandewater, 1993; Newton & Stewart, 2010). The lack of difference in levels of generativity for women in predominantly male professions compared to women in predominantly female professions also points to a lack of specificity concerning the measures used in the current research.

Results for the two sub-hypotheses regarding differences in generativity in terms of marital status and profession combined with children (married women without children compared with married women with children; women in predominantly male professions who had children compared with women in predominantly female professions who had children) also ran contrary to prediction: no differences were found. Again, this speaks to the lack of instrument specificity. The low number of long-term married women without children (N = 4) indicates that any conclusion regarding the comparison with long-term married women with children is speculative.

The next two hypotheses assessed the expectation, based on inconsistent findings in the literature, that, following divergent findings in the literature, there would may or may not be differences in higher-order personality traits and well-being between women who followed non-normative life paths and women who followed more normative life paths. Overall, the mixed results supported the pattern in the literature; that is, most comparisons groups did not differ on the Big Five factors. However, women without children were significantly lower than their counterparts in levels of Extraversion and Agreeableness, supporting Wood and Roberts' (2006) finding that women without

children were perceived as lower on these personality factors. These results are also consistent with Srivastava et al.'s (2003) observation that Agreeableness was associated with parenting through nurturing and prosocial behavior. The trend relationship of higher levels of Conscientiousness for women in predominantly male professions supports the idea that Conscientiousness is associated with work performance for both women and men; Srivastava et al., and Lemkau (1979) both found that women in male-dominated occupations have high levels of competence, a facet of Conscientiousness (Costa, McCrae, & Dye, 1991). The remaining findings of no difference in levels of Big Five factors may be due, in part, to the lack of sensitivity to detect differences using the factor-level traits (e.g., Helson & Kwan, 2000). These findings may also genuinely represent a lack of personality differences for particular comparisons of non-normative and normative women; specifically, women in predominantly male professions compared with women in predominantly female professions, and long-term divorced women who had children compared with long-term married women who had children.

The fourth hypothesis examined well-being, and the findings were again consistent with the inconsistency in the literature. That is, no differences were found in levels of well-being for comparisons of both long-term divorced women with children with long-term married women with children (consistent with Amato & Partridge, 1987), and women in predominantly male professions with women in predominantly female professions (Huang et al., 2007). However, both life satisfaction and psychological well-being were significantly lower for women without children when compared with women who had children. This one comparison does not fit with previous findings that every life path offers different opportunities for life satisfaction and well-being (Mitchell & Helson,

1990; Roberts & Chapman, 2000) or research finding no difference in well-being for women without children compared with women who have (Hoppmann & Smith, 2007), or that voluntarily childless women were higher in well-being than involuntarily childless women (Jeffries & Konnert, 2002). It is worth noting that there is little or no research concerning the well-being of older childless women like those in this study, who are faced with the prospect of old age as non-grandparents, another role for which they will be non-normative.

Finally, exploratory analyses demonstrated that each non-normative life path, as well as the normative life path, showed a different profile of personality and well-being. These results cannot be compared to any strictly-relevant previous research. In the current study, each group of women exhibited a different profile of Extraversion, generativity, life satisfaction, and well-being. Although each group did not differ (generally) when compared to a narrowly-defined comparison group on these variables in prior hypotheses in the current research, the discriminant function analysis compared the three non-normative life path groups to each other and to a comparison group that pursued an even more narrowly normative life path than the single comparison groups. That is, for this analysis, normative life path women had to be classified in at least any two of the three normative categories: they had children, and/or had been married long-term, and/or had followed a predominantly female occupation.

The Findings in Terms of Constructs: Norm Challenging, Generativity, Personality Traits, and Well-being

It should be noted that, generally speaking, although there were some significant differences in levels of the various personality and well-being constructs in the current

research, scores between comparison groups were relatively close to each other. That is, were one to merely glance at the results, it would not appear that in late middle age, women who followed non-normative life paths have different personalities or well-being from women who followed normative paths. For example, levels of both generativity and well-being were high overall in this sample of women, even though these variables discriminated non-normative and normative life path groups. More specifically, for instance, both long-term married women with children and long-term divorced women with children were rated low on the feminine norm-related Q-sort item "Genuinely submissive; accepts domination comfortably": within a possible range of one to nine, the means for these groups of women were 3.58 and 2.90, respectively. Likewise, women who had children and women who did not were also both relatively low on this item, with means of 3.16 and 2.60, respectively. Hence, although the comparisons between women who followed non-normative life paths and their normative counterparts were often statistically significant, in absolute terms they were often in the same part of the 9-point distribution from "not at all characteristic" to "very characteristic." Closer inspection of the levels of the Big Five traits, as well as well-being, also reveals the same pattern. For example, on a one-to-five scale, mean Agreeableness for women with children (M = 3.60) and mean Agreeableness for women without children (M = 3.36) would appear to be quite close, although they are significantly different. Similarly, although the difference between the groups was significant, on a one-to-six scale of Psychological Well-being (Ryff, 1989), women without children and women with children were also relatively close (M = 4.45 and M = 4.75, respectively).

Norm Challenging

The propensity to challenge norms is, in itself, not a new concept; researchers have conceived of it in different ways and with different measures, and the California Adult Q-Sort (CAQ) has also been used to assess it. Although some scholars have analyzed the Q-sort at the item level to assess personality attributes such as creativity (Helson, 1996; Helson & Srivastava, 2002) and religiousness (Wink, Ciciolla, Dillon, & Tracy, 2007) the use of the 100 Q-sort items to measure the degree to which gender norms are perceived to be challenged is novel. This novelty is apparent both in the sense that the Significant Analysis of Microarrays (SAM) has never before been used to analyze Q-sort or any personality data, and in the use of Q-sort data to assess personality traits in terms of norms about gender. Indeed, it is important to note that this instrument was meant as a measure of overall personality, and that its origins reflect that philosophy.

Block viewed the CAQ as a standardized set or test of neutral, non-evaluative statements that could be used to describe personalities (Block, 2008, p.35). The inventory went through three different iterations over the years; many intensive discussions were held with clinical psychologists and psychiatrists concerning the descriptors. All agreed the goal was to make the descriptors "…sufficient in themselves or in combination to encompass the full range of person constellations" (pp.35-36). Block himself (1971) originally formulated six personality prototypes for women from the CAQ; York and John (1992) subsequently reorganized them into four prototypes, describing the Individuated prototype as the closest to the current study in perceived inconsistence with gender norms. Women who fit this particular prototype were described as intellectual, socially-engaged, and goal-oriented.

In the current study, the SAM procedure identified three observer-rated general norm-challenging items and 18 observer-rated items of non-fit to a feminine gender norm that differentiated non-normative life path women from normative life path women. Each group of non-normative life path women showed a different pattern of general norm challenging. Long-term divorced women with children were rated low on one of the three items - "Judges self and others in conventional terms like 'popularity,' social pressures, etc" - although women without children challenged all three items, with low ratings on both this item and "Tends to arouse liking and acceptance in people," and high ratings on "Tends to be rebellious and non-conforming." Women in predominantly male professions were not rated differently on any of the three general norms than women in predominantly female professions. This pattern of differential ratings on general norms suggests that women who follow different non-normative paths display different personalities that were also shaped by how society viewed their particular path; thus, for example, women in predominantly male professions may not have received the same degree of disapprobation as women who did not have children or were single parents for many years.

The current findings support the few research studies concerning the challenging of general societal norms. For example, Cartwright and Wink (1994) found that female physicians showed an increasing tendency to question duties and obligations between their 20s and 30s. However, there is generally a dearth of research concerning connections between women's life paths and norm-rejecting or norm-challenging personalities, especially in late middle-aged women.

Each of the three groups of non-normative life path women in this study was not

only perceived to differentially challenge general norms, but also as not fitting feminine gender norms (see Table 4.4). Both long-term divorced women with children and women without children were rated as low on several feminine norm-related Q-sort items, whereas women in predominantly male professions were rated as high on masculine norm-related Q-sort items. Perhaps these findings, when added to the findings for general norm-challenging, reflect the ideas that women who don't have children, or live outside of marriage are somehow 'less of a woman' or 'less womanly' in a pronatalist/pro-family society, whereas women in predominantly male professions may be perceived less in terms of their femininity but actually as 'more than a woman' or 'more manly.' Further, it may be that challenging entrenched ideas of what the typical family constitutes by either not having children or being a divorced mother may be more associated with a propensity to challenge all norms, whether general or gender. Even though society rewards gender-congruent behavior, it also views at least somewhat favorably those women who are able to succeed in 'a man's world.' The two distinct patterns of observed ill-fit with feminine gender norms or acceptance of masculine gender norms by women also speaks to the idea that femininity and masculinity are two different dimensions, rather than two poles of the same dimension (Constantinople, 1973/2005; Morawski, 2005).

Generativity

According to McAdams and de St. Aubin (1992), generativity may be conceived in terms of seven interrelated features: cultural demand, inner desire, generative concern, belief in the species, commitment, generative action, and personal narration. Thus, how one measures generativity can produce different results, as evidenced in the current study

for women who do not have children. Using both the Loyola Generativity Scale (LGS) and coded overall generativity, there were no differences in levels of generativity for women who didn't have children compared with women who did. The only measure of generativity for which there was a difference was generative legacy, as coded from an open-ended survey question concerning future goals. The fact that this was the only measure to indicate any difference between women who did or did not have children underscores the measure's focus on generativity as procreativity; the failure of the other measures to find any difference between these two groups of women provides support for the idea that generativity can also manifest in many ways, such as productivity, mentoring, or caring. Indeed, for all of the other comparisons – long-term divorced women with children compared with long-term married women with children; women in predominantly male professions compared with women in predominantly female professions; and the combinations of marriage with or without children, and profession and children – no differences in any type of generativity were found, strengthening the notion that generativity is a component of both normative and non-normative life paths.

Previous researchers have concentrated on the many aspects of generativity in their work, such as generative concern (McAdams & de St. Aubin, 1992), generative realization (Peterson & Klohnen, 1995), or mentoring at work or other areas of life such as at church or in volunteer work (Hart, McAdams, Hirsch, & Bauer, 2001). Generativity is clearly a complex construct, and, as alluded to previously, measuring personal legacy by the presence of children and grandchildren in responses to an open-ended question may only be providing a type of circular argument for women with children: if women didn't have children (and hence grandchildren) by their early 60s, they wouldn't be

mentioning them in their goals for the next ten years (the question from which these generativity categories were coded).

Because the sample size for this analysis was sufficient to detect even a small difference, an alternative explanation for finding significantly lower generativity levels for women without children may be that their generativity levels peak later than those of women with children, given that having children has been associated with earlier emergence of generativity (Espin, Stewart, & Gomez, 1990; McAdams, 2001; Peterson & Stewart, 1993). In line with this developmental argument, women without children may feel younger than their colleagues who have children. Indeed, felt age was assessed in the current research using Kaufman and Elder's (2002) Age Identity scale, and although differences were found between women with and without children, they were non-significant. However, this could be the result of the lack of sufficient power to detect a small difference; these data were only available for the WLPS sample of women.

Scott (2009) provides a good illustration of how generativity is a prominent factor for both non-normative as well as normative life paths. One of the childless by choice men she interviews comments "…in the first year or two of our marriage, we did talk about having children, but as we got focused on ourselves and the bigger picture, we thought our contribution would be to leave nothing behind and yet do our best to make the world a better place" (p.95). This passage clearly illustrates that whether having a family, mentoring others, or making the world a better place, generativity can be manifested in different ways in all walks of life.

Personality Traits: The Big Five

In the current study, there were only two significant differences and one trend

relationship out of the fifteen comparisons made using the Big Five Inventory (BFI; John, Donahue, & Kentle, 1992). This picture of few differences between the groups on traits is consistent with the literature. It may be useful to consider whether the identified differences are intelligible, though of course they must be replicated in future research. In this study, women without children were significantly lower in levels of Extraversion and Agreeableness than women with children, and women in predominantly masculine professions tended to be higher (trend) in Conscientiousness than their counterparts. In attempting to understand why these differences should occur, an examination of the underlying facets of the pertinent Big Five factors might be useful. However, caution should be used when interpreting current results in light of underlying facets, as previous scholars have tended to disagree on the number and nature of the facets.

As other researchers have observed, differences in broad factors of personality may obscure or confuse potentially more nuanced relationships, and the increased utility of employing lower-level facets or traits rather than higher-level factors has also been acknowledged (e.g., Hoppmann & Smith, 2007; Paunonen & Ashton, 2003). In the case of Extraversion, Helson and Kwan (2000) found increases in social dominance (e.g., dominance, independence, and self-confidence) with age while social vitality (e.g., sociability, gregariousness) decreased with age; any differences in these facets could be obscured at the factor level. Thus the finding that Extraversion is lower for women without children begs the question: What do we really mean by Extraversion in this instance? Similarly, the facets of Agreeableness cover a wide variety of personality traits that have been related to prejudice (Ekehammar & Akrami, 2007), and antisocial behavior (Miller, Lynam, & Leukefeld, 2003). Given their predisposition of not fitting

gender norms, the current study's finding that women without children are lower than their counterparts on Agreeableness may more accurately reflect differences in facets of compliance or modesty. Conscientiousness also encompasses many facets (Costa, McCrae, & Dye, 1991; MacCann, Duckworth, & Roberts, 2009), one of which is competence. The finding that women in predominantly male professions trended towards higher levels of Conscientiousness when compared with women in predominantly female professions supports Lemkau's (1979) finding that women in male-dominated occupations were high in competence.

No differences were found on all three comparisons of Openness and Neuroticism, thus supporting some of the sparse research available. Wood and Roberts (2006) found that individuals of all ages expected both of these Big Five factors to be relatively low in late middle age, and although specific research comparing non-normative and normative life paths is rare, Hoppmann and Smith (2007) found almost identical levels of Openness and Neuroticism in women who did not have children compared with women who did. In sum, few significant comparisons of the Big Five factor-level personality traits were found, although perhaps examining lower-order facets would provide evidence of some differences.

Well-being

The findings in the present study mainly support the previous literature that suggested there would be no differences in levels of well-being (Amato & Partridge, 1987; Huang, El-Khouri, Johansson, Lindroth, & Sverke, 2007; Koropeckyj-Cox, Pienta, & Brown, 2007). That is, levels of both indicators of well-being (life satisfaction and psychological well-being) were no different for long-term divorced women with children

compared with long-term married women with children, or for women in predominantly male professions compared with women in predominantly female professions. However, women without children were significantly lower than women who had children, which is consistent with findings by Roberts, Wood, and Lodi-Smith, (2004). Before any inferences are drawn from the findings regarding well-being, it should be emphasized that levels of well-being were relatively high for the entire sample of women examined in this research: Using Likert scale responses ranging from 1 to 7, the mean for Satisfaction with Life was 5.37; using Likert scale responses ranging from 1 to 6, the mean for Ryff Psychological Well-being was 4.67. When interpreting the findings, two further issues should be explored: 1) the type of measures used, and specifically in the case of women without children 2) the issue of choice.

Pavot and Diener (2008) state that satisfaction with life is only one component in subjective well-being, and although two measures were used in the current research that tap very different well-being constructs – a general satisfaction or contentment with life, and a more psychological type of well-being – other measures may provide a more thorough and complete picture of well-being in women who follow non-normative life paths. For example, Hoppmann and Smith (2007) used the German version of the Philadelphia Geriatric Center Morale Scale (PGCMS; Lawton, 1975) and the Positive and Negative Affect Schedule (PANAS; Watson, Clark & Tellegen, 1988) in their work and found no difference in well-being between women who had children and women who did not. Another more useful way of measuring well-being that has become popular recently is experienced well-being. Rather than measuring evaluative well-being (a more global cognitive judgment of overall life satisfaction), this method captures present life

satisfaction in contrast to general life satisfaction; it uses a shorter and more recent time-frame that allows for more accurate emotional recall. Kahneman, Krueger, Schkade, Schwarz, and Stone (2004) have developed the Day Reconstruction Method, where participants reconstruct the previous day's activities and experiences in a way that is aimed at reducing recall bias. In this way, the experiences associated with the activity and the circumstances surrounding the activity are remembered, as well as the activity itself. In the current study, the fact that the only difference in well-being was found for one comparison using relatively global measures of well-being reinforces this idea that research results are often heavily influenced by the measures used (Amato & Partridge, 1987; McLelvey & McKenry, 2000) and that life satisfaction can be domain-specific (Roberts & Chapman, 2000; Roberts, Wood, & Lodi-Smith, 2004).

In the present research, the use of the Satisfaction with Life scale provided a particular issue concerning measurement; specifically, the item "If I could live my life over, I would change almost nothing" really taps regret, not well-being, and in light of the results for women without children, this item was removed from analyses. However, dropping this item did not change the results for any of the group comparisons, although the trend for long-term divorced women with children to be lower than their counterparts did disappear.

Arguably, lack of choice may have been less prominent for long-term divorced women and women in predominantly male professions, although there were no doubt some women in all three non-normative life path groups – as well as their normative colleagues – who experienced a lack of choice. This issue of lack of choice was addressed specifically in women without children. Qualitative data regarding such

factors as reproductive difficulties or current feelings concerning childlessness were reviewed, although these data were only available for Radcliffe and Smith women. Twenty-one women without children had specific data pertaining to their childless state; of these, 17 women who had not had children either had not wanted to have them and/or were currently content that they did not have any, while four women without children had wanted to have them. Level of life satisfaction for the women who had wanted children but had not had them was significantly lower than women who had neither wanted nor had children, $t(19) = 2.73$, $p = .01$, $d = 1.26$. This is understandable, given the circumstances, even though the number of childless women who had wanted children but not had any was very small.

Overall Profiles

It is not surprising that each non-normative group of women – long-term divorced women with children, women without children, women in predominantly male professions – as well as a group of normative women should all display comparatively different overall profiles in terms of personality and well-being. As observed earlier, this makes sense, given the results of the previous analyses in the current study. Since this analysis compares all groups to each other, we can note that women pursuing predominantly male professions seem not to lack traits associated with femininity, but to have traits associated with masculinity. In contrast, the two groups that did not follow conventional family roles were perceived as less "feminine" in previous analyses, and this is especially true of the women without children. In short, the groups vary in the degree to which they are seen as outside gender norms. At the same time, the comparison group was defined in terms of at least two gender-normative life path choices, making

them more strongly normative than each comparison group in previous analyses. This sharpening of the comparisons yielded some new differentiations in personality that must be viewed as in need of replication before they can be taken seriously.

The combination of Extraversion, generativity, and life satisfaction in the first function may represent a type of 'satisfying external engagement,' or satisfaction with an involvement with a developmental expectation in one's life, such as connecting with others through family or mentoring relationships. This may reflect the public element of the way in which generativity is measured in the current research. This is also reflected in the items used in the shortened version of the Loyola Generativity Scale. For example, "I have made and created things that have had an impact on other people" and "I feel as though my contributions will exist after I die" speak to visible and personally satisfying elements of generativity that might be captured or tapped by Extraversion, such as a concern for the social and physical environment, gregariousness, and the element of Extraversion identified as nurturance (Costa, Terracciano, & McCrae, 2001).

The second function represents well-being, comprised of Neuroticism, psychological well-being, and life satisfaction. The presence of life satisfaction as a component of two separate functions in this exploratory analysis is understandable, given its different valence in each function (positive in Function 1; negative in Function 2), and the well-documented existence of positive and negative affect as distinct dimensions (Diener & Lucas, 1999; Watson, Clark, & Tellegen, 1988). Although the different aspects of well-being are not the focus of the present study, this further strengthens the argument in favor of using different measures of well-being in future research. The third function, although not significant, represents generativity as a function on its own, rather

than as part of a composite function. This highlights how both the presence of other variables and their valence can alter how one interprets particular functions.

Figure 1 shows that Function 1 most differentiated women who did not have children from women who followed a normative life path (or paths): Women without children scored very low on the Extraversion/generativity/life satisfaction combination, whereas normative life path women scored relatively high. Both long-term divorced women and women who followed predominantly male professions had moderate levels of this function. This paints a particular picture of women without children as more introverted, perhaps with smaller social networks than women who are mothers have, of necessity, generated through their lives. These women were relatively low in the satisfaction they may have garnered from their external engagements, although they were no different than normative women in level of well-being on the second function. Perhaps these results suggest a continued striving for growth that is maintained by the absence of a marker of developmental accomplishment, such as the increased age of one's own children. Settersten and Trauten (2009) note that chronological age in itself is not a reliable marker of aging, and suggest that other markers, such as becoming a grandparent and seeing one's children reach middle age, may be better signals of the aging process. Research concerning life narratives and autobiographical memory acknowledges the importance of life events such as parenthood and grandparenthood in life scripts (Berntsen & Rubin, 2002; Martin & Smyer, 1990; Rubin & Berntsen, 2003); however, little is known regarding how life narratives might differ for women whose memories are not constructed around children.

Long-term divorced women with children and women who had entered a predominantly male profession were less differentiated by Function 1: both were moderate in their levels of Extraversion/generativity/life satisfaction. However, they were more differentiated by Function 2, well-being, with long-term divorced women scoring the lowest of any of the groups on this function. Given that long-term divorced women have been the sole providers of all types of support for their children, as well as themselves, this may well speak to the many factors of well-being and how it is measured; for example, formal or informal support (McKelvey & McKenry, 2000), economic well-being (Amato & Partridge, 1987), or psychological well-being (Koropeckyj-Cox, Pienta, & Brown, 2007). Global measures, such as the Satisfaction with Life Scale (Diener et al., 1985), may tap all factors of well-being, and closer inspection of the items for both this scale and Ryff's (1989) Psychological Well-being subscales (see Appendices F and G) make sense of this finding. For example, it is arguably logical that long-term divorced women would rate highly on "Maintaining close relationships has been difficult and frustrating for me," and "I have not experienced many warm and trusting relationships with others" due to their single parent status. Conversely, the finding that women in predominantly male professions score relatively high in well-being may be due to the elevated status they experience in succeeding in a 'man's world,' through increased opportunities for self-expression available to those in autonomous and relatively lucrative positions.

In addition, the results show certain consistent connections across constructs. For example, women without children were rated as significantly lower on the Q-sort item "Emphasizes being with others; gregarious," and were similarly lower in Extraversion, of

which gregariousness is a facet. Women in predominantly male professions were rated significantly higher on the Q-sort item "Is productive; gets things done," and were also higher (at trend level) in Conscientiousness. Additionally, long-term divorced women and women without children were low in well-being, whereas women without children were also significantly lower in generativity (not surprising, given the link between generativity and Extraversion in the form of nurturance, as discussed above). Finally, Extraversion, generativity, and well-being were the factors that differentiated the profiles of the four groups of women (three non-normative and one normative) in the final exploratory hypothesis. Thus, the findings for each of the hypotheses cohere into a description of these women that prevails across hypotheses.

The Findings in Terms of These Particular Women

As a cohort, the women in this study experienced many social changes. Most of them were born during or shortly after World War II, and all of them were raised in the postwar era. They went to college during the 1960s and early 1970s, during which time the Kennedy administration came to power, and two of the Kennedy brothers (John and Bobby) were assassinated. The Vietnam War dragged on and the attendant protests and violence escalated; the Civil Rights movement became more prominent, as did also – perhaps most pertinent to the current research - the Women's Movement. However, the women in this cohort were affected by the Women's Movement to varying degrees, a concept that Stewart (1994) explored through her interviews with some of the women from the Radcliffe Class of 1964.

Stewart expanded on her prior work (Stewart & Healy, 1989) concerning a model of the individual meanings of social experiences over the life span (p.230), making the

point that the Women's Movement had different meanings for women in the same cohort. She commented, "…*the same events should have different effects within cohorts, depending on the particular experience of the individual"* (p.237; original emphasis). Although a majority of the Radcliffe cohort rated the Women's Movement as meaningful to them, many women felt its influence more deeply later in their lives. Stewart focused on the experiences of three women to illustrate this point; they not only experienced the Women's Movement in different ways at the time, they also experienced its full impact at different times later in their lives.

This can perhaps account for the different social roles that participants in the current research undertook, as not all of them would have (or could have) followed a non-normative life path as a consequence of the influence of the Women's Movement. However, for those who did follow a non-normative path, Stewart and Healy provided some evidence of a link between the path taken and the Women's Movement: the Movement's meaningfulness was associated with women combining employment and family roles, following non-traditional occupations, and pursuing "…a career in a traditionally male pattern (continuous or continuously advancing education or employment after college)" (p.239).

Overall, the idea of a non-normative life path may be generational, or cohort-specific: What was non-normative for women who came of age in the 1960s and 1970s is almost certainly not non-normative for women who are coming of age in the current decade. What defines a predominantly male profession in this day and age? Gender norms may, by definition, also be gender-specific; to determine if this is the case, men of this cohort should also be examined. How did the Women's Movement influence them?

What does a non-normative life path look like for a man, compared to a woman? Do the three general norm items identified – "Tends to arouse liking and acceptance in people," "Judges self and others in conventional terms like 'popularity,' social pressures, etc," and "Tends to be rebellious and non-conforming" - apply equally to men; if not, are they then actually female gender norms? What pressures for norm-following do men experience that women do not?

Summaries of Each Particular Non-normative Group of Women by Variable

Each group of non-normative life path women 'looks' different, according to the cluster of personality and well-being variables that describe them in this study. After each non-normative group is briefly described (below), a short case study account of a woman from each group is provided.

Long-term divorced women with children did not fit feminine gender norms as reflected in lower ratings of feminine norm-related Q-sort items such as "Genuinely submissive; accepts domination comfortably" and "Behaves in a feminine style and manner." They were no different from their counterparts on levels of generativity or the Big Five; and were lower than their counterparts on life satisfaction, but at trend level only. Their profile was one of having a moderate level of Extraversion/generativity/life satisfaction and a low level of well-being. However, how individuals measure up to their respective group is often even more complex than the prototypical individual, as is the case with long-term divorced women who also had children. Daphne (a pseudonym, as are all the names given to women highlighted here as examples) had been divorced since 1977 (when she was 35) and is the mother of one child, a son. She was rated even lower than the mean for her non-normative group on feminine norm-related Q-sort items such

as “Genuinely submissive; accepts domination comfortably,” and “Behaves in a giving way towards others,” while at the same time scoring higher than her non-normative group on “Values own independence and autonomy”; thus she was high in her lack of fit with gender norms. She had marginally above-average levels of generativity compared to her colleagues, but resembled them in the likelihood that she expressed generativity in terms of both broader and personal legacy. Her level of Extraversion resembled that of her normative counterparts, but her levels of Neuroticism, Agreeableness, Openness, and Conscientiousness more closely resembled those of her non-normative group. Finally, she showed slightly lower levels of well-being, consistent with her group.

In response to the question “Any regrets?”, Daphne, a professor, mentioned the possibility of having re-married and/or having had another child, but also recognized that she had been “too busy” to do so. When asked if she would choose the same lifestyle pattern with respect to home versus career decisions, she responded: “Can’t answer this – I didn’t choose anything “set” – life happens in incremental steps, so I don’t think one “chooses a lifestyle pattern.”” Indeed, when she left college, she had no idea what the future would be; she further commented that she had evolved rather than redefined herself over the years, so it would seem that Daphne’s life into her early 60s was lived as it unfolded, rather than following a master plan.

Women without children were also rated as not fitting gender norms, as is reflected in lower ratings on the same types of feminine norm-related Q-sort items as the two identified above for long-term divorced women with children. They were more likely to report a broader type of generative legacy than a personal type of generative legacy. They were also significantly lower than women with children on Extraversion,

Agreeableness, total psychological well-being, and life satisfaction. Their profile was one of comparatively low Extraversion/generativity/satisfaction with life, and moderate well-being. Nila was rated below the mean for women without children on such feminine norm-related items as "Has warmth; has the capacity for close relationships; compassionate" and "Behaves in a feminine style and manner," but was also rated above the mean for her non-normative group on "Genuinely submissive; accepts domination comfortably," and "Is protective of those close to her." Thus, although she had a strong propensity to be rated as not fitting gender norms, she did so in her own individual fashion. She expressed relatively low levels of generativity, even when compared with her colleagues, but resembled them in her likelihood to express legacy in broader themes. She was higher than the mean for her non-normative group on four out of the Big Five personality traits - Extraversion, Agreeableness, Conscientiousness, and Openness – but hovered around the mean for Neuroticism. She displayed lower levels of well-being on both indicators (psychological well-being and satisfaction with life) when compared even to the means of her non-normative group, who in turn had been found to be significantly lower in life satisfaction than their counterparts.

By the time of data collection in 2005, Nila had retired from her job as a computer programmer, and had been with her 'significant other' for twenty-three years, although they weren't married. She had always been ambivalent about having children, but she recognized that she could have adopted children; however, she did not want to be a single parent, and a "traditional marriage and kids" was not something she had ever wanted. In her responses to questions, she often referred to her repressed or difficult childhood. She was involved in many activities in her retirement, many of which she had begun while

still at work, such as piano and art classes. Like Daphne, Nila felt that she had not redefined herself in later adulthood, but had slowly grown more confident and independent.

Women in predominantly male professions were perceived as embodying masculine norm-related Q-sort items such as "Has high aspiration level for self" and "Is power oriented; values power in self and others." They were no different from women in predominantly female professions in levels of generativity, although they trended towards higher levels of Conscientiousness than their counterparts. They showed no differences in well-being when compared with women in predominantly female professions, and their profile is one of relatively high levels of Extraversion, generativity, and well-being. Marina, who worked as a Professor and Academic Administrator, displayed many of the personality attributes of a woman in a predominantly male profession found in the present study. She was rated with the highest possible score (9) on the masculine norm-related Q-sort item "Is productive; gets things done" and 8.67 for "Has high aspiration level for self" and "Appears to have a high level of intellectual capacity." However, she was rated well below the mean for her non-normative group on "Prides self on being "objective," rational." Again, Marina displayed an observed propensity to question feminine norms much like her peers in predominantly male professions, but in her own way. Like many of her colleagues, she had a relatively high level of generativity, and was more likely to express a broader type of legacy. However, she rated herself higher than the group mean on Extraversion, Conscientiousness, Agreeableness, and particularly Openness (scoring 5, the highest score possible), although she scored considerably lower

than her colleagues on Neuroticism. Her psychological well-being and satisfaction with life were both relatively high in comparison to the rest of her group.

Marina had been married twice, although by 2005 she was divorced. Family was a strong, recurrent theme in her responses: She is the mother of several children, and throughout the questionnaire, she mentioned being involved in her children's lives and the births of her grandchildren; the death of her mother had also been an "enormously powerful" experience. Spirituality was very important to her, and she incorporated it into her scientific work whenever she could. She felt that redefinitions had been on-going throughout her life, and a major goal for her was to "point the world towards more sustainable trajectories." She was very socially and politically involved in many ways (donating money, attending meetings, signing petitions) in such causes as the environment and women's rights.

These non-normative groups of women and the brief accounts of a 'typical' member of each provide a glimpse into women's lives in late middle age. However, they also demonstrate the complexity and difficulty involved in describing a life in just these few constructs, highlighting the inadequate attempts of most researchers – the present author included – to quantify women's personality development and well-being. The next section addresses some of the other limitations of the current research.

Limitations

Often the strengths of a study can also be its limitations; this may well be the case with the present study. The generalizability of this study is one limitation. These predominantly white, middle-class women were born during a certain era, and as such present a rich source of information concerning the relationship between their life paths

and how their personalities develop into late midlife, as well as any associations with their well-being. However, the patterns identified here can only be true of this particular group of women, given the social milieu in which they came of age. Certainly, ideas regarding what constitutes a non-normative life path have changed. As Young (2008) observed, norm shifts may occur over time, prompted either by structural changes in society or by more subjective changes, such as perceptions and expectations. In terms of the types of non-normative paths outlined in this research, currently more women than in the past prefer or choose to raise their children on their own or outside of marriage (Ventura, 2009); increasing numbers of women are opting to be 'childfree' (Scott, 2009); and it is far more acceptable for women to become professors, physicians, or lawyers. Therefore, replicating this sort of inquiry into how non-normative life paths are associated with personality development would require new and different concepts of what is normative and non-normative for other generations.

Generational differences in which life paths may be non-normative are not the only concern: Marriage, children, and profession were the specific arenas within which non-normativity occurred in the current study, but other areas and definitions could just as effectively have been explored; for example, sexual orientation, religious affiliation, cultural heritage, or commitment to philanthropic or volunteer activities. Similarly, alternative ideas about how marriage, children, and profession can be non-normative may include life-long commitment to a partner - or to multiple partners - rather than a more formal or legal marriage, fostering children, or leading the itinerant life of an artist or actor. The present research is therefore relatively limited in its concept of what

constitutes a non-normative life path, however well the chosen categories fit the current sample.

Replication of this sort of study with a comparable group of men in late middle age would help answer questions concerning the commonalities and differences in social and gender norms for this particular cohort. A man's non-normative life path may look quite different, given differences in gender norms. For a man who came of age during the 1960s and early 1970s, not having children or being long-term divorced with children may not be as strongly associated with non-normativity or might be very rare. Instead, being married to an older woman or one of higher status with greater earning potential, or being the primary parent, or pursuing a career that is normative for women (like nursing or elementary education) might be more relevant in studying men of this generation. Thus, defining men's non-normative life paths and how they are related to personality development could lead to future comparative research concerning gendered life paths and adult personality development.

Analyses in the current study are limited to finding associations between life paths and personality and well-being outcomes; specific causal direction cannot be specified either in this study or, arguably, in the many other studies reviewed above. Additionally, the bi-directional nature of the relationship between personality and life path cannot be examined with the data used in this dissertation: Life path choices in this study pre-date the personality data used. However, other datasets may have personality measures at an early stage, and life path data afterwards. Even in this dataset there are TAT stories collected when the women were first year students in college; personality assessments from those stories could be used to examine the relationship between personality and

subsequent choice of a life path. There is little doubt that both directions of influence matter, and future research should examine both.

Other issues include the fact that there is no direct data in this study regarding social views of women who follow non-normative life paths, and the role of choice in following such a path, which may vary widely for the women included here. Also, the wide spacing between data collection waves precludes some analyses. These large interim periods potentially included many experiences or events that would help to illuminate the life paths and personality development of these women, and perhaps more frequent data collections would have explored different life transitions and influences. For instance, it would be possible with more frequent data collection to examine how women coped when their children left to go to college, and (for those with older children) how they reacted to becoming a grandparent; or how they responded to the Stock Market Crash of the late 1980s, as well as the onset of the first Gulf War. The available data also stops in late middle age, with many years of development still ahead for the majority of women in the study.

The data used in this study includes a limited set of personality variables by necessity; combining three smaller sub-samples can be problematic in terms of finding comparable personality measures. Ideally, a larger and more comprehensive battery of variables that provides a broader and deeper picture of women's personalities in late midlife should be included, as recommended by McAdams and Pals (2006). For example, including items or inventories that measure self esteem, confidence and optimism may help to more specifically differentiate the personalities of women who follow non-normative life paths from women who follow normative life paths. Likewise,

inclusion of such variables as resilience, hardiness, social attitudes (e.g., liberal vs. conservative), and positive or negative affect. Extending the focus on personality development to include both identity and ego integrity (Erikson, 1980; 1982) would seem logical, given the plethora of research on women's identity in late midlife, and Erikson's theory that ego integrity developmentally flows from generativity.

Two further observations concerning limitations should be made. The first is one of practicality: Some of the comparison samples are small, and lacked sufficient power to detect even large significant differences. This was true for comparisons concerning the controlled analyses of women in predominantly male or female professions on the Big Five and well-being, given insufficient levels of power. Analyses concerning the combination of profession and children, as well as the combination of marriage and children, on levels of generativity were only able to detect medium to large differences; this was also the case for comparisons of long-term divorced women with children and long-term married women with children on generativity and Big Five personality factors. However, there was sufficient power to detect differences for comparisons of long-term divorced women with children and long-term married women with children on lack of feminine norm fit and well-being, for comparisons of women without children and women who had children on all personality and well-being analyses, and for comparisons of women in predominantly male or female professions on gender norm fit analyses. Research in this area would therefore benefit from replication with larger, more representative samples that also contain rich personality assessments such as those included in this study.

The second observation concerning limitations involves the Q-sort: Because the task of Q-sorting each participant requires three sorters for each file, some of the sorters may well be young students, in the 18 - 30 age group. While it may be valuable to have sorters who range in age and life stage, it is an interesting methodological question to consider the role of age in sorting the personalities of people at a life stage quite different from one's own, and from a different generation. The high inter-rater agreement in this study suggests this issue is not a serious threat to validity, but it would be useful if future research focused on the characteristics of Q-sort judges that are important—and those that are not—in assessing personalities of different groups.

Future Directions

There are many interesting avenues of study to pursue with this research. One is to continue the examination of personality development for these women into old age; specifically, using further Q-sort data to ascertain whether following a non-normative life path continues to influence perceived ill-fit with gender norms. Data from the most recent wave of Radcliffe data collection (2005) has been Q-sorted; thus, there are already three points of Q-sort data (1986, 1996, and 2005) available for this particular sample. Q-sorting the Women's Life Paths Study (WLPS) 2008 data is also a possibility. Potentially, the dynamic relationship between life path and personality could be explored using these data. And, of course, the inclusion of men in order to disentangle social, gender, and aging norm influences on personality development would be optimal.

Research into women's personalities in mid-to-later life conducted using the Big Five may be better served by focusing on measurement at the facet level. Helson and Kwan's (2000) finding that two lower-level facets of Extraversion - social dominance

(e.g., assertiveness, ambition, dominance) and social vitality (e.g., talkativeness, sociability, gregariousness) – increased and decreased with age, respectively, highlights the danger of measuring personality at the factor level. Further support for the use of facets comes from similar findings for the relationship between tender-mindedness, one of the six facets of Agreeableness, and prejudice (Ekehammar & Akrami, 2007); and five of the facets of Agreeableness, with the exception of modesty, predicting antisocial behavior (Miller, Lynam, & Leukefeld, 2003). Perhaps delving even further to examine personality at the trait level may prove even more nuanced, particularly if combined with the Significance Analysis of Microarrays (SAM) technique used in the present research.

Another potential line of research is to examine the transitions these women are making as they move from late middle age to being classified as young-old; many are retiring from prestigious occupations, becoming grandparents, or feeling the pressures of these role transitions without engaging in them, as in the case of women without children. These expected transitions suggest specific questions concerning what a non-normative life path looks like later in life. For example, is it gender-specific, or more associated with norms of aging? A qualitative examination of both the Radcliffe 2005 and the WLPS 2008 data may provide a more detailed picture, especially concerning to what degree women identify their non-normative paths as having defined them, and whether they regret any aspect of their particular non-normative life path. This may also help to spotlight the role of choice in following a particular path, something that the present study acknowledges, although minimally.

Conclusion

This research has shown that life paths and personality are linked in often complicated ways, even in samples generally thought of as relatively homogeneous. Within this sample of late middle-aged women, following a non-normative life path – being long-term divorced with children, not having children, or engaging in a predominantly male occupation – was associated with both shared and different personality attributes and levels of well-being.

In reviewing the results of the Q-sort analysis, it is clear that women are viewed as challenging different norms, both general and gendered, depending on their non-normative role. Specifically, long-term divorced women with children and women without children have relatively low ratings on feminine norm-related items, whereas women in predominantly male professions have relatively high ratings on masculine norm-related items. These indications of being 'less feminine' or 'more masculine' (but not less feminine) provide clues regarding how society views the roles women undertake, and how the women themselves deal with those views.

It is also clear that there is considerable overlap in not only the normative and non-normative roles women undertake (such as long-term married women with children (i.e., normative) who also engage in predominantly male professions (non-normative)), but also in levels of personality and well-being factors between women who followed normative and non-normative life paths. Perhaps, as is the case with generativity, certain personality variables show no relation to non-normativity; or, as is the case with the Big Five personality factors, they are too monolithic to provide us with the necessary nuances to distinguish the outcomes of a non-normative life path from a normative life path.

This research also shows that lower well-being is not necessarily concomitant with non-normativity, as is sometimes the assumption. Moreover, the final two analyses (Tables 7 through 8.3; also Figure 1) demonstrate that well-being is a multi-faceted concept whose outcome can very much depend on the method by which it is measured.

Finally, the results of this research suggest that, although the three types of non-normative life paths examined here may all be non-normative for these particular women, there may be some specific non-normative life paths that have greater influence on personality and well-being than others. That is, in this research, women who did not have children were more consistently different from their counterparts in terms of degree of lack of fit with gender norms, personality, and well-being.

In sum, future research should be careful to acknowledge the considerable variation and complexity in undertaking adult personality research, and the extent to which societal events and expectations can help to shape personality.

Appendices

Appendix A: California Q-sort (CAQ) Items
(Block, 1961)

1. Is critical, skeptical, not easily impressed.

2. Is a genuinely dependable and responsible person.

3. Has a wide range of interests.

4. Is a talkative individual.

5. Behaves in a giving way toward others.

6. Is fastidious.

7. Favors conservative values in a variety of areas.

8. Appears to have a high degree of intellectual capacity.

9. Is uncomfortable with uncertainty and complexities.

10. Anxiety and tension find outlet in bodily symptoms.

11. Is protective of those close to him.

12. Tends to be self-defensive.

13. Is thin-skinned; sensitive to anything that can be construed as criticism or an interpersonal slight.

14. Genuinely submissive; accepts domination comfortably.

15. Is skilled in social techniques of imaginative play, pretending and humor.

16. Is introspective and concerned with self as an object.

17. Behaves in a sympathetic or considerate manner.

18. Initiates humor.

19. Seeks reassurance from others.

20. Has a rapid personal tempo; behaves and acts quickly.

21. Arouses nurturant feelings in others.

22. Feels a lack of personal meaning in life.

23. Extrapunitive; tends to transfer or project blame.

24. Prides self on being "objective," rational.

25. Tends toward over-control of needs and impulses; binds tensions excessively; delays gratification unnecessarily.

26. Is productive; gets things done.

27. Shows condescending behavior in relations with others.

28. Tends to arouse liking and acceptance in people.

29. Is turned to for advice and reassurance.

30. Gives up and withdraws where possible in the face of frustration and adversity.

31. Regards self as physically attractive.

32. Seems to be aware of the impression he makes on others.

33. Is calm, relaxed in manner.

34. Over-reactive to minor frustrations; irritable.

35. Has warmth; has the capacity for close relationships; compassionate.

36. Is subtly negativistic; tends to undermine and obstruct or sabotage.

37. Is guileful and deceitful, manipulative, opportunistic.

38. Has hostility toward others.

39. Thinks and associates ideas in unusual ways; has unconventional thought processes.

40. Is vulnerable to real or fancied threat, generally fearful.

41. Is moralistic.

42. Reluctant to commit self to any definite course of action; tends to delay or avoid action.

43. Is facially and/or gesturally expressive.

44. Evaluates the motivation of others in interpreting situations.

45. Has a brittle ego-defense system; has a small reserve of integration; would be disorganized and maladaptive when under stress or trauma.

46. Engages in personal fantasy and daydreams, fictional speculations.

47. Has a readiness to feel guilt.

48. Keeps people at a distance; avoids close interpersonal relationships.

49. Is basically distrustful of people in general; questions their motivations.

50. Is unpredictable and changeable in behavior and attitudes.

51. Genuinely values intellectual and cognitive matters.

52. Behaves in an assertive fashion.

53. Various needs tend toward relatively direct and uncontrolled expression; unable to delay gratification.

54. Emphasizes being with others; gregarious.

55. Is self-defeating.

56. Responds to humor.

57. Is an interesting, arresting person.

58. Enjoys sensuous experiences (including touch, taste, smell, physical contact).

59. Is concerned with own body and the adequacy of its physiological functioning.

60. Has insight into own motives and behaviors.

61. Creates and exploits dependency in people.

62. Tends to be rebellious and non-conforming.

63. Judges self and others in conventional terms like "popularity," "the correct thing to do," social pressures, etc.

64. Is socially perceptive of a wide range of interpersonal cues.

65. Characteristically pushes and tries to stretch limits; sees what he can get away with.

66. Enjoys esthetic impressions; is esthetically reactive.

67. Is self-indulgent.

68. Is basically anxious.

69. Is sensitive to anything that can be construed as a demand.

70. Behaves in an ethically consistent manner; is consistent with own personal standards.

71. Has high aspiration level for self.

72. Concerned with own adequacy as a person, either at conscious or unconscious levels.

73. Tends to perceive many different contexts in sexual terms; eroticizes situations.

74. Is subjectively unaware of self-concern; feels satisfied with self.

75. Has a clear-cut, internally consistent personality.

76. Tends to project his own feelings and motivations onto others.

77. Appears straightforward, forthright, candid in dealing with others.

78. Feels cheated and victimized by life; self-pitying.

79. Tends to ruminate and have persistent, preoccupying thoughts.

80. Interested in members of the opposite sex.

81. Is physically attractive; good-looking.

82. Has fluctuating moods.

83. Able to see to the heart of important problems.

84. Is cheerful.

85. Emphasizes communication through action and non-verbal behavior.

86. Handles anxiety and conflicts by, in effect, refusing to recognize their presence; repressive or dissociative tendencies.

87. Interprets basically simple and clear-cut situations complicated and particularizing ways.

88. Is personally charming.

89. Compares self to others. Is alert to real or fancied differences between self and other people.

90. Is concerned with philosophical problems; e.g., religions, values, the meaning of life, etc.

91. Is power oriented; values power in self and others.

92. Has social poise and presence; appears socially at ease.

93. Behaves in a masculine (feminine) style and manner.

94. Expresses hostile feelings directly.

95. Tends to proffer advice.

96. Values own independence and autonomy.

97. Is emotionally bland; has flattened affect.

98. Is verbally fluent; can express ideas well.

99. Is self-dramatizing; histrionic.

100. Does not vary roles; relates to everyone in the same way.

Appendix B: Big Five Subscales
(John, Donahue, & Kentle, 1991)

Question stem: I see myself as someone who…

Response scale:

1) disagree strongly to 5) agree strongly ("R" denotes reverse-scored items)

Openness

Is inventive

Is original, comes up with new ideas

Values artistic, aesthetic experiences

Is curious about many things

Is ingenious, a deep thinker

Likes to reflect, play with ideas

Prefers work that is routine R

Has an active imagination

Has few artistic interests R

Is sophisticated in art, music, or literature

Agreeableness

Tends to find fault with others R

Is helpful and unselfish with others

Starts quarrels with others R

Has a forgiving nature

Can be cold and aloof R

Is generally trusting

Is sometimes rude to others R

Likes to cooperate with others

Is considerate and kind to almost everyone

Conscientiousness

Does a thorough job

Can be somewhat careless R

Is a reliable worker

Tends to be disorganized R

Tends to be lazy R

Perseveres until the task is finished

Does things efficiently

Makes plans and follows through with them

Is easily distracted R

Extraversion

Is talkative

Is reserved R

Is full of energy

Generates a lot of enthusiasm

Tends to be quiet R

Has an assertive personality

Is sometimes shy, inhibited R

Is outgoing, sociable

Neuroticism

Is depressed, blue

Is relaxed, handles stress well R

Can be tense

Worries a lot

Is emotionally stable, not easily upset R

Can be moody

Remains calm in tense situations R

Gets nervous easily

Appendix C: Coding Manual for Four Generativity Themes
(Stewart, Franz, & Layton, 1988)

Code	Definition	Examples
General Generativity	Respondent expresses concerns about making a lasting contribution, especially to future generations.	"See my kids marry happily & have some kids we can all enjoy."
Productive Generativity	Respondent expresses concerns with developing and growing through the generation of products/ideas that make a lasting contribution.	"Write a couple of books of poetry…"; "…creating gardens that are truly comforting to be in."
Caring Generativity	Respondent expresses concerns with the capacity to care for others.	"Gratitude that I can help my parents"; "The grief counseling activity is also very gratifying."
Need to be needed	Respondent expresses an inner need to be needed by others, or rejection of others' need for them	"I would like to be of service to others"; "feel of some use."

Appendix D: Coding Manual for Legacy Themes

Code	Definition	Examples
Personal Legacy	Respondent expresses concerns about making a lasting contribution that is related to herself or is solely meaningful in a personal way.	"See my kids marry happily & have some kids we can all enjoy," "Help my son be happy & successful," "Finish the book I have been working on for the past ten years."
Broader Legacy	Respondent expresses concerns about making a lasting contribution for people or places outside of her immediate circle of care, or for the greater good.	"Peace corps type involvement," "I would like to do something that made a social contribution," "a whole political agenda too long to list here…(less poverty & income inequality, less prejudice, less economic insecurity, more equal access to jobs & education..."
Both Personal and Broader Legacy	Respondent expresses concerns for both personal legacy and broader legacy, either in a single statement or within the question's overall response.	"Publish another book that would help young women," "My last son will graduate HS in 4 years. During this time I will want to be there for him while working part-time in a research environment. The work I would choose would be relevant to improving the condition of the world: either environmentally or socially."

Appendix E: Loyola Generativity Scale
(McAdams & de St. Aubin, 1992; 6-item version)

Response scale: (1) strongly disagree to (6) strongly agree

1. I have made and created things that have had an impact on other people.

2. If I were unable to have children of my own, I would like to adopt children (omitted)

3. I have important skills that I try to teach others.

4. I feel as though I have done nothing of worth to contribute to others (reverse scored).

5. I have made many commitments to many different kinds of people, groups, and activities in my life.

6. I feel as though my contributions will exist after I die.

Appendix F: Life Satisfaction
(Diener, Emmons, Larson, & Griffin, 1985)

Response scale for Satisfaction with Life items: strongly disagree (1) to strongly agree (7)

1. If I could live my life over, I would change almost nothing

2. In most ways my life is close to my ideal.

3. The conditions of my life are excellent.

4. I am satisfied with my life.

5. So far I've gotten the important things that I want in life.

Appendix G: Psychological Well-being
Ryff (1989); Ryff & Keyes (1995)

Response scale: strongly agree (1) to strongly disagree (6)

Self-acceptance:
1. When I look at the story of my life, I am pleased with how things have turned out.
2. In many ways, I feel disappointed about my achievements in life (reverse scored).
3. I like most aspects of my personality.

Positive Relations with Others:
1. Maintaining close relationships has been difficult and frustrating for me (reverse scored).
2. People would describe me as a giving person, willing to share my time with others.
3. I have not experienced many warm and trusting relationships with others (reverse scored).

Autonomy:
1. I tend to be influenced by people with strong opinions (reverse coded).
2. I have confidence in my own opinions, even if they are contrary to the general consensus.
3. I judge myself by what I think is important, not by the values of what others think is important.

Environmental Mastery:
1. In general, I feel I am in charge of the situation in which I live.
2. The demands of everyday life often get me down (reverse scored).
3. I am quite good at managing the many responsibilities of my daily life.

Purpose in Life:
1. I live life one day at a time and don't really think about the future (reverse scored).
2. Some people wander aimlessly through life, but I am not one of them
3. I sometimes feel as if I've done all there is to do in life (reverse scored).

Personal Growth:
1. I think it is important to have new experiences that challenge how you think about yourself and the world.
2. For me, life has been a continuous process of learning, changing, and growth.
3. I gave up trying to make big improvements or changes in my life a long time ago (reverse scored).

Total Psychological Well-being includes all six subscales outlined above

References

Acker, J. (2006). Inequality regimes: Gender, class, and race in organizations. *Gender & Society, 20(4),* 441-464. doi: 10.1177/0891243206289499.

Amato, P. R., & Partridge, S. (1987). Widows and divorcees with dependent children: Material, personal, family, and social well-being. *Family Relations, 36,* 316-320.

Barnett, R. C., & Hyde, J. S. (2001). Women, men, work, and family: An expansionist theory. *American Psychologist, 56(10),* 781-796. doi: 10.1037/0003-066X.56.10.781.

Bernard, J. (1981). The good provider role: Its rise and fall. *American Psychologist. 36(1),* 1-12. doi: 10.1037/0003-066X.36.1.1.

Bernard, J. (1983). Ground rules for marriage: Perspectives on the pattern of an era. In Horner, M. (Ed.), *The challenge of change.* New York, NY: Plenum Publishing Corporation.

Berntsen, D., & Rubin, D. C. (2002). Emotionally charged autobiographical memories across the life span: The recall of happy, sad, traumatic, and involuntary memories. *Psychology and Aging, 17(4),* 636-652. doi: 10.1037//0882-7974.17.4.636.

Block, J. (1961). *The Q-sort method in personality assessment and psychiatric research*. Oxford, England: Charles C Thomas.

Block, J. (1971). *Lives through time.* Berkeley, CA: Bancroft Books

Block, J. (2008). *The Q-sort in character appraisal: Encoding subjective impressions of persons quantitatively*. Washington, DC: American Psychological Association.

Bram, S. (1984). Voluntarily childless women: Traditional or nontraditional? *Sex Roles, 10(3/4),* 195-206. doi: 10.1007/BF00287774.

Brescoll, V., & Uhlmann, E. L. (2008). Can angry women get ahead? Status conferral, gender, and workplace emotion expression. *Psychological Science, 19,* 268-275. doi: 10.1111/j.1467-9280.2008.02079.x.

Bursik, K. (1991). Adaptation to divorce and ego development in adult women. *Journal of Personality and Social Psychology, 60(2),* 300-326. doi: 10.1037/0022-3514.60.2.300.

Carr, D. (2002). Psychological well-being across three cohorts: A response to shifting work-family opportunities and expectations? In O. G. Brim, C. D. Ryff, R. C. Kessler, (Eds.), *How healthy are we?: A national study of well-being at midlife* (pp. 452-484). Chicago, IL: University of Chicago Press.

Cartwright, L. K., & Wink, P. (1994). Personality change in women physicians from medical student years to mid-40s. *Psychology of Women Quarterly, 18,* 291-308. doi: 10.1111/j.1471-6402.1994.tb00456.x.

Cattell, R. B. (1956). A shortened "Basic English" version (Form C) of the 16PF Questionnaire. *The Journal of Social Psychology, 44,* 257-278. doi: 10.1080/00224545.1956.9921928.

Chodorow, N. J. (2003). "Too late": Ambivalence about motherhood, choice, and time. *Journal of the American Psychoanalytic Association, 51(4),* 1181-1198. doi: 10.1177/00030651030510040701.

Chu, G., Narasimhan, B., Tibshirani, R., & Tusher, V. (2007). SAM "Significance Analysis of Micorarrays" users guide and technical document. Statistics website at Stanford University, accessed January, 2010 http://www-stat.stanford.edu/~tibs/SAM/

Cikara, M. & Fiske, S.T. (2009). Warmth, competence, and ambivalent sexism: Vertical assault and collateral damage. In M. Barreto, M.K. Ryan, & M.T. Schmitt (Eds.). *The Glass Ceiling in the 21st Century: Understanding Barriers to Gender Equality* (Ch. 4: pp. 73-96). Washington, DC: APA.

Clausen, J. A., & Gilens, M. (1990). Personality and labor force participation across the life course: A longitudinal study of women's careers. *Sociological Forum, 5(4),* 595-618. doi: 10.1007/BF01115393.

Cole, E. R., & Stewart, A. J. (1996). Meanings of political participation among Black and White women: Political identity and social responsibility. *Journal of Personality and Social Psychology, 71(1),* 130-140. doi: 10.1037/0022-3514.71.1.130.

Connidis, I. A., & McMullin, J. A. (1996). Reasons for and perceptions of childlessness among older persons: Exploring the impact of marital status and gender. *Journal of Aging Studies, 10(3),* 205-222.

Constantinople, A. (1973/2005). Masculinity-femininity: An exception to a famous dictum? *Feminism & Psychology, 15(4),* 385-407. doi: 10.1177/0959-353505057611.

Cooley, M. (2003). AMA analyzes 26 studies...Increase in female physicians brings changes. Journal of Business posted on AllBusiness.com website, accessed September 5, 2009: http://www.allbusiness.com/management-companies-enterprises/1070503-1.html

Coontz, S. (1992/2000). *The way we never were: American families and the nostalgia trap.* New York, NY: Basic Books

Correll, S. J., & Ridgeway, C. L. (2003). Expectation states theory. In J. Delamater, (Ed.), *Handbook of social psychology.* New York, NY: Kluwer Academic/Plenum Publishers.

Costa, P. T., McCrae, R. R., & Dye, D. A. (1991). Facet scales for Agreeableness and Conscientiousness: A revision of the NEO personality inventory. *Personality and Individual Differences, 12(9),* 887-898. doi: 10.1016/0191-8869(91)90177-D.

Costa, P. T. Jnr., Terracciano, A., & McCrae, R. R. (2001). Gender differences in personality traits across cultures: Robust and surprising findings. *Journal of Personality and Social Psychology, 81(2),* 322-331. doi: 10.1037/0022-3514.81.2.322.

Cuddy, A. J. C., Fiske, S. T., & Glick, P. (2004). When professionals become mothers, warmth doesn't cut the ice. *Journal of Social Issues, 60(4),* 701-718. doi: 10.1111/j.0022-4537.2004.00381.x.

Dalton, S. T. (1992). Lived experience of never-married women. *Issues in Mental Health Nursing, 13,* 69-80. doi: 10.3109/01612849209040523.

Davis, S. N., & Greenstein, T. N. (2004). Interactive effects of gender ideology and age at first marriage on women's marital disruption. *Journal of Family Issues, 25(5),* 658-682. doi: 10.1177/0192513X03257795.

Diekman, A. B., & Eagly, A. H. (2008). Of men, women, and motivation: A role congruity account. In J. Y. Shah & W. L. Gardner (Eds.), *Handbook of motivational science.* New York, NY: Guilford Press.

Diener, E., Emmons, R. A., Larson, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49(1),* 71-75. doi: 10.1207/s15327752jpa4901_13.

Diener, E. & Lucas, R. E. (1999). Personality and subjective well-being. In D. Kahneman, E. Diener, & N. Schwarz, (Eds.), *Well-being: The Foundations of Hedonic Psychology.* New York, NY: Russell Sage Foundation.

Duncan, L. E. (1999). Motivation for collective action: Group consciousness as mediator of personality, life experiences, and women' rights activism. *Political Psychology, 20,* 611–635. doi: 10.1111/0162-895X.00159.

Duncan, L. E, & Agronick, G. S. (1995). The intersection of life stage and social events: Personality and life outcomes. *Journal of Personality and Social Psychology, 69(3),* 558-568. doi: 10.1037/0022-3514.69.3.558.

Eagly, A. H., & Mitchell, A. A. (2004). Social role theory of sex differences and similarities: Implications for the sociopolitical attitudes of women and men. In M. A. Paludi (Ed.), *Praeger guide to the psychology of gender.* Westport, CT, US: Praeger Publishers/Greenwood Publishing Group.

Eagly, A. H., & Sczesny, S. (2009). Stereotypes about men, women, and leaders: Have times changed? In M. Barreto, M. K. Ryan, & M. T. Schmitt (Eds.), *The glass ceiling in the 21st century: Understanding barriers to gender equality*. Washington, DC, US: American Psychological Association.

Ehrenreich, B., & English, D. (1989). Blowing the whistle on the "Mommy track". *Ms., 18(1-2),* 56-58.

Ekehammar, B., & Akrami, N. (2007). Personality and prejudice: From Big Five personality factors to facets. *Journal of Personality, 75(5),* 900-924. doi: 0.1111/j.1467-6494.2007.00460.x

Elia, J. P. (2003). Queering relationships: Toward a paradigmatic shift. *Journal of Homosexuality,* 45(2-4), pp. 61-86. doi: 10.1300/J082v45n02_03.

Erikson. (1980). *Identity and the Life Cycle.* New York, NY: W. W. Norton & Co, Inc.

Erikson, E. H. (1982). *The Life Cycle Completed.* New York, NY: W. W. Norton & Co, Inc.

Espin, O., Stewart, A. J., & Gomez, C. A. (1990). Letters from V: Adolescent personality development in sociohistorical context. *Journal of Personality, 58(2),* 347-363. doi: 10.1111/j.1467-6494.1990.tb00233.x.

Etaugh, C., & Nekolny, K. (1990). Effects of employment status and marital status on perception of mothers. *Sex Roles, 23(5/6),* 273-280. doi: 10.1007/BF00290048.

Etaugh, C., & Poertner, P. (1992). Perceptions of women: Influence of performance, marital and parental variables. *Sex Roles, 26(7/8),* 311-321. doi: 10.1007/BF00289914.

Fahs, B. (2007). Second shifts and political awakenings: Divorce and political socialization of middle-aged women. *Journal of Divorce & Remarriage, 47(3),* 43-66. doi: 10.1300/J087v47n03_03.

Franz, C. E. (1988). *A case study of adult psychosocial development: Identity, intimacy, and generativity in personal documents* (Unpublished doctoral dissertation). Boston University.

Hart, H. M., McAdams, D. P., Hirsch, B. J., & Bauer, J. J. (2001). Generativity and social involvement among African Americans and White adults. *Journal of Research in Personality, 35,* 208-230. doi: 10.1006/jrpe.2001.2318.

Heilman, M. E. (2001). Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues, 57,* 637-655. doi: 10.1111/0022-4537.00234.

Helson, R. (1996). In search of the creative personality. *Creativity Research Journal, 9(4),* 295-306. doi: 10.1207/s15326934crj0904_1.

Helson, R., Jones, C., & Kwan, V. S. Y. (2002). Personality change over 40 years of adulthood: Hierarchical linear modeling analyses of two longitudinal samples. *Journal of Personality and Social Psychology, 83(3),* 752-766. doi: 10.1037/0022-3514.83.3.752.

Helson, R., & Kwan, V. S. Y. (2000). Personality development in adulthood: The broad picture and processes in one longitudinal sample. In S. E. Hampson (Ed.), *Advances in personality psychology, Vol. 1*. New York, NY, US: Psychology Press.

Helson, R., Mitchell, V., & Moane, G. (1984). Personality and patterns of adherence and nonadherence to the Social Clock. *Journal of Personality and Social Psychology, 46(5),* 1079-1096. doi: 10.1037/0022-3514.46.5.1079.

Helson, R., Pals, J., & Solomon, M. (1997). Is there adult development distinctive to women? In R. Hogan, J. A. Johnson, & S. R. Briggs, (Eds.), Handbook of personality psychology. San Diego, CA: Academic Press, 1997.

Helson, R., & Picano, J. (1990). Is the traditional role bad for women? *Journal of Personality and Social Psychology, 59(2),* 311-320. doi: 10.1037/0022-3514.59.2.311.

Helson, R., & Srivastava, S. (2002). Creative and wise people: Similarities, differences, and how they develop. *Personality and Social Psychology Bulletin, 28(10),* 1430-1440. doi: 10.1177/014616702236874

Helson, R., Stewart, A. J., & Ostrove, J. (1995). Identity in three cohorts of midlife women. *Journal of Personality and Social Psychology, 69(3),* 544-557. doi: 10.1037/0022-3514.69.3.544.

Helson, R., & Wink, P. (1992). Personality change in women from early 40s to early 50s. *Psychology and Aging 7(1),* 46-55. doi: 10.1037/0882-7974.7.1.46.

Henehan, D., Rothblum, E. D., Solomon, S. E., & Balsam, K. F. (2007). Social and demographic characteristics of gay, lesbian, and heterosexual adults with and without children. *Journal of GLBT Family Studies, 3(2/3),* 35-79. doi: 10.1300/J461v03n02_03.

Hilton, J. M., & Anderson, T. L. (2009). Characteristics of women with children who divorce in midlife compared to those who remain married. *Journal of Divorce & Remarriage, 50(5),* 309-329. doi: 10.1080/10502550902766365.

Hird, M. J., & Abshoff, K. (2000). Women without children: A contradiction in terms? *Journal of Comparative Family Studies, 31(3),* 347-366.

Hochschild, A., & Machung, A. (2003). *The Second Shift.* New York, NY: Penguin Group.

Hollingshead, A. B., & Redlich, F. C. (1958). *Social Class and Mental Illness: Community Study.* Hoboken, NJ: John Wiley & Sons Inc.

Hoppmann, C., & Smith, J. (2007). Life-history related differences in possible selves in very old age. *International Journal of Aging and Human Development, 64(2),* 109-127. doi: 10.2190/GL71-PW45-Q481-5LN7.

Huang, Q., El-Khouri, B. M., Johansson, G., Lindroth, S., & Sverke. M. (2007). Women's career patterns: A study of Swedish women born in the 1950s. *Journal of Occupational and Organizational Psychology, 80,* 387-412.

Jackson, S. (2006). Gender, sexuality, and heterosexuality. *Feminist Theory, 7(1),* 105-121. doi: 10.1177/1464700106061462.

Jeffries, S., & Konnert, C. (2002). Regret and psychological well-being among voluntarily and involuntarily childless women and mothers. *International Journal of Aging and Human Development, 54(2),* 89-106. doi: 10.2190/J08N-VBVG-6PXM-0TTN.

Jenkins, S. R. (1994). Need for power and women's careers over 14 years: Structural power, job satisfaction, and motive change. *Journal of Personality and Social Psychology, 66(1),* 155-165. doi: 10.1037/0022-3514.66.1.155

John, O. P., Donahue, E. M., & Kentle, R. L. (1991). *The Big Five Inventory – Versions 4a and 54.* Berkeley, CA: University of Berkeley, Berkeley, Institute of Personality and Social Research.

John, O. P., & Srivastava, S. (1999). The Big Five Trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin, & O. P. John, (Eds.), *Handbook of Personality: Theory and Research (2nd edition).* New York, NY: Guilford Press (pp.102-138).

Kahneman, D., Krueger, A., Schkade, D. A., Schwarz, N., & Stone, A. A. (2004). A survey method for characterizing daily life experience: The day reconstruction method. *Science, 306,* 1776-1780. doi: 10.1126/science.1103572.

Kaufman, G., & Elder Jr., G.H. (2002) Revisiting age identity: A research note. *Journal of Aging Studies, 16 (2),* 169-176. doi: 10.1016/S0890-4065(02)00042-7

Kendig, H., Dykstra, P. A., van Gaalen, R. I., & Melkas, T. (2007). Health of aging parents and childless individuals. *Journal of Family Issues, 28(11),* 1457-1486. doi: 10.1177/0192513X07303896.

Klecka, W. R. (1980). *Discriminant analysis*. Newbury Park, CA: Sage.

Kohen, J. A. (1981). From wife to family head: Transitions in self-identity. *Psychiatry, 44*, 230-240.

Koropeckyj-Cox, T., Pienta, A. M., & Brown, T. H. (2007). Women of the 1950s and the "normative" life course: The implications of childlessness, fertility timing, and marital status for psychological well-being in late midlife. *Journal of Aging and Human Development, 64,* 299-330. doi: 10.2190/8PTL-P745-58U1-3330.

Lawton, M. P. (1975). The Philadelphia Geriatric Center Morale Scale: A revision. *Journal of Gerontology, 30,* 85-89. doi: 10.1093/geronj/30.1.85.

Lemkau, J. P. (1979). Personality and background characteristics of women in male-dominated occupations: A review. *Psychology of Women Quarterly, 4(2),* 221-240. doi: 10.1111/j.1471-6402.1979.tb00710.x.

Letherby, G. (2002). Childless and bereft?: Stereotypes and realities in relation to 'voluntary' and 'involuntary' childlessness and womanhood. *Sociological Inquiry, 72 (1),* 7-20. doi:10.1111/1475-682X.00003

Lodi-Smith, J., & Roberts, B. W. (2007). Social investment and personality: A meta-analysis of the relationship of personality traits to investment in work, family, religion, and volunteerism. *Personality and Social Psychology Review, 11,* 68-86. doi: 10.1177/1088868306294590.

MacCann, C., Duckworth, A. L. & Roberts, R. D. (2009). Empirical identification of the major facets of Conscientiousness. *Learning and Individual Differences (19),* 451-458. doi: 10.1016/j.lindif.2009.03.007.

Martin, P., & Smyer, M. A. (1990). The experience or micro- and macroevents: A life span analysis. *Research on Aging, 12(3),* 294-310. doi: 10/1177/0164027509123002.

McAdams, D. P. (2001). The psychology of life stories. *Review of General Psychology, 5(2),* 100-122. doi: 10.1037/1089-2680.5.2.100.

McAdams, D. P., & de St. Aubin, E. (1992). A theory of generativity and its assessment through self-report, behavioral acts, and narrative themes in autobiography. *Journal of Personality and Social Psychology, 62,* 1003-1015. doi: 10.1037/0022-3514.62.6.1003.

McAdams, D. P., de St. Aubin, E., & Logan, R. L. (1993). Generativity among young, midlife, and older adults. *Psychology and Aging, 8(22),* 221-230. doi: 10.1037/0882-7974.8.2.221.

McAdams, D. P., & Pals, J. L. (2006). A new big five: Fundamental principles for an integrative science of personality. *American Psychologist, 61(3),* 204-217. doi: 10.1037/0003-066X.61.3.204.

McCrae, R. R., & Costa, P. T., Jr. (1990). *Personality in adulthood.* New York: Guilford Press.

McKelvey, M. W., & McKenry, P. C. (2000). The psychosocial well-being of Black and White mothers following marital dissolution. *Psychology of Women Quarterly, 24,* 4-14. doi: 10.1111/1471-6402.t01-2-00004.

Miall, C. E. (1986). The stigma of involuntary childlessness. *Social Problems, 33,* 268-282.

Miller, J. D., Lynan, D., & Leukefeld, C. (2003). Examining antisocial behavior through the lens of the Five Factor Model of personality. *Aggressive Behavior, 29(6),* 497-514. doi: 10.1002/ab.10064.

Miner-Rubino, K., Winter, D. G., & Stewart, A. J. (2004). Gender, social class, and the subjective experience of aging: self-perceived personality change from early adulthood to late midlife. *Personality and Social Psychology Bulletin, 30(12),* 1599-1610. doi: 10.1177/0146167204271178.

Mitchell, V., & Helson, R. (1990). Women's prime of life: Is it the 50s? *Psychology of Women Quarterly, 14,* 451-470. doi: 10.1111/j.1471-6402.1990.tb00224.x.

Morawski, J. (2005). Moving gender, positivism, and feminist possibilities. *Feminism & Psychology, 15(4),* 408-414. doi: 10.1177/0959-353505057612.

Morbidity and Mortality Weekly Report of the Centers for Disease Control, accessed October 14, 2010: http://www.cdc.gov/mmwr/preview/mmwrhtml/00001507.htm.

Morrell, C. (2000). Saying no: Women's experiences with reproductive refusal. *Feminism & Psychology, 10(3),* 313-322. doi: 10.1177/0959353500010003002.

Mueller, K. A., & Yoder, J. D. (1997). Gendered norms for family size, employment, and occupation: Are there personal costs for violating them? *Sex Roles, 36(3/4),* 207-220. doi: 10.1007/BF02766268.

Neugarten, B., & Datan, N. (1973/1996). Sociological perspectives on the life cycle. In D. A. Neugarten (Ed.), *The Meanings of age: Selected papers of Bernice L. Neugarten* (pp. 96-113). Chicago, IL: The University of Chicago Press.

Neugarten, B., Moore, J. W., & Lowe, J. C. (1965/1996). Age norms, age constraints, and adult socializations. In D. A. Neugarten (Ed.), *The Meanings of age: Selected papers of Bernice L. Neugarten* (pp. 24-33). Chicago, IL: The University of Chicago Press.

Newton, N. J., & Stewart, A. J. (2010). The middle ages: Change in women's personalities and social roles. *Psychology of Women Quarterly, 34,* 75-84. doi: 10.1111/j.1471-6402.2009.01543.x.

Neyer, F. J., & Asendorpf, J. B. (2001). Personality–relationship transaction in young adulthood. *Journal of Personality and Social Psychology, 81,* 1190–1204. doi: 10.1037/0022-3514.81.6.1190.

Nieman, L. Z., & Gracely, E. J. (1999). Where nontradition is the norm: Are sex and age determinants of practicing primary care specialties? *Journal of Women's Health & Gender-Based Medicine, 8(7),* 967-972. doi: 10.1089/jwh.1.1999.8.967.

Noonan, M. C., Corcoran, M. E., & Courant, P. N. (2008). Is the partnership gap closing for women? Cohort differences in the sex gap in partnership chances. *Social Science Research, 37,* 156–179. doi: 10.1016/j.ssresearch.2007.06.005.

Parry, D. C. (2005). Work, Leisure, and Support Groups: An examination of the ways women with infertility respond to pronatalist ideology. *Sex Roles, 53(5/6),* 337-346. doi: 10.1007/s11199-005-6757-0.

Paunonen, S. V., & Ashton, M. C. (2001). Big Five predictors of academic achievement. *Journal of Research in Personality, 35,* 78-90. doi: 10.1006/jrpe.2000.2309.

Pavot, W., & Diener, E. (2008). The Satisfaction with Life Scale and the emerging construct of life satisfaction. *Journal of Positive Psychology, 3(2),* 137-152. doi: 10.1080/17439760701756946.

Peterson, B. E. (1993). *Measures of midlife generativity in a longitudinal sample* (Unpublished doctoral dissertation). University of Michigan.

Peterson, B. E. (2002). Longitudinal analysis of midlife generativity, intergenerational roles, and caregiving. *Psychology and Aging, 17(1),* 161-168. doi: 10.1037/0882-7974.17.1.161.

Peterson, B. E., & Duncan, L. E. (2007). Midlife women's generativity and authoritarianism: Marriage, motherhood, and 10 years of aging. *Psychology and Aging, 22(3),* 411–419. doi: 10.1037/0882-7974.22.3.411.

Peterson, B. E., & Klohnen, E. C. (1995). Realization of generativity in two samples of women in midlife. *Psychology and Aging, 10(1),* 20-29. doi: 10.1037/0882-7974.10.1.20.

Peterson, B. E., & Stewart, A. J. (1990). Using personal and fictional documents to assess psychosocial development: A case study of Vera Brittain's generativity. *Psychology and Aging, 5(3),* 400-411. doi: 10.1037/0882-7974.5.3.400.

Peterson, B. E., & Stewart, A. J. (1993). Generativity and social motives in young adults. *Journal of Personality and Social Psychology, 65(1),* 186-198. doi: 10.1037/0022-3514.65.1.186.

Peterson, B. E., & Stewart, A. J. (1996). Antecedents and context of generativity motivation at midlife. *Psychology and Aging, 11(1),* 21-33. doi 10.1037/0882-7974.11.1.21

Phillips, S. D., & Imhoff, A. R. (1997). Women and career development: A decade of research. *Annual Review of Psychology, 48,* 31-59. doi: 10.1146/annurev.psych.48.1.31.

Reskin, B. (1993). Sex segregation in the workplace. *Annual Review of Sociology, 19,* 241-270.

Reissman, C. K. (1990). *Divorce talk: Women and men make sense of personal relationships.* New Brunswick, NJ: Rutgers University Press.

Ridgeway, C. L., & Bourg, C. (2004). Gender as status: An expectation states theory approach. In A. Eagly (Ed.), *Psychology of gender.* New York, NY: Guilford Press.

Riskind, R. G., & Patterson, C. J. (2010). Parenting intentions and desires among childless lesbian, gay, and heterosexual individuals. *Journal of Family Psychology, 24(1),* 78-81. doi: 10.1037/a0017941.

Roberts, B. W. (1997). Plaster or plasticity: Are adult work experiences associated with personality change in women? *Journal of Personality, 65(2),* 205-232. doi: 10.1111/j.1467-6494.1997.tb00953.x.

Roberts, B. W., & Chapman, C. N. (2000). Change in dispositional well-being and its relation to role quality: A 30-year longitudinal study. *Journal of Research in Personality*, 34, 26-41. doi: 10.1006/jrpe.1999.2259.

Roberts, B. W., Helson, R., Klohnen, E. C. (2002). Personality development and growth in women across 30 years: Three perspectives. *Journal of Personality, 70(1),* 79-102. doi: 10.1111/1467-6494.00179.

Roberts, B. W., Wood, D., & Lodi-Smith, J. (2005). Evaluating Five Factor Theory and social investment perspectives on personality development. *Journal of Research in Personality (39),* 166-184. doi: 10.1016/j.jrp.2004.08.002.

Rothrauff, T., & Cooney, T. M. (2008). The role of generativity in psychological well-being: Does it differ for childless adults and parents? *Journal of Adult Development, 15,* 148-159. doi: 10.1007/s10804-008-9046-7.

Rubin, D. C., & Berntsen, D. (2003). Life scripts help to maintain autobiographical memories of highly positive, but not highly negative, events. *Memory & Cognition, 31(1),* 1-14.

Russo, N. F. (1976). The motherhood mandate. *Journal of Social Issues, 32(3),* 143-153. doi: 10.1111/j.1540-4560.1976.tb02603.x.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57(6),* 1069-1081. doi: 10.1037/0022-3514.57.6.1069.

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 69(4),* 719-727. doi: 10.1037/0022 3514.69.4.719.

Sakraida, T. J. (2005). Divorce transition differences of midlife women. *Issues in Mental Health Nursing, 26,* 225-249. doi: 10.1080/01612840590901699.

Schoen, R., Urton, W., Woodrow, K., Baj, T. (1985). Marriage and divorce in twentieth century American cohorts. *Demography 22(1),* 101-114.

Scott, L. S. (2009). *Two is enough: A couple's guide to living childless by choice.* Berkeley, CA: Seal Press.

Settersten, R. A., & Trauten, M. E. (2009). The new terrain of old age: Hallmarks, freedoms, and risks. In V. L. Bengtson, D Gans, N. M. Putney, & Silverstein, M., (Eds.), *Handbook of the theories of aging* (pp. 455-469). New York, NY: Springer Publishing Company.

Silva, A. P. D., & Stam, A. (1995). Discriminant analysis. In L. G.Grimm & P. R. Yarnold (Eds.), *Reading and understanding multivariate statistics* (pp. 277–318). Washington, DC: American Psychological Association.

Smock, P. J., Manning, W. D., & Gupta, S. (1999). The effect of marriage and divorce on women's economic well-being. *American Sociological Review, 64(6),* 794-812.

Snyder, A. R., & McLaughlin, D. K. (2004). Female-headed families and poverty in rural America. *Rural Sociology, 69(1),* 127-149. doi: 10.1526/003601104322919937.

Spivey, P. B., & Scherman, A. (1981). The effects of time lapse on personality characteristics and stress on divorced women. *Journal of Divorce, 4(1),* 49-59. doi: 10.1300/J279v04n01_05

Srivastava, S., John, O. P., Gosling, S. D., & Potter, J. (2003). Development of personality in early and middle adulthood: Set like plaster or persistent change? *Journal of Personality and Social Psychology, 84(5),* 1041-1053. doi: 10.1037/0022-3514.84.5.1041.

Stewart, A. J. (1978). A longitudinal study of coping styles in self-defining and socially defined women. *Journal of Consulting and Clinical Psychology, 46(5),* 1079-1084. doi: 10.1037/0022-006X.46.5.1079.

Stewart, A. J. (1980). Personality and situation in the prediction of women's life patterns. *Psychology of Women's Quarterly, 5(2),* 195-206. doi: 10.1111/j.1471-6402.1980.tb00956.x.

Stewart, A. J. (1994). The Women's Movement and women's lives: Linking individual development and social events. In R. Josselson & A Lieblich (Eds.), *Exploring Identity and Gender: The Narrative Study of Lives.* Thousand Oaks, CA: Sage Publications.

Stewart, A. J., Copeland, A. P., Chester, N. L., Malley, J. E., & Barenbaum, N. B. (1997). *Separating Together.* New York, NY: Guilford Press.

Stewart, A. J., Franz, C. E., & Layton, L. B. (1988). The changing self: Using personal documents to study lives. *Journal of Personality, 56(1)*, 41-74. doi: 10.1111/j.1467-6494.1988.tb00462.x.

Stewart, A. J., Franz, C. E., Paul, E. P., & Peterson, B. E. (1991). *Revised coding manual for three aspects of adult personality development: Identity, intimacy, and generativity*. Unpublished coding manual, Department of Psychology, University of Michigan, Ann Arbor.

Stewart, A. J., & Healy, J. M., Jr. (1989). Linking individual development and social changes. *American Psychologist, 44(1),* 30-42. doi: 10.1037/0003-066X.44.1.30.

Stewart, A. J., & Ostrove, J. M, (1993). Social class, social change, and gender: Working-class women at Radcliffe and after. *Psychology of Women Quarterly, 17,* 475-497. doi: 10.1111/j.1471-6402.1993.tb00657.x.

Stewart, A. J., Ostrove, J. M., & Helson, R. (2001). Middle aging in women: Patterns of personality change from the 30s to the 50s. *Journal of Adult Development, 8(1),* 23-37. doi: 10.1023/A:1026445704288.

Stewart, A. J., & Vandewater, E. A. (1993). The Radcliffe class of 1964: Career and family social clock projects in a transitional cohort. In K. D. Hulbert & D. T. Schuster (eds.), *Women's lives through time.* San Francisco, CA: Jossey-Bass Publishers.

Stewart, A. J., & Vandewater, E. A. (1999). "If I had it to do over again…": Midlife review, midcourse corrections, and women's well-being in midlife. *Journal of Personality and Social Psychology, 76,* 270-283. doi: 10.1037/0022-3514.76.2.270

Stirling, K. J. (1989). Women who remain divorced: The long-term economic consequences. *Social Science Quarterly, 70(3),* 549-561.

Storey, J. D. (2002). A direct approach to false discovery rates. *Journal of the Royal Statistics Society, Series B, 64,* 479–498. doi: 10.1111/1467-9868.00346.

Tangri, S. S. (1972). Determinants of occupational role innovation among college women. *Journal of Social Issues, 28(2),* 177-199. doi: 10.1111/j.1540-4560.1972.tb00024.x

Tangri, S. S., & Jenkins, S. R. (1986). Stability and change in role innovation and life plans. *Sex Roles, 14(11/12),* 647-662. doi: 10.1007/BF00287695.

Thomas, S. P. (1982). After divorce: Personality factors related to the process of adjustment. *Journal of Divorce, 5(3),* 19-36. doi: 10.1300/J279v05n03_02.

Torges, C. M., Stewart, A. J., & Duncan, L. E. (2008). Achieving ego integrity: Personality development in late midlife. *Journal of Research in Personality, 42,* 1004-1019. doi: 10.1016/j.jrp.2008.02.006.

Umberson, D., Pudrovska, T., & Reczek, C. (2010). Parenthood, childlessness, and well-being: A life course perspective. *Journal of Marriage and Family, 72,* 612-629. doi: 10.1111/j.1741-3737.2010.00721.x.

United States Department of Labor, Bureau of Labor Statistics website article (2007), accessed September 4, 2009: http://www.bls.gov/opub/ted/2007/oct/wk5/art03.htm

Vandewater, E. A. & Stewart, A. J. (1997). Women's career commitment patterns and personality development. In M. E. Lachman & J. B. James (Eds.), *Multiple Paths of Midlife Development: Studies in Successful Midlife Development.* Chicago, IL: University of Chicago.

Vandewater, E. A., & Stewart. A. J. (1998). Making commitments, creating lives: Linking women's roles and personality at midlife. *Psychology of Women Quarterly, 22,* 717-738. doi: 10.1111/j.1471-6402.1998.tb00187.x.

Ventura, S. J. (2009). Changing patterns of nonmarital childbearing in the United States. (National Center for Health Statistics Data Brief No. 18). Retrieved from Centers for Disease Control website: http://www.cdc.gov/nchs/data/databriefs/db18.htm

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of Personality and Social Psychology, 54(6),* 1063-1070. doi: 10.1037/0022-3514.54.6.1063.

Wink, P., Ciciolla, L., Dillon, M., & Tracy, A. (2007). Religiousness, spiritual-seeking, and personality: Findings form a longitudinal study. *Journal of Personality, 75(5),* 1052-1070. doi: 10.1111/j.1467-6494.2007.00466.x

Wood, D., & Roberts, B. W. (2006). The effects of age and role information on expectations for Big Five personality traits. *Personality and Social Psychology Bulletin, 32,* 1482-1496. doi: 10.1177/0146167206291008.

York, K. L., & John, O. P. (1992). The four faces of Eve: A typological analysis of women's personality at midlife. *Journal of Personality and Social Psychology, 63(3),* 494-508. doi: 10.1037/0022-3514.63.3.494.

Young, H. P. (2008). Social norms. In S. N. Durlauf & L. E. Blume, (Eds.), *New Palgrave Dictionary of Economics, Second Edition.* London: Macmillan.

Zucker, A. N. (1999). The psychological impact of reproductive difficulties on women's lives. *Sex Roles 40 (9/10),* 767-786. doi: 10.1023/A:1018812819260.

Zucker, A. N., Ostrove, J. M., & Stewart, A. J. (2002). College-educated women's personality development in adulthood: Perceptions and age differences. *Psychology and Aging, 17(2),* 236-244. doi: 10.1037/0882-7974.17.2.236.

Zucker, A. N., Stewart, A. J., Pomerlau, C. S., & Boyd, C. J. (2005). Resisting gendered smoking pressures: Critical consciousness as a correlate of women's smoking status. *Sex Roles, 53 (3/4),* 261-272. doi: 10.1007/s11199-005-5684-4.