RELATIONSHIPS AND PERSONALITY TRAIT LEVELS AND CHANGE IN ADULTHOOD

by

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DISSERTATION ABSTRACT

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How does the role of parenting and marriage relate to personality development over three age decades in adulthood? To examine this, participants ($T1_{AgeRange}$ = 20 to 55) self-reported on their personality traits (at the domain and aspect level) and investments in their children and relationship partners in up to four annual measurement occasions. Consistent with the predictions of social investment theory, being a parent (N_{Parent} = 260; $N_{Never\text{-}Parent}$ = 359) or being married ($N_{Married}$ = 341; $N_{Never\text{-}Married}$ = 255) was associated with a more mature personality, especially in terms of agreeableness. The magnitude of differences between parents and never parents (and married and never married participants) in personality trait levels differed as a function of age decade, and for some of the personality traits, the pattern of level differences across the three age decades were explained by different rates of change among parents and never parents (and married and never married participants). Most notable, the difference between parents and never parents in levels of agreeableness and its politeness aspect that emerged during the 30s age decade (and continued into the 40s age decade) was due to the greater increase among parents in these traits from the late 20s to the early 30s. Parents' investment in their children and married participants' investment in their spouse was related to personality trait levels but not personality trait change, which is inconsistent with the

predictions of social investment theory. Overall, these results indicate the importance for future research to focus on both the acute effects of an event and the ongoing effects of a role on personality development.

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CHAPTER I

INTRODUCTION

It is now well accepted that personality traits are both stable and demonstrate change over the life course (Roberts & DelVecchio, 2000; Roberts, Walton, & Viechtbauer, 2006). Using meta-analytic techniques, Roberts and DelVecchio (2000) found that rank-order stability (which refers to the degree to which the relative ordering of individuals within a population on a trait is maintained over time) increases linearly with age and does not plateau until after the age range of 50 to 59. Further, rank-order stability does not appear to vary across the Big Five personality traits or gender.

As alluded to, the existence of stability does not preclude the existence of change in personality traits over time. Using meta-analytic techniques that combined 92 longitudinal studies covering most of the lifespan, Roberts et al. (2006) found that mean-level changes for agreeableness, conscientiousness, and emotional stability were characterized mostly by increases over a large range of the lifespan. Similarly, Helson and Kwan (2000) found increases in the California Psychological Inventory (CPI) superfactor norm-orientation, which is associated with agreeableness, conscientiousness, and emotional stability. Mean-level changes for extraversion and openness to experience have had a history of mixed findings. Examining mean-level changes for extraversion at a facet level of analysis (as in the meta-analysis) does appear to provide more clarity. Social dominance (also referred to as social competence) shows quadratic increases (also see Helson, Jones, & Kwan, 2002, who report curvilinear relations for this facet). Although changes in social vitality (which refers to an interest and affective involvement in social relationships) are not dramatic, the meta-analysis revealed small linear decreases

(also see Helson et al., 2002). Finally, openness to experience in the meta-analysis showed sharp increases during adolescence, little to no change from young to middle adulthood, and decreases later in life (also see Helson and Kwan (2000) who found no consistent results in mean-level changes for the CPI superfactor of complexity, which is most associated with openness to experience). For the most part, this pattern of mean-level change is also observed in large-scale cross-sectional studies (Srivastava, John, Gosling, & Potter, 2003; Soto, John, Gosling, & Potter, 2011). This pattern of mean-level changes has been summarized as the maturity principle (Roberts & Wood, 2006), which states that people become more agreeable, conscientious, and emotionally stable with age.

Why Does Personality Become More Mature with Age?

Since personality trait change is most pronounced during young adulthood (ages 20 to 40), most of the mechanisms for change focus on this critical age period. The social investment theory is one such explanation. This theory states that increases in agreeableness and conscientiousness and decreases in neuroticism with age is due to investment in the social institutions of work, marriage (or partnership), family, and community (Roberts & Wood, 2006). Why does investing in these social institutions lead to personality trait change? Investing in these age-graded social roles are associated with expectations for higher levels of conscientiousness, agreeableness, and emotional stability. For example, the expectations associated with the institution of family, and in particular being a parent, include being conscientious such as making sure your children get their regular health check-ups, having warm and caring relationships with your children, and managing the stresses and frustrations associated with the responsibilities of

being a parent. These expectations affect personality change primarily through rewarding people who conform to the expectations and punishing people who violate the expectations. The key of this theory is that you must be invested in or committed to conform to the expectations associated with the social roles that you occupy (Lodi-Smith & Roberts, 2007). De-investment or lack of commitment will result in either no personality change or change in a direction away from maturity. In support of the social investment theory, research has shown that investing in a wide range of social roles or life experiences leads to personality trait change, and often in the direction of greater maturity (e.g., Specht, Egloff, & Schmukle, 2011; Lüdtke, Roberts, Trautwein, & Nagy, 2011; Jackson, Thoemmes, Jonkmann, Lüdtke, Trautwein, 2012; Zimmermann & Neyer, 2013).

Relationship Roles and Personality Trait Change

Some of the most common social roles in adulthood are those that directly involve relationships with others (Neyer, Mund, Zimmermann, & Wrzus, 2014). These roles are often distinguished in terms of relationship formation (i.e., starting one's first romantic relationship, getting married, and becoming a parent) and relationship dissolution (i.e., separation or divorce). Since this dissertation will focus on the roles of marriage and parenting, a brief overview of findings concerning relationship formation and personality trait change is necessary.

Several studies have examined the effect of beginning a romantic relationship on personality change. Compared to participants who remained single over a four-year period from the mid to late 20s (Neyer & Asendorpf, 2001) or from the late 20s to the early 30s (Neyer & Lehnart, 2007), participants who began their first romantic

relationship decreased in neuroticism (and also extraversion). Further, entering one's first romantic relationship during the 20s age decade was associated with decreases in the internalizing facets of neuroticism (i.e., depression and social anxiety) while changes in the externalizing facets (i.e., impulsivity and anger) were less associated with this transition (Lehnart, Neyer, & Eccles, 2010).

There is less of a consensus about the effect of getting married or becoming a parent on personality trait change. Regarding the event of getting married, whereas some research has found no effects (e.g., Vaidya, Gray, Haig, & Watson, 2002), other research that has found effects is either less generalizable (e.g., Mroczek & Spiro, 2003) or difficult to interpret (for example, Costa, Herbst, McCrae, & Siegler (2000) compared differences in rates of personality change between people who got married verses those who got divorced). Although the study by Mroczek and Spiro (2003) found that men who got married decreased in neuroticism at a faster rate than men who did not get married, the sample consisted of older men who mostly got remarried due to divorce or widowhood. In a more generalizable sample, Specht et al. (2011) found that individuals who got married became less extraverted and open to experience compared to those who did not get married, but there were no differences in rates of change for agreeableness, conscientiousness, and neuroticism (which is inconsistent with the predictions of social investment theory). With regards to becoming a parent, it has been found that individuals who gave birth to a child became less conscientiousness compared to those who did not (Specht et al., 2011), which is the opposite of what social investment theory predicts.

Missing Pieces of the Personality Development Puzzle

A majority of the research on relationships and personality development in adulthood focuses on the acute effect of an event, such as starting your first romantic relationship, getting married, or becoming a parent, on personality development. Less research focuses on the ongoing effect of a role, such as marriage or parenting, on personality development. This is important to examine since change can be (1) gradual and therefore not apparent directly after the occurrence of an event and (2) reversible (Luhmann, Orth, Specht, Kandler, & Lucas, 2014). The overarching goal of this dissertation is to start to explore if personality continues to change after the occurrence of two major life events, becoming a parent and getting married. In other words, how does the role of parenting and marriage relate to personality trait levels and change in adulthood?

If collecting longitudinal data were not expensive (both in terms of time and money), the ideal study design for examining how personality changes after a major life event would include the following components: (1) at least one pre-measurement of personality, (2) multiple post-measurements of personality, and (3) a suitable control/reference group. With regards to studying the effect of becoming a parent on personality change in the long-term, this study design would enable us to ask (1) how rates of change differ among soon-to-be parents and non-parents from before to directly after the event and (2) how rates of change differ between parents and non-parents years or decades after the event has occurred. The first question would tell us whether becoming a parent has any immediate or acute effects on personality development, and the second question would tell us how the role of parenting relates to personality

development over time. Because this study design requires similar numbers of parents and non-parents over long stretches of time, and because it is nearly impossible to predict who will and will not become a parent when a longitudinal study begins, this type of study design is rarely found.

The data to be analyzed in this dissertation comes from a cross-sequential design, which is defined as a study that begins as a cross-sectional study and then follows-up with each cohort of the original cross-sectional study for however many years desired (Little, 2013). In the current study, participants ranged in age from 20 to the mid-50s at Time 1, and were then followed-up annually for three years. Although the number of participants who became parents or who got married during the study was too small to include in the analyses of change, there was a decent number of participants who were parents or never parents for the entire study period, and participants who were married or never married for the entire study period. Assuming that parents in their 40s have been parents for longer than parents in their 30s, who have been parents for longer than parents in their 20s,[1] this study design allows us to examine the ongoing effect of the role of parenting on personality trait levels and change from age 20 through the 40s. Similarly, since married participants in their 40s were married for longer than married participants in their 30s, who were married for longer than married participants in their 20s,[2] this study design allows us to examine the ongoing effect of the role of marriage on personality trait levels and change from age 20 through the 40s. In other words, this dissertation will address the second part of the question raised above – how rates of

[1] Information on the age of a parent's child/children was not collected.

[2] Information on the amount of years participants were married was collected, and age was positively associated with the number of years married.

change differ between parents and never parents (and married and never married participants) years to decades after the event of becoming a parent (or getting married) has occurred. Stated differently, do parents and never parents (and married and never married participants) become more or less different over time?

Another missing piece of the personality development puzzle is the lack of attention to the development of lower-order personality traits. Although Costa, McCrae, and their colleagues' work on personality development often examines change in the Big Five personality trait domains and the six facets of each Big Five domain, interpreting differences in personality development at the domain and facet level can be overwhelming when there are six facets per each domain. In a less overwhelming approach, Soto, John, Gosling, and Potter (2011) found that the two facets within each Big Five domain sometimes showed distinct cross-sectional age trends. Although the primary goal of this dissertation was not to examine how the development of personality differs at the domain and facet (or aspect) level of analysis, the ongoing effect of the roles of parenting and marriage on personality trait levels and change will be examined for the two aspects of each Big Five personality trait domain for exploratory purposes.

Primary Research Questions and Hypotheses for the Current Study

Research Question 1: Do parents and never parents (and married and never married participants) differ in their levels of the Big Six personality trait domains and the Big Five personality trait aspects across three age decades in adulthood, the 20s, 30s, and 40s? Since this research question is exploratory, there are no specific hypotheses for it. However, based on the prediction from social investment theory that investing in age-graded social roles (including the roles of parenting and marriage) should lead to change

in personality towards greater maturity, it was hypothesized that parents and married participants would be higher overall in their levels of agreeableness and conscientiousness, and lower overall in their levels of neuroticism.

Research Question 2: If there are differences in personality trait levels between parents and never parents (and married and never married participants) across the three age decades, is this because parents and never parents (and married and never married participants) differ in their rates of personality trait change over time? It was expected that differences in personality trait levels over the three age decades would be explained by differences in rates of personality trait change among the participants.

Because of the cross-sequential design of this study, level differences can occur even if there are no differences in the rates of change among the participants. Differences in personality trait levels among parents and never parents (and married and never married participants) could be due to selection effects and or cohort effects. McCrae and Costa's (2008) Five-Factor theory of personality (FFT) states that stable personality trait levels influence which social roles people take on. In other words, if parents are more agreeable than never parents, it is because parents were already more agreeable than never parents prior to selecting themselves into the role of parenting. Although selection effects cannot be tested in this dissertation, any differences in personality trait levels across the three age decades that cannot be explained by different rates of change among the participants could be due to selection effects.

Differences in personality trait levels among the participants could also be due to cohort effects. Because participants in their 20s, 30s, and 40s were born during different age decades (1980s, 1970s, and 1960s, respectively), the centrality of marriage and

parenting to the participants' identities may differ. For example, compared to women born in the 1960s, women born in the 1980s have more career options. As a result, female parents in their 40s may perceive their role as a mother as more central to their identities than those in their 20s, who are more likely to define who they are in terms of their career and role as a mother. As a result, differences between parents and never parents may be greater among participants in their 40s than among participants in their 20s.

Another related reason for any level differences across the three age decades is because the role of parenting and marriage differs among participants in the three age decades. For example, on average, because children of parents in their 20s are younger than children of parents in their 30s, who are younger than children of parents in their 40s, parents in their 20s and 30s have children who are more dependent on them. Although the role of parenting may be more time-consuming among younger parents, older parents face different challenges, such as managing the frustrations associated with raising an adolescent or teenager. These differences in the role of parenting for the three age decades can lead to differences in personality trait levels by age decade.

Research Question 3: As previously mentioned, the key to social investment theory is that you must be invested in or committed to conform to the expectations associated with the role that you occupy, and that a lack of investment or committed may result in no personality change or change away from greater maturity. Therefore, the final question was whether parents' investment in their children (and married participants' investment in their spouse) relates to personality trait levels and change. Based on previous research showing that psychological investment in the broad social role of family (which included the roles of marriage and parenting among others) was positively

associated with levels of agreeableness, conscientiousness, and emotional stability (Lodi-Smith & Roberts, 2007), it was hypothesized that greater investment in one's children or in one's spouse would be positively associated with levels of agreeableness and conscientiousness and negatively associated with levels of neuroticism. Based on the predictions of social investment theory, it was hypothesized that greater investment in one's children or in one's spouse would be associated with greater increases in agreeableness and conscientiousness and greater decreases in neuroticism over time.

CHAPTER II

METHOD

Participants and Procedure

The participants analyzed in the current study are from a national sample of participants (N = 861; 67% female at Time 1) that were measured up to four times, each time separated by approximately one year. The national sample is diverse along a number of dimensions. It is comprised of participants from the four major geographical regions in the Unites States: 17.1% resided in the North at Time 1, 19.9% in the Midwest, 35.3% in the South, and 27.7% in the West. The ethnic composition of the national sample was similar to that of the general United States population: 2% American Indian or Alaska Native, 5.7% Asian or Asian-American, 12.5% Black or African-American, 7.1% Hispanic, Latino, or Spanish, 0.7% Native Hawaiian or Other Pacific Islander, and 72% White, Caucasian, or European-American. The mean age of participants at Time 1 was 36, and the distribution of participants by age decade was 35.1% in their 20s, 26.9% in their 30s, 23% in their 40s, and 15% in their early to mid-50s.

The parental sample includes N = 640 participants. More specifically, there were N = 359 participants who were never parents during the study, N = 21 participants who became parents during the study, and N = 260 participants who were always parents during the study. The age, gender, and ethnic composition of the sample was similar to the national sample (see Table 1; see Appendix A for all tables). For participants who were categorized as never parents or parents, their parental status did not change across the entire study period. For parents, we only included participants who were active parents (i.e., they indicated residing with their children 25% or more of the time for the

majority of the times they completed). Therefore, parents who were excluded from the active parent category mostly consisted of parents who had grown children or parents who were not involved in the lives of their children. For participants who became parents, they began the study as never parents (i.e., at their first measurement occasion, they responded "*has never happened*" to the following events: (1) gave birth to or fathered a child and (2) adopted a child) and ended the study as parents (i.e., at their last measurement occasion, they responded with one of three options to the above two events, "*happened in the last 12 months*," "*happened 1 to 2 years ago*," or "*happened more than 2 years ago*").

The marital sample includes $N = 620$ participants. More specifically, there were $N = 255$ participants who were never married during the study, $N = 24$ participants who got married for the first time during the study, and $N = 341$ participants who were always married during the study. The age, gender, and ethnic composition of the sample was similar to the national sample (see Table 1). For participants who were categorized as never married or married, their marital status did not change across the entire study period. Never married participants consisted of participants who were not in a dating relationship for the entire study period, in and out of dating relationships during the study period, and in a dating relationship for the entire study period (regardless of whether they were with the same partner or different partners). Married participants included people who were married at all times completed, regardless of their divorce history. For participants who got married, they began the study as never married (i.e., at their first measurement occasion, they responded "*has never happened*" to the event, got married), and ended the study as married (i.e., at their last measurement occasion, they responded

with one of three options to the above event, "*happened in the last 12 months*," "*happened 1 to 2 years ago*," or "*happened more than 2 years ago*").

At each of the four times, participants completed a battery of self-report questionnaires, including the Big Six personality trait domains, the Big Five personality trait aspects, and if applicable, questions related to the participants' amount of investment in their children and/or spouse/partner (a complete list of all of the items is in the Appendix). In exchange for their participation, participants were financially compensated. The protocol was approved by the University of Oregon institutional review board.

Measures

The participants' Big Five personality trait domains were measured using the Big Five Inventory (BFI-44; John, Naumann, & Soto, 2008). Example items are: for the 9-item agreeableness scale, "Is generally trusting" and "Tends to find fault with others (r);" for the 9-item conscientiousness scale, "Does a thorough job" and "Tends to be lazy (r);" for the 8-item neuroticism scale, "Gets nervous easily" and "Is relaxed, handles stress well (r);" for the 8-item extraversion scale, "Is outgoing, sociable" and "Is reserved (r);" and for the 10-item openness to experience scale, "Has an active imagination" and "Has few artistic interests (r)." The honesty/propriety personality trait domain (see Thalmayer, Saucier, & Eigenhuis, 2011) was measured with 10 items (e.g., "Sticks to the rules" and "Uses others for my own ends (r)"). Participants rated how well each item described themselves on a scale from 1 (*disagree strongly*) to 5 (*agree strongly*). Across the 4 time points, alphas for the agreeableness scale ranged from .80 to .81; conscientiousness from

.81 to .82; neuroticism from .86 to .88; extraversion from .87 to .88; openness to experience from .79 to .81; and honesty/propriety from .70 to .71.

The participants' Big Five personality trait aspects were measured using the Big Five Aspect Scales (BFAS; DeYoung, Quilty, & Peterson, 2007). Each Big Five domain consists of two aspects, each measured with 10 items. The two aspects of agreeableness are *compassion* (e.g., "I sympathize with others' feelings" and "I can't be bothered with others' needs (r)") and *politeness* (e.g., "I avoid imposing my will on others" and "I insult people (r)"). The two aspects of conscientiousness are *industriousness* (e.g., "I carry out my plans" and "I waste my time (r)") and *orderliness* (e.g., "I want everything to be just right" and "I leave my belongings around (r)"). The two aspects of neuroticism are *withdrawal* (e.g., "I become overwhelmed by events" and "I rarely feel depressed (r)") and *volatility* (e.g., "I get upset easily" and "I keep my emotions under control (r)"). The two aspects of extraversion are *enthusiasm* (e.g., "I make friends easily" and "I keep others at a distance (r)") and *assertiveness* (e.g., "I see myself as a good leader" and "I do not have an assertive personality (r)"). Lastly, the two aspects of openness to experience are *openness* (e.g., "I see beauty in things that others might not notice" and "I seldom get lost in thought (r)") and *intellect* (e.g., "I formulate ideas clearly" and "I have difficulty understanding abstract ideas (r)"). Participants rated how well each item described themselves on a scale from 1 (*extremely inaccurate*) to 5 (*extremely accurate*). Across the 4 time points, alphas for the compassion scale ranged from .88 to .89; politeness from .76 to .78; industriousness from .85 to .86; orderliness from .78 to .79; withdrawal from .87 to .89; volatility from .90 to .91; enthusiasm from .86 to .87; assertiveness from .88 to .89; openness from .79 to .80; and intellect from .81 to .84.

Participants' investment in their spouse/partner was measured with the 5 highest loading items from the 15-item commitment to spouse subscale of the dimensions of the marital commitment inventory (Adams & Jones, 1997). The overall commitment to spouse subscale represents a desire to stay married (in contrast to feeling morally bound to stay married, which represents the commitment to marriage subscale, or feeling trapped in a marriage, which represents the feelings of entrapment subscale). In other words, this subscale represents the attraction component of marriage that is based on devotion to one's spouse/partner, love towards one's spouse/partner, and satisfaction with the marriage/relationship. Sample items include "I want to grow old with my spouse (partner)" and "I'm dedicated to making my marriage (relationship) as fulfilling as it can be." Participants rated their agreement or disagreement with each item on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Across the 4 time points, alphas for the investment in spouse/partner scale ranged from .92 to .93.

Participants' investment in their children was measured with a 7-item questionnaire used by Lodi-Smith and Roberts (2012), who adapted this questionnaire from a measure of family involvement developed by Misra, Ghosh, and Kanungo (1990). Sample items include "I feel a strong sense of responsibility for my kids" and "The most important thing in my life is my children." Participants rated their agreement or disagreement with each item on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Across the 4 time points, alphas for the investment in children scale ranged from .95 to .96.

Attrition

Since the majority of analyses in the results section focus on the non-transition groups (parents vs. never parents, and married vs. never married participants), the attrition analyses were restricted to these participants. For parents and never parents, 19.2% (37% parent; 63% never parent) completed a single time, and 80.8% (43.2% parent; 56.8% never parent) completed multiple times. The only reliable differences in personality between these participants at Time 1 was that participants who completed a single time were lower on conscientiousness and the industriousness aspect of conscientiousness than participants who completed multiple times (for conscientiousness: d = -0.20, 95% CI [-0.41, -0.003]; and for industriousness: d = -0.23, 95% CI [-0.43, -0.03], see Table 2). For married and never married participants, 20.6% (49.6% married; 50.4% never married) completed a single time, and 79.4% (59.1% married; 40.9% never married) completed multiple times. The only reliable difference in personality between these participants at Time 1 was that participants who completed a single time were less industrious (an aspect of conscientiousness) than participants who completed multiple times (d = -0.22, 95% CI [-0.42, -0.02], see Table 2).

Analyses

To aid in interpretation, all dependent measures were rescaled with a linear transformation to Percent of Maximum Possible (POMP) scores, giving them a theoretical range from 0 to 100 (Cohen, Cohen, Aiken, & West, 1999).

CHAPTER III

RESULTS

Primary analyses will be divided into two sections (*Parenting and Personality Trait Levels and Change* and *Marriage and Personality Trait Levels and Change*). Within each section, four research questions will be addressed. First, how does the personality of the transition group (i.e., participants who became parents during the study / participants who got married during the study) differ from the non-transition groups (i.e., never parents and parents / never married and married participants)? Second, from age 20 to the mid-50s, what are the overall differences in personality levels between parents and never parents (and between married and never married participants), and how does the magnitude of these differences differ by age decade (i.e., 20s, 30s, and 40s)? Third, can differences between parents and never parents (and between married and never married participants) across the three age decades be explained by different rates of change in personality among the participants? Fourth and finally, does investment in children (and investment in one's spouse) relate to personality trait levels and change?

Parenting and Personality Trait Levels and Change

Descriptive analyses comparing participants who did and did not experience a parental transition during the study. How did the personality of participants who became parents during the study differ from the personality of participants who did not experience a parental transition during the study (i.e., never parents and parents)? To examine this descriptively, the overall means for each of the 16 personality traits were compared across the 3 parental groups (see Table 3). Since participants who became parents during the study began the study as never parents and ended the study as parents,

it was expected that participants who became parents would have personality levels that fell in between that of never parents and parents. For 9 of the 16 personality traits, this was the case (see bolded personality traits in Table 3). Due to the small sample size of participants who became parents during the study (N = 21), and that comparisons between the transition group and the non-transitions groups could not be analyzed separately by age decade, these findings should be viewed as preliminary and in need of further investigation. Therefore, the remaining results examining parenting and personality trait levels and change will focus on never parents (N = 359) and parents (N = 260).

Differences between parents and never parents in personality trait levels, by age decade. Since parents experienced the major life event of becoming a parent in the past, it was hypothesized that parents would be higher in agreeableness and conscientiousness and lower in neuroticism than never parents. This question was examined using two approaches. First, the cross-sectional differences in personality trait levels between parents and never parents from age 20 to approximately age 55 was examined (see Figures 1 to 6; see Appendix A for all figures).[3] Overall and compared to never parents, parents appeared to score higher on the following traits: agreeableness and both of its aspects (see Figure 1), conscientiousness and both of its aspects (see Figure 2), extraversion and both of its aspects (see Figure 4), and honesty/propriety (see Figure 6); and lower on the following traits: neuroticism and its withdrawal aspect (see Figure 3)

[3] For each participant, an average personality trait score was computed by averaging his or her personality trait scores across all of the times he or she completed. This procedure was done for each of the 16 personality traits. To estimate the cross-sectional trajectory for parents and never parents, non-parametric loess curves were computed based on the average personality trait scores, separately for parents and never parents. This procedure was done for each of the 16 personality traits.

and openness to experience and its openness aspect (see Figure 5). Differences between parents and never parents were less apparent for the volatility aspect of neuroticism (see Figure 3) and the intellect aspect of openness to experience (see Figure 5).

Figures 1 to 6 also revealed that the magnitude of differences in personality trait levels between parents and never parents differed by age decade. To examine this, the standardized difference between parents and never parents (i.e., between-subjects Cohen's *d*, sometimes abbreviated as d_{av}; Cumming, 2012; Lakens, 2013) and the 95% confidence interval of the standardized difference was computed separately for the three age decades (i.e., 20s, 30s, and 40s) for each of the 16 personality traits. Since participants in their 50s ranged in age from the early to mid-50s only, differences between parents and never parents during this age decade were not examined. Figures 7 to 12 show the results of these analyses: a positive difference indicates that parents were higher on the personality trait than never parents, and a negative difference indicates that parents were lower on the personality trait than never parents. Reporting of results will focus on trends in the data; however, the reliability of the results can easily be seen in Figures 7 to 12 by examining which effect sizes have 95% confidence intervals that exclude an effect size of 0.

For agreeableness and the politeness aspect of agreeableness (see Figure 7), the difference between parents and never parents was most pronounced during the 30s age decade (for agreeableness: $d = 0.56$, 95% CI [0.24, 0.87]; and for politeness: $d = 0.44$, 95% CI [0.13, 0.75]), followed by the 40s age decade (for agreeableness: $d = 0.40$, 95% CI [0.05, 0.75]; and for politeness: $d = 0.26$, 95% CI [-0.09, 0.60]). Differences in the 20s age decade were small in magnitude for agreeableness and zero for politeness. For the

compassion aspect of agreeableness (see Figure 7), the tendency for parents to be higher than never parents became more pronounced with increasing age decade, such that the greatest difference between parents and never parents was in the 40s age decade, *d* = 0.27, 95% CI [-0.04, 0.58].

For conscientiousness and both aspects of conscientiousness (see Figure 8), the tendency for parents to be higher in these traits than never parents became more pronounced from the 20s age decade to the 30s age decade, such that the differences were most pronounced in the 30s (for conscientiousness, *d* = 0.27, 95% CI [-0.04, 0.58]; for industriousness, *d* = 0.43, 95% CI [0.12, 0.74]; and for orderliness, *d* = 0.41, 95% CI [0.10, 0.72]). In the 40s age decade however, differences between parents and never parents became close to zero for both aspects of conscientiousness and in the opposite direction for conscientiousness (*d* = -0.19, 95% CI [-0.53, 0.16]).

For neuroticism and both of its aspects (see Figure 9), parents were higher than never parents in the 20s age decade, and for the volatility aspect of neuroticism, this was the most pronounced difference between parents and never parents (*d* = 0.32, 95% CI [-0.04, 0.67]). By the 30s age decade however, parents were lower than never parents for neuroticism and both of its aspects, and for neuroticism and the withdrawal aspect of neuroticism, this was the most pronounced difference between parents and never parents (for neuroticism, *d* = -0.29, 95% CI [-0.60, 0.02]; and for withdrawal, *d* = -0.30, 95% CI [-0.60, 0.01]). By the 40s age decade, the differences between parents and never parents were essentially zero for neuroticism and both of its aspects.

For extraversion, the differences between parents and never parents were small and similar in magnitude across the three age decades (*d*s ranged from 0.10 to 0.20; see

Figure 10). For the assertiveness aspect of extraversion, the differences were also small for most of the age decades; the exception was for the 20s age decade where the difference was larger in magnitude (d = 0.33, 95% CI [-0.04, 0.68]; see Figure 10). For the enthusiasm aspect of extraversion, the tendency for parents to be more enthusiastic than never parents became more pronounced with increasing age decade (see Figure 10), such that the greatest difference between parents and never parents was in the 40s age decade (d = 0.43, 95% CI [0.08, 0.78]).

For openness to experience and its openness aspect (see Figure 11), although parents were lower than never parents across all three age decades, these differences were most apparent in the 20s and 30s age decades for openness to experience (for the 20s: d = -0.23, 95% CI [-0.58, 0.13]; and for the 30s: d = -0.29, 95% CI [-0.60, 0.02]) and in the 30s age decade for the openness aspect (d = -0.29, 95% CI [-0.60, 0.02]). All other differences were close to zero. For the intellect aspect (see Figure 11), differences between parents and never parents were close to zero for all three age decades.

For honesty/propriety, differences between parents and never parents were small and became less pronounced with increasing age decade (see Figure 12). That is, parents were higher in honesty/propriety than never parents in the 20s age decade (d = 0.22, 95% CI [-0.13, 0.58]), but by the 40s age decade, this difference was essentially 0 (d = -0.08, 95% CI [-0.43, 0.26]).

In summary, differences between parents and never parents in personality trait levels were largest in the 30s age decade (absolute value of the median Cohen's d was 0.28). Differences were smaller in the 20s and 40s age decades (absolute value of the median Cohen's d was 0.16 for the 20s and 0.08 for the 40s). This suggests that the role

of parenting may have its greatest impact on personality trait levels during the 30s age decade.

Differences between parents and never parents in personality trait change, by age period. The overall conclusion from the previous section was that the magnitude of differences between parents and never parents in personality levels differed by age decade. Are these findings due to differences in the rates of change between parents and never parents? This question will be addressed by examining if parents and never parents differ in their rates of change for the 16 personality traits during two age periods: (1) during the 20s and 30s age decades (i.e., age 20 to 39 age period; M_{age} during this period is in between 28 and 29) and (2) during the 30s and 40s age decades (i.e., age 30 to 49 age period; M_{age} during this period is in between 38 and 39). To examine whether the rates of change between parents and never parents differed, the linear slope factor was regressed on the dichotomous time-invariant covariate (never parent = 0; parent = 1) in a growth curve model. Missing data was handled using maximum-likelihood (ML) estimation. This model was run separately for each age period, and for all of the 16 personality traits. As with the reporting of the differences between parents and never parents in personality trait levels, we will focus on trends in the data rather than which effects are significant or not. Table 4 shows the unstandardized estimate of the difference in the linear slopes for the 20 to 39 age period and for the 30 to 49 age period, and Figures 13 to 18 show the change trajectories for parents and never parents.

Agreeableness and the politeness aspect of agreeableness showed similar change results (see Table 4 and Figure 13). During the 20 to 39 age period, parents increased in agreeableness and politeness more than never parents (for agreeableness: b = 0.35, 95%

CI [-0.17, 0.87]; and for politeness: *b* = 0.63, 95% CI [0.10, 1.16]). During the 30 to 49 age period however, parents and never parents showed little to no change in these traits (for agreeableness: *b* = -0.01, 95% CI [-0.55, 0.52]; and for politeness: *b* = 0.12, 95% CI [-0.35, 0.60]). Therefore, the difference in levels of agreeableness and politeness between parents and never parents that emerged during the 30s age decade (and continued into the 40s age decade) can be attributed to parents increasing more than never parents from the late 20s to early 30s.

For the compassion aspect of agreeableness, parents and never parents did not differ in their rates of change for either age period (see Table 4 and Figure 13). More specifically, parents and never parents increased in compassion at a similar rate during the 20 to 39 age period (*b* = 0.08, 95% CI [-0.40, 0.56]), and showed little to no change in compassion during the 30 to 49 age period (*b* = -0.05, 95% CI [-0.53, 0.43]). Therefore, the finding that parents and never parents became more different in levels of compassion with increasing age decade (see Figure 7) cannot be explained by differences in the rates of change among parents and never parents over time.

For conscientiousness and both of its aspects (see Table 4 and Figure 14), parents increased in these traits more than never parents during the 20 to 39 age period (for conscientiousness: *b* = 0.17, 95% CI [-0.41, 0.75]; for industriousness: *b* = 0.52, 95% CI [-0.03, 1.08]; and for orderliness: *b* = 0.26, 95% CI [-0.28, 0.80]). Therefore, the finding that parents were higher in conscientiousness and both of its aspects relative to never parents during the 30s age decade more so than during to the 20s age decade (see Figure 8) can be attributed to the greater increase in these traits among parents from the late 20s to the early 30s. During the 30 to 49 age period, parents showed small decreases in

conscientiousness and little to no change in the two aspects of conscientiousness. On the other hand, never parents increased in all three of these traits (for conscientiousness: *b* = -0.61, 95% CI [-1.17, -0.05]; for industriousness: *b* = -0.34, 95% CI [-0.91, 0.24]; and for orderliness: *b* = -0.33, 95% CI [-0.89, 0.23]). The finding that parents were higher than never parents in conscientiousness and both of its aspects relative to never parents during the 30s age decade, but were either no different or lower than never parents in these traits during the 40s age decade (see Figure 8), can mostly be attributed to the increase in conscientiousness among never parents from the late 30s to the early 40s.

For neuroticism and both of its aspects (see Table 4 and Figure 15), parents decreased more than never parents during the 20 to 39 age period (for neuroticism: *b* = -0.67, 95% CI [-1.35, 0.00]; for withdrawal: *b* = -0.55, [-1.21, 0.10]; and for volatility: *b* = -0.55, [-1.28, 0.19]). The finding that parents were higher in neuroticism and both of its aspects relative to never parents during the 20s age decade, but lower in these traits relative to never parents during the 30s age decade (see Figure 9), can be attributed to the greater decrease in these traits among parents from the late 20s to the early 30s. During the 30 to 49 age period, whereas parents and never parents decreased in neuroticism at a similar rate (*b* = 0.07, 95% CI [-0.60, 0.74]), never parents decreased in both aspects of neuroticism more than parents (for withdrawal: *b* = 0.47, [-0.20, 1.13]; and for volatility: *b* = 0.36, [-0.33, 1.06]). The finding that parents were lower than never parents in the aspects of neuroticism during the 30s age decade, but no different during the 40s age decade (see Figure 9), can be attributed to the greater decrease in these traits among never parents from the late 30s to the early 40s. The finding that parents were also lower in neuroticism than never parents in the 30s age decade, but no different during the 40s age

decade (see Figure 9), cannot be explained by the change results from the late 30s to the early 40s.

For extraversion (see Table 4 and Figure 16), parents decreased while never parents showed little to no change during the 20 to 39 age period (*b* = -0.46, 95% CI [-1.13, 0.21]). During the 30 to 49 age period, parents showed little to no change while never parents increased (*b* = -0.26, 95% CI [-0.92, 0.40]). Although the differences between parents and never parents across the three age decades were small and similar in magnitude (see Figure 10), the finding that differences were less pronounced in the 30s age decade compared to the other two age decades is fairly consistent with the change results over time.

For the enthusiasm aspect of extraversion (see Table 4 and Figure 16), parents and never parents decreased at a similar rate for both age periods (for the 20 to 39 age period: *b* = 0.07, 95% CI [-0.51, 0.64]; and for the 30 to 49 age period: *b* = 0.02, 95% CI [-0.59, 0.64]). The tendency for parents to be higher in enthusiasm than never parents with increasing age decade (see Figure 10) cannot be explained by the change results from the late 20s to the early 30s or from the late 30s to the early 40s.

For the assertiveness aspect of extraversion (see Table 4 and Figure 16), parents and never parents decreased at a similar rate during the 20 to 39 age period (*b* = 0.02, 95% CI [-0.61, 0.66]), and increased at a similar rate during the 30 to 49 age period (*b* = -0.08, 95% CI [-0.65, 0.49]). These change results suggest that the difference between parents and never parents should be similar in magnitude during the 20s and 30s age decades and during the 30s and 40s age decades, however this was only the case during the 30s and 40s age decades (see Figure 10). In other words, the finding that parents were

more assertive relative to never parents more so during the 20s age decade than during the 30s age decade (see Figure 10) cannot be explained by the change results from the late 20s to the early 30s.

For openness to experience and its openness aspect (see Table 4 and Figure 17), parents decreased more than never parents during the 20 to 39 age period (for openness to experience: b = -0.22, 95% CI [-0.72, 0.28]; and for openness: b = -0.21, 95 % CI [-0.71, 0.30]). The finding that parents were lower in openness to experience and openness than never parents to a greater degree in the 30s age decade than in the 20s age decade (although the difference between the two age decades was less noticeable for openness to experience, see Figure 11) can be attributed to the greater decrease in these traits among parents from the late 20s to the early 30s. During the 30 to 49 age period, parents and never parents decreased at the same rate in openness to experience (b = -0.01, 95% CI [-0.51, 0.49]) whereas parents decreased slightly more than never parents in the openness aspect (b = -0.10, 95% CI [-0.56, 0.36]). Since the rates of change between parents and never parents were more similar than different for these two traits, we would expect that the tendency for parents to be lower in these traits than never parents during the 30s age decade would remain in the 40s age decade, but this was not the case (see Figure 11). Therefore, the finding that parents and never parents were no different in levels of openness to experience and openness during the 40s age decade (but were different during the 30s age decade) cannot be attributed to the change results from the late 30s to the early 40s.

For the intellect aspect of openness to experience (see Table 4 and Figure 17), parents and never parents showed little to no change in intellect for both age periods (for

the 20 to 39 age period: b = -0.02, 95% CI [-0.52, 0.49]; and for the 30 to 49 age period: b = -0.11, 95% CI [-0.61, 0.40]). The finding that the differences between parents and never parents in levels of intellect were similar in magnitude (and close to zero) for all three age decades (see Figure 11) is due to parents and never parents not differing in their rates of change for intellect from the late 20s to the early 30s and from the late 30s to the early 40s.

For honesty/propriety (see Table 4 and Figure 18), parents increased less than never parents during the 20 to 39 age period (b = -0.29, 95% CI [-0.77, 0.19]), and parents showed little to no change while never parents increased during the 30 to 49 age period (b = -0.24, 95% CI [-0.71, 0.23]). The finding that parents were higher in honesty/propriety than never parents during the 20s age decade, but were similar during the 40s age decade (see Figure 12) can be attributed to the greater increase in honesty/propriety among never parents from the late 20s to the early 30s and from the late 30s to the early 40s.

The relationship between parents' investment in their children and personality trait levels and change. It was hypothesized that investment in children would be positively associated with agreeableness and conscientiousness and negatively associated with neuroticism. It was also hypothesized that parents who were more invested in the lives of their children would show personality change towards greater maturity. To examine this, an average investment in children score collapsed across time was computed for each parent,[4] and an intercept and linear slope factor were regressed on

[4] Investment in children was treated as a time-invariant covariate rather than a time-varying covariate because of the high rank-order stability between consecutive times for the measure: for T1 and T2, r = .66, 95% CI [.56, .77]; for T2 and T3, r = .77, 95% CI [.60, .77]; and for T3 and T4, r = .80, 95% CI [.73, .92].

this continuous time-invariant covariate in a growth curve model for each of the 16 personality traits. Although parents' investment in their children had no reliable effects on personality change (see Table 5), parents who were more invested in their children were reliably higher on the following traits: agreeableness and both of its aspects (for agreeableness: b = 0.25, 95% CI [0.11, 0.40]; for politeness: b = 0.29, 95% CI [0.14, 0.45]; and for compassion: b = 0.40, 95% CI [0.25, 0.55]), conscientiousness and the industriousness aspect of conscientiousness (for conscientiousness: b = 0.22, 95% CI [0.06, 0.38]; and for industriousness: b = 0.22, 95% CI [0.05, 0.38]), the enthusiasm aspect of extraversion (b = 0.21, 95% CI [0.02, 0.40]), the openness aspect of openness to experience (b = 0.22, 95% CI [0.06, 0.38]), and honesty/propriety (b = 0.23, 95% CI [0.10, 0.37]).

Marriage and Personality Trait Levels and Change

Descriptive analyses comparing participants who did and did not experience a marital transition during the study. How did the personality of participants who got married during the study differ from the personality of participants who did not experience a marital transition during the study (i.e., never married and married participants)? To examine this descriptively, the overall means for each of the 16 personality traits were compared across the 3 martial groups (see Table 6). Since participants who got married during the study began the study as never married and ended the study as married, it was expected that participants who got married would have personality levels that fell in between that of never married and married participants. For 6 of the 16 personality traits, this was the case (see bolded personality traits in Table 6). Due to the small sample size of participants who got married during the study (N = 24),

and that comparisons between the transition group and non-transition groups could not be analyzed separately by age decade, these findings should be viewed as preliminary and in need of further investigation. Therefore, the remaining results examining marriage and personality trait levels and change will focus on never married (N = 255) and married participants (N = 341).

Differences between married and never married participants in personality trait levels, by age decade. Since married participants experienced the major life event of getting married in the past, it was hypothesized that married participants would be higher in agreeableness and conscientiousness and lower in neuroticism than never married participants. Figures 19 to 24 show cross-sectional differences between married and never married participants from age 20 to approximately age 55. Overall and compared to never married participants, married participants appeared to score higher in agreeableness and both of its aspects (see Figure 19) as well as conscientiousness and both of its aspects (see Figure 20), and lower in neuroticism and its withdrawal aspect (a difference for the volatility aspect of neuroticism was less apparent, see Figure 21). Although a difference between married and never married participants was not apparent for extraversion, married participants appeared to score higher in both aspects of extraversion than never married participants (see Figure 22). Married participants appeared to score lower in openness to experience than never married participants. Interestingly, the difference between married and never married participants was opposite in direction for the aspects of openness to experience: compared to never married participants, married participants appeared to score lower in openness but higher in intellect (see Figure 23). Finally, a difference between married and never married

participants was not apparent for honesty/propriety (see Figure 24). Similar to the differences in personality trait levels between parents and never parents, the differences between married and never married participants differed by age decade.

For agreeableness and the politeness aspect of agreeableness (see Figure 25), differences between married and never married participants became more pronounced with increasing age decade, such that the differences were greatest in the 40s age decade (for agreeableness: d = 0.36, 95% CI [-0.02, 0.75]; and for politeness: d = 0.21, 95% CI [-0.17, 0.60]). Although the difference between married and never married participants was most pronounced in the 40s age decade for the compassion aspect of agreeableness (d = 0.24, 95% CI [-0.15, 0.63]), the differences were similar in magnitude across the 3 age decades (see Figure 25).

For conscientiousness and the industriousness aspect of conscientiousness (see Figure 26), the differences between married and never married participants were similar in magnitude across the 3 age decades, close to zero for conscientiousness (*d*s ranged from .05 to .09) and small for the industriousness aspect of conscientiousness (*d*s ranged from .15 to .20). For the orderliness aspect of conscientiousness, differences were close to zero in the 20s and 30s age decades, and most pronounced, yet small, in the 40s age decade (see Figure 26).

For neuroticism and the volatility aspect of neuroticism (see Figure 27), the difference between married and never married participants was most pronounced in the 40s age decade (for neuroticism: d = -0.28, 95% CI [-0.66, 0.11]; and for volatility: d = -0.19, 95% CI [-0.58, 0.20]). Prior to the 40s, differences in neuroticism were small in magnitude and differences in volatility were close to zero. For the withdrawal aspect of

neuroticism (see Figure 27), the difference was greatest in the 30s age decade (*d* = -0.26, 95% CI [-0.58, 0.06]), and the differences during the other decades were smaller in magnitude.

For extraversion and the enthusiasm aspect of extraversion (see Figure 28), the differences between married and never married participants were most pronounced in the 40s age decade, and this was especially the case for enthusiasm (for extraversion: *d* = 0.20, 95% CI [-0.19, 0.58]; and for enthusiasm: *d* = 0.53, 95% CI [0.14, 0.92]). Prior to the 40s, differences were smaller in magnitude or close to zero. For the assertiveness aspect of extraversion (see Figure 28), differences were most pronounced and similar in magnitude for the 20s age decade (*d* = 0.25, 95% CI [-0.04, 0.54]) and for the 40s age decade (*d* = 0.33, 95% CI [-0.05, 0.72]). The difference in the 30s was essentially 0.

For openness to experience and its openness aspect, differences between married and never married participants became less pronounced with increasing age decade (see Figure 29). Married participants were lower than never married participants in the 20s age decade (for openness to experience: *d* = -0.43, 95% CI [-0.72, -0.13]; and for openness: *d* = -0.43, 95% CI [-0.73, -0.14]), but these differences essentially disappeared by the 40s age decade (for openness to experience: *d* = 0.06, 95% CI [-0.33, 0.44]; and for openness: *d* = -0.06, 95% CI [-0.44, 0.33]). For intellect, married participants were higher than never married participants, and this difference was similar in magnitude across the 3 age decades (*d*s ranged from .25 to .34, see Figure 29).

For honesty/propriety, differences between married and never married participants were small and became less pronounced with increasing age decade (see Figure 30). That is, married participants were higher in honesty/propriety than never

married participants in the 20s age decade (d = 0.19, 95% CI [-0.11, 0.48]), but by the 40s age decade, this difference was essentially 0 (d = -0.07, 95% CI [-0.46, 0.32]).

In summary, differences between married and never married participants in personality trait levels were largest in the 40s age decade (absolute value of the median Cohen's d was 0.21). Differences were smaller and similar in magnitude in the 20s and 30s age decades (absolute value of the median Cohen's d was 0.13 for the 20s and 0.12 for the 30s). This suggests that the role of marriage may have its greatest impact on personality trait levels during the 40s age decade.

Differences between married and never married participants in personality trait change, by age period. For a majority of the personality traits, the magnitude of differences between married and never married participants in personality levels differed by age decade. Using the same approach as before, we examined whether these findings were due to differences in the rates of change among married and never married participants. For the 20 to 39 age period, the mean age was approximately 29, and for the 30 to 49 age period, the mean age was approximately 39. Table 7 shows the unstandardized estimate of the difference in the linear slopes for the 20 to 39 age period and for the 30 to 49 age period, and Figures 31 to 36 show the change trajectories for married and never married participants.

For agreeableness and the politeness aspect of agreeableness (see Table 7 and Figure 31), married and never married participants increased at an equivalent rate for the 20 to 39 age period (for agreeableness: b = -0.01, 95% CI [-0.54, 0.51]; and for politeness: b = 0.00, 95% CI [-0.52, 0.53]). The finding that differences between married and never married participants in the levels of these traits were similar for the 20s and 30s

age decades (see Figure 25) can be attributed to married and never married participants not differing in their rates of change for these traits from the late 20s to the early 30s. During the 30 to 49 age period, married participants slightly increased in agreeableness while never married participants slightly decreased (b = 0.37, 95% CI [-0.20, 0.93]), and married participants increased in politeness more than never married participants (b = 0.29, [-0.19, 0.78]). The finding that the difference between married and never married participants in the levels of these traits was greater in the 40s age decade than in the 30s age decade (see Figure 25) can be attributed to the different rates of change among the participants for these traits from the late 30s to the early 40s.

For the compassion aspect of agreeableness (see Table 7 and Figure 31), married participants increased less than never married participants for the 20 to 39 age period (b = -0.27, 95% CI [-0.74, 0.20]). The finding that differences between married and never married participants in levels of compassion were slightly less pronounced in the 30s age decade than in the 20s age decade (see Figure 25) can be attributed to the greater increase in compassion among never married participants from the late 20s to the early 30s. For the 30 to 49 age period, married and never married participants showed little to no change, albeit in different directions (b = -0.12, 95% CI [-.68, .44]). The finding that married participants were slightly higher than never married participants in levels of compassion in the 40s age decade more so than in the 30s age decade cannot be attributed to the change results from the late 30s to the early 40s.

For conscientiousness (see Table 7 and Figure 32), married and never married participants increased at a similar rate for the 20 to 39 age period (b = -0.09, 95% CI [-0.63, 0.45]). The finding that differences between married and never married participants

in levels of conscientiousness were similar in magnitude during the 20s and 30s age decades is consistent with married and never married participants not differing much in their rates of change from the late 20s to the early 30s. For the 30 to 49 age period, married participants increased less than never married participants (b = -0.25, 95% CI [-0.81, 0.31]). The finding that differences between married and never married participants in levels of conscientiousness were similar in magnitude during the 30s and 40s age decades is not consistent with the change results from the late 30s to the early 40s.

For the industriousness aspect of conscientiousness (see Table 7 and Figure 32), married and never married participants showed small differences in their rates of change for both age periods (for the 20 to 39 age period: b = 0.15, 95% CI [-0.40, 0.70]; and for the 30 to 49 age period: b = -0.14, 95% CI [-0.77, 0.49]). Therefore, the finding that differences between married and never married participants in levels of industriousness were similar in magnitude across the 3 age decades (see Figure 26) is fairly consistent with married and never married participants not differing much in their rates of change for industriousness from the late 20s to the early 30s and from the late 30s to the early 40s.

For the orderliness aspect of conscientiousness (see Table 7 and Figure 32), married and never married participants showed no difference in their rates of change for either age period (for the 20 to 39 age period: b = 0.04, 95% CI [-0.50, 0.57]; and for the 30 to 49 age period: b = 0.06, 95% CI [-0.57, 0.69]). The finding that differences between married and never married participants in levels of orderliness were similar in magnitude for the 20s and 30s age decades is consistent with the change results from the late 20s to the early 30s. On the other hand, the finding that the difference between married and

never married participants in levels of orderliness was close to zero during the 30s age decade, but married participants were more orderly than never married participants in the 40s age decade (see Figure 26), is inconsistent with married and never married participants not differing in their rates of change from the late 30s to the early 40s.

For neuroticism and the volatility aspect of neuroticism (see Table 7 and Figure 33), married and never married participants decreased at a similar rate for the 20 to 39 age period (for neuroticism: b = -0.11, 95% CI [-0.75, 0.54]; and for volatility: b = -0.03, 95% CI [-0.71, 0.65]), and for the 30 to 49 age period (for neuroticism: b = -0.08, 95% CI [-0.77, 0.61]; and for volatility: b = -0.06, 95% CI [-0.76, 0.65]). This suggests that the differences between married and never married participants in levels of neuroticism and volatility should be similar in magnitude for the 20s and 30s age decades and also for the 30s and 40s age decades. Although this was the case for the 20s and 30s age decades for the most part (see Figure 27), it was not for the 30s and 40s age decades. In other words, the finding that a more pronounced difference emerged in the 40s age decade (such that married participants were less neurotic and volatile than never married participants, see Figure 27) is inconsistent with married and never married participants not differing in their rates of change for these traits from the late 30s to the early 40s.

For the withdrawal aspect of neuroticism (see Table 7 and Figure 33), married and never married participants decreased at a similar rate for the 20 to 39 age period (b = -0.07, 95% CI [-0.69, 0.55]). The finding that differences between married and never married participants in levels of withdrawal were fairly similar in magnitude during the 20s and 30s age decades is consistent with married and never married participants not differing much in their rates of change for withdrawal from the late 20s to the early 30s.

During the 30 to 49 age period, married participants showed little to no change while never married participants decreased (*b* = 0.36, 95% CI [-0.35, 1.08]). The finding that differences between married and never married participants in levels of withdrawal were fairly similar in magnitude during the 30s and 40s age decades is not consistent with married and never married participants differing in their rates of change for withdrawal from the late 30s to the early 40s.

For extraversion (see Table 7 and Figure 34), married participants slightly decreased while never married participants slightly increased for the 20 to 39 age period (*b* = -0.30, 95% CI [-0.97, 0.36]). Therefore, the finding that married participants were slightly more extraverted than never married participants during the 20s age decade, but slightly less extraverted than never married participants during the 30s age decade (see Figure 28), can be attributed to the different rates of change among the participants from the late 20s to the early 30s. For the 30 to 49 age period, married participants showed no change while never married participants increased (*b* = -0.33, 95% CI [-0.99, 0.33]). Therefore we would expect the difference between married and never married participants in levels of extraversion observed during the 30s age decade to become more pronounced during the 40s age decade. Although the difference was more pronounced during the 40s age decade, it was in the opposite direction of what the change results would suggest.

For enthusiasm (see Table 7 and Figure 34), married participants decreased more than never married participants for the 20 to 39 age period (*b* = -0.25, 95% CI [-0.84, 0.33]). The finding that differences between married and never married participants in levels of enthusiasm during the 20s and 30s age decades were equivalent is at odds with

the different rates of change among the participants from the late 20s to the early 30s. For the 30 to 49 age period, married and never married participants decreased at the same rate (*b* = 0.01, 95% CI [-0.58, 0.61]). The finding that married participants were much more enthusiastic than never married participants during the 40s age decade (see Figure 28) is inconsistent with married and never married participants showing no differences in their rates of change from the late 30s to the early 40s.

For the assertiveness aspect of extraversion (see Table 7 and Figure 34), married and never married participants showed no change for both age periods (for the 20 to 39 age period: *b* = -0.07, 95% CI [-0.69, 0.56]; and for the 30 to 49 age period: *b* = 0.02, 95% CI [-0.61, 0.66]). The finding that married participants were more assertive than never married participants in the 20s and 40s age decades, but that this difference was close to 0 in the 30s age decades (see Figure 28), is inconsistent with the finding that married and never married participants did not differ in their rates of change for assertiveness from the late 20s to the early 30s and from the late 30s to the early 40s.

For openness to experience and the openness aspect (see Table 7 and Figure 35), differences between married and never married participants became less pronounced with increasing age decade (see Figure 29). This suggests that married and never married participants should differ in their rates of change for these traits during both age periods. For the openness aspect, this was not the case. Both married and never married participants showed little to no change during both age periods (for the 20 to 39 age period: *b* = -0.06, 95% CI [-0.58, 0.46]; for the 30 to 49 age period: *b* = -0.06, 95% CI [-0.57, 0.45]). For openness to experience, although married participants changed more than never married participants for both age periods (for the 20 to 39 age period: *b* = -

0.18, 95% CI [-0.68, 0.32]; and for the 30 to 49 age period: *b* = -0.25, 95% CI [-0.78, 0.27]), the direction of change among married participants (decrease at both age periods) is opposite from what we would expect based on the cross-sectional differences in openness to experience. Therefore, the change results cannot explain the pattern of differences between married and never married participants in openness to experience or in its openness aspect across the three age decades.

For the intellect aspect of openness to experience (see Table 7 and Figure 35), married participants increased less than never married participants for the 20 to 39 age period, but this difference in rates of change was small (*b* = -0.16, 95% CI [-0.65, 0.33]). For the 30 to 49 age period, married and never married participants decreased at the same rate (*b* = 0.01, 95% CI [-0.52, 0.54]). The finding that the difference between married and never married participants in levels of intellect was similar across the three age decades (see Figure 29) was mostly consistent with the small or zero differences between married and never married participants' rates of change for intellect from the late 20s to the early 30s and from the late 30s to the early 40s.

For honesty/propriety (see Table 7 and Figure 36), married participants increased less than never married participants for the 20 to 39 age period (*b* = -0.49, 95% CI [-0.99, 0.01]), and married participants showed little to no change while never married participants increased for the 30 to 49 age period (*b* = -0.38, 95% CI [-0.87, 0.12]). The finding that married participants were higher in honesty/propriety than never married participants during the 20s age decade, but were similar during the 40s age decade (see Figure 30), can be attributed to the greater increase in honesty/propriety among never

married participants from the late 20s to the early 30s and from the late 30s to the early 40s.

The relationship between married participants' investment in their spouse and personality trait levels and change. It was hypothesized that investment in one's spouse would be positively associated with agreeableness and conscientiousness and negatively associated with neuroticism. It was also hypothesized that married participants who were more invested in their spouse would show personality change towards greater maturity. As with the previous investment analyses, an average investment in spouse score collapsed across time was computed for each married participant,[5] and an intercept and linear slope factor were regressed on this continuous time-invariant covariate in a growth curve model for each of the 16 personality traits. Although married participants' investment in their spouse had no reliable effects on personality change (see Table 8), married participants who were more invested in their spouse were reliably higher on the following traits: agreeableness and both of its aspects (for agreeableness: b = 0.24, 95% CI [0.14, 0.33]; for politeness: b = 0.20, 95% CI [0.10, 0.30]; and for compassion: b = 0.26, 95% CI [0.16, 0.36]), conscientiousness and the orderliness aspect of conscientiousness (for conscientiousness: b = 0.17, 95% CI [0.06, 0.27]; and for orderliness: b = 0.13, 95% CI [0.02, 0.24]), extraversion and the enthusiasm aspect of extraversion (for extraversion: b = 0.15, 95% CI [0.01, 0.29]; and for enthusiasm: b = 0.28, 95% CI [0.17, 0.38]), and honesty/propriety (b = 0.21, 95% CI [0.12, 0.31]). Married participants who were more invested in their spouse were also reliably lower in

[5] Investment in one's spouse was treated as a time-invariant covariate rather than a time-varying covariate because of the high rank-order stability between consecutive times for the measure: for T1 and T2, r = .78, 95% CI [.67, .82]; for T2 and T3, r = .77, 95% CI [.62, .77]; and for T3 and T4, r = .82, 95% CI [.65, .79].

neuroticism and both of its aspects (for neuroticism: b = -0.17, 95% CI [-0.30, -0.05]; for withdrawal: b = -0.14, 95% CI [-0.26, -0.02]; and for volatility: b = -0.20, 95% CI [-0.33, -0.07]).

Parenting and Marriage

The previous sections contrasting parents and never parents (and married and never married participants) revealed that there were differences in personality trait levels based on parental and marital status. This naturally leads to the question of how the experience of neither, one, or both of these roles relates to personality trait levels. To examine this, four groups were created based on participants' current parental status (not parent (NP) vs. parent (P)) and marital status (not married (NM) vs. married (M)): $N_{NP/NM}$ = 222; $N_{NP/M}$ = 64; $N_{P/NM}$ = 46; and $N_{P/M}$ = 172. Because the sample sizes were small for some of the groups, the four groups could not be compared separately by age decade. As a result, the average age for the four groups differs ($M_{age\ NP/NM}$ = 31; $M_{age\ NP/M}$ = 37; $M_{age\ P/NM}$ = 41; and $M_{age\ P/M}$ = 40), and therefore, any differences in personality trait levels among the four groups could be due to age differences.

Figures 37 to 42 show the mean level of the 16 personality traits for each of the four groups. While the experience of both of the roles was associated with a more desirable personality trait profile compared to the experience of neither of the roles, it was not the case that the experience of both of the roles was always associated with a more desirable personality trait profile compared to the experience of only one of the roles. For example, for agreeableness and both of its aspects, being a parent was associated with higher levels of these traits, regardless of whether parents were married or not (see Figure 37). As another example, being married was associated with lower

levels of openness to experience and openness and higher levels of intellect, regardless of whether married participants were parents or not (see Figure 41).

CHAPTER IV

DISCUSSION

How does the role of parenting and marriage relate to personality trait levels and change across three age decades in adulthood? In support of the social investment theory, participants who were currently experiencing the role of parenting or marriage scored higher in agreeableness and conscientiousness and lower in neuroticism compared to participants who were not currently experiencing these roles. We now summarize, in greater detail, if the differences in personality trait levels among the participants differed by age decade, and if they did, was this due to different rates of change among the participants over time.

Parenting and Personality Trait Levels and Change

Collapsed across age, the most apparent differences between parents and never parents were for agreeableness and both of its aspects, followed by conscientiousness and both of its aspects. The magnitude of the differences between parents and never parents differed by age decade for all of the personality traits except for extraversion and the intellect aspect of openness to experience. Were these level differences across the three age decades due to different rates of change among parents and never parents over time? For agreeableness, the politeness aspect of agreeableness, conscientiousness, both aspects of conscientiousness, both aspects of neuroticism, and honesty/propriety, this was the case.

The difference between parents and never parents in levels of agreeableness, politeness, conscientiousness, industriousness, and orderliness was greater in the 30s age decade than in the 20s age decade, and this could be attributed to the greater increase in

these traits among parents from the late 20s to the early 30s. In the 40s age decade, the difference between parents and never parents was maintained for agreeableness and politeness, which could be attributed to parents and never parents not differing in their rates of change for these traits from the late 30s to the early 40s. However, for conscientiousness and its aspects, parents were either no different or lower than never parents in the 40s age decade, and this could be attributed to the different rates of change in these traits among the participants from the late 30s to the early 40s.

The difference between parents and never parents in withdrawal and volatility was greater in the 30s age decade than in the 20s age decade, and this could be attributed to the greater decrease in these traits among parents from the late 20s to the early 30s. In the 40s age decade however, parents and never parents did not differ in levels of withdrawal and volatility, and this could be attributed to the greater decrease in these traits among never parents from the late 30s to the early 40s. Finally, the difference between parents and never parents in honesty/propriety was less apparent with increasing age decade, and this could be attributed to the greater increase in honesty/propriety among never parents during both age periods.

Marriage and Personality Trait Levels and Change

In general, differences between married and never married participants were less noticeable than differences between parents and never parents. This is likely due to the fact that the group of married participants was more heterogeneous than the group of parents. For example, any participant who was married for the entire study period was included in the group of married participants, regardless of whether they were satisfied with their relationship or not. Since previous research has shown that individuals in

relationships characterized by high conflict and abuse and lower quality of relationship satisfaction showed a tendency to increase (rather than decrease) in negative emotionality (Robins, Caspi, & Moffitt, 2002), a better comparison group to never married participants would have been married participants who were satisfied with their relationship.

Collapsed across age, the most apparent differences between married and never married participants were for agreeableness and both of its aspects, followed by openness to experience and both of its aspects. Similar to the differences between parents and never parents, the magnitude of differences between married and never married participants differed by age decade for several of the traits (the exceptions were for conscientiousness, the industriousness aspect of conscientiousness, the intellect aspect of openness to experience, the compassion aspect of agreeableness, and the withdrawal aspect of neuroticism). For agreeableness, the politeness aspect of agreeableness, and honesty/propriety, the level differences across the three age decades could be explained by different rates of change among married and never married participants over time.

For agreeableness and the politeness aspect of agreeableness, differences between married and never married participants were similar in magnitude during the 20s and 30s age decades (small for agreeableness and close to zero for politeness), and this could be attributed to married and never married participants not differing in their rates of change for these traits from the late 20s to the early 30s. In the 40s age decade however, the difference between married and never married participants was more pronounced, and this could be attributed to the different rates of change in these traits among the participants from the late 30s to the early 40s. The difference between married and never married participants in honesty/propriety was less apparent with increasing age decade,

and this could be attributed to the greater increase in honesty/propriety among never married participants during both age periods.

As previously mentioned, for most of the personality traits, the change analyses could not explain the pattern of differences in personality trait levels between married and never married participants across the three age decades. For example, there was no difference in levels of enthusiasm during the 20s and 30s age decades, but there was during the 40s age decade. As a result, we would expect different rates of change among married and never married participants from the late 30s to the early 40s, but the change results revealed no difference in the rates of change. As another example, the difference between married and never married participants in levels of openness was less apparent with increasing age decade; however, rates of change did not differ among the participants for either age period.

If the level differences across the three age decades cannot be attributed to different rates of change among the participants over time, then what might explain these level differences? First, the level differences could be due to selection effects. That is, parents (and married participants) may have already differed from never parents (and never married participants) prior to becoming a parent (or getting married). For example, it was found that the difference between parents and never parents in compassion became more pronounced with increasing age decade (such that the tendency for parents to be more compassionate than never parents was most pronounced in the 40s); however, there was no difference in the rates of change among parents and never parents over time. Therefore, it is possible that parents were already more compassionate than never parents before they became parents, and that this was especially the case for participants in their

40s. This is in line with McCrae and Costa's (2008) Five-Factor theory of personality, which states that personality levels affect what roles people choose to take on.

Second, the level differences could be due to cohort effects. Because participants in their 20s, 30s, and 40s were born during different decades (1980s, 1970s, and 1960s, respectively), any differences between the participants across the three age decades could be due to the different life experiences associated with being a child in the 1980s, 1970s, and 1960s. For example, it was found that the difference between parents and never parents in enthusiasm became more pronounced with increasing age decade (such that the tendency for parents to be more enthusiastic than never parents was most pronounced in the 40s); however, there was no difference in the rates of change among parents and never parents over time. Compared to participants born in the 1980s, it was more of a social norm to become a parent among participants born in the 1960s. Therefore, the greater difference in enthusiasm between parents and never parents in the 40s age decade may be because never parents experience less positive emotion (a component of enthusiasm) as a result of not conforming to the social norms of their generation.

Investment in the Roles of Parenting and Marriage

The key tenet of social investment theory is that in order for personality to become more mature, you must be invested in or committed to conform to the expectations associated with the roles you occupy (Roberts & Wood, 2006). In other words, investment in a role should be a greater predictor of personality trait change than merely occupying the role (Lodi-Smith & Roberts, 2007). Although investment in the role of parenting and marriage was associated with more mature personality trait levels (i.e., parents who were more invested in their children were more agreeable and

conscientious, and married participants who were more invested in their spouse were more agreeable, conscientious, and less neurotic), investment had no effect on personality trait change. Further, occupying a role (e.g., being a parent vs. not) showed more associations with personality trait change than investment in the role did. These findings are in direct opposition of what social investment theory predicts.

While the results of this dissertation suggest that investment in or commitment to a role is not a predictor of personality change in general, and specifically personality change towards greater maturity, there are several reasons why an association may not have been observed. First, an alternative modeling approach might have revealed something more. For example, a preferred approach may have been bivariate growth curve modeling (or correlated change), in which the relationship between changes in investment and changes in personality over time is estimated. However, we decided against this approach because both investment measures showed high levels of stability over time. That is, if a participant said they were strongly invested in their children at one time, they tended to be strongly invested at all other times. Second, it is possible that investment in the roles we occupy has its greatest effect on personality change leading up to or directly after the occurrence of a major life event. For example, anticipatory change in personality leading up to major life events (e.g., childbirth) does occur (Luhmann et al., 2014). Among soon-to-be parents, those that are strongly invested in the idea of having children may show more changes in personality especially in the direction of greater maturity. Third, it is possible that people's own reports of their investment is biased. An alternative, and perhaps more accurate assessment of a person's investment, may be from informants who know the person well. Overall, although this dissertation

suggests that investments may be less important than what social investment theory predicts, future research that addresses the three issues raised above is important before revising the social investment theory.

Maturity

Throughout this paper, the term "mature personality" was conceptualized by higher levels of agreeableness and conscientiousness and lower levels of neuroticism. The choice to use this definition of maturity was based on the principles and theories that dominate our current understanding of personality development (i.e., the maturity principle and the social investment theory). This definition of maturity focuses on the qualities that enable individuals to function effectively in society (Hogan & Roberts, 2004). An alternative way to conceptualize maturity focuses on intrapsychic differentiation and autonomy, also known as ego-level (Helson & Wink, 1987). Both of these conceptualizations relate to different criteria of maturity put forth by Gordon Allport (1961). In this dissertation, although parents (compared to never parents) and married participants (compared to married participants) tended to score higher on agreeableness and conscientiousness and lower on neuroticism (which is consistent with the first definition of maturity), parents and married participants scored lower on the openness aspect of openness to experience (and this was especially the case for married participants). One may argue that openness, which is associated with creativity as well as an interest in art and culture, is a component of maturity. Indeed, of Allport's six criteria of maturity, being open is most associated with the "having a unifying philosophy of life" criteria of maturity. In sum, it should be noted that science alone can never fully tell us what constitutes a mature personality; ethical judgments, which can differ across

individuals, situations, culture, and time, will always influence our definitions of maturity (Allport, 1961).

APPENDIX A

TABLES AND FIGURES

Table 1

Demographics at Time 1 for the National, Parental, and Marital Samples

	Sample		
Demographic	National	Parental	Marital
N	861	640	620
Mean Age	36.0	34.3	34.9
Distribution by Age Decade			
20s	35.1%	41.9%	38.7%
30s	26.9%	26.3%	27.2%
40s	23.0%	21.3%	22.3%
50s	15.0%	10.6%	11.7%
Gender (% female)	67%	67%	65%
Ethnicity			
American Indian or Alaska Native	2.0%	1.7%	1.9%
Asian or Asian-American	5.7%	5.6%	5.8%
Blank or African-American	12.5%	10.2%	9.5%
Hispanic, Latino, or Spanish	7.1%	7.0%	6.4%
Native Hawaiian or Other Pacific Islander	0.7%	0.6%	0.6%
White, Caucasian, or European-American	72.0%	74.8%	75.7%

Table 2

Differences Between Participants Who Completed a Single Measurement Time and Participants Who Completed Multiple Measurement Times

	Parenting		Marriage	
Personality Trait	*d*	95% CI	*d*	95% CI
Agreeableness	-0.12	[-0.32, 0.08]	-0.04	[-0.24, 0.15]
Compassion	-0.04	[-0.24, 0.16]	-0.12	[-0.32, 0.08]
Politeness	-0.08	[-0.28, 0.12]	-0.02	[-0.22, 0.18]
Conscientiousness	-0.20	[-0.41, -0.003]	-0.14	[-0.34, 0.06]
Industriousness	-0.23	[-0.43, -0.03]	-0.22	[-0.42, -0.02]
Orderliness	-0.14	[-0.34, 0.06]	-0.11	[-0.30, 0.09]
Neuroticism	0.02	[-0.18, 0.22]	0.00	[-0.02, 0.02]
Withdrawal	-0.03	[-0.23, 0.17]	0.00	[-0.004, 0.004]
Volatility	0.05	[-0.15, 0.25]	0.04	[-0.16, 0.24]
Extraversion	0.16	[-0.04, 0.36]	0.14	[-0.06, 0.34]
Enthusiasm	0.03	[-0.17, 0.23]	0.05	[-0.15, 0.25]
Assertiveness	-0.04	[-0.24, 0.16]	-0.03	[-0.23, 0.17]
Openness to Experience	-0.09	[-0.29, 0.11]	-0.02	[-0.22, 0.18]
Openness	0.01	[-0.19, 0.21]	0.00	[-0.004, 0.004]
Intellect	-0.05	[-0.25, 0.15]	-0.08	[-0.28, 0.12]
Honesty/Propriety	-0.14	[-0.34, 0.06]	-0.14	[-0.34, 0.06]

Note. d = The standardized effect size, calculated as the mean difference divided by the average within-cell standard deviation; 95% CI = The 95% confidence interval of *d*.

Table 3

Means and Standard Deviations, by Parental Group

Personality Trait	Never Parent	Became Parent	Parent
Agreeableness	66.59 (15.86)	67.80 (12.15)	73.16 (14.21)
Politeness	67.95 (15.59)	66.26 (13.51)	73.53 (14.34)
Compassion	76.46 (15.67)	77.37 (12.86)	80.86 (12.24)
Conscientiousness	66.63 (16.17)	64.31 (17.05)	70.28 (16.33)
Industriousness	60.42 (17.42)	61.59 (17.15)	65.20 (16.25)
Orderliness	59.64 (16.00)	58.47 (17.67)	63.97 (15.21)
Neuroticism	51.20 (21.09)	49.82 (17.62)	48.20 (19.38)
Withdrawal	48.65 (20.78)	46.15 (17.58)	44.69 (19.00)
Volatility	44.88 (20.94)	43.67 (18.13)	43.14 (20.56)
Extraversion	51.73 (22.35)	53.20 (18.08)	55.19 (20.48)
Enthusiasm	59.42 (19.17)	59.89 (17.76)	62.76 (16.80)
Assertiveness	58.83 (19.67)	61.70 (15.47)	62.43 (17.77)
Openness to Experience	74.82 (14.66)	72.01 (14.23)	73.09 (14.25)
Openness	74.53 (15.30)	67.07 (13.64)	72.22 (14.84)
Intellect	75.42 (15.63)	77.44 (15.77)	76.84 (13.44)
Honesty/Propriety	67.59 (14.59)	66.71 (11.58)	71.24 (13.51)

Note. Means are collapsed across time and standard deviations are in parentheses. Personality levels of participants who become parents during the study fell in between the personality levels of never parents and parents for the personality traits in bold.

Table 4

Personality Change Moderated by Parental Status (Parent vs. Never Parent)

	Linear Slope for 20 – 39 Age Period				Linear Slope for 30 – 49 Age Period			
	Parent	Never Parent	Difference (P – NP)		Parent	Never Parent	Difference (P – NP)	
Personality Trait	*b*	*b*	*b*	95% CI	*b*	*b*	*b*	95% CI
Agreeableness	0.43	0.08	0.35	[-0.17, 0.87]	0.01	0.02	-0.01	[-0.55, 0.52]
Politeness	1.01	0.38	0.63	[0.10, 1.16]	0.13	0.01	0.12	[-0.35, 0.60]
Compassion	0.26	0.18	0.08	[-0.40, 0.56]	-0.06	-0.01	-0.05	[-0.53, 0.43]
Conscientiousness	0.36	0.19	0.17	[-0.41, 0.75]	-0.15	0.46	-0.61	[-1.17, -0.05]
Industriousness	0.51	-0.01	0.52	[-0.03, 1.08]	-0.02	0.32	-0.34	[-0.91, 0.24]
Orderliness	0.53	0.27	0.26	[-0.28, 0.80]	-0.08	0.25	-0.33	[-0.89, 0.23]
Neuroticism	-1.09	-0.42	-0.67	[-1.35, 0.00]	-0.30	-0.37	0.07	[-0.60, 0.74]
Withdrawal	-0.72	-0.17	-0.55	[-1.21, 0.10]	-0.04	-0.51	0.47	[-0.20, 1.13]
Volatility	-0.90	-0.35	-0.55	[-1.28, 0.19]	-0.17	-0.53	0.36	[-0.33, 1.06]
Extraversion	-0.38	0.08	-0.46	[-1.13, 0.21]	-0.02	0.24	-0.26	[-0.92, 0.40]
Enthusiasm	-0.24	-0.31	0.07	[-0.51, 0.64]	-0.35	-0.37	0.02	[-0.59, 0.64]
Assertiveness	-0.14	-0.16	0.02	[-0.61, 0.66]	0.13	0.21	-0.08	[-0.65, 0.49]
Openness to Exp.	-0.45	-0.23	-0.22	[-0.72, 0.28]	-0.16	-0.15	-0.01	[-0.51, 0.49]
Openness	-0.31	-0.10	-0.21	[-0.71, 0.30]	-0.26	-0.16	-0.10	[-0.56, 0.36]
Intellect	0.07	0.09	-0.02	[-0.52, 0.49]	-0.12	-0.01	-0.11	[-0.61, 0.40]
Honesty/Propriety	0.35	0.64	-0.29	[-0.77, 0.19]	-0.05	0.19	-0.24	[-0.71, 0.23]

Note: b = The unstandardized estimate of the slope or difference in slopes; 95% CI = The confidence interval of the difference in slopes.

Table 5

Personality Levels and Change Moderated by Parents' Investment in Children

	Growth Parameters			Effect of Investment in Children on Growth Parameters			
	Intercept	Linear Slope		Intercept		Linear Slope	
Personality Trait	*b*	*b*	95% CI	*b*	95% CI	*b*	95% CI
Agreeableness	50.34	0.42	[-1.18, 2.02]	0.25	[0.11, 0.40]	0.00	[-0.02, 0.02]
Politeness	46.81	1.36	[-0.12, 2.84]	0.30	[0.14, 0.45]	-0.01	[-0.03, 0.01]
Compassion	45.15	0.97	[-0.17, 0.48]	0.40	[0.25, 0.55]	-0.01	[-0.03, 0.01]
Conscientiousness	50.40	0.08	[-1.95, 2.10]	0.22	[0.06, 0.38]	0.00	[-0.02, 0.02]
Industriousness	45.85	0.36	[-1.22, 1.94]	0.22	[0.05, 0.38]	0.00	[-0.02, 0.02]
Orderliness	51.41	0.36	[-1.23, 1.94]	0.14	[-0.01, 0.30]	0.00	[-0.02, 0.02]
Neuroticism	44.27	-1.02	[-2.78, 0.73]	0.05	[-0.14, 0.25]	0.01	[-0.01, 0.03]
Withdrawal	39.29	-0.33	[-2.08, 1.43]	0.07	[-0.11, 0.24]	0.00	[-0.02, 0.02]
Volatility	46.43	0.30	[-1.45, 2.06]	-0.03	[-0.22, 0.15]	-0.01	[-0.03, 0.01]
Extraversion	45.54	-0.16	[-2.07, 1.75]	0.11	[-0.12, 0.34]	0.00	[-0.02, 0.02]
Enthusiasm	44.32	-0.03	[-1.95, 1.89]	0.21	[0.02, 0.40]	0.00	[-0.02, 0.02]
Assertiveness	49.05	-0.82	[-2.39, 0.76]	0.15	[-0.05, 0.36]	0.01	[-0.01, 0.03]
Openness to Exp.	61.51	1.18	[-0.21, 2.58]	0.13	[-0.03, 0.29]	-0.01	[-0.03, 0.00]
Openness	53.09	0.78	[-0.56, 2.11]	0.22	[0.06, 0.38]	-0.01	[-0.02, 0.01]
Intellect	64.30	0.56	[-0.67, 1.80]	0.14	[-0.02, 0.30]	-0.01	[-0.02, 0.01]
Honesty/Propriety	50.43	1.04	[-0.09, 2.16]	0.23	[0.10, 0.37]	-0.01	[-0.02, 0.00]

Note. *b* = The unstandardized estimate of the intercept or slope; 95% CI = The 95% confidence interval for the slopes.

Table 6

Means and Standard Deviations, by Marital Group

Personality Trait	Never Married	Got Married	Married
Agreeableness	67.03 (15.95)	66.04 (16.97)	71.45 (14.40)
Politeness	68.65 (15.20)	67.52 (13.29)	71.73 (15.02)
Compassion	76.21 (16.12)	78.61 (13.41)	79.34 (13.88)
Conscientiousness	66.54 (16.17)	66.99 (12.13)	69.84 (16.64)
Industriousness	60.26 (17.88)	60.23 (10.85)	64.39 (17.14)
Orderliness	60.84 (15.32)	60.30 (19.14)	63.23 (15.95)
Neuroticism	51.77 (20.27)	56.43 (24.75)	47.87 (20.46)
Withdrawal	49.74 (20.05)	52.32 (21.24)	44.48 (19.43)
Volatility	45.44 (20.58)	51.08 (22.41)	43.08 (20.39)
Extraversion	51.94 (22.23)	51.36 (19.68)	53.98 (21.16)
Enthusiasm	59.03 (18.51)	65.58 (15.43)	62.26 (17.75)
Assertiveness	57.89 (19.95)	59.84 (17.23)	61.45 (19.00)
Openness to Experience	75.12 (14.67)	74.45 (12.53)	72.15 (14.77)
Openness	75.45 (15.17)	71.74 (14.94)	71.00 (15.17)
Intellect	73.34 (16.42)	75.57 (13.88)	76.53 (14.70)
Honesty/Propriety	67.30 (14.89)	64.76 (14.21)	70.65 (13.83)

Note. Means are collapsed across time and standard deviations are in parentheses. Personality levels of participants who got married during the study fell in between the personality levels of never married and married participants for the personality traits in bold.

Table 7

Personality Change Moderated by Marital Status (Married vs. Never Married)

	Linear Slope for 20 – 39 Age Period				Linear Slope for 30 – 49 Age Period			
	Married	Never Married	Difference (M – NM)		Married	Never Married	Difference (M – NM)	
Personality Trait	*b*	*b*	*b*	95% CI	*b*	*b*	*b*	95% CI
Agreeableness	0.40	0.41	-0.01	[-0.54, 0.51]	0.18	-0.19	0.37	[-0.20, 0.93]
Politeness	0.50	0.50	0.00	[-0.52, 0.53]	0.49	0.20	0.29	[-0.19, 0.78]
Compassion	0.10	0.37	-0.27	[-0.74, 0.20]	-0.06	0.06	-0.12	[-0.68, 0.44]
Conscientiousness	0.46	0.55	-0.09	[-0.63, 0.45]	0.05	0.30	-0.25	[-0.81, 0.31]
Industriousness	0.40	0.25	0.15	[-0.40, 0.70]	-0.02	0.12	-0.14	[-0.77, 0.49]
Orderliness	0.32	0.28	0.04	[-0.50, 0.57]	0.18	0.12	0.06	[-0.57, 0.69]
Neuroticism	-0.78	-0.67	-0.11	[-0.75, 0.54]	-0.42	-0.34	-0.08	[-0.77, 0.61]
Withdrawal	-0.41	-0.34	-0.07	[-0.69, 0.55]	-0.02	-0.38	0.36	[-0.35, 1.08]
Volatility	-0.50	-0.47	-0.03	[-0.71, 0.65]	-0.45	-0.39	-0.06	[-0.76, 0.65]
Extraversion	-0.13	0.17	-0.30	[-0.97, 0.36]	0.00	0.33	-0.33	[-0.99, 0.33]
Enthusiasm	-0.40	-0.15	-0.25	[-0.84, 0.33]	-0.29	-0.30	0.01	[-0.58, 0.61]
Assertiveness	-0.07	0.00	-0.07	[-0.69, 0.56]	-0.04	-0.06	0.02	[-0.61, 0.66]
Openness to Exp.	-0.12	0.06	-0.18	[-0.68, 0.32]	-0.27	-0.02	-0.25	[-0.78, 0.27]
Openness	-0.12	-0.06	-0.06	[-0.58, 0.46]	-0.12	-0.06	-0.06	[-0.57, 0.45]
Intellect	0.02	0.18	-0.16	[-0.65, 0.33]	-0.21	-0.22	0.01	[-0.52, 0.54]
Honesty/Propriety	0.20	0.69	-0.49	[-0.99, 0.01]	-0.04	0.34	-0.38	[-0.87, 0.12]

Note: b = The unstandardized estimate of the slope or difference in slopes; 95% CI = The confidence interval of the difference in slopes.

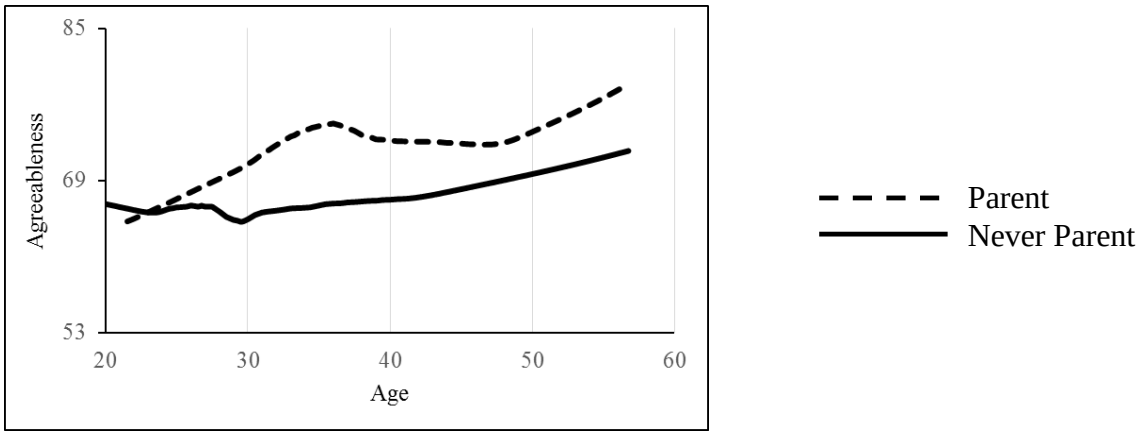
Table 8

Personality Levels and Change Moderated by Married Participants' Investment in Spouse

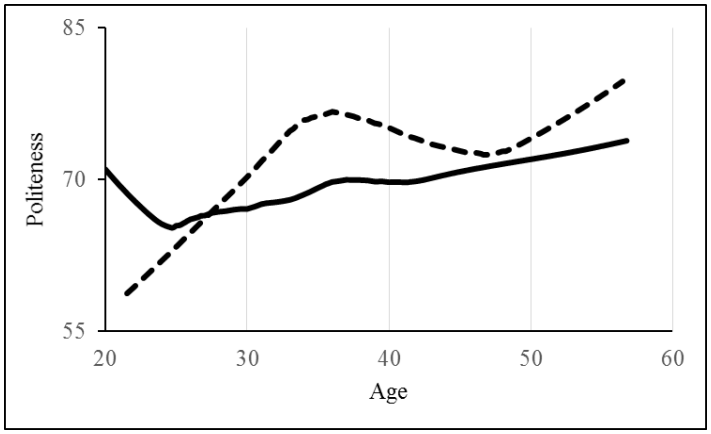
	Growth Parameters			Effect of Investment in Spouse on Growth Parameters			
	Intercept	Linear Slope		Intercept		Linear Slope	
Personality Trait	*b*	*b*	95% CI	*b*	95% CI	*b*	95% CI
Agreeableness	51.01	-0.36	[-1.28, 0.55]	0.24	[0.14, 0.33]	0.01	[0.00, 0.02]
Politeness	53.89	0.16	[-0.84, 1.15]	0.20	[0.10, 0.30]	0.00	[-0.01, 0.01]
Compassion	56.94	0.12	[-0.73, 0.98]	0.26	[0.16, 0.36]	0.00	[-0.01, 0.01]
Conscientiousness	55.48	-0.68	[-1.63, 0.27]	0.17	[0.06, 0.27]	0.01	[0.00, 0.02]
Industriousness	54.90	-0.82	[-1.84, 0.20]	0.11	[0.00, 0.23]	0.01	[0.00, 0.02]
Orderliness	51.99	-0.21	[-1.25, 0.82]	0.13	[0.02, 0.24]	0.00	[-0.01, 0.02]
Neuroticism	62.92	-0.41	[-1.52, 0.70]	-0.17	[-0.30, -0.05]	0.00	[-0.01, 0.02]
Withdrawal	56.27	0.17	[-0.92, 1.25]	-0.14	[-0.26, -0.02]	0.00	[-0.02, 0.01]
Volatility	60.39	0.48	[-0.83, 1.78]	-0.20	[-0.33, -0.07]	-0.01	[-0.02, 0.01]
Extraversion	40.60	1.07	[-0.29, 2.43]	0.15	[0.01, 0.29]	-0.01	[-0.03, 0.00]
Enthusiasm	38.37	0.86	[-0.26, 1.99]	0.28	[0.17, 0.38]	-0.01	[-0.02, 0.00]
Assertiveness	55.99	0.04	[-1.21, 1.29]	0.07	[-0.07, 0.20]	0.00	[-0.02, 0.01]
Openness to Exp.	76.95	-0.65	[-1.76, 0.47]	-0.05	[-0.16, 0.05]	0.01	[-0.01, 0.02]
Openness	70.69	-0.13	[-1.33, 1.08]	0.01	[-0.11, 0.12]	0.00	[-0.01, 0.02]
Intellect	76.15	-0.57	[-1.49, 0.35]	0.01	[-0.08, 0.10]	0.00	[-0.01, 0.01]
Honesty/Propriety	52.22	0.05	[-0.86, 0.97]	0.21	[0.12, 0.31]	0.00	[-0.01, 0.01]

Note. *b* = The unstandardized estimate of the intercept or slope; 95% CI = The 95% confidence interval for the slopes.

A



B.1



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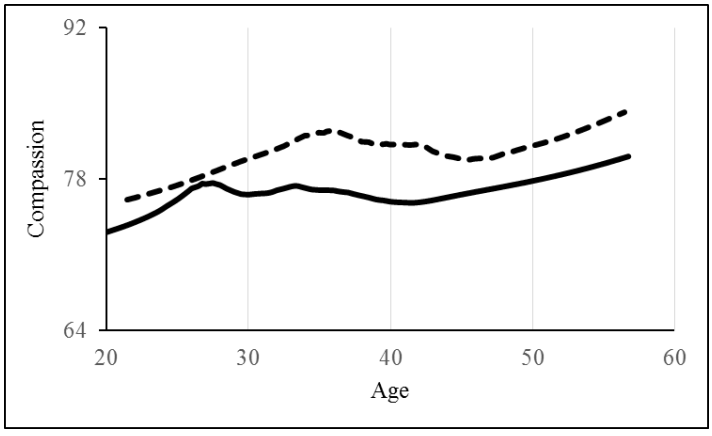
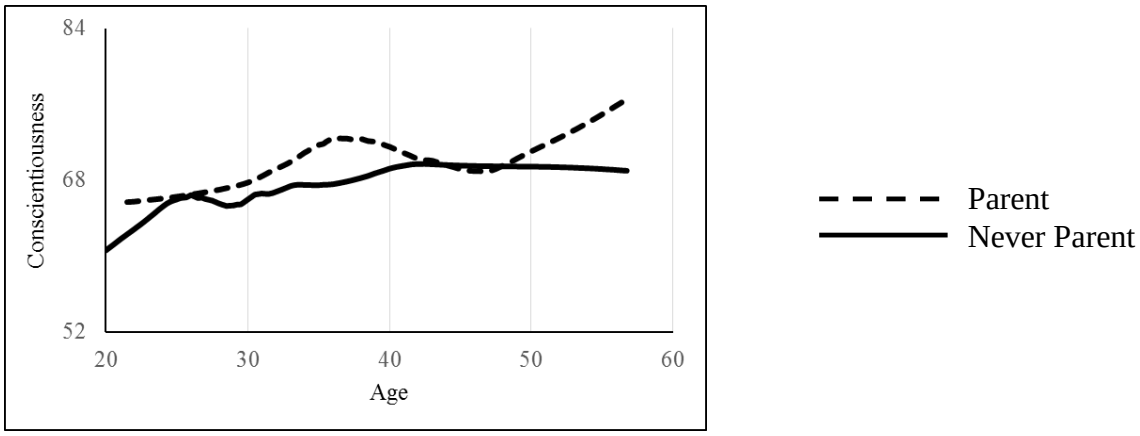


Figure 1. Cross-sectional differences between parents and never parents in agreeableness (panel A) and its two aspects, politeness (panel B.1) and compassion (panel B.2), from age 20 to the mid-50s. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A



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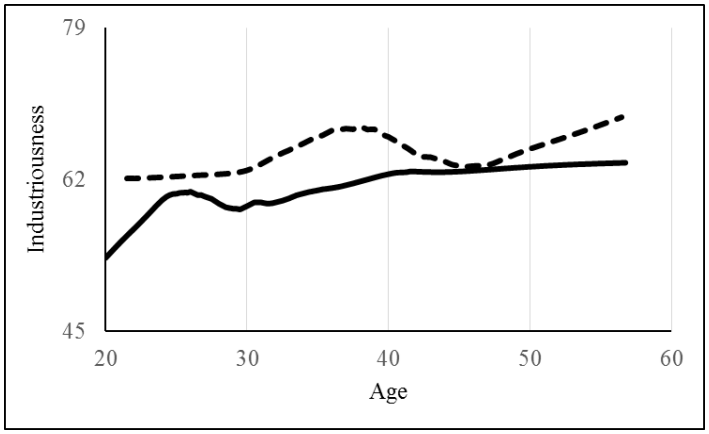

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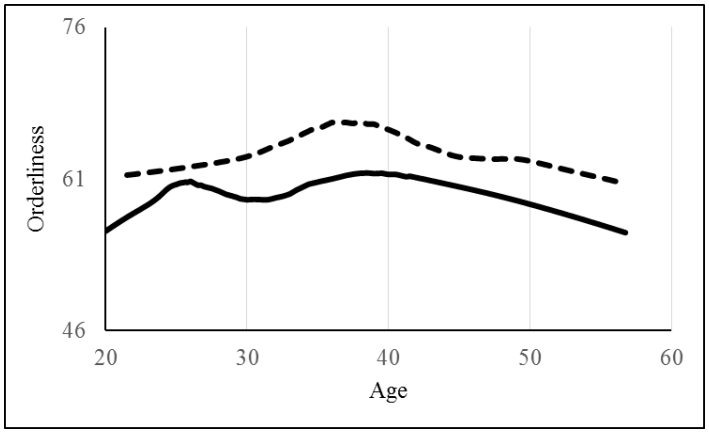
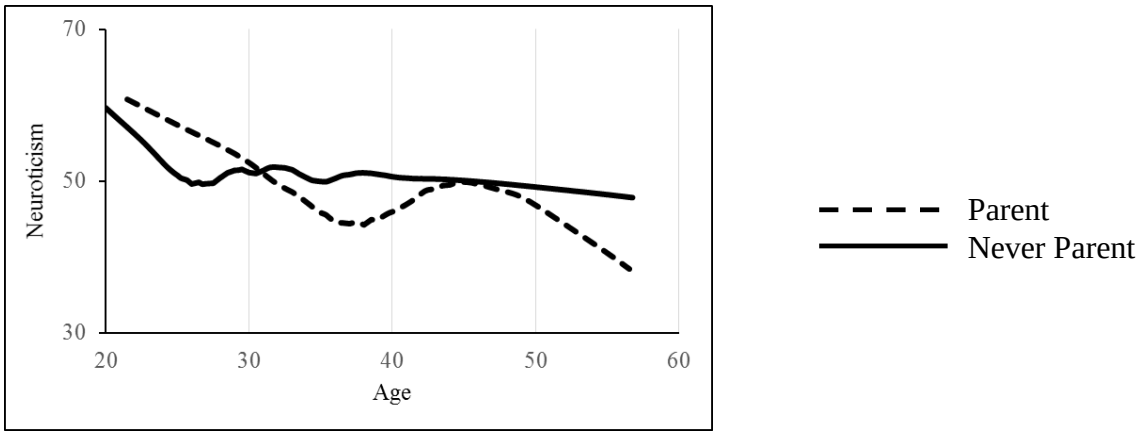


Figure 2. Cross-sectional differences between parents and never parents in conscientiousness (panel A) and its two aspects, industriousness (panel B.1) and orderliness (panel B.2), from age 20 to the mid-50s. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A



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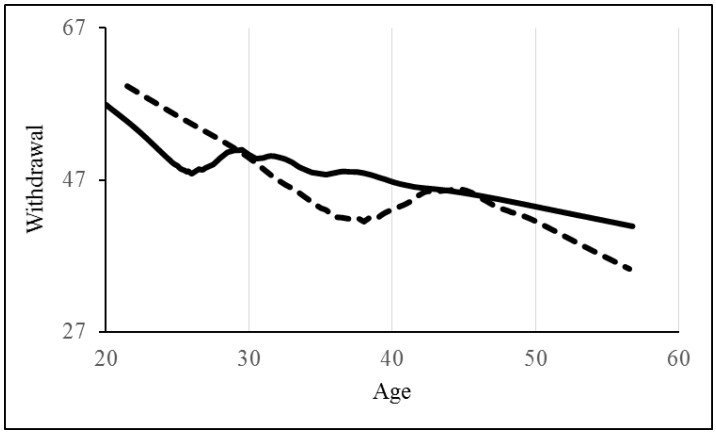

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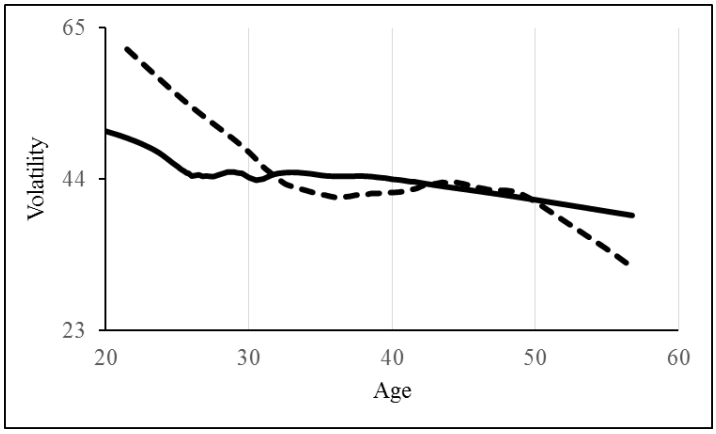
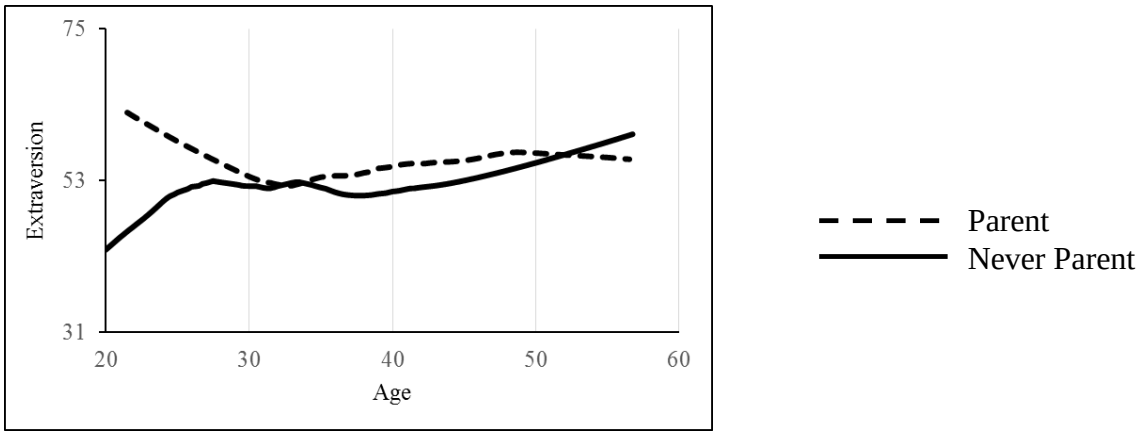


Figure 3. Cross-sectional differences between parents and never parents in neuroticism (panel A) and its two aspects, withdrawal (panel B.1) and volatility (panel B.2), from age 20 to the mid-50s. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A



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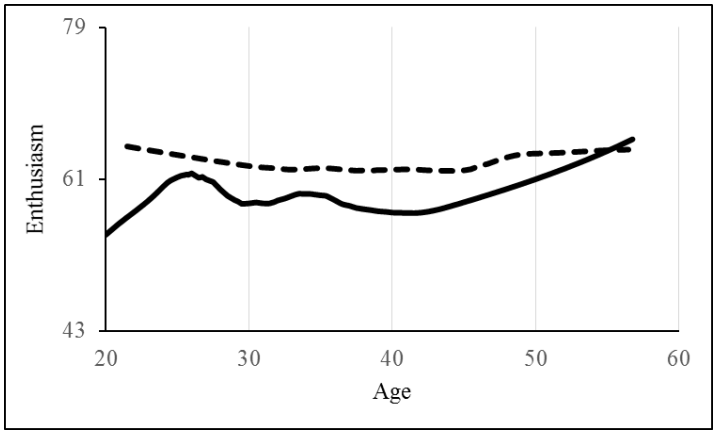

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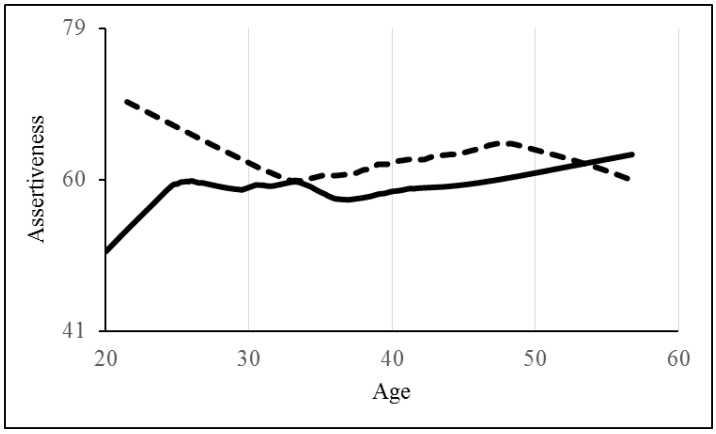
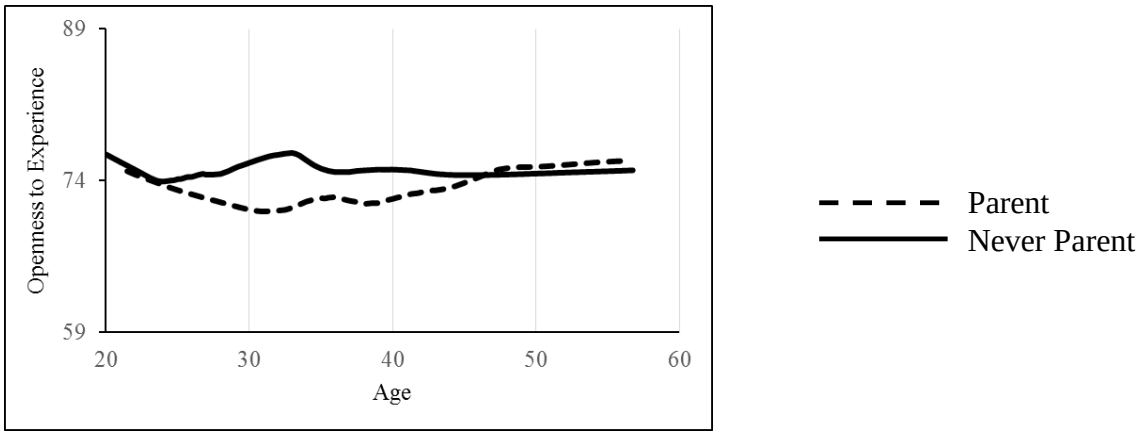


Figure 4. Cross-sectional differences between parents and never parents in extraversion (panel A) and its two aspects, enthusiasm (panel B.1) and assertiveness (panel B.2), from age 20 to the mid-50s. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A



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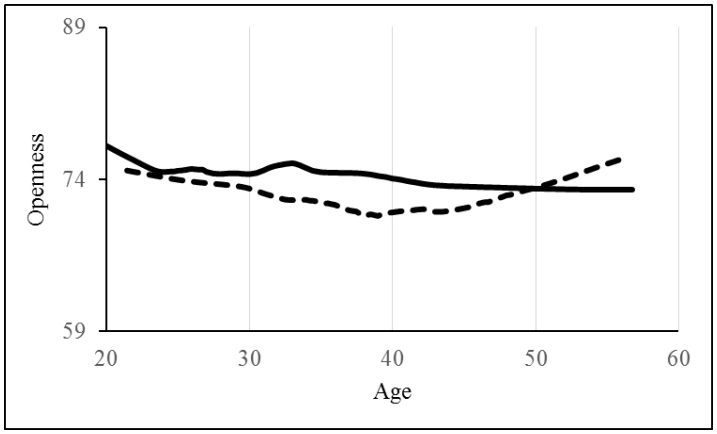

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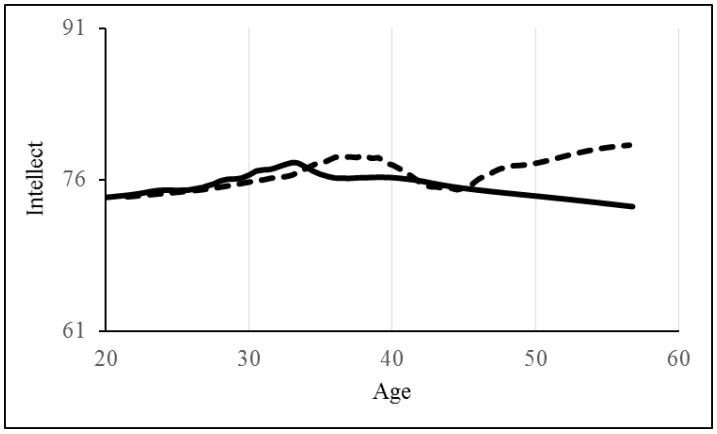


Figure 5. Cross-sectional differences between parents and never parents in openness to experience (panel A) and its two aspects, openness (panel B.1) and intellect (panel B.2), from age 20 to the mid-50s. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A

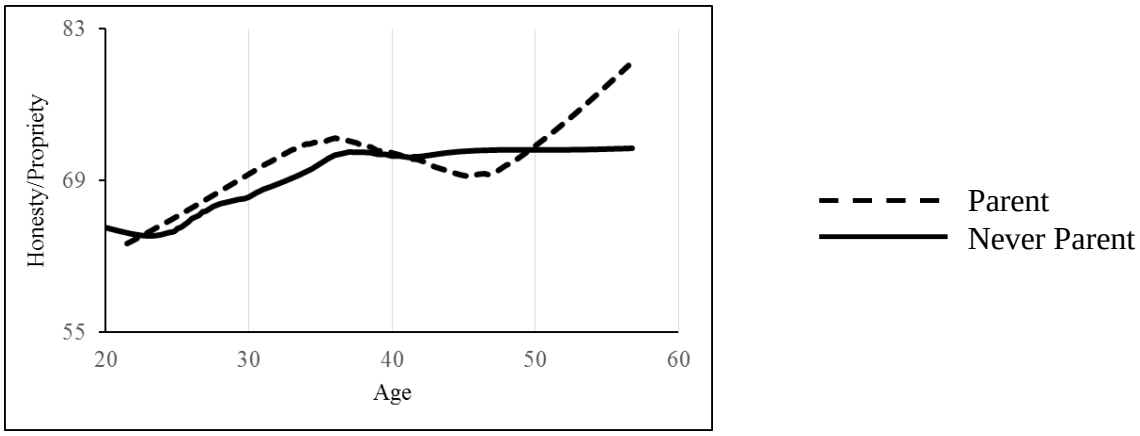


Figure 6. Cross-sectional differences between parents and never parents in honesty/propriety (panel A) from age 20 to the mid-50s. The y-axis displays one standard deviation above and below the overall mean for honesty/propriety.

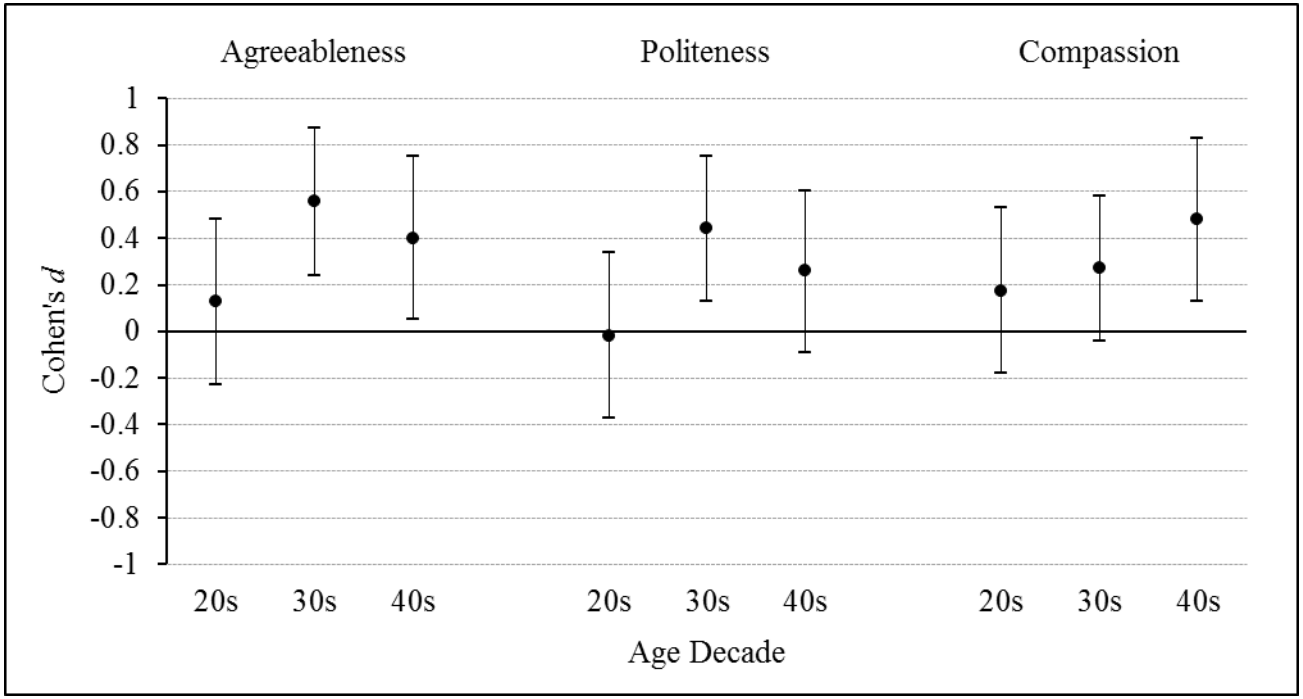


Figure 7. The standardized difference (i.e., Cohen's *d* effect size) and the 95% confidence interval around the standardized difference between parents and never parents in levels of agreeableness and its two aspects for the three age decades. Positive effect sizes indicate parents were higher on the trait than never parents, and negative effect sizes indicate parents were lower on the trait than never parents.

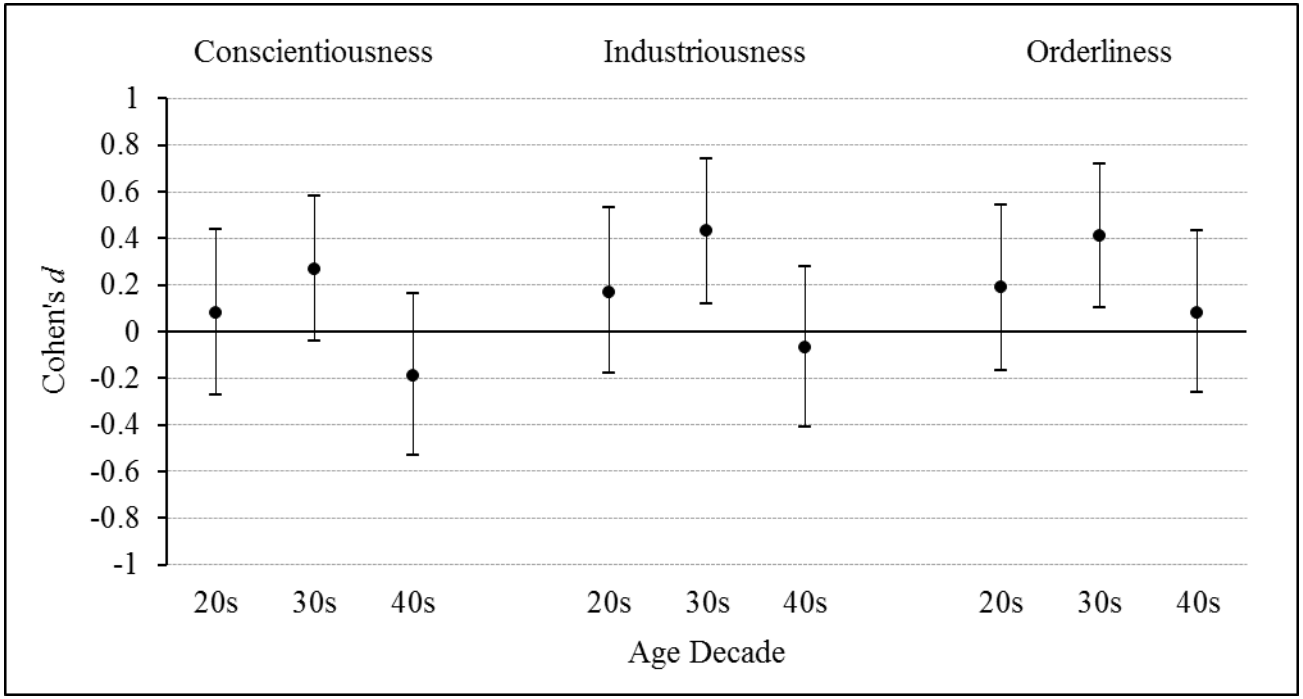


Figure 8. The standardized difference (i.e., Cohen's *d* effect size) and the 95% confidence interval around the standardized difference between parents and never parents in levels of conscientiousness and its two aspects for the three age decades. Positive effect sizes indicate parents were higher on the trait than never parents, and negative effect sizes indicate parents were lower on the trait than never parents.

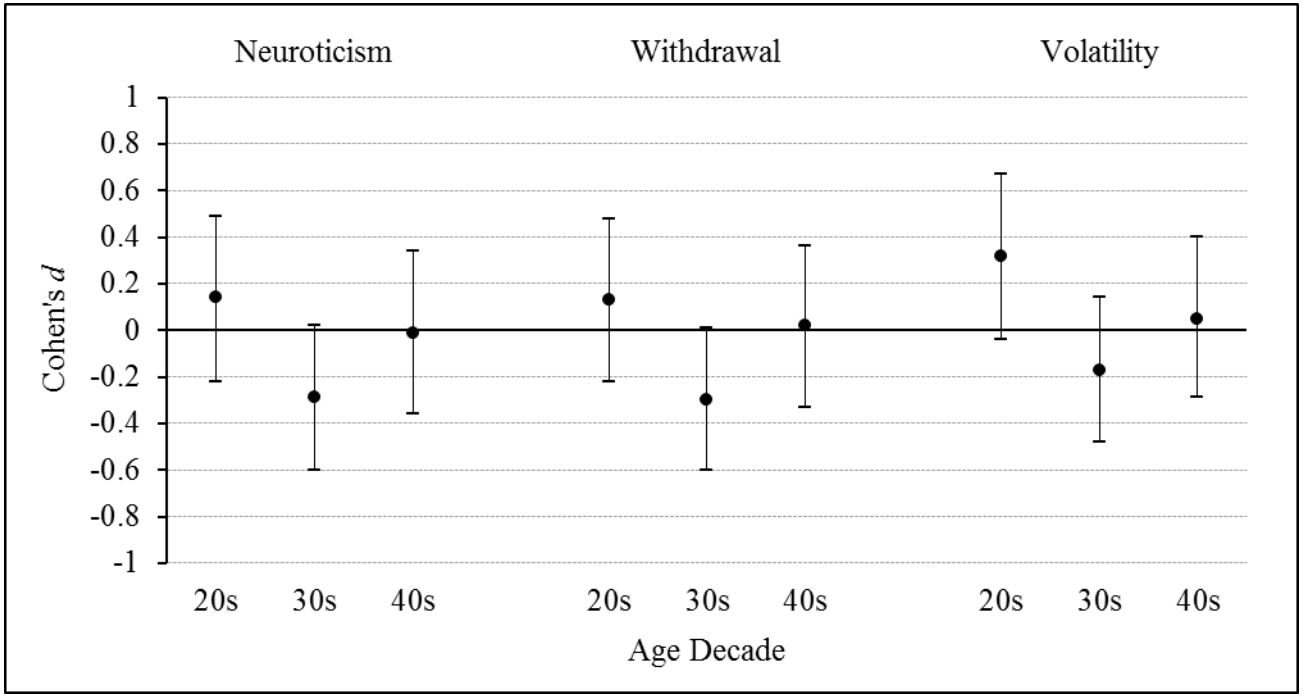


Figure 9. The standardized difference (i.e., Cohen's *d* effect size) and the 95% confidence interval around the standardized difference between parents and never parents in levels of neuroticism and its two aspects for the three age decades. Positive effect sizes indicate parents were higher on the trait than never parents, and negative effect sizes indicate parents were lower on the trait than never parents.

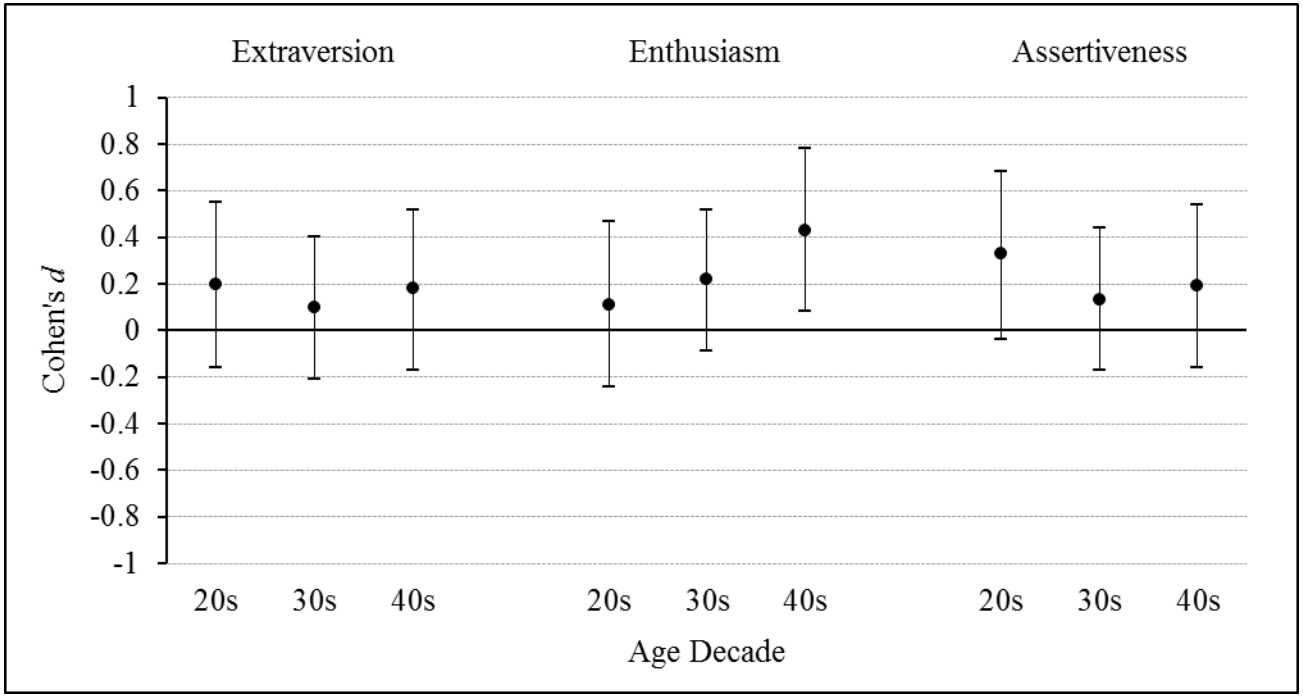


Figure 10. The standardized difference (i.e., Cohen's *d* effect size) and the 95% confidence interval around the standardized difference between parents and never parents in levels of extraversion and its two aspects for the three age decades. Positive effect sizes indicate parents were higher on the trait than never parents, and negative effect sizes indicate parents were lower on the trait than never parents.

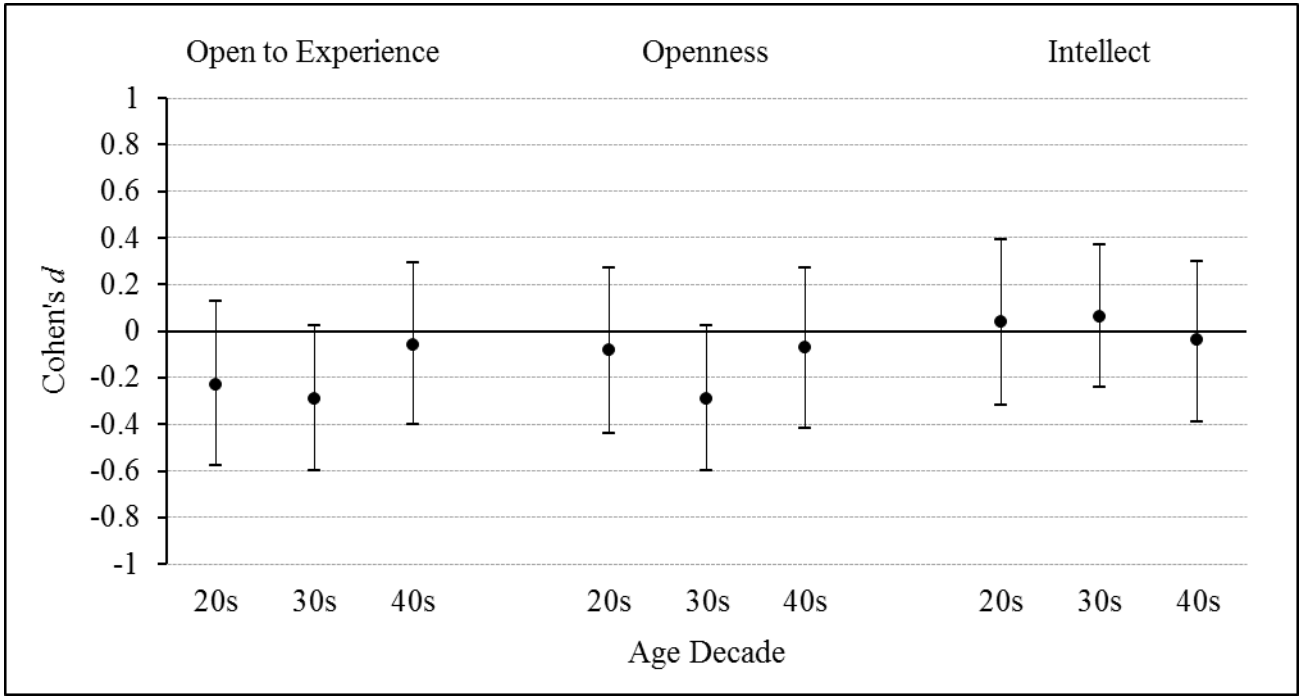


Figure 11. The standardized difference (i.e., Cohen's *d* effect size) and the 95% confidence interval around the standardized difference between parents and never parents in levels of openness to experience and its two aspects for the three age decades. Positive effect sizes indicate parents were higher on the trait than never parents, and negative effect sizes indicate parents were lower on the trait than never parents.

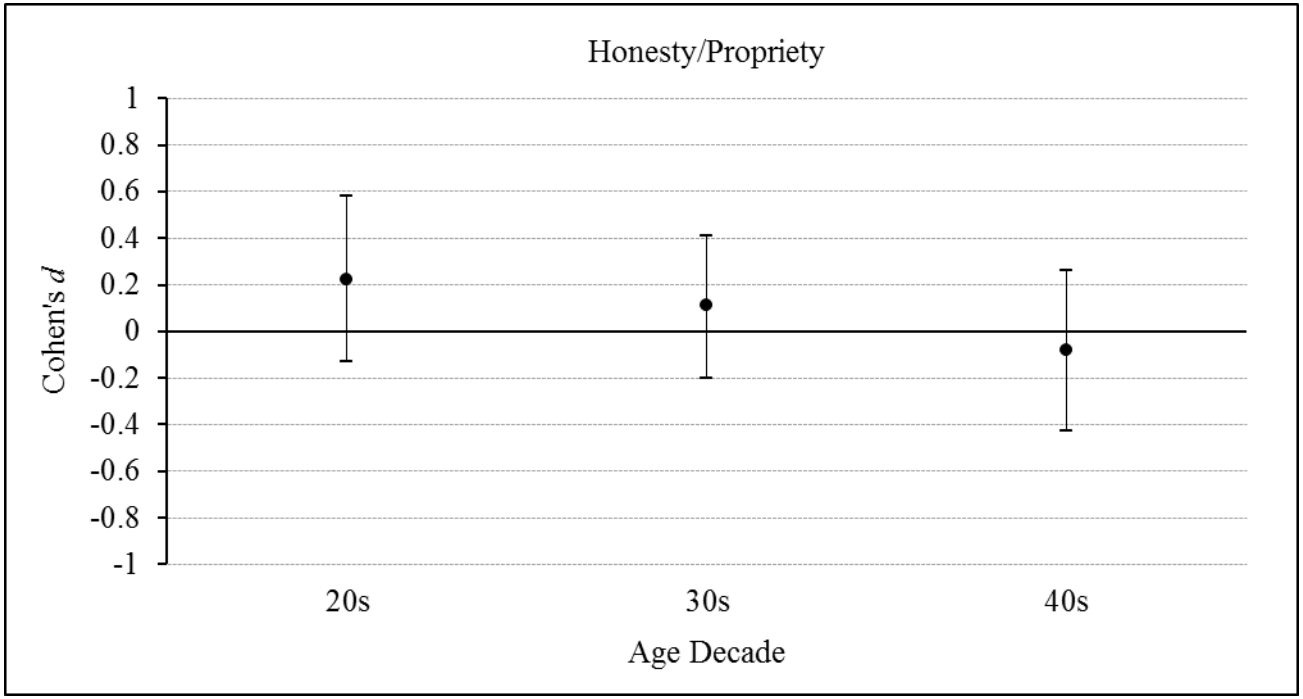
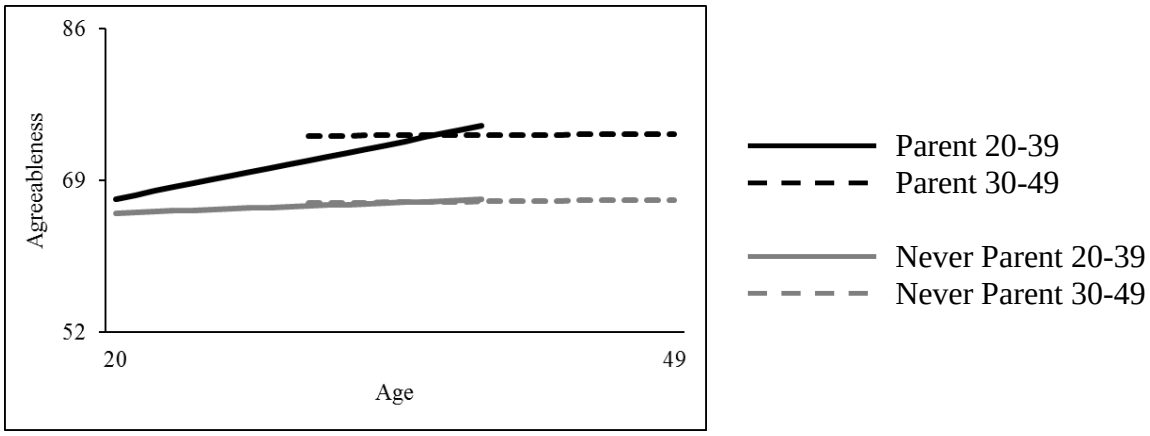
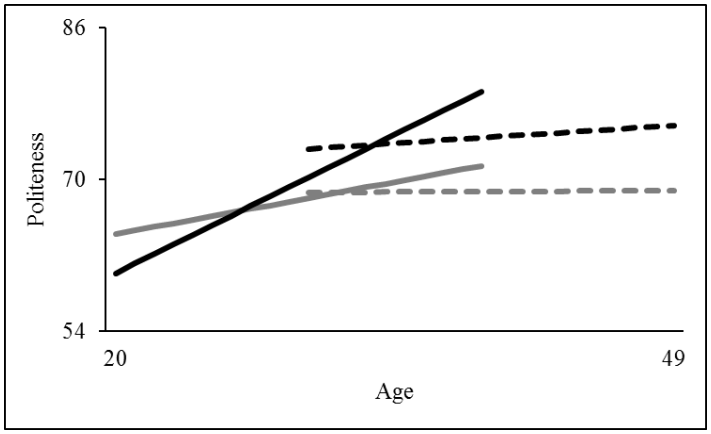


Figure 12. The standardized difference (i.e., Cohen's *d* effect size) and the 95% confidence interval around the standardized difference between parents and never parents in levels of honesty/propriety for the three age decades. Positive effect sizes indicate parents were higher on the trait than never parents, and negative effect sizes indicate parents were lower on the trait than never parents.

A



B.1



B.2

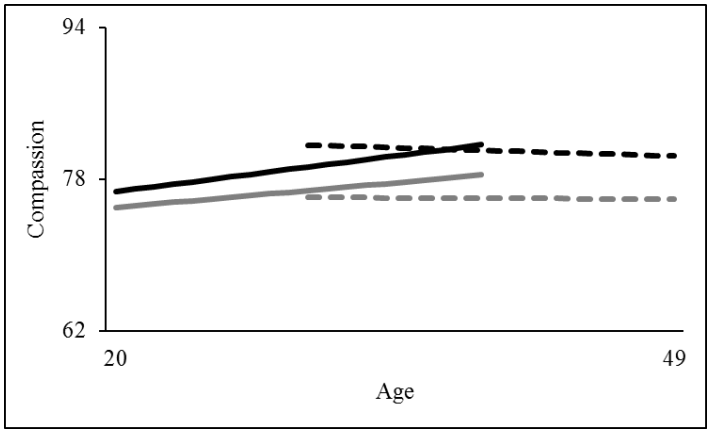
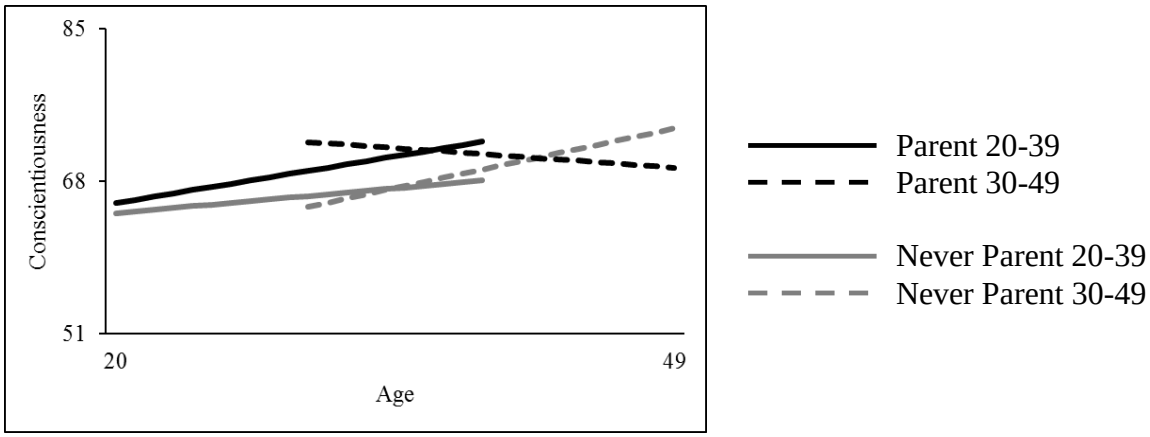


Figure 13. Differences in rates of change between parents and never parents for agreeableness (panel A) and its two aspects, politeness (panel B.1) and compassion (panel B.2), for the two age periods, 20 to 39 and 30 to 49. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A



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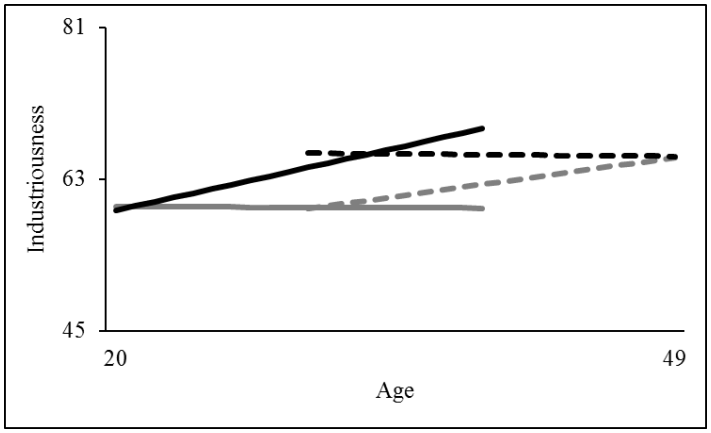

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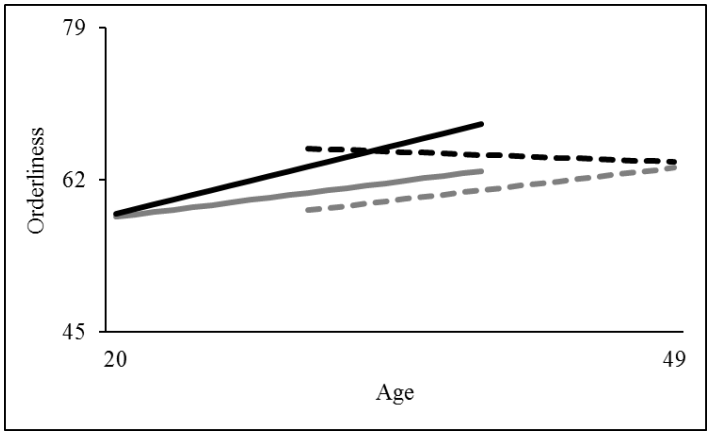
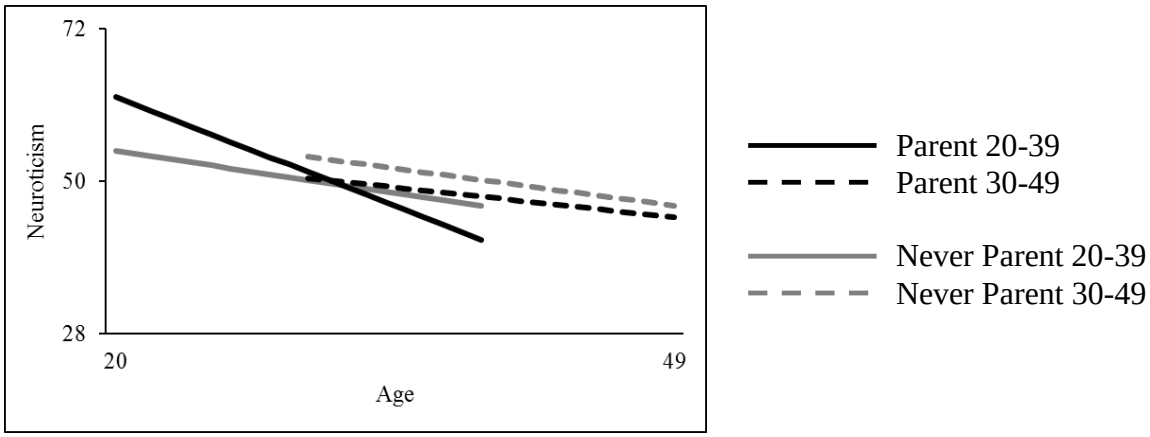
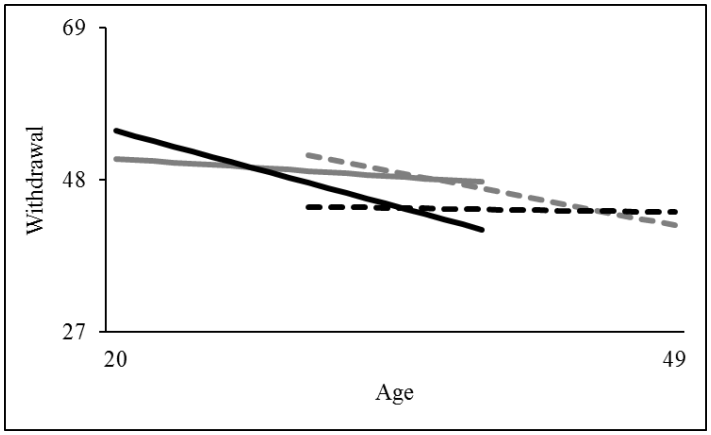


Figure 14. Differences in rates of change between parents and never parents for conscientiousness (panel A) and its two aspects, industriousness (panel B.1) and orderliness (panel B.2), for the two age periods, 20 to 39 and 30 to 49. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A



B.1



B.2

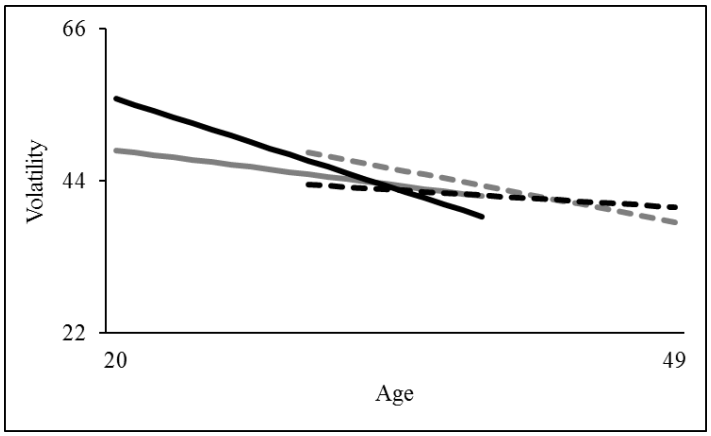
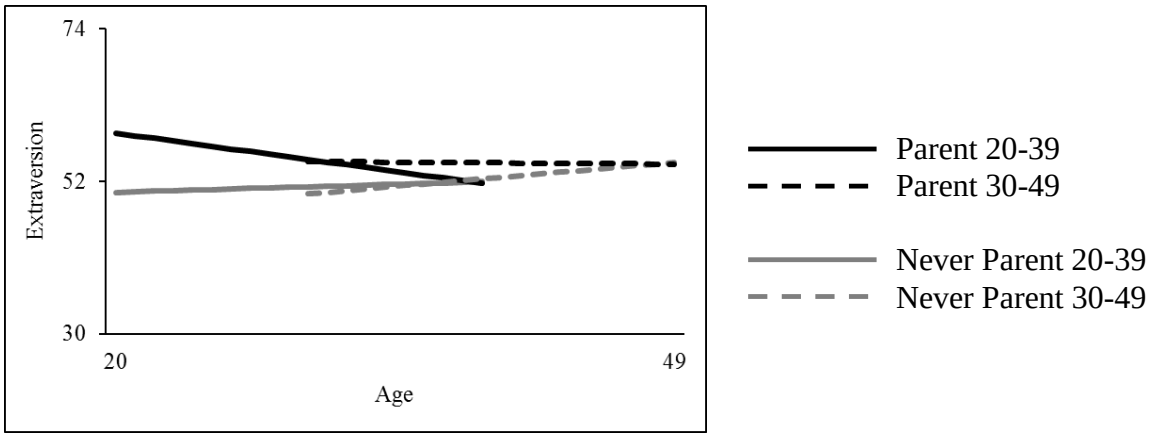
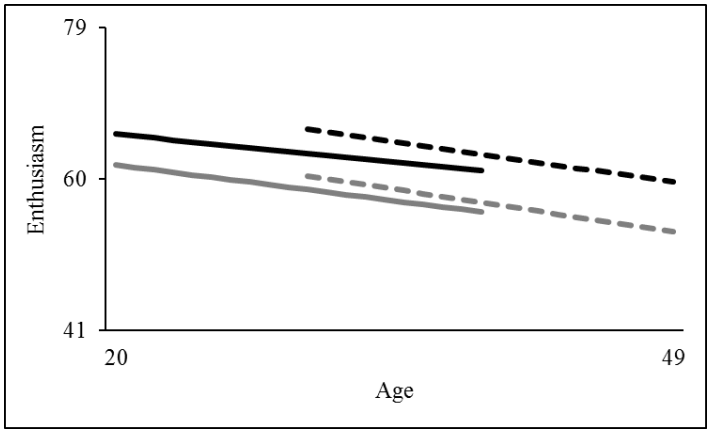


Figure 15. Differences in rates of change between parents and never parents for neuroticism (panel A) and its two aspects, withdrawal (panel B.1) and volatility (panel B.2), for the two age periods, 20 to 39 and 30 to 49. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A



B.1



B.2

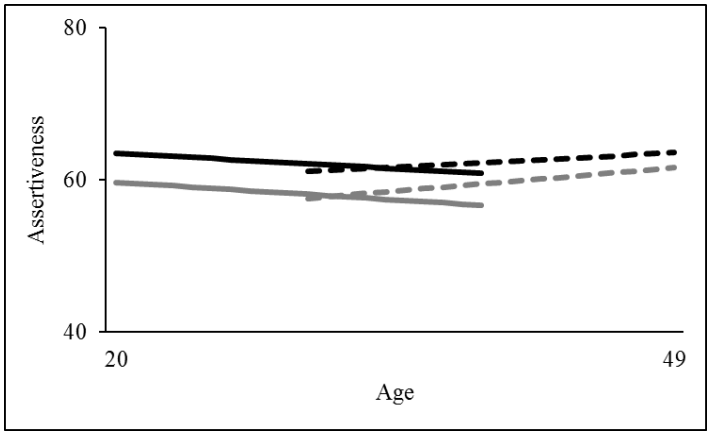
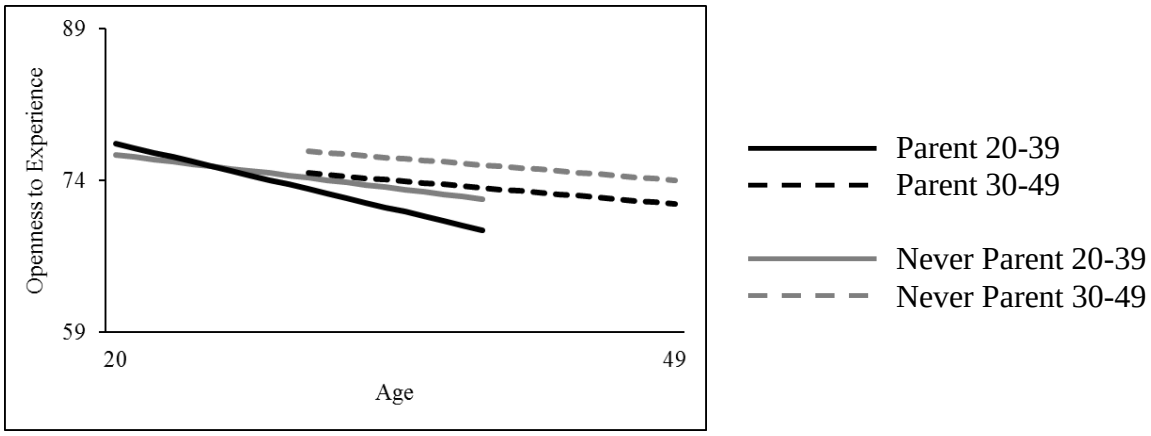
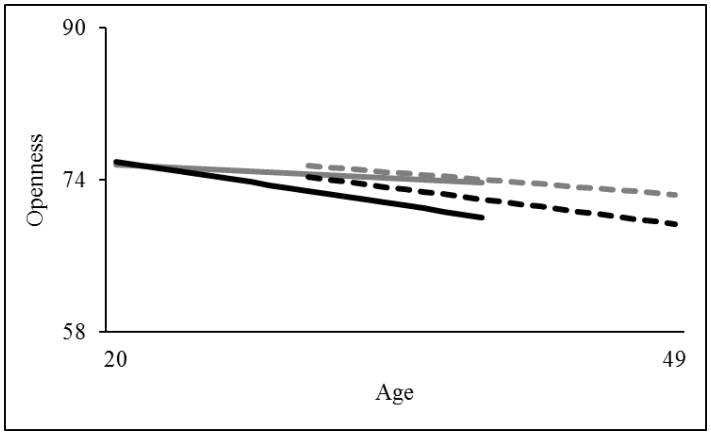


Figure 16. Differences in rates of change between parents and never parents for extraversion (panel A) and its two aspects, enthusiasm (panel B.1) and assertiveness (panel B.2), for the two age periods, 20 to 39 and 30 to 49. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A



B.1



B.2

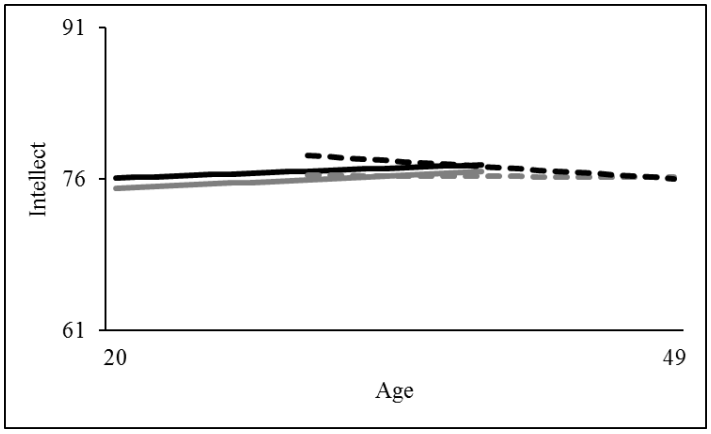


Figure 17. Differences in rates of change between parents and never parents for openness to experience (panel A) and its two aspects, openness (panel B.1) and intellect (panel B.2), for the two age periods, 20 to 39 and 30 to 49. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A

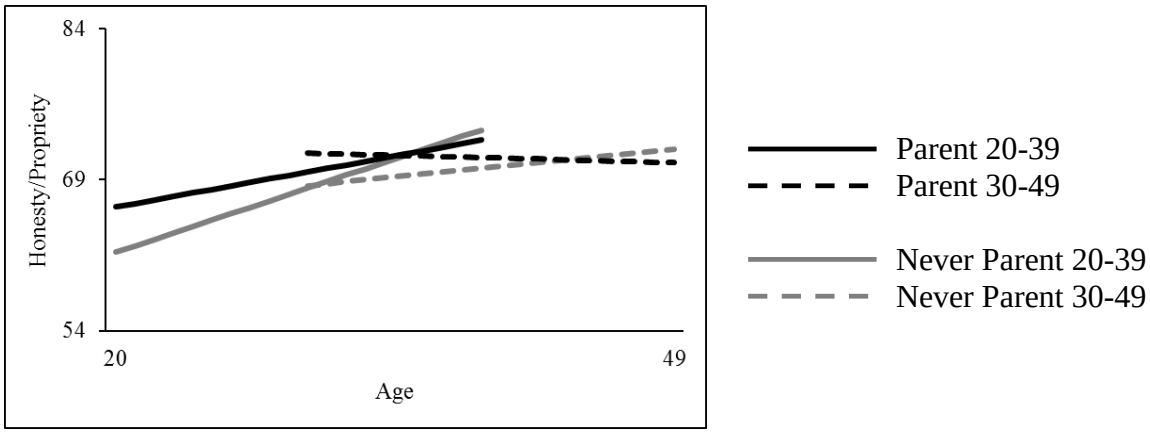
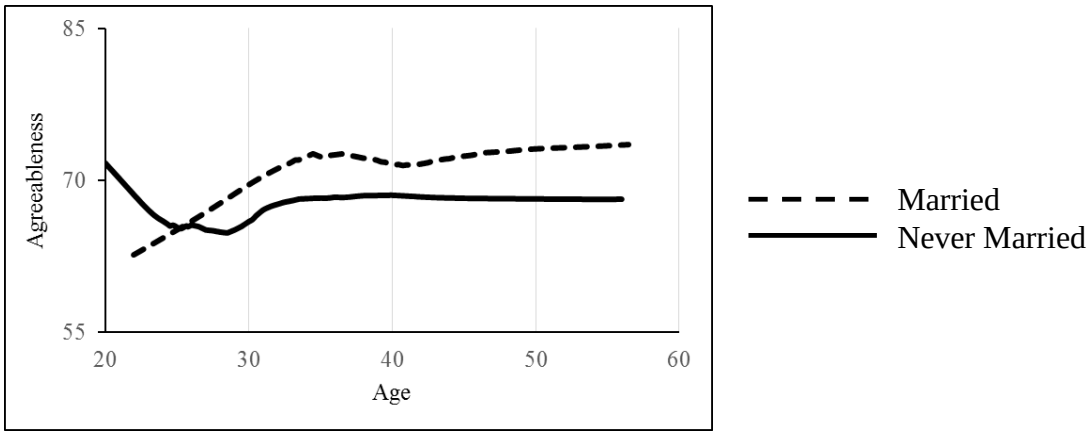
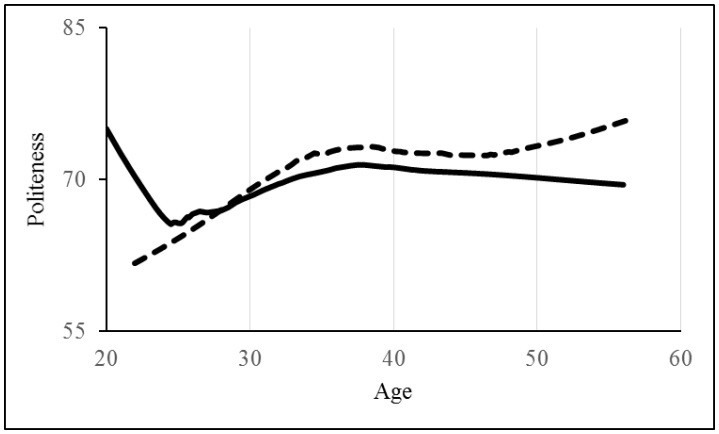


Figure 18. Differences in rates of change between parents and never parents for honesty/propriety (panel A) for the two age periods, 20 to 39 and 30 to 49. The y-axis displays one standard deviation above and below the overall mean for honesty/propriety.

A



B.1



B.2

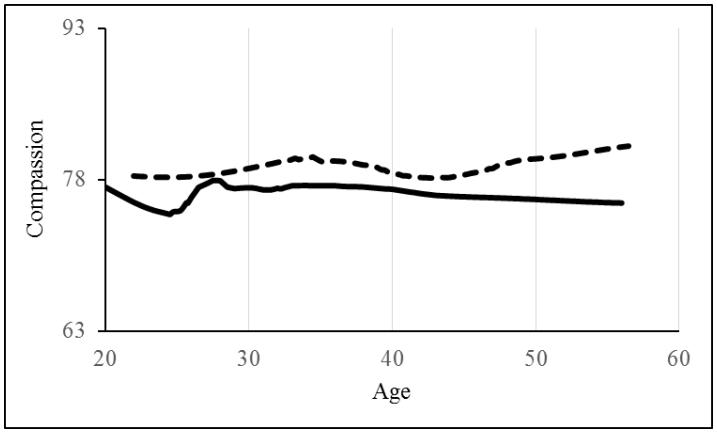
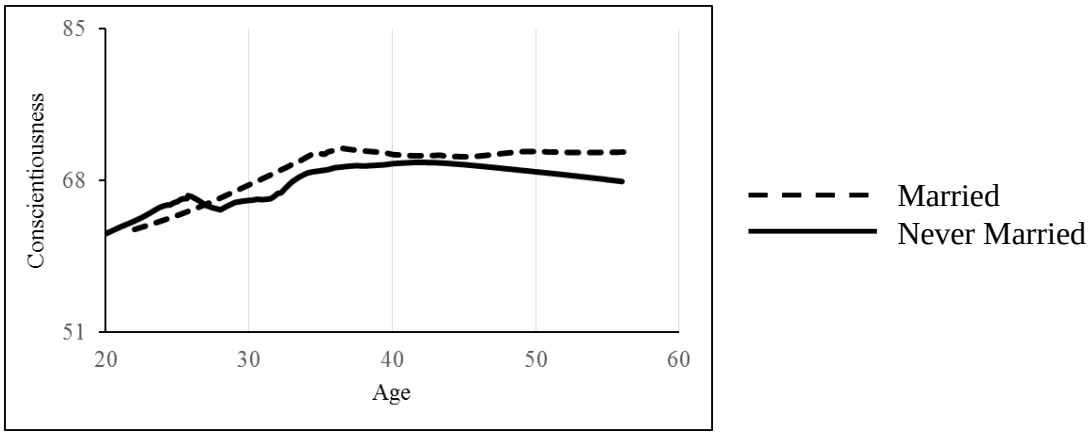
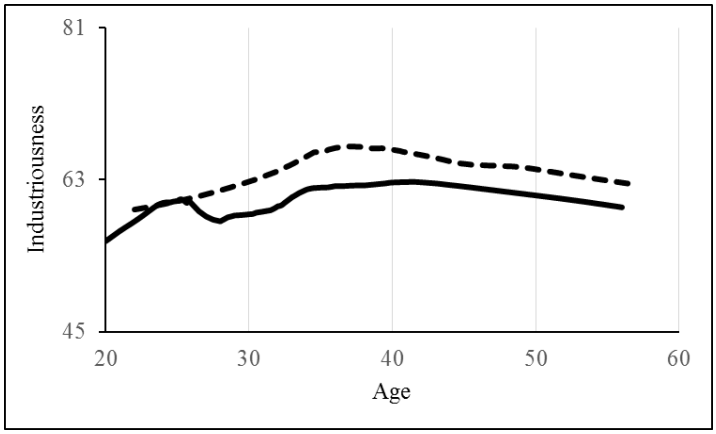


Figure 19. Cross-sectional differences between married and never married participants in agreeableness (panel A) and its two aspects, politeness (panel B.1) and compassion (panel B.2), from age 20 to the mid-50s. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A



B.1



B.2

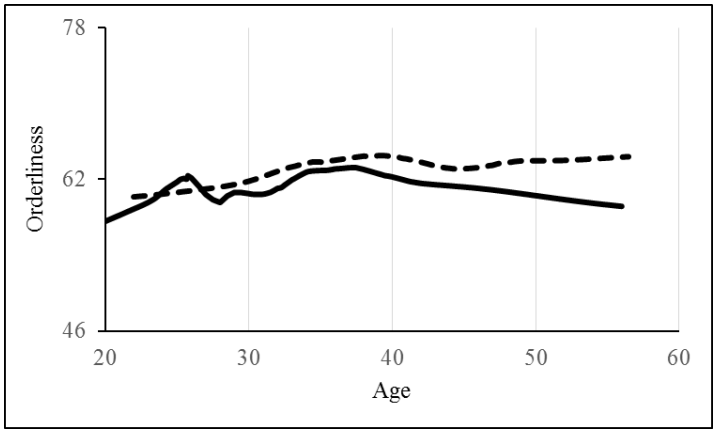
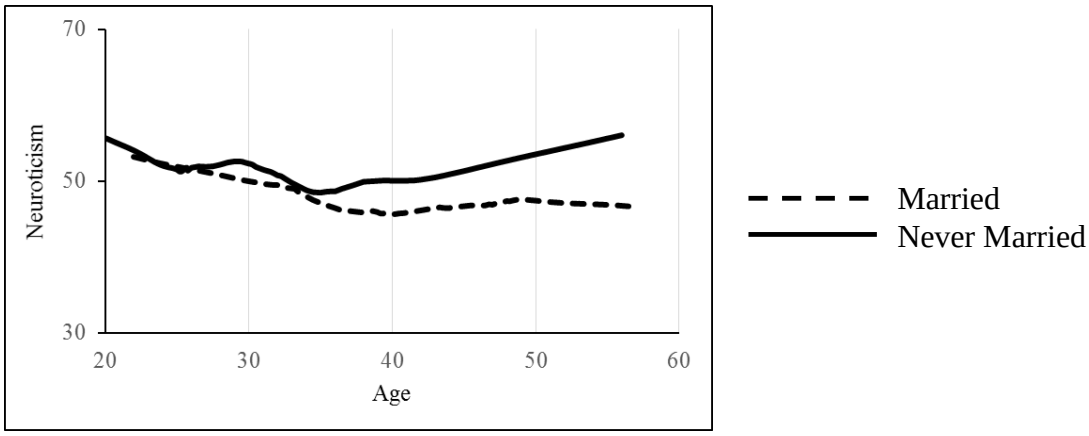
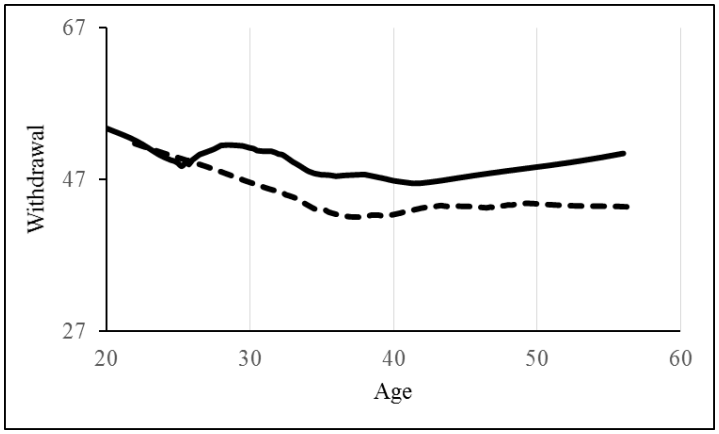


Figure 20. Cross-sectional differences between married and never married participants in conscientiousness (panel A) and its two aspects, industriousness (panel B.1) and orderliness (panel B.2), from age 20 to the mid-50s. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A



B.1



B.2

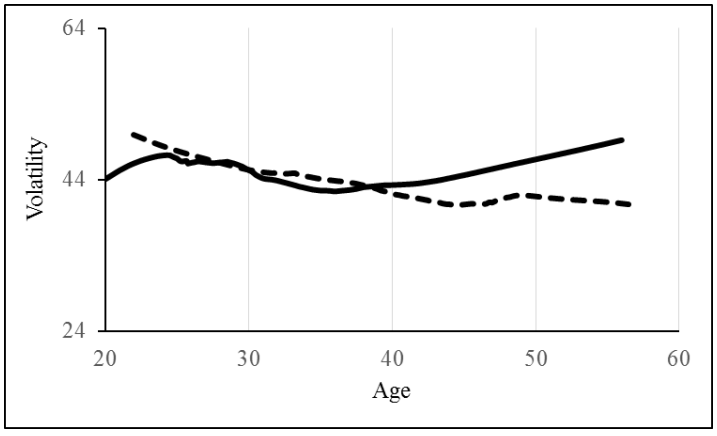
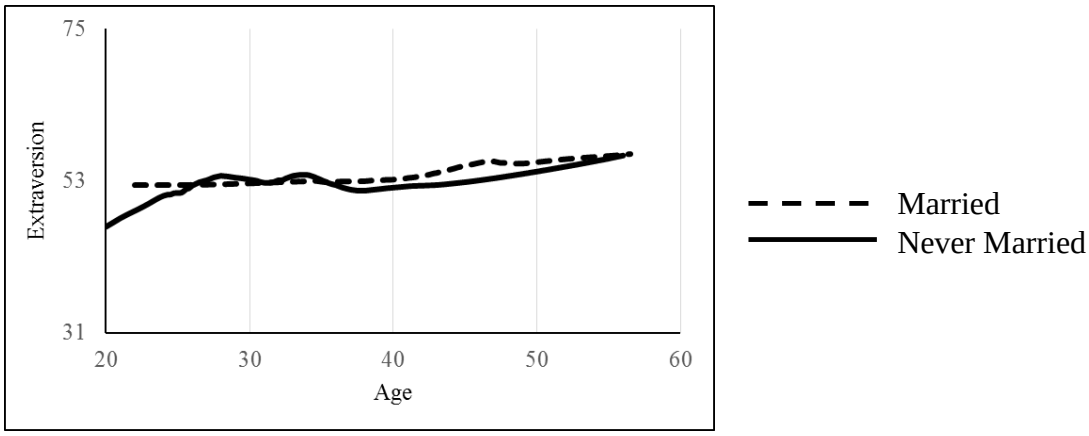
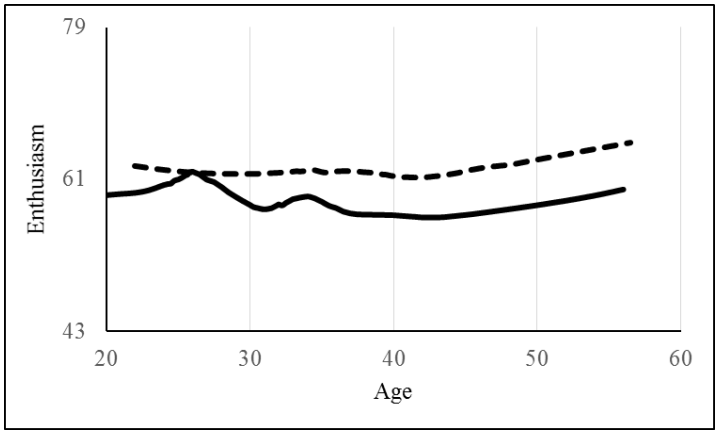


Figure 21. Cross-sectional differences between married and never married participants in neuroticism (panel A) and its two aspects, withdrawal (panel B.1) and volatility (panel B.2), from age 20 to the mid-50s. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A



B.1



B.2

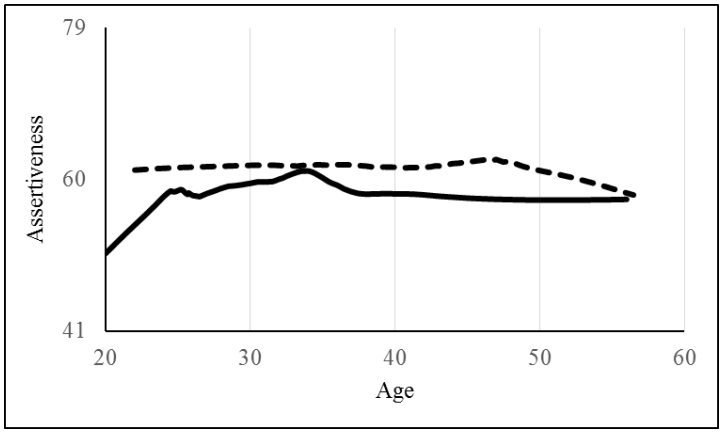
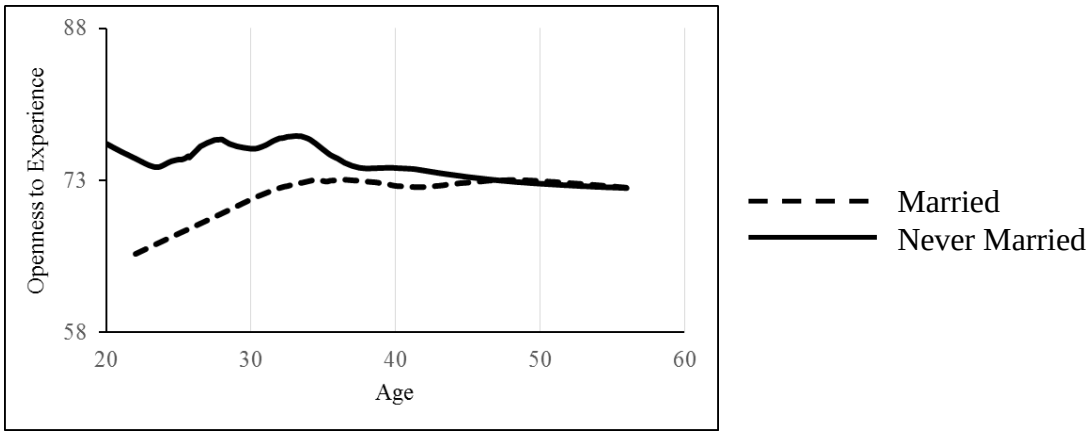
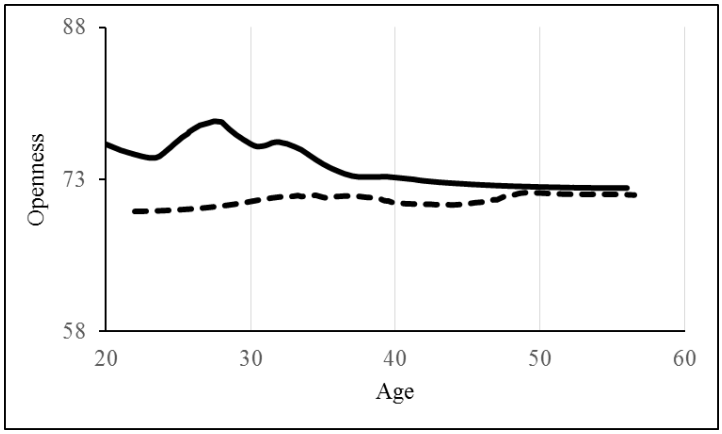


Figure 22. Cross-sectional differences between married and never married participants in extraversion (panel A) and its two aspects, enthusiasm (panel B.1) and assertiveness (panel B.2), from age 20 to the mid-50s. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A



B.1



B.2

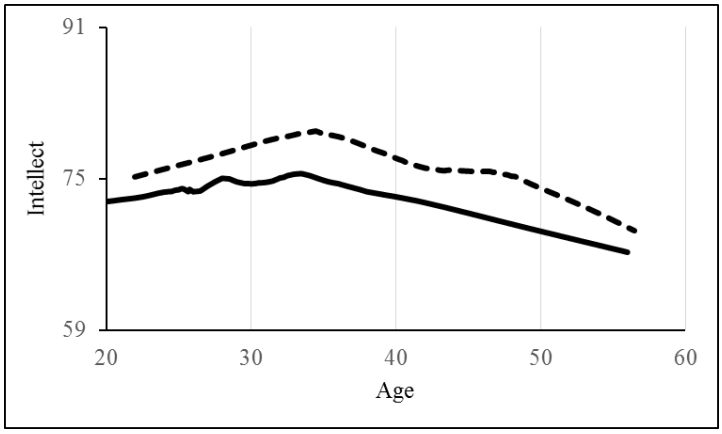


Figure 23. Cross-sectional differences between married and never married participants in openness to experience (panel A) and its two aspects, openness (panel B.1) and intellect (panel B.2), from age 20 to the mid-50s. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A

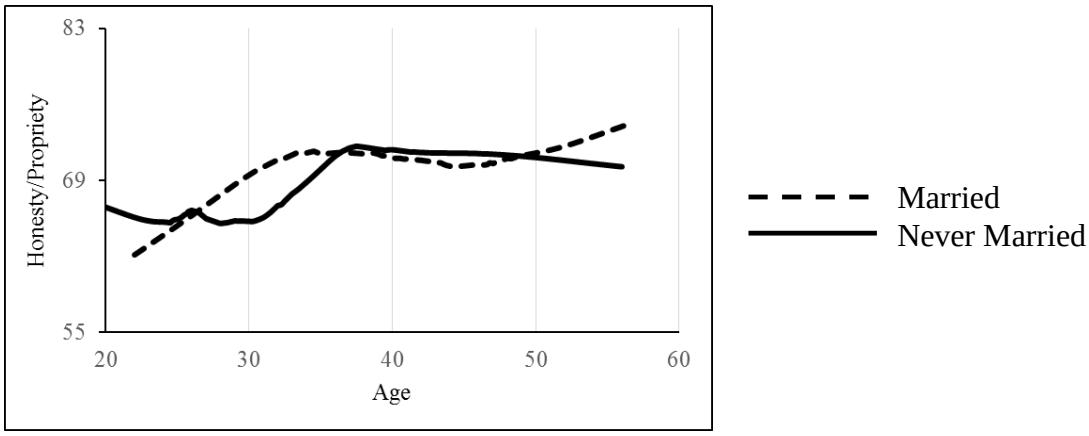


Figure 24. Cross-sectional differences between married and never married participants in honesty/propriety (panel A) from age 20 to the mid-50s. The y-axis displays one standard deviation above and below the overall mean for honesty/propriety.

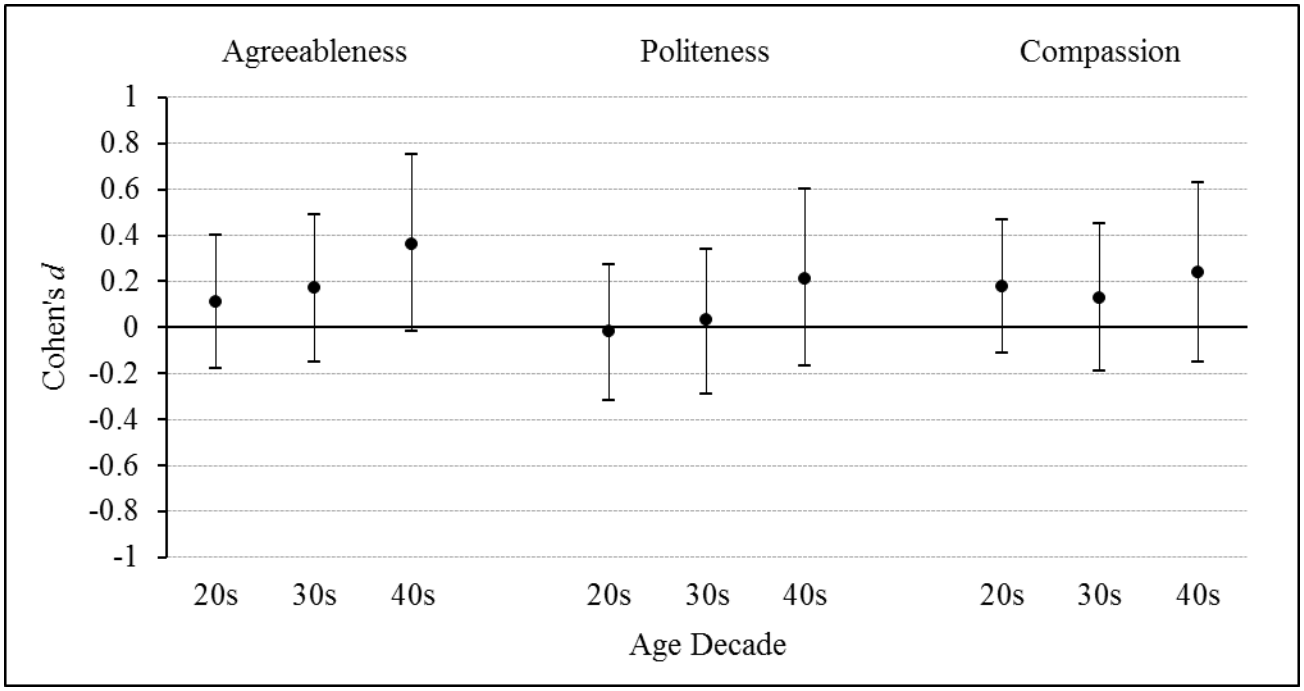


Figure 25. The standardized difference (i.e., Cohen's *d* effect size) and the 95% confidence interval around the standardized difference between married and never married participants in levels of agreeableness and its two aspects for the three age decades. Positive effect sizes indicate married participants were higher on the trait than never married participants, and negative effect sizes indicate married participants were lower on the trait than never married participants.

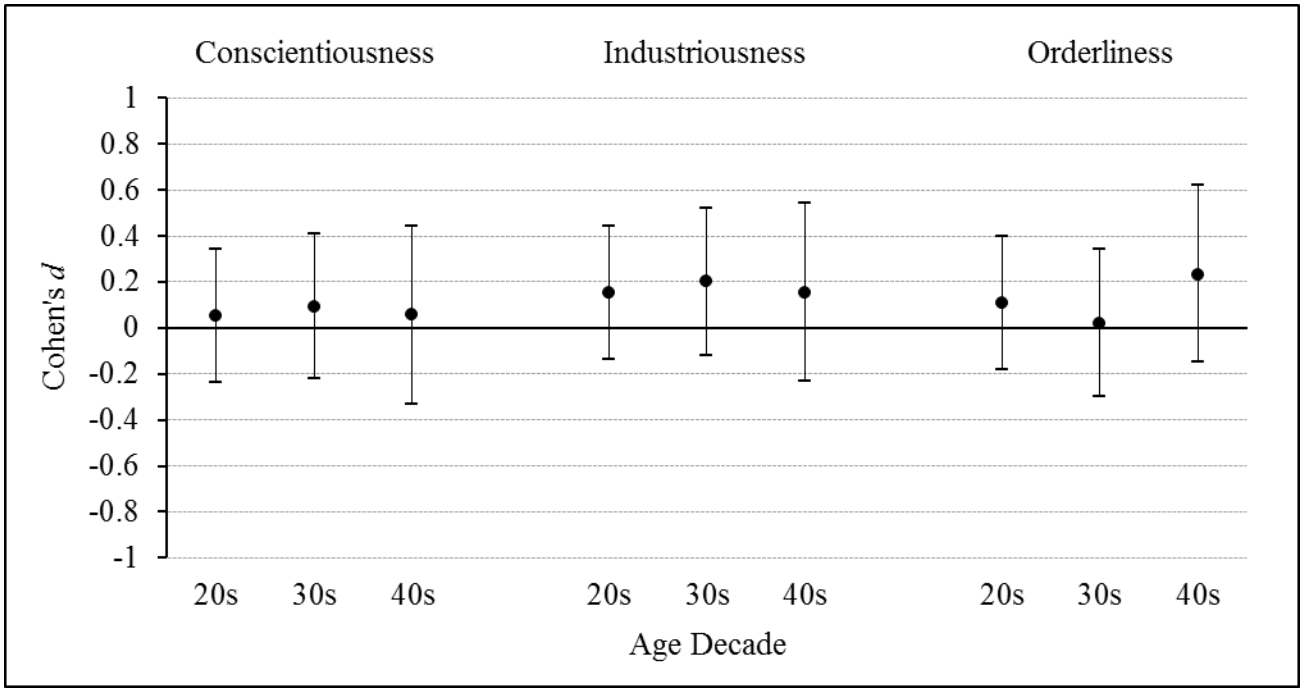


Figure 26. The standardized difference (i.e., Cohen's *d* effect size) and the 95% confidence interval around the standardized difference between married and never married participants in levels of conscientiousness and its two aspects for the three age decades. Positive effect sizes indicate married participants were higher on the trait than never married participants, and negative effect sizes indicate married participants were lower on the trait than never married participants.

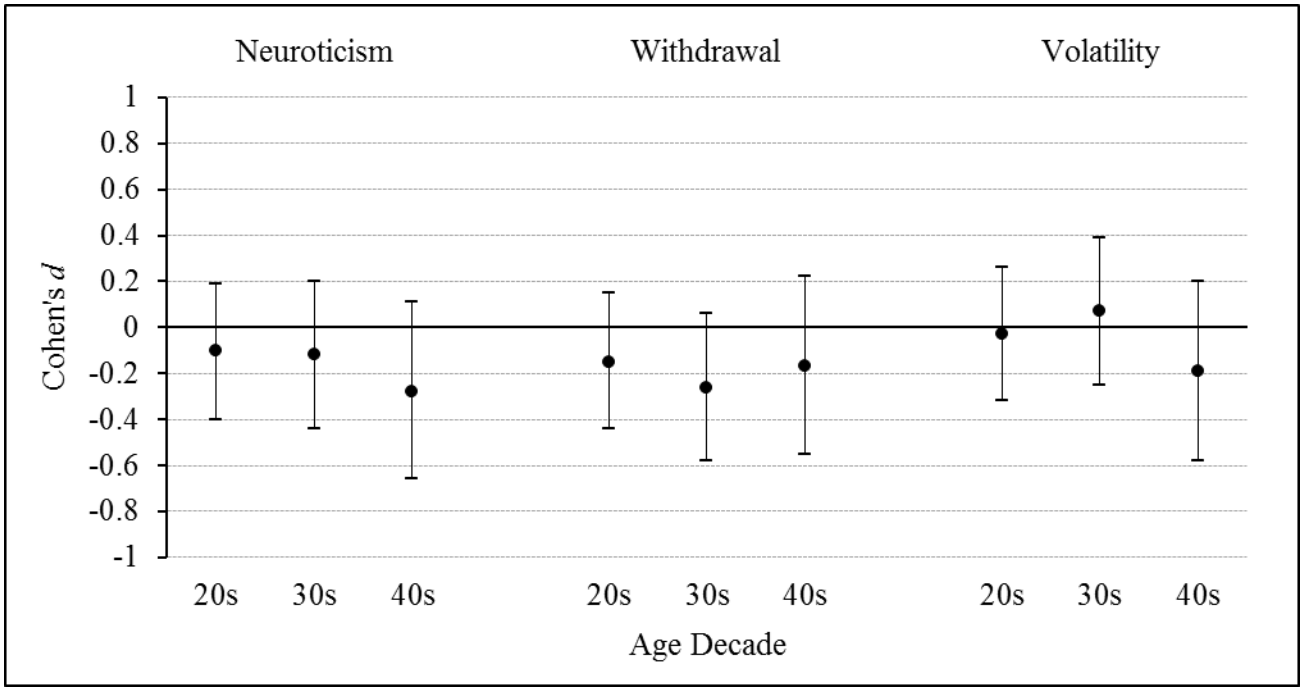


Figure 27. The standardized difference (i.e., Cohen's *d* effect size) and the 95% confidence interval around the standardized difference between married and never married participants in levels of neuroticism and its two aspects for the three age decades. Positive effect sizes indicate married participants were higher on the trait than never married participants, and negative effect sizes indicate married participants were lower on the trait than never married participants.

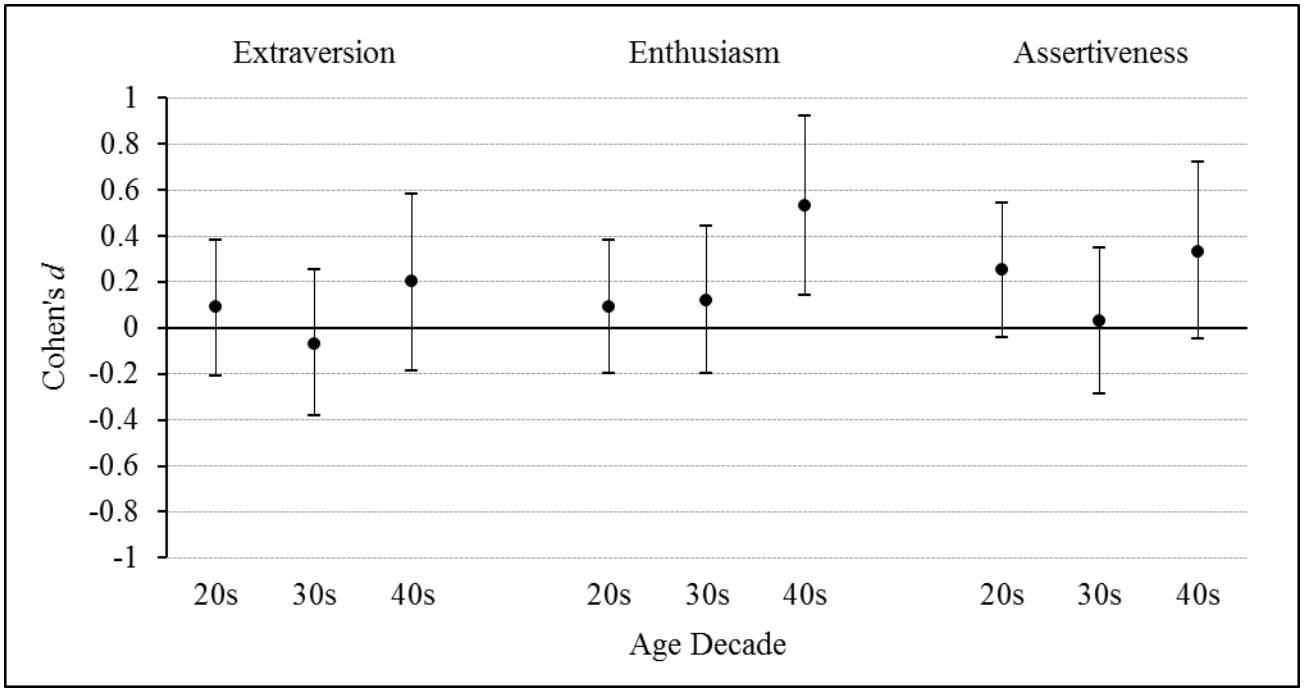


Figure 28. The standardized difference (i.e., Cohen's *d* effect size) and the 95% confidence interval around the standardized difference between married and never married participants in levels of extraversion and its two aspects for the three age decades. Positive effect sizes indicate married participants were higher on the trait than never married participants, and negative effect sizes indicate married participants were lower on the trait than never married participants.

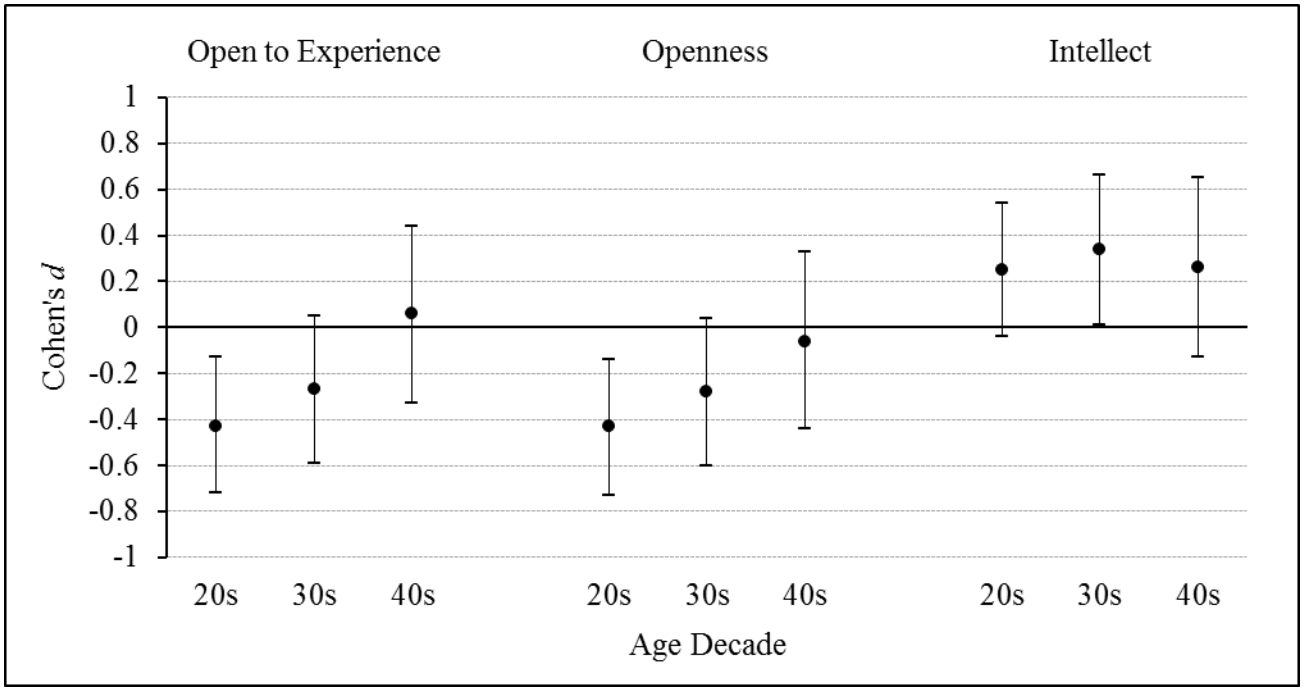


Figure 29. The standardized difference (i.e., Cohen's *d* effect size) and the 95% confidence interval around the standardized difference between married and never married participants in levels of openness to experience and its two aspects for the three age decades. Positive effect sizes indicate married participants were higher on the trait than never married participants, and negative effect sizes indicate married participants were lower on the trait than never married participants.

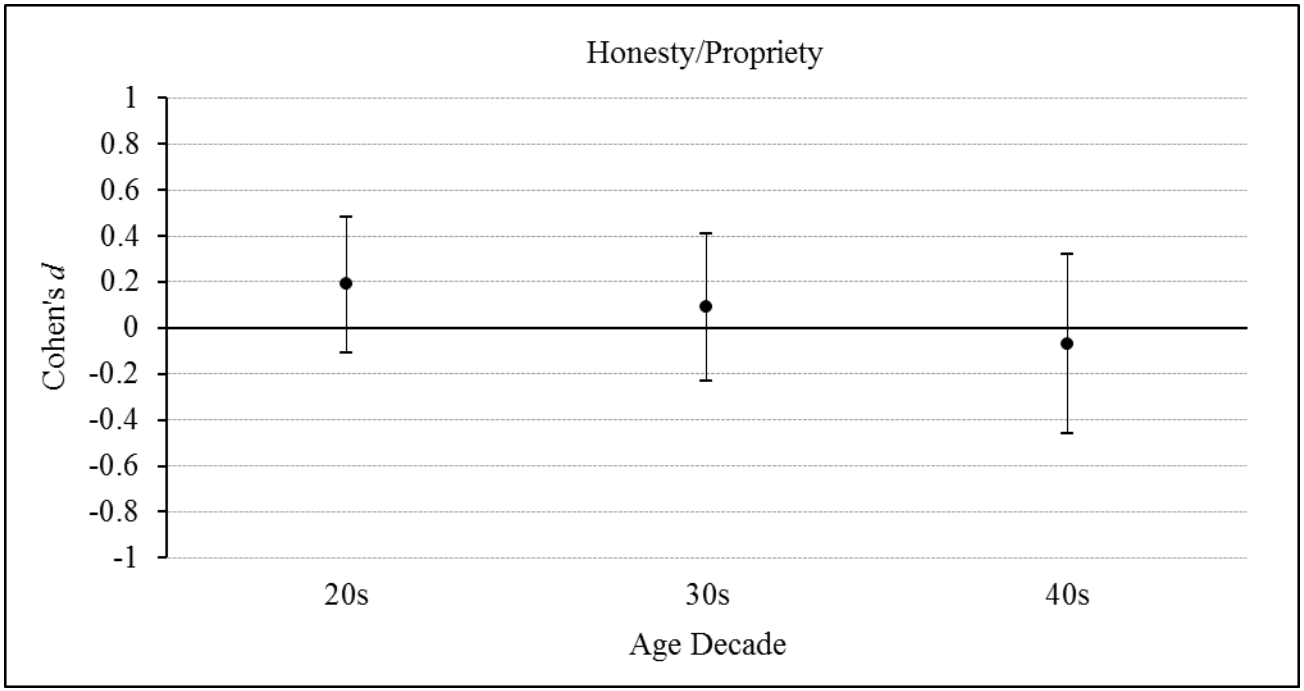
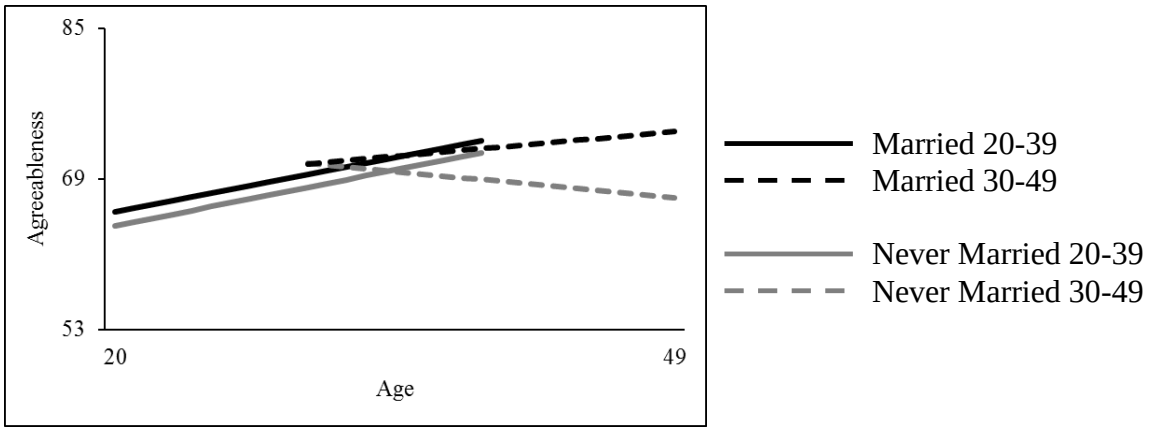
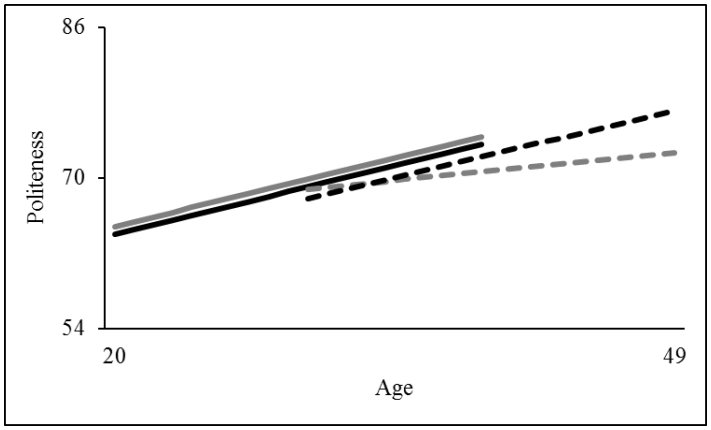


Figure 30. The standardized difference (i.e., Cohen's *d* effect size) and the 95% confidence interval around the standardized difference between married and never married participants in levels of honesty/propriety for the three age decades. Positive effect sizes indicate married participants were higher on the trait than never married participants, and negative effect sizes indicate married participants were lower on the trait than never married participants.

A



B.1



B.2

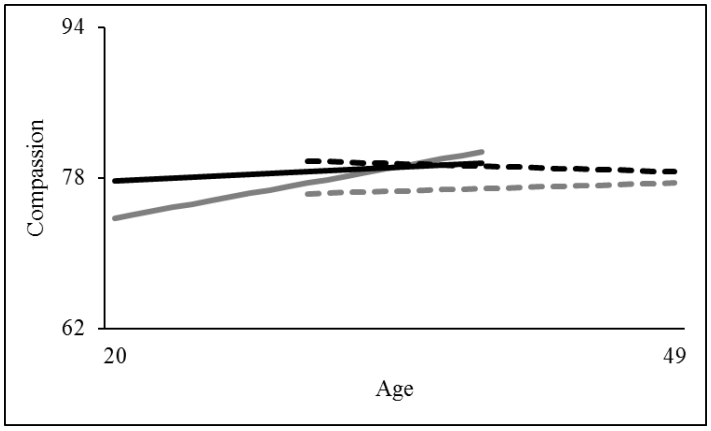
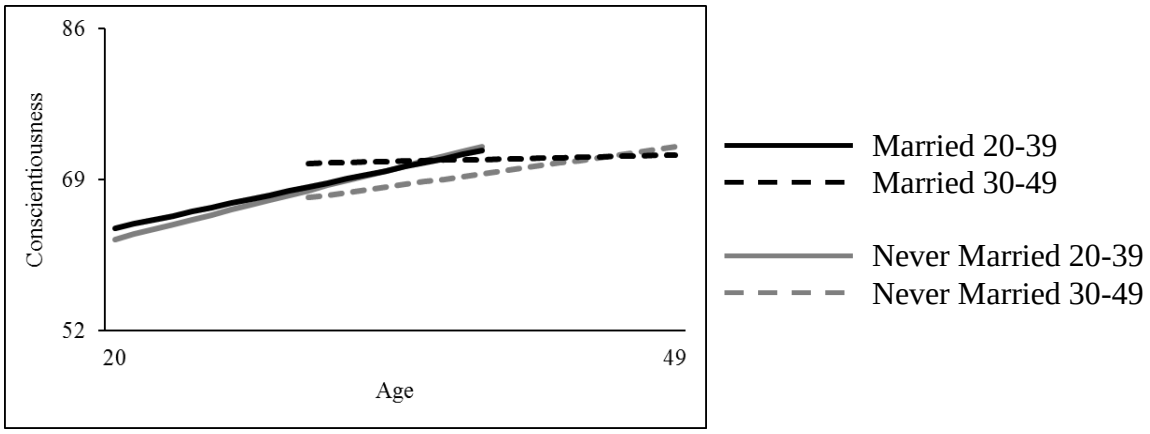
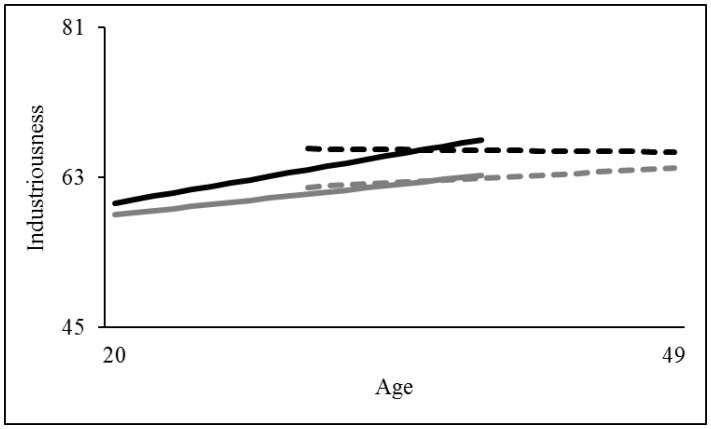


Figure 31. Differences in rates of change between married and never married participants for agreeableness (panel A) and its two aspects, politeness (panel B.1) and compassion (panel B.2), for the two age periods, 20 to 39 and 30 to 49. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A



B.1



B.2

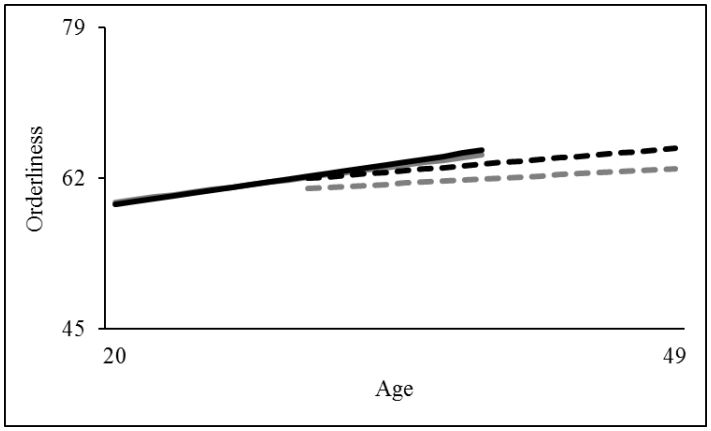
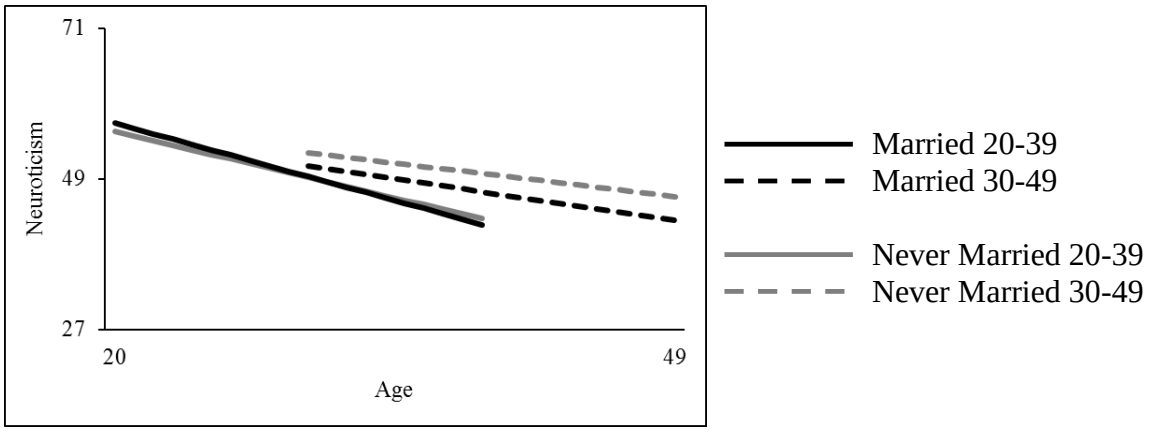
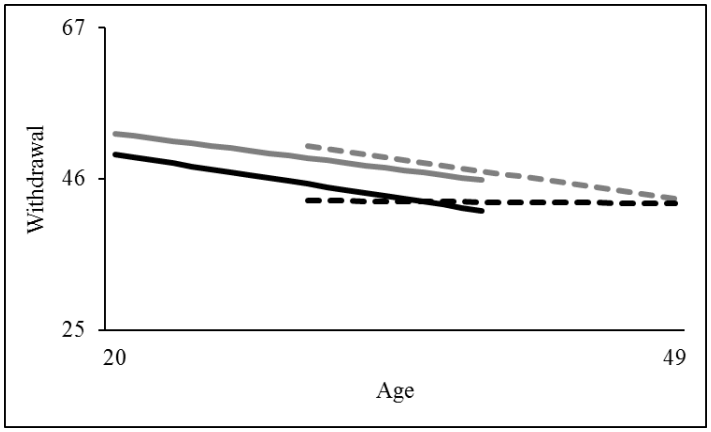


Figure 32. Differences in rates of change between married and never married participants for conscientiousness (panel A) and its two aspects, industriousness (panel B.1) and orderliness (panel B.2), for the two age periods, 20 to 39 and 30 to 49. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A



B.1



B.2

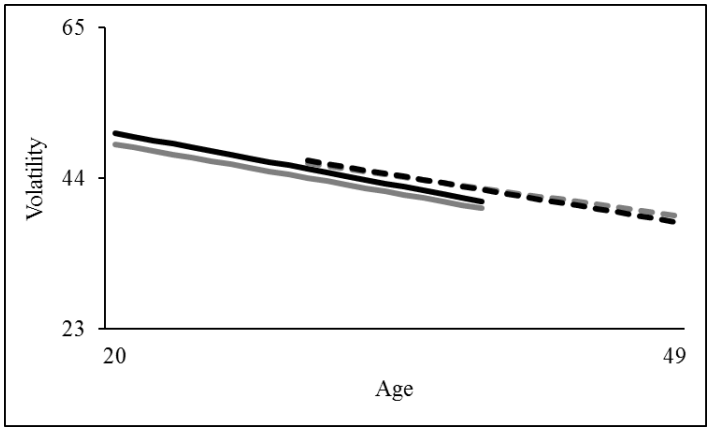
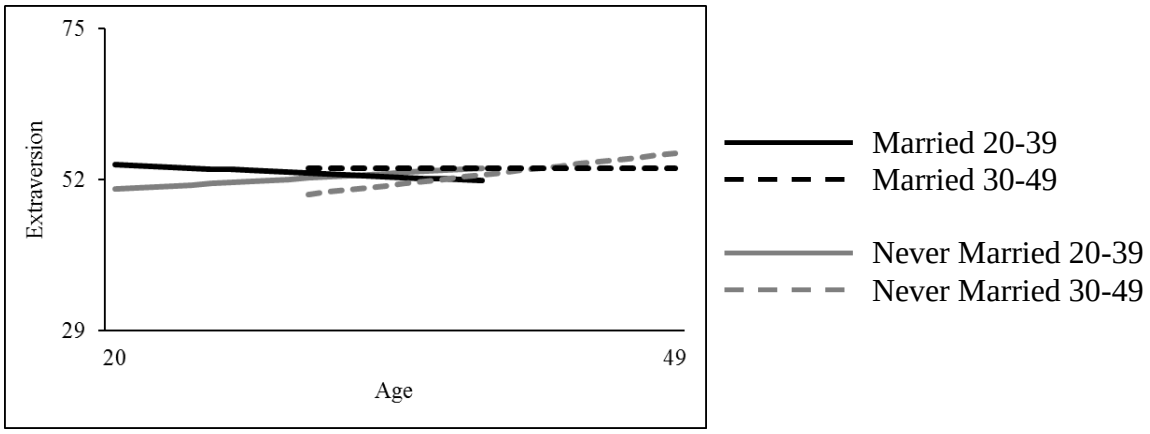
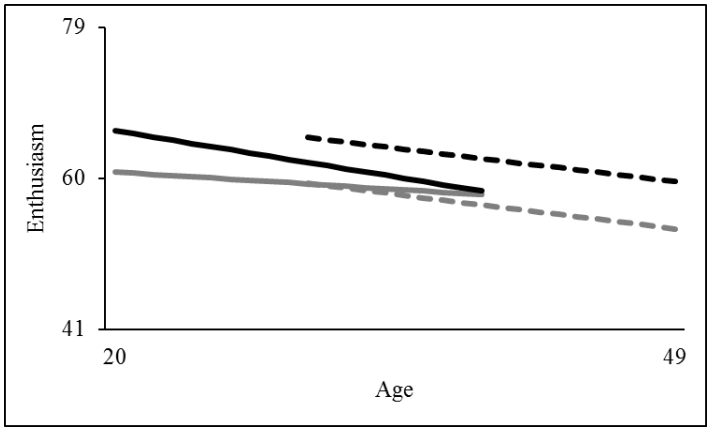


Figure 33. Differences in rates of change between married and never married participants for neuroticism (panel A) and its two aspects, withdrawal (panel B.1) and volatility (panel B.2), for the two age periods, 20 to 39 and 30 to 49. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A



B.1



B.2

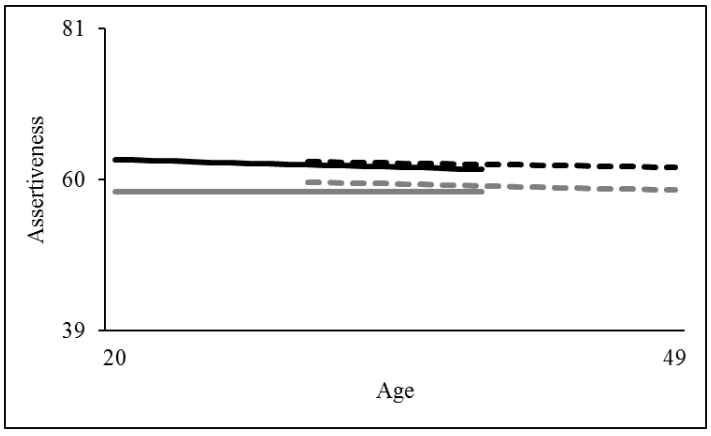
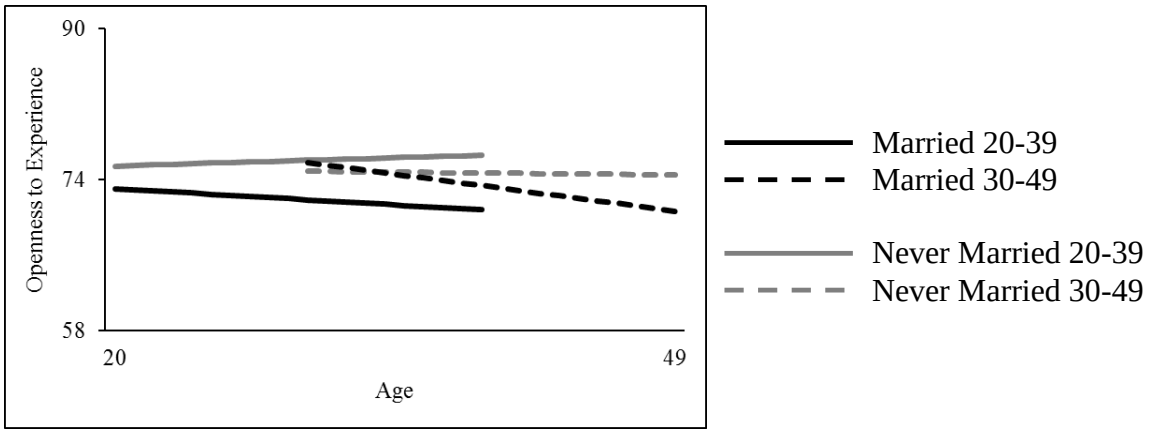
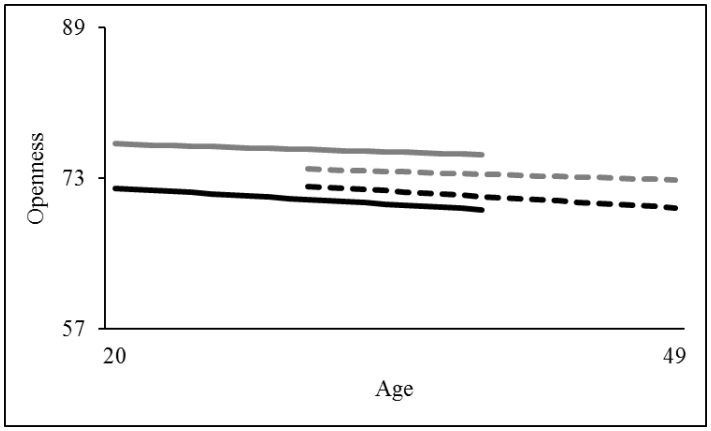


Figure 34. Differences in rates of change between married and never married participants for extraversion (panel A) and its two aspects, enthusiasm (panel B.1) and assertiveness (panel B.2), for the two age periods, 20 to 39 and 30 to 49. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A



B.1



B.2

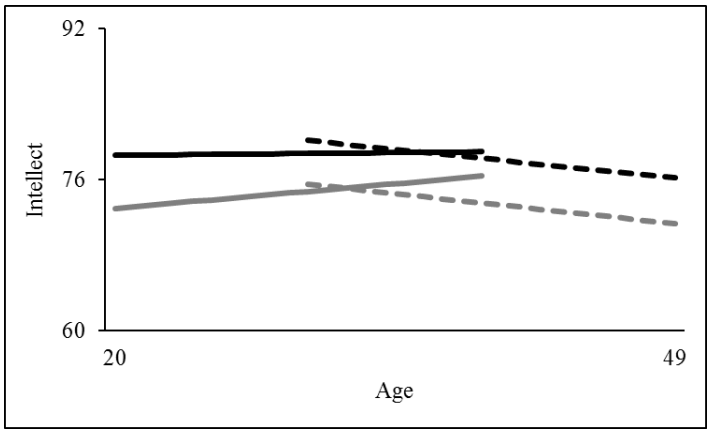


Figure 35. Differences in rates of change between married and never married participants for openness to experience (panel A) and its two aspects, openness (panel B.1) and intellect (panel B.2), for the two age periods, 20 to 39 and 30 to 49. The y-axis displays one standard deviation above and below the overall mean for the given trait.

A

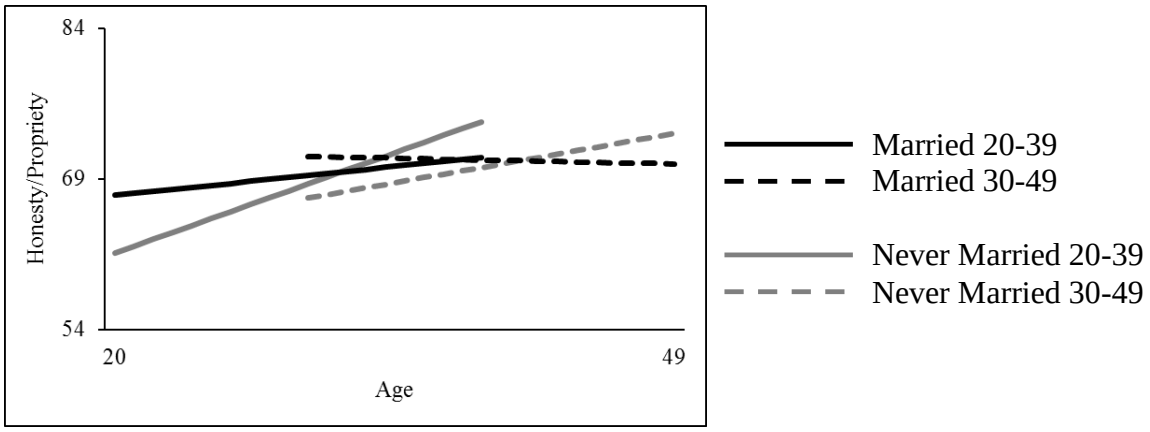


Figure 36. Differences in rates of change between married and never married participants for honesty/propriety (panel A) for the two age periods, 20 to 39 and 30 to 49. The y-axis displays one standard deviation above and below the overall mean for honesty/propriety.

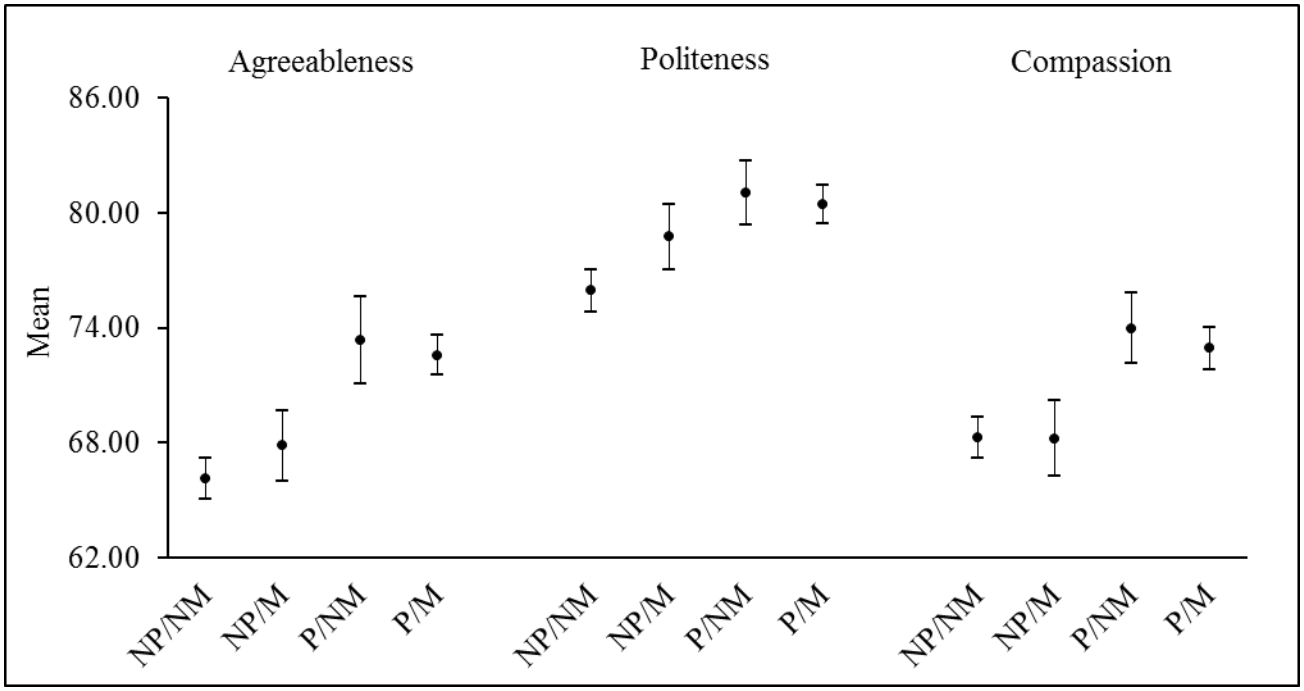


Figure 37. Mean levels of agreeableness and its aspects for the four parental/marital groups. NP = Not Parent; P = Parent; NM = Not Married; M = Married. Error bars represent standard errors.

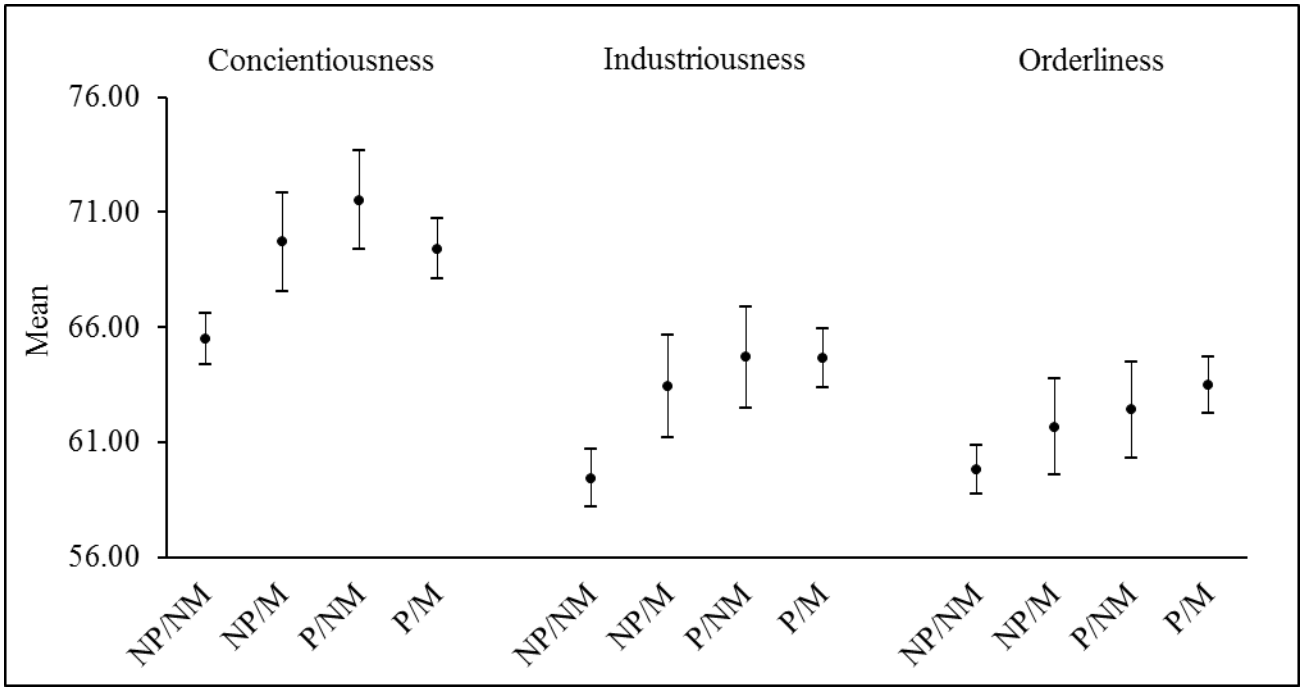


Figure 38. Mean levels of conscientiousness and its aspects for the four parental/marital groups. NP = Not Parent; P = Parent; NM = Not Married; M = Married. Error bars represent standard errors.

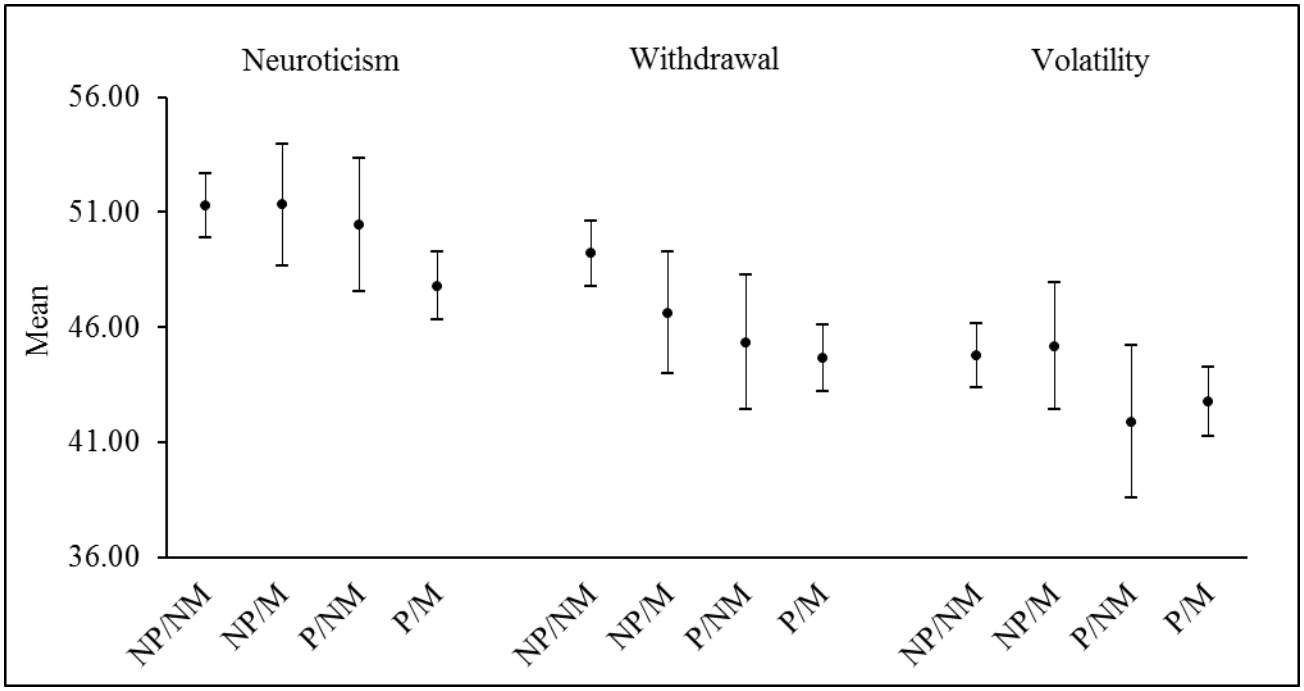


Figure 39. Mean levels of neuroticism and its aspects for the four parental/marital groups. NP = Not Parent; P = Parent; NM = Not Married; M = Married. Error bars represent standard errors.

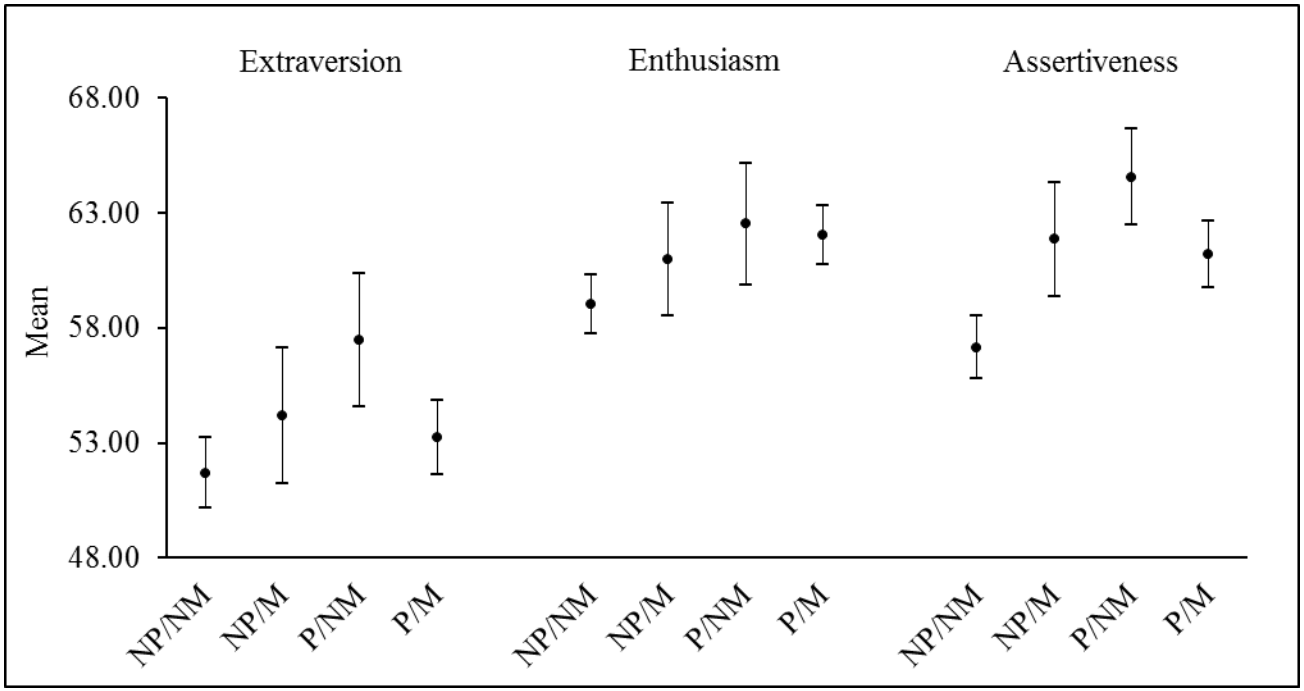


Figure 40. Mean levels of extraversion and its aspects for the four parental/marital groups. NP = Not Parent; P = Parent; NM = Not Married; M = Married. Error bars represent standard errors.

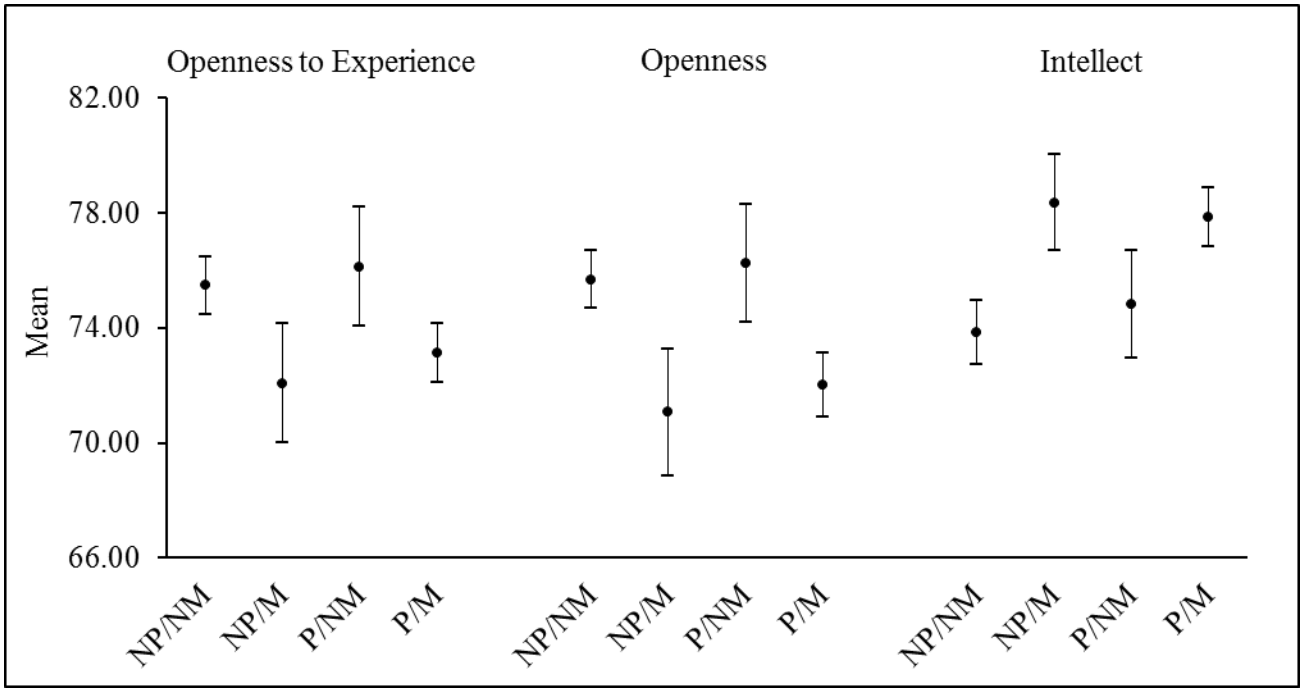


Figure 41. Mean levels of openness to experience and its aspects for the four parental/marital groups. NP = Not Parent; P = Parent; NM = Not Married; M = Married. Error bars represent standard errors.

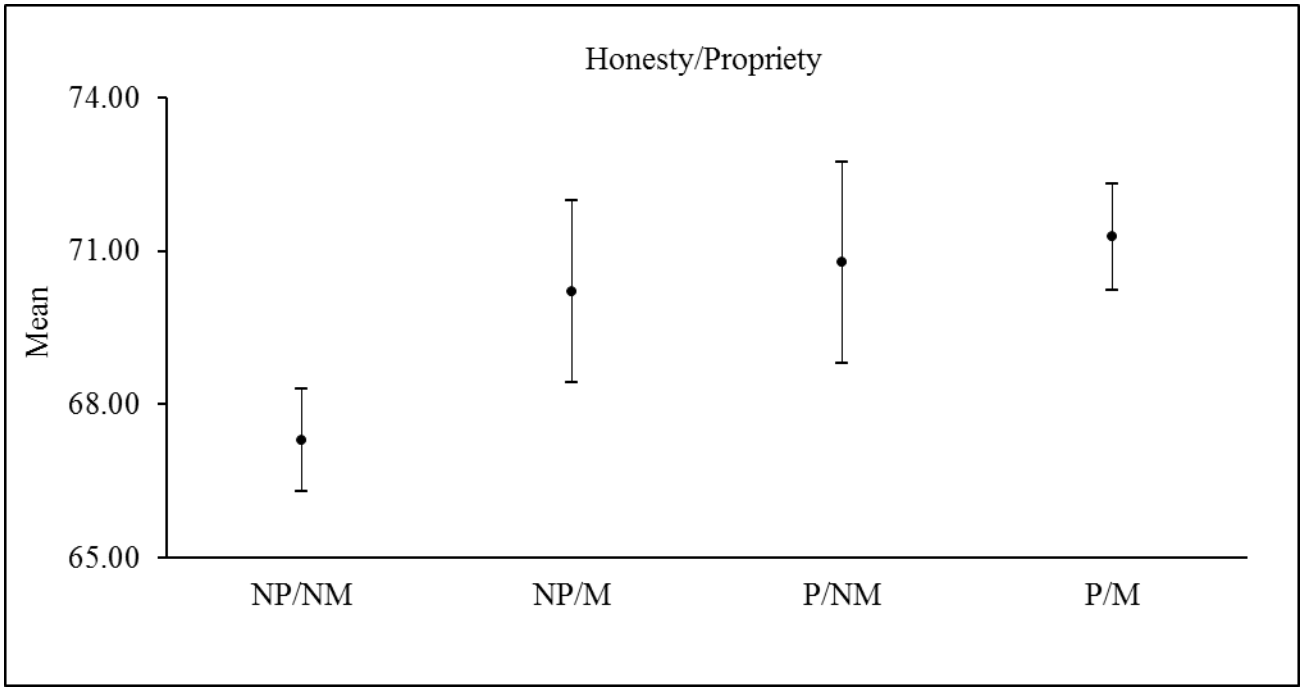


Figure 42. Mean levels of honesty/propriety for the four parental/marital groups. NP = Not Parent; P = Parent; NM = Not Married; M = Married. Error bars represent standard errors.

APPENDIX B

ITEMS AND RESPONSE SCALES

Big Six Personality Trait Domains

Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
1	2	3	4	5

Agreeableness
- Tends to find fault with others (r)
- Is helpful and unselfish with others
- Starts quarrels with others (r)
- Has a forgiving nature
- Is generally trusting
- Can be cold and aloof (r)
- Is considerate and kind to almost everyone
- Is sometimes rude to others (r)
- Likes to cooperate with others

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)

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

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

Openness to Experience
- Is original, comes up with new ideas
- Is curious about many different things
- Is ingenious, a deep thinker
- Has an active imagination
- Is inventive
- Values artistic, aesthetic experiences
- Prefers work that is routine (r)
- Likes to reflect, play with ideas
- Has few artistic interests (r)
- Is sophisticated in art, music, literature

Honesty/Propriety
- Uses flattery to get ahead (r)
- Takes risks that could cause trouble for me (r)
- Uses others for my own ends (r)
- Misrepresents the facts (r)
- Has bad manners (r)
- Would never take things that aren't mine
- Sticks to the rules
- Is not good at deceiving other people
- Avoids activities that are physically dangerous
- Doesn't enjoy taking risks

Big Five Personality Trait Aspects

Extremely inaccurate	Somewhat inaccurate	Neither accurate nor inaccurate	Somewhat accurate	Extremely accurate
1	2	3	4	5

Agreeableness

Compassion
- I am not interested in other people's problems (r)
- I feel others' emotions
- I inquire about others' well-being
- I can't be bothered with others' needs (r)
- I sympathize with others' feelings
- I am indifferent to the feelings of others (r)
- I take no time for others (r)

- I take an interest in other people's lives
- I don't have a soft side (r)
- I like to do things for others

Politeness

- I respect authority
- I insult people (r)
- I hate to seem pushy
- I believe that I am better than others (r)
- I avoid imposing my will on others
- I rarely put people under pressure
- I take advantage of others (r)
- I seek conflict (r)
- I love a good fight (r)
- I am out for my own personal gain (r)

Conscientiousness

Industriousness

- I carry out my plans
- I waste my time (r)
- I find it difficult to get down to work (r)
- I mess things up (r)
- I finish what I start
- I don't put my mind on the task at hand (r)
- I get things done quickly
- I always know what I'm doing
- I postpone decisions (r)
- I am easily distracted (r)

Orderliness

- I leave my belongings around (r)
- I like order
- I keep things tidy
- I follow a schedule
- I am not bothered by messy people (r)
- I want everything to be just right
- I am not bothered by disorder (r)
- I dislike routine (r)
- I see that rules are observed
- I want every detail taken care of

Neuroticism

Withdrawal

- I seldom feel blue (r)
- I am filled with doubts about things
- I feel comfortable with myself (r)
- I feel threatened easily
- I rarely feel depressed (r)

- I worry about things
- I am easily discouraged
- I am not embarrassed easily (r)
- I become overwhelmed by events
- I am afraid of many things

Volatility

- Gets angry easily
- I rarely get irritated (r)
- I get upset easily
- I keep my emotions under control (r)
- I change my mood a lot
- I rarely lose my composure (r)
- I am a person whose moods go up and down
- I am not easily annoyed (r)
- I get easily agitated
- I can be stirred up easily

Extraversion

Enthusiasm

- I make friends easily
- I am hard to get to know (r)
- I keep others at a distance (r)
- I reveal little about myself (r)
- I warm up quickly to others
- I rarely get caught up in the excitement (r)
- I am not a very enthusiastic person (r)
- I show my feelings when I'm happy
- I have a lot of fun
- I laugh a lot

Assertiveness

- I take charge
- I have a strong personality
- I lack the talent for influencing people (r)
- I know how to captivate people
- I wait for others to lead the way (r)
- I see myself as a good leader
- I can talk others into doing things
- I hold back my opinions (r)
- I am the first to act
- I do not have an assertive personality (r)

Openness to Experience

Openness

- I enjoy the beauty of nature
- I believe in the importance of art
- I love to reflect on things

- I get deeply immersed in music
- I do not like poetry (r)
- I see beauty in things that others might not notice
- I need a creative outlet
- I seldom get lost in thought (r)
- I seldom daydream (r)
- I seldom notice the emotional aspects of paintings and pictures (r)

Intellect

- I am quick to understand things
- I have difficulty understanding abstract ideas (r)
- I can handle a lot of information
- I live to solve complex problems
- I avoid philosophical discussions (r)
- I avoid difficult reading material (r)
- I have a rich vocabulary
- I think quickly
- I learn things slowly (r)
- I formulate ideas clearly

Investments

Strongly disagree	Somewhat disagree	Exactly neutral	Somewhat agree	Strongly agree
1	2	3	4	5

Investment in Children

- I am very invested in the lives of my children
- My children are central to my life
- I feel a sense of obligation toward my children
- I feel a strong sense of responsibility for my kids
- Life is worth living when I am absorbed in my kids' lives
- The most important thing in my life is my children
- My life goals are mainly oriented toward my children

Investment in Spouse/Partner

- I like knowing that my spouse (partner) and I form an inseparable unit
- When I imagine what my life will be like in the future, I always see my spouse (partner) standing next to me
- I am completely devoted to my spouse (partner)
- I want to grow old with my spouse (partner)
- I'm dedicated to making my marriage (relationship) as fulfilling as it can be

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