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Associations between Mental Well-Being and Personality from a Life-Span Perspective

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Abstract

The associations between personality traits and mental well-being are analyzed using data from the Jyväskylä Longitudinal Study of Personality and Social Development (initial N = 369; 53% males). At ages 33/36 to 50, the NEO-PI and Scales of Psychological and Social Well-Being as well as indicators of emotional well-being were administered. At ages 8 and 14, socioemotional behaviors were assessed by teachers. First, both genders show high relative continuity in the Big Five personality traits and mental well-being during mid-adulthood. Second, the developmental course of neuroticism and extraversion during mid-adulthood is similar to that of psychological well-being: over 80% of the participants low in neuroticism or high in extraversion are high in psychological well-being. Third, early behavioral activity precedes mental well-being and extraversion.

Associations between Mental Well-Being and Personality from a Life-Span Perspective

Introduction

Empirical studies show that personality traits and mental well-being are associated in adulthood. On the basis of a meta-analysis of 197 samples, DeNeve and Cooper (1998) concluded that personality traits explained about 4% of the variance of emotional well-being. Of the Big Five personality traits, neuroticism was the most consistently associated with emotional well-being: it contributed to low life satisfaction and happiness and to high negative affectivity. More recently, Steel, Schmidt, and Shultz (2008) found in their meta-analysis of 347 samples that the role of the Big Five personality traits in emotional well-being is even more important: 40 to 60% of the variance of emotional well-being was explained by personality traits. In line with DeNeve and Cooper's observations, neuroticism was the trait mostly highly - negatively - linked to different components of emotional well-being, such as happiness, life satisfaction, affectivity, and quality of life. Extraversion was also (positively) associated with emotional well-being, in particular with happiness, life satisfaction, and positive affect. The remaining three personality traits— conscientiousness, openness, and agreeableness—also had some significant associations with specific components of emotional well-being. Steel et al. propose that the different weight given to personality traits as predictors of emotional well-being in the two meta-analyses can be explained by differences in ways of classifying the personality traits and well-being.

The previous empirical studies have, however, some shortcomings. *First*, they have mainly examined the associations between personality traits and emotional well-being, whereas other dimensions of mental well-being, such as psychological and social well-being, have largely been ignored. There are few exceptions: The recent studies by Lamers, Westerhof, Kovács, and Bohlmeijer (2012) and Kokko, Tolvanen, and Pulkkinen (2013a) indicated that, in particular, extraversion and low neuroticism contributed to psychological well-being. These same traits were also related to life satisfaction, but more weakly. The study by Kokko et al., based on the same Jyväskylä Longitudinal Study of Personality and Social Development (JYLS) as used the present article, applied a bivariate latent growth curve analysis to model the associations of the Big Five personality traits with both psychological well-being and life satisfaction. Further, the mental well-being constructs investigated have not been used consistently. For example, Steel et al. (2008) classified psychological well-being under emotional well-being. *Emotional well-being* (also called subjective well-being) has traditionally included such characteristics as an

individual's overall positive evaluation of and satisfaction with life as well as a presence of positive affect and absence of negative affect (Diener, 1984; Diener & Lucas, 1999). *Psychological well-being*, instead, has been described as an individual's realization of his or her true nature, as manifested in one's self-acceptance, positive human relationships, environmental mastery, feeling of autonomy, purposeful life, and personal growth (Ryff, 1989). *Social well-being,* in turn*,* brings a social environmental aspect into previous private and personal definitions of well-being. It refers to the social challenges and tasks an individual is faced with, and is characterized by social acceptance, coherence, integration, contribution, and actualization (Keyes, 1998). In this article, following the definition presented by Keyes (2002), we use the construct of *mental well-being* to refer to a multidimensional phenomenon that includes emotional, psychological and social well-being (Keyes, 2002). In addition to the aforementioned dimensions of mental well-being, Keyes includes, in a complete state of mental health, a lack of mental health problems. This also entails controlling for any indicators of mental problems, such as depression or anxiety.

Personality traits in the previous studies on the associations between personality and mental well-being have been measured utilizing the Big Five model. The same model has been applied in the JYLS. Personality traits refer to the "dimensions of individual differences in tendencies to show consistent patterns of thought, feelings, and actions" (McCrae & Costa, 2003, p. 25). There is broad consensus that the majority of perceived individual differences in personality can be captured by the so called Big Five personality traits of neuroticism (i.e., anxious, self-pitying, tense, and worrying tendencies), extraversion (i.e., active, assertive, and outgoing tendencies), agreeableness (i.e., generous, kind, sympathetic, and trusting tendencies), conscientiousness (i.e., organized, planful, reliable, and responsible tendencies), and openness to experience (i.e., artistic, curious, and imaginative tendencies and wide interests; Caspi, 1998).

A *second* shortcoming in the previous studies is that the links between personality traits and emotional well-being are based on correlative associations obtained at the same time point, and hence it is not known how their mutual associations develop over time. In the JYLS, data were collected at ages 33/36, 42, and 50, which allowed analysis of the long-term connections between personality traits and emotional well-being. *Third*, few studies have empirically analyzed whether personality traits and mental well-being have common predictors in childhood and adolescence. *Fourth*, the role of gender in the links between personality traits and mental

well-being remains largely unexplored. The JYLS can contribute to filling these gaps in the mental well-being literature.

Several theoretical explanations, summarized by Steel et al. (2008), have been proposed for the existence of direct and/or indirect links between personality and mental well-being. Steel and his colleagues argue that a *direct relation* exists if personality and well-being share a biological mechanism or a neural substrate. Examples of these kinds of linkages include biological components such as Gray's behavioral inhibition (BIS) and activation (BAS) systems and the neurotransmitters of dopamine and serotonin. In a study by Elliot and Trash (2002), the BAS was associated with both extraversion and positive affect, that is, extraverts were likely to value and accept the rewards offered by the situation in question. On the other hand, the BIS was related to both neuroticism and negative affect through the avoidance behavior promoted by the tendency of neurotics to attach to punishments. Conversely, as summarized by Steel et al., serotonin has been connected to both neuroticism and depression, and dopamine to both extraversion and the experience of rewards. Furthermore, the same genes are responsible for both the appearance of the personality traits and well-being. In particular, the traits of neuroticism, extraversion, and conscientiousness have been shown to share genetic information with emotional well-being (Weiss, Bates, & Luciano, 2008).

An *indirect association* between personality and well-being is implied, for example, when high extraversion and low neuroticism predispose individuals to certain life events that, further, bring happiness with them (Steel et al., 2008). Another possibility for determining whether the association between personality and well-being is indirect is to see whether there are behaviors that contribute to both. In the present study, we sought common childhood predictors of the participants' personality traits and well-being. One should also bear in mind the possibility of similarities in the constructs and instruments used to measure personality traits and well-being. For instance, there are similarities in the definitions of extraversion and positive affect and also in those of neuroticism and negative affect.

We have previously shown with the JYLS data that the stability estimates of the Big Five personality traits range from .65 to .97 across nine years in early middle adulthood, from age 33 to 42 (Rantanen, Metsäpelto, Feldt, Pulkkinen, & Kokko, 2007). The respective estimate of a latent factor for mental well-being (including emotional, psychological, and social well-being as well as lack of depressive feelings) from age 36 to 42 was .84 (Kokko, Korkalainen, Lyyra, &

Feldt, 2013b). In the present study, we analyzed whether the *relative stability* (i.e., rank-order consistency) of the personality traits and well-being would continue to be high up to age 50. For *absolute stability* (i.e., mean level consistency), we found changes in the level of both traits and life satisfaction: neuroticism decreased and conscientiousness, agreeableness, and life satisfaction increased across ages 36 and 50 (Kokko et al., 2013a). Similar trends in changes in the levels of personality traits (e,g., Roberts, Walton, & Viechtbauer, 2006; Srivastava, John, Gosling, & Potter, 2003) and happiness (e.g., Stone, Schwartz, Broderick, & Deaton, 2010) have also been found by other researchers, mainly in cross-sectional comparisons. Less is known about the absolute stability of psychological well-being.

Changes in the mean levels of personality traits and mental well-being tend towards higher emotional stability. One can speculate that they might also capture the same aspects of an individual's functioning. Here, we take a *lifespan view* on the developmental links and their common antecedents. On this view, human development occurs throughout life from conception to old age, and is not dominated by any one stage (Baltes, Reese, & Lipsitt, 1980).

The present study

In this study, we analyzed the associations between personality traits and mental well-being from three perspectives. *First*, we analyzed whether personality traits and mental well-being show similar relative stability during later middle adulthood. *Second*, we examined whether personality traits and mental well-being show reciprocal links in middle adulthood when both their levels and developmental trends are taken into account. *Third*, we investigated whether personality traits and mental well-being have common roots in childhood and adolescent socioemotional behaviors. In all our analyses, the role of gender was taken into account.

We expected that similar relative stability to that found for both personality traits and mental well-being from the thirties to age 42 would also be observed from age 42 to 50 in the JYLS data. Our expectation was based on previous studies that have reported no changes in the relative stability of personality traits from age 30 to 50, after which it has shown contradictory trends, either increasing (Roberts & DelVecchio, 2000) or decreasing (Ardelt, 2000). We also assumed that the Big Five personality traits and mental well-being, particularly psychological well-being, would show similar developmental trends across time when analyzed in sub-groups (differing both in the level and developmental course) defined by the characteristic in question and that these sub-groups would associate with each other. That is, participants low on

neuroticism and high in extraversion would be likely to follow a developmental trajectory of high psychological well-being.

We have previously analyzed, using the JYLS data, such child characteristics as behavioral activity, well-controlled behavior, and negative emotionality as predictors of their respective adult personality characteristics (Pulkkinen, Kokko, & Rantanen, 2012). The selected child characteristics reflect temperament traits of surgency (i.e., positive emotions, activity, and approaching other people and new situations), effortful control (i.e., persistence, high self-regulation, behavioral constraint, and attentiveness), and negative affectivity (i.e., anger, frustration, and fearfulness; Rothbart & Derryberry, 2002), respectively. As shown in Figure 1, behavioral activity measured at age 8 was consistently related to extraversion, openness, sociability, and surgency at age 42 among males (Pulkkinen et al., 2012). Females showed fewer significant associations between child and adult characteristics. Well-controlled behavior at ages 8 and/or 14 contributed to adult conscientiousness and conformity in both females and males. Finally, negative emotionality at age 14 was associated with aggression at age 42 in males; adult neuroticism was not preceded by child emotionality. In light of these results, we expected in the present study to find that, in particular, child behavioral activity also contributes to adult mental well-being, which has been associated with extraversion. We assumed this association would be stronger among males than females, since behavioral activity at age 8 predicted adult extraversion more highly and with a larger spectrum in males than in females.

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Figure 1 about here

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The Jyväskylä Longitudinal Study of Personality and Social Development

The present analyses were based on the Jyväskylä Longitudinal Study of Personality and Social Development (JYLS), where the same participants have been followed from ages 8 to 50 (Pulkkinen, 2006, 2009). The initial sample consisted of 12 complete classes of second-grade pupils who were randomly selected for the study in 1968. The 12 classes comprised 369 pupils, 173 girls and 196 boys, of around 8 years of age (born in 1959). All the selected pupils took part in the study, and thus the initial attrition rate was zero. Since the first data collection, the main data collections have taken place when at ages 14 (in 1974), 20 (1980), 27 (1986), 33 (1992), 36 (1995), 42 (2001), and 50 (2009). In childhood and adolescence, the main focus of the JYLS was

on socioemotional behavior and its development (Pulkkinen, 2006). Teachers and peers assessed school-aged children's behaviors on items reflecting such characteristics as self-control and behavioral activity, which, in different combinations, are involved in various types of socio-emotional behavior such as aggressive, anxious, constructive, and compliant behaviors. Across the years, from early adulthood to middle age, the topics of interest have expanded to include many essential areas of adult life, such as employment, family, leisure time, physical health and health behaviors, social integration, personality, and mental well-being. Since age 27, the data collection phases have begun with a mailed Life Situation Questionnaire (LSQ), followed by a psychological interview with several self-report inventories. Further, at ages 42 and 50, a medical examination with laboratory tests has been conducted. At any given age, the majority of the participants have taken part in all these different data collection methods (i.e., LSQ, interview, medical examination), the exact number varying slightly depending on the method in question.

In the present study, we used information collected at ages 8, 14, 33 or 36, 42, and 50. At least two unique features characterize the JYLS: first, its long duration and, second, the high retention rate of the participants over the years. By age 50, 12 participants had died and 34 participants had refused to participate any further in the study, thus decreasing the eligible sample size from 369 to 323. Of these, 271 (84%; 127 women and 144 men) took part in the age-50 data collection (Pulkkinen & Kokko, 2012). The number of participants in the present analyses varied from 369 (females 173, males 196) to 210 (females 103, males 107). It is notable that the age-50 participants did not differ from non-participants in socioemotional behavior or school success at age 8 (Pulkkinen & Kokko, 2010). Further, the participants represented the Finnish-age cohort group born in 1959 when compared to the information provided by Statistics Finland in, for example, family situation, education, and employment rate. At age 50, 56% of the participants were married, 86% had children, 88% had an occupational or academic education, and 81% were employed (of whom 9% were entrepreneurs).

Here, we used several well-known self-report inventories related to adult personality traits and well-being, such as the NEO Personality Inventory (Costa & McCrae, 1989), Brief Mood Introspection Scale (Feldman, 1995; Mayer & Gaschke, 1988), Scales of Psychological Well-Being (Ryff, 1989), Scales of Social Well-Being (Keyes, 1998), and General Behavior Inventory (depression subscale; Depue, 1987). Additionally, we included questions on life

satisfaction in seven life areas (Pulkkinen, Feldt, & Kokko, 2005). Information on childhood and adolescent characteristics was based on teacher ratings of the participants' behavioral activity, well-controlled behavior, and negative emotionality (Pulkkinen et al., 2012). Further details of the present measures are provided in Table 1.

Table 1 about here

To analyze our research questions, we applied advanced statistical methods, such as structural equation modeling in the Mplus statistical package (Muthén & Muthén, 1998−2012) and the analysis of developmental trajectories in the SAS-based procedure (Jones, Nagin, & Roeder, 2001; Nagin, 1999).

Results

Relative Stability of Personality Traits and Mental Well-Being from Age 42 to 50

As Figure 2 shows, considerable relative stability was observed in the personality traits from age 42 to 50 analyzed using Mplus structural equation modeling with item parcels for the personality traits. For each trait, two parcels, each comprising the means of six items, were created (see Rantanen et al., 2007). The sample size was not large enough to create personality trait factors with these observed 12 items. The model fitted the data well. For comparative purposes, we present the respective stability coefficients from age 33 to 42 in the figure. From age 33 to 42, the relative stability of both neuroticism and extraversion was higher among men than women (Rantanen et al., 2007). From age 42 to 50, no gender differences in stability emerged. As also found at an earlier age, of all five personality traits, the relative stability of extraversion and openness were the highest.

Figure 2 about here

Furthermore, we also investigated the relative stability of a latent factor for mental well-being from age 42 to 50, again applying structural equation modeling with both a factor and a regression component. We formed a multidimensional latent factor for mental well-being from emotional well-being (consisting of positive mood, reversed negative mood, life satisfaction, and happiness), psychological well-being, social well-being, and (lack of) depression (see also

Kokko et al., 2013b; Figure 3). The model fitted the data well. The stability estimate from age 42 to 50 was .84 for both women and men. In order to make the estimate comparable to the analyses run for ages 36 (when social well-being was not available) and 42, we excluded social well-being. The relative stability of the latent factor for mental well-being was, in this case, .79 - close to the (age 36 to 42) coefficient of .84 (found from age 36 to 42).

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Figure 3 about here

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Developmental Trajectories of Neuroticism, Extraversion, Conscientiousness, Openness, Agreeableness, and Psychological Well-Being at Ages 33/36, 42, and 50

We demonstrated above that the relative stability of the Big Five personality traits and mental well-being remains high during mid-adulthood. However, this does not say anything about the absolute (i.e., mean level) stability of these characteristics or whether there are sub-groups of individuals who follow different developmental trajectories (in terms of both level and developmental course) and whether these trajectories of personality and well-being are linked. Consequently, we investigated the developmental trajectories of neuroticism, extraversion, conscientiousness, openness, agreeableness, and psychological well-being from age 33/36 through 42 to 50, the mutual links between the traits and well-being, and gender as a predictor of belonging to a specific trajectory using semi-parametric mixture modeling (Nagin, 1999, 2005). Here we were particularly interested in psychological well-being as a mental well-being indicator for two reasons: *first*, it has been less systematically investigated than emotional well-being, especially in a longitudinal perspective and, *second*, our previous JYLS-based results, analyzed using a bivariate latent growth curve analysis, showed that personality traits contributed more strongly to psychological well-being than life satisfaction (a measure of emotional well-being) (Kokko et al., 2013a). For social well-being, we unfortunately had no measure available at age 36.

Semi-parametric mixture modeling enables distinct sub-groups of individuals following different developmental trajectories in the study population to be identified. Further, the proportion of the study population following each trajectory can be estimated and individuals assigned to the trajectory group they most likely belong to. It is also possible to analyze joint trajectories and predictors of trajectory group membership. Estimation of the present trajectories

was based on the censored normal model (Nagin, 1999). The selection of the optimal number of groups and the shapes of trajectories were guided by the Bayesian information criterion (BIC).

For *neuroticism*, a three-group model with two statistically significant quadratic trajectory shapes and one stable shape was selected on the basis of the BIC as the best-fitting model (Figure 4). The trajectory groups were labeled as follows: 1) low, decreasing (quadratic; n = 87, 38.2% of the participants); 2) moderate, decreasing (quadratic; n = 111, 48.7%); and 3) high, stable (n = 30, 13.2%). Participants on the "low" trajectory were the least neurotic at ages 33, 42, and 50, their neuroticism decreasing still further from age 33 to 42. Participants in the "moderate" trajectory followed the same (decreasing) developmental trend. A small group of participants followed a trajectory of stable high neuroticism from age 33 to 50.

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Figure 4 about here

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According to the maximum likelihood probability rule, individuals on a given trajectory should have a higher mean probability of assignment to this group compared to other groups. It is generally assumed that values higher than .80 imply a good fit of the model to the data (Nagin, 2005). For all three trajectories of neuroticism, the mean probabilities of assignment were high, ranging from .90 to .94, indicating relatively small amounts of classification uncertainty.

For *extraversion*, according to the BIC, a four-group model with stable trajectory shapes was selected as the best-fitting model. The trajectory groups can be described as follows: 1) low, stable (n = 16, 7.0%); 2) lower moderate, stable (n = 85, 37.4%); 3) higher moderate, stable (n = 95, 41.9%); and 4) high, stable (n = 31, 13.7%). The mean probabilities of assignment to the trajectory groups were high, from .82 to .88. All the trajectories remained stable in their extraversion scores from age 33 to 50; the groups differed from each other only in the level of the characteristic.

For *conscientiousness*, a four-group model with three stable trajectory shapes and one linear shape was selected as the best-fitting model on the basis of the BIC value. The following trajectory groups were obtained: 1) low, stable (n = 21, 9.2% of the participants); 2) lower moderate, stable (n = 96, 42.1%); 3) higher moderate, increasing (n = 85, 37.3%); and 4) high, stable (n = 26, 11.4%). The mean probabilities of assignment to the trajectory groups were high, from .82 to .86. The major difference between the groups was in the level of conscientiousness,

which varied from relatively low to high, while the developmental trend was stable, indicating no change in the conscientiousness score from age 33 to 50. An exception was the higher moderate group in which conscientiousness significantly increased from age 33 to 42.

For *openness*, the BIC favored the four-group model with stable trajectory shapes. The trajectory groups were the following: 1) low, stable ($n = 29$, 12.8%); 2) lower moderate, stable ($n = 78$, 34.4%); 3) higher moderate, stable ($n = 81$, 35.7%); and 4) high, stable ($n = 39$, 17.2%). The mean probabilities of assignment to the trajectory groups were high, from .88 to .92. The only difference between the groups was in the level of openness, which remained stable over time and varied from relatively low to high.

For *agreeableness*, a four-group model was selected on the basis of the BIC value. Three of the trajectories were linear in shape and increasing, and one (the highest) trajectory was stable. The trajectory groups were as follows: 1) low, increasing ($n = 16$, 7.0%); 2) lower moderate, increasing ($n = 89$, 39.2%); 3) higher moderate, increasing ($n = 106$, 46.7%); and 4) high, stable ($n = 16$, 7.0%). The mean probabilities of assignment to the trajectory groups were high, from .88 to .95. The major difference between the groups was in the level of agreeableness. In the first three groups, agreeableness statistically significantly increased throughout the period studied, i.e., from age 33 to 50.

For *psychological well-being*, a three-group model with stable trajectory shapes was selected as the best-fitting model. The trajectory groups were as follows: 1) low, stable ($n = 60$, 24.0% of the participants); 2) moderate, stable ($n = 115$, 46.0%); and 3) high, stable ($n = 75$, 30.0%). The mean probabilities of assignment to the trajectory groups were again high, from .84 to .88. The groups differed from each other only in level of psychological well-being, which within each group remained stable over time, from age 33 to 50.

We tested the role of gender in the developmental trajectories by analyzing gender as a predictor of trajectory group membership. In the comparisons for each set of trajectories, the lowest group was set as the comparison group. The coefficient estimates assess how the predictor in question affects the probability of membership of a particular trajectory group relative to membership of the comparison group (Nagin, 2005, pp. 100–101). In the present study, gender was not a significant predictor (i.e., *p*-values were > .05) of membership of any of the trajectory group, except for agreeableness. Compared to women, men were less likely to belong to the groups of higher moderate ($p = .008$) and high agreeableness ($p = .006$) than to a group

characterized by low agreeableness. In the following dual trajectory analyses, we did not take gender into account.

Dual Trajectories between Personality Traits and Psychological Well-Being

In order to analyze the links between the developmental trajectories of the personality traits and psychological well-being from age 33/36 to 42 to 50, we employed so called dual or joint trajectory analysis. Using this type of analysis, probabilities linking memberships in two different trajectory sets can be obtained. According to Nagin (2005), "compared with the use of a single summary statistic to measure the association of two outcomes, the linking probabilities provide a far more detailed and varied summary of the developmental connections between the two outcomes under study" (p. 141).

As Table 2 shows, the participants in the trajectory of low neuroticism had a 88% chance of following the trajectory for high psychological well-being and a 0% probability of following the trajectory for low psychological well-being. The participants in the trajectory for moderate neuroticism had the highest probability (66%) of following the trajectory for moderate psychological well-being and an equal chance of belonging to either the low (17%) or high (16%) trajectory for psychological well-being. Finally, the participants high in neuroticism were likely (77%) to be low, and very unlikely (0%) to be high in psychological well-being.

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Table 2 about here

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The participants who followed the trajectory for low extraversion had a very high probability (96%) of being in the trajectory for low psychological well-being (Table 2). The reverse pattern was also found: the probability for highly extraverted participants of following the trajectory for high psychological well-being was 84%. The participants in the lower moderate trajectory were equally likely to be in the low (37%) and moderate (48%) trajectory for well-being: only 15% of them were high in well-being, whereas none of the participants in the higher moderate trajectory for extraversion was in the low trajectory for psychological well-being; instead, they were either moderate (55%) or high (45%) in well-being.

The patterns observed for conscientiousness and openness were less clear. As Table 2 shows, the participants who were in the high trajectory for conscientiousness had a 66% chance

of also following the high trajectory for psychological well-being; however, as many as 20% were likely to be low in psychological well-being. On the other hand, individuals low in conscientiousness were equally likely to follow the trajectories of low (44%) or moderate (40%) psychological well-being. Lower moderate individuals were most likely also to be moderate in psychological well-being (55%): they were equally distributed between low (23%) and high (22%) psychological well-being. The participants in the higher moderate trajectory for conscientiousness were equally likely to follow either the moderate (45%) or high (45%) trajectory for psychological well-being.

The individuals who followed the trajectory of high openness had a 55% chance of following the high trajectory and a 40% chance of following the moderate trajectory for psychological well-being; only 5% of the highly open participants were likely to be low in psychological well-being (Table 2). For comparison, the participants in the low trajectory for openness had an 18% chance of following the high trajectory for psychological well-being, and were equally likely to follow either the low (41%) or moderate trajectory (40%) for psychological well-being. The participants in the lower and higher moderate trajectories of openness were also most likely (58% and 46%, respectively) to be moderate in psychological well-being. Participants lower moderate in openness were unlikely (10%) to be high in well-being; the corresponding figure for higher moderate individuals was 41%.

Finally, as shown in Table 2, individuals in the high trajectory for agreeableness were also likely (82%) to follow the trajectory for high psychological well-being, whereas they were unlikely (6%) to be low in well-being. The participants in the low trajectory for agreeableness had a 48% chance of being low in well-being. However, it is noteworthy that as many as 37% of the low agreeable individuals were likely to be high in psychological well-being. Individuals in the lower moderate trajectory for agreeableness were most likely (58%) to be moderate in psychological well-being; only 17% of them were high in well-being. The higher moderate individuals in agreeableness were rather evenly distributed between moderate (39%) and high (49%) psychological well-being, and had a low chance (12%) of being low in well-being.

Child and Adolescent Socioemotional Behaviors as Antecedents of Mental Well-Being at Age 42

Our third research question concerned the early antecedents of adult mental well-being. As mentioned above, we have previously investigated behavioral activity, well-controlled behavior,

and negative emotionality at ages 8 and 14 as predictors of the personality characteristics at age 42 (see Figure 1). The most consistent associations were found for behavioral activity preceding adult characteristics that indicated extraversion, particularly among males (Pulkkinen et al., 2012). In this study, we analyzed whether these same early antecedents contributed to mental well-being, including emotional (positive and negative mood, happiness, and life satisfaction), psychological, and social well-being as well as (low) depression, at age 42. Table 3 shows the correlations between the participants' age-8 and age-14 socioemotional behaviors and various indicators of their mental well-being at age 42. As can be seen, there are a few statistically significant correlations: Among females, well-controlled behavior at age 8 was linked with happiness and positive mood (the latter is a trend) at age 42. Further, behavioral activity at age 14 was positively associated with adult social well-being, whereas negative emotionality at the same age was negatively associated with adult psychological well-being. Among males, behavioral activity at ages 8 and 14 contributed to adult psychological well-being and positive mood, respectively. Finally, unexpectedly, well-controlled behavior at age 14 was negatively associated with adult happiness.

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Table 3 about here

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We next analyzed, using the structural equation modeling in Mplus, how the latent factors (consisting of item parcels) for the three socioemotional behaviors, that is, behavioral activity, well-controlled behavior, and negative emotionality at both age 8 and 14 associate with a latent factor for mental well-being at age 42. As shown in Figure 5, in both males and females, behavioral activity at age 8 manifested significant continuity to age 14. Further, behavioral activity at age 14 was, in both genders, significantly linked to a latent mental well-being factor at age 42. The model fitted the data well. Neither well-controlled behavior nor negative emotionality was associated with adult mental well-being.

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Figure 5 about here

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Conclusions

Our main aim in this study was to obtain further understanding of the links between personality and multidimensional mental well-being. To achieve this aim, we applied three perspectives, all longitudinal. We compared, *first*, the relative stability of the personality traits and mental well-being, *second*, their developmental trajectories within mid-adulthood, and, *third*, whether they have common roots in child and adolescent socioemotional behaviors. We took into account the possibility of finding gender differences in the studied associations. In line with the first hypothesis, the results indicated that, at ages 33/36 to 42 and 42 to 50, the relative stability of the personality and of a latent factor for mental well-being is both comparable and high, and also, for the most part, similar for women and men.

Further, as posited in the second hypothesis, the developmental trajectories (taking the absolute level and developmental course into account) of the personality traits and psychological well-being from age 33/36 to 42 and 42 to 50 were similar. In both age phases, groups were identified who had a low, moderate, or high level in the characteristic in question. The high group was consistently the smallest, accounting for about 10% (7 - 17%) of the participants. The main trend was for no change in the level across the studied ages, except for that of neuroticism (where the two lowest groups decreased further), conscientiousness (where the moderate group increased), and agreeableness (where the low and moderate groups increased). As expected, the trajectories of the traits, particularly those of neuroticism and extraversion, and psychological well-being were highly linked. Among the participants in a low trajectory for neuroticism and a high trajectory for extraversion, over 80% were likely to follow a high trajectory for psychological well-being. None of the participants high in neuroticism or low in extraversion was high in well-being.

We found some support for the third hypothesis on the contribution of early behavioral activity to adult mental well-being. In both genders, behavioral activity at age 8 was linked to the same behavior at age 14, which further contributed to adult mental well-being. Contrary to our expectations, the relation was not stronger among males than females.

On the basis of the present results, our main conclusion on the association between the personality traits in adulthood and mental well-being is that they are highly linked, with the following caveats. Of the traits, low neuroticism and high extraversion were most strongly associated with mental well-being; the other traits had less consistent links. It is for future research to determine whether conscientiousness might have nonlinear associations with mental

well-being - as many as one in five of the highly conscientious individuals had low psychological well-being. These results replicate those previously obtained with latent bivariate growth curve analysis (Kokko et al., 2013a) as well as with trajectory analysis. Extending earlier findings, these results indicate that the Big Five traits and well-being not only have correlative associations at a single time point but also follow similar developmental trends over time. Moreover, in the majority of the earlier studies well-being has been defined as an emotional state (i.e., positive and negative affectivity, general happiness and satisfaction); less is known about the correlates of psychological well-being (e.g., self-actualization). It seems that the latter has even stronger links to personality (Kokko et al., 2013a).

The analysis of the question of whether childhood socioemotional behavior predicts personality traits and mental well-being resulted in the finding that only behavioral activity was significantly associated with both. In males, behavioral activity at age 8 predicted extraversion, openness, sociability, and surgency at age 42. Male behavioral activity at age 8 was not, however, directly linked to mental well-being at age 42. A positive connection via behavioral activity was, however, found at age 14. In females, behavioral activity at age 8 did not predict personality traits or mental well-being. However, positive links via behavioral activity at age 14 to both sociability and mental well-being at age 42 were obtained.

It seems that well-being in adulthood is an outcome of continuous interaction with one's success in social tasks, such as education and working career, and social relationships that are supported by adaptive socioemotional behaviors at ages 8 and 14 (Pulkkinen, Feldt, & Kokko, 2006; Pulkkinen, Lyyra, & Kokko, 2011), a supportive family environment, and high school achievement (Pulkkinen, Nygren, & Kokko, 2002). In future studies, it would be important to include adult social functioning in analyses of the links between personality traits and multidimensional well-being.

Acknowledments

References

Ardelt, M. (2000). Still stable after all these years? Personality stability theory revisited. *Social Psychology Quarterly*, 392–405.

Baltes, P. B., Reese, H. W., & Lipsitt, L. P. (1980). Life-span developmental psychology. *Annual Review of Psychology, 31,* 65–110.

Caspi, A. (1998). Personality development across the life course' in W. Damon (Series Ed.), & N. Eisenberg (Vol. Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development, 5th ed.* (pp. 311–388). New York: Wiley.

Costa, P. T. Jr., & McCrae, R. R. (1989). *The NEO/NEO-FFI Manual Supplement*, Psychological Assessment Resources, Odessa, FL.

DeNeve, K. M., & Cooper, H. (1998). The happy personality: A meta-analysis of 137 personality traits and subjective well-being. *Psychological Bulletin, 124,* 197–229.

Depue, R. (1987). *General Behavior Inventory*. Department of Psychology. Ithaca, NY: Cornell University, Department of Psychology.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95,* 542–575.

Diener, E., & Lucas, R. E. (1999). Personality and subjective well-being. In D. Kahneman, E. Diener, & N. Schwartz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 213–229). New York: Russell Sage Foundation.

Elliot, A. J., & Thrash, T. M. (2002). Approach-avoidance motivation in personality: approach and avoidance temperaments and goals. *Journal of Personality and Social Psychology, 82*, 804–818.

Feldman, L. A. (1995). Valence arousal and arousal focus: Individual differences in the structure of affective experience. *Journal of Personality and Social Psychology, 69,* 153–166.

Jones, B. L., Nagin, D. S., & Roeder, K. (2001). A SAS procedure based on mixture models for estimating developmental trajectories. *Sociological Methods and Research, 29,* 374–393.

Keyes, C. L. M. (1998). Social well-being. *Social Psychology Quarterly, 61,* 121–140.
Keyes (2002)

Kokko, K., Korkalainen, A., Lyyra, A.-L., & Feldt, T. (2013b). Structure and continuity of well-being in mid-adulthood: A longitudinal study. *Journal of Happiness Studies, 14,* 99–114.

Kokko, K., Tolvanen, A., & Pulkkinen, L. (2013a). Associations between personality traits and psychological well-being across time in middle adulthood. *Journal of Research in Personality, 47,* 748–756.

Kokkonen, M. (2001). *Emotion regulation and physical health in adulthood: A longitudinal, personality-oriented approach.* (Jyväskylä Studies in Education, Psychology and Social Research, No. 184). Jyväskylä, Finland: University of Jyväskylä.

Lamers, S., Westerhof, G. J., Kovács, V., & Bohlmeijer, E. T. (2012). Differential relationships in the association of the Big Five personality traits with positive mental health and psychopathology. *Journal of Research in Personality*, *46,* 517–524.

Mayer, J. D., & Gaschke, Y. N. (1988). The experience and meta-experience of mood. *Journal of Personality and Social Psychology*, *55,* 102–111.

McCrae, R. R., & Costa, T. T. Jr., (2003). *Personality in adulthood: A five-factor theory perspective.* New York: The Guilford Publications.

Muthén, L. K., & Muthén, B. O. (1998–2012). *Mplus User's Guide. Seventh Edition.* Los Angeles, CA: Muthén & Muthén.

Nagin, D. S. (1999). Analyzing developmental trajectories: A semi-parametric, group-based approach. *Psychological Methods, 4,* 139–177.

Nagin, D. S. (2005). *Group-based modeling of development.* Cambridge: Harvard University Press.

Perho, H., & Korhonen, M. (1993). Elämänvaiheiden onnellisuus ja sisältö keski-iän kynnyksellä [Happiness and content of different life phases in the frontier of midadulthood]. *Gerontologia, 7,* 271–285.

Pulkkinen, L. (2006). The Jyväskylä Longitudinal Study of Personality and Social Development. In L. Pulkkinen, J. Kaprio, & R. J. Rose (Eds.), *Socioemotional development and health from adolescence to adulthood* (pp. 29–55). New York: Cambridge University Press.

Pulkkinen, L. (2009). Personality – a resource or risk for successful development. *Scandinavian Journal of Psychology, 6,* 602–610.

Pulkkinen, L., Feldt, T., & Kokko, K. (2006). Adaptive behavior in childhood as an antecedent of psychological functioning in early middle age: Linkage via career orientation. *Social Indicators Research, 77,* 171–195.

Pulkkinen, L., Feldt, T., & Kokko, K. (2005). Personality in young adulthood and functioning in middle age. In S. Willis and M. Martin (Eds.), *Middle adulthood: A lifespan perspective* (pp. 99–141). Thousand Oaks, CA: Sage Publications.

Pulkkinen, L., & Kokko, K. (Eds.) (2010). *Keski-ikä elämänvaiheena* [Middle age as a stage of

life]. Psykologian laitoksen julkaisuja, Nro. 352. Jyväskylä: Jyväskylän yliopisto.

Pulkkinen, L., & Kokko, K. (2012). Foundational issues in longitudinal data collection. In B. Laursen, T. D. Little, & N. A. Card (Eds.), *Handbook of developmental research methods* (pp. 129–147). New York, NY: The Guilford Press.

Pulkkinen, L., Kokko, K., & Rantanen, J. (2012). Paths from socioemotional behavior in middle childhood to personality in middle adulthood. *Developmental Psychology, 48,* 1283–1291.

Pulkkinen, L., Lyyra, A.-L., & Kokko, K. (2009). Life success of males on nonoffender, adolescence-limited, persistent, and adult-onset antisocial pathways: Follow-up from age 8 to 42. *Aggressive Behavior, 35,* 1–19.

Pulkkinen, L., Nygren, H., & Kokko, K. (2002). Successful development: Childhood antecedents of adaptive psychosocial functioning in adulthood. *Journal of Adult Development, 9,* 251–265.

Rantanen, J., Metsäpelto, R.-L., Feldt, T., Pulkkinen, L., & Kokko, K. (2007). Long-term stability in the Big Five personality traits in adulthood. *Scandinavian Journal of Psychology, 48,* 511–518.

Roberts, B. W., & DelVecchio, W. F. (2000). The rank-order consistency of personality traits from childhood to old age: a quantitative review of longitudinal studies. *Psychological Bulletin*, *126,* 3–25.

Roberts, B. W., Walton, K. E., & Viechtbauer, W. (2006). Patterns of mean-level change in personality traits across the life course: A meta-analysis of longitudinal studies. *Psychological Bulletin, 132,* 1–25.

Rothbart, M. K., & Derryberry, D. (2002). Temperament in children. In C. Hofsten, & L. Bäckman (Eds.), *Psychology at the turn of the millennium: Social, developmental, and clinical perspectives. Vol. 2* (pp. 17-35). East Sussex, England: Psychology Press.

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

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

Steel, P., Schmidt, J., & Shultz, J. (2008). Refining the relationship between personality and

subjective well-being. *Psychological Bulletin, 134,* 138–161.

Stone, A. A., Schwartz, J. E., Broderick, J. E., & Deaton, A. (2011). A snapshot of the age distribution of psychological well-being in the United States. *PNAS.* 10.1073/pnas.1003744107

Weiss, A., Bates, T. C., & Luciano, M. (2008). Happiness is a personal(ity) thing: The genetics of personality and well-being in a representative sample. *Psychological Science, 19,* 205–210.

Table 1
The Measures and Variables Used

Measure	Variable, item example, response scale, Cronbach's alpha
Personality traits at ages 33, 42, and 50	
NEO Five-Factor Inventory (Costa & McCrae, 1989)	
- Neuroticism, extraversion, openness, conscientiousness, and agreeableness - One-tenth of items are substitutes for the original American items	- A mean score of 12 items (e.g., "I have a lot of intellectual curiosity" for openness) was calculated for each personality trait (Kokko et al., 2013a) - Response scale varied from 1 = strongly disagree to 5 = completely agree - Cronbach's alphas ranged from .74 (conscientiousness at age 33) to .88 (neuroticism at age 33)
Mental well-being at ages 36, 42, and 50	
Brief Mood Introspection Scale (Feldman, 1995; Mayer & Gaschke, 1988)	
- Positive mood and negative mood	- Mean score of two items (e.g., "My present mood is satisfied") for positive mood, and of five items (e.g., "My present mood is frightened") for negative mood (Kokkonen, 2001) - Response scale varied from 1 = does not describe my mood at all to 4 = describes my mood very well - Cronbach's alphas ranged from .64 (negative mood at age 50) to .84 (positive mood at age 42)
Life satisfaction (Pulkkinen et al., 2005)	
- Satisfaction with seven life areas, such as housing, financial situation, choice of occupation, present occupational situation, present intimate relationship or lack of one, content of leisure time, and present state of friendships	- Mean score for satisfaction with these seven life areas (Kokko et al., 2013b) - Response scale varied from 1 = very dissatisfied to 4 = very satisfied - Cronbach's alphas ranged from .55 (at age 36) to .65 (at age 42)
Mood line (Perho & Korhonen, 1993)	
- Happiness	- One item: "How happy or satisfied have you been during the different stages in your life?" (Kokko et al., 2013) - Response scale varied from -3 = very unhappy or dissatisfied to +3 = very happy or satisfied
Scales of Psychological Well-Being (Ryff, 1989)	
- Psychological well-being	- Mean score of 18 items (e.g., "When I look at

	the story of my life, I am pleased with how things have turned out"; Kokko et al., 2013b) - Response scale varied from 1 = strongly disagree to 4 = strongly agree - Cronbach's alphas ranged from .72 (at age 36) to .77 (at age 50)
Scales of Social Well-Being (Keyes, 1998)	
- Social well-being (not available at age 36)	- Mean score of 15 items (e.g., "I have something valuable to give the world"; Kokko et al., 2013b) - Response scale varied from 1 = strongly disagree to 4 = strongly agree - Cronbach's alphas ranged from .75 (at age 42) to .79 (at age 50)
General Behavior Inventory (Depue, 1987)	
- Depression	- Mean score of 16 items (e.g., "Have you become sad, depressed or irritable for several days or more without really understanding why?"; Kokko et al., 2013b) - Response scale varied from 1 = never to 4 = very often - Cronbach's alphas ranged from .89 (at age 36) to .93 (at age 50)
Socioemotional behavior at ages 8 and 14	
Behavioral activity (Pulkkinen et al., 2012)	- At age 8, mean score of three teacher-rated items (e.g., "Always busy and plays eagerly with other children during breaks and after school hours") - Response scale varied from 0 = does not apply at all to the pupil in question to 3 = is very typical of the pupil in question - Cronbach's alpha was .77 - At age 14, mean score of two teacher-rated items (e.g., "Is energetic, always on the go, often has contact with others") - Response scale varied from 0 = least prominent to 100 = most prominent - Cronbach's alpha was .84
Well-controlled behavior (Pulkkinen et al., 2012)	- At age 8, mean score of four teacher-rated items for constructiveness (e.g., "Is considered reliable"), three for compliance (e.g., "Never quarrels with others"), and one for thoughtfulness ("Always tried to be friendly to others") - Response scale varied from 0 = does not apply at all to the pupil in question to 3 = is very

	typical of the pupil in question
	- Cronbach's alpha was .91
	- <u>At age 14</u>, mean score of one item each for constructiveness ("Tries to solve annoying situations reasonably, negotiates, conciliates, strives for justice"), compliance ("Is peaceable, patient, adjustable"), and thoughtfulness ("Is reliable, keeps promises, does not get excited")
	- Response scale varied from 0 = least prominent to 100 = most prominent
	- Cronbach's alpha was .77
Negative emotionality (Pulkkinen et al., 2012)	- <u>At age 8</u>, mean score of eight teacher-rated items for aggressiveness (e.g., "Hurts another child when angry"), three for anxiety (e.g., "Is afraid of other children"), and two for low control ("Is inattentive and lacks concentration in his or her work")
	- Response scale varied from 0 = does not apply at all to the pupil in question to 3 = is very typical of the pupil in question
	- Cronbach's alpha was .86
	- <u>At age 14</u>, a mean score of one item each for aggressiveness ("Attacks without reason, teases others, says naughty things"), anxiety ("Is fearful, helpless in others' company, target of teasing, unable to defend"), and low control ("Is impulsive, lacks concentration, changes moods")
	- Response scale varied from 0 = least prominent to 100 = most prominent
	- Cronbach's alpha was .65

Table 2

Probabilities of Following Different Trajectories of Psychological Well-Being (from Age 36 to 50) Conditional on the Trajectories of Neuroticism, Extraversion, Conscientiousness, Openness, and Agreeableness (from Age 33 to 50)

	Psychological well-being group		
Neuroticism group	1. Low, stable	2. Moderate, stable	3. High, stable
1. Low, decreasing (quadratic)	.00	.12	.88
2. Moderate, decreasing (quadratic)	.17	.66	.16
3. High, stable	.77	.23	.00
Extraversion group			
1. Low, stable	.96	.04	.00
2. Lower moderate, stable	.37	.48	.15
3. Higher moderate, stable	.00	.55	.45
4. High, stable	.00	.16	.84
Conscientiousness group			
1. Low, stable	.44	.40	.17
2. Lower moderate, stable	.23	.55	.22
3. Higher moderate, increasing	.10	.45	.45
4. High, stable	.20	.15	.66
Openness group			
1. Low, stable	.41	.40	.18
2. Lower moderate, stable	.32	.58	.10
3. Higher moderate, stable	.13	.46	.41
4. High, stable	.05	.40	.55
Agreeableness group			
1. Low, increasing	.48	.15	.37
2. Lower moderate, increasing	.24	.58	.17
3. Higher moderate, increasing	.12	.39	.49
4. High, stable	.06	.11	.82

Table 3

Correlations of Socioemotional Behaviors at Ages 8 and 14 with Various Indicators of Mental Well-Being at Age 42: for Females (n = 103−172) and Males (n = 107−196): Female Correlation is Shown First

Variable	Pos. mood[a]	Neg. mood[b]	Life sat.[c]	Happiness	Psych. w.-b.[d]	Social w.-b.	Depression
Age 8							
Behavioral activity	.02/.12	.05/-.11	-.04/.01	-.07/.09	-.05/.15+	.13/.09	.06/.08
Well-con. behavior[e]	.16+/.02	-.12/.11	.05/.07	.19*/-.15	.13/-.07	-.05/-.02	-.01/-.09
Negative emotionality	-.09/.00	.04/.06	.07/.00	.14/.12	-.13/-.08	-.04/-.06	-.01/.10
Age 14							
Behavioral activity	.08/.18*	.00/-.09	.01/.12	.04/.08	.15/.07	.21*/.05	.14/-.02
Well-con. behavior[e]	-.05/-.05	-.08/.08	.04/.00	.05/-.18*	.00/-.08	.09/-.03	.01/-.07
Negative emotionality	-.08/.10	.12/.07	-.08/-.04	.03/.09	-.17+/-.08	-.14/-.04	.13/.14

Note. [a]Pos. mood = positive mood; [b]Neg. mood = negative mood; [c]Life sat. = life satisfaction; [d]Psych. w.-b. = psychological well-being; [e]Well-con. Behavior = well-controlled behavior.
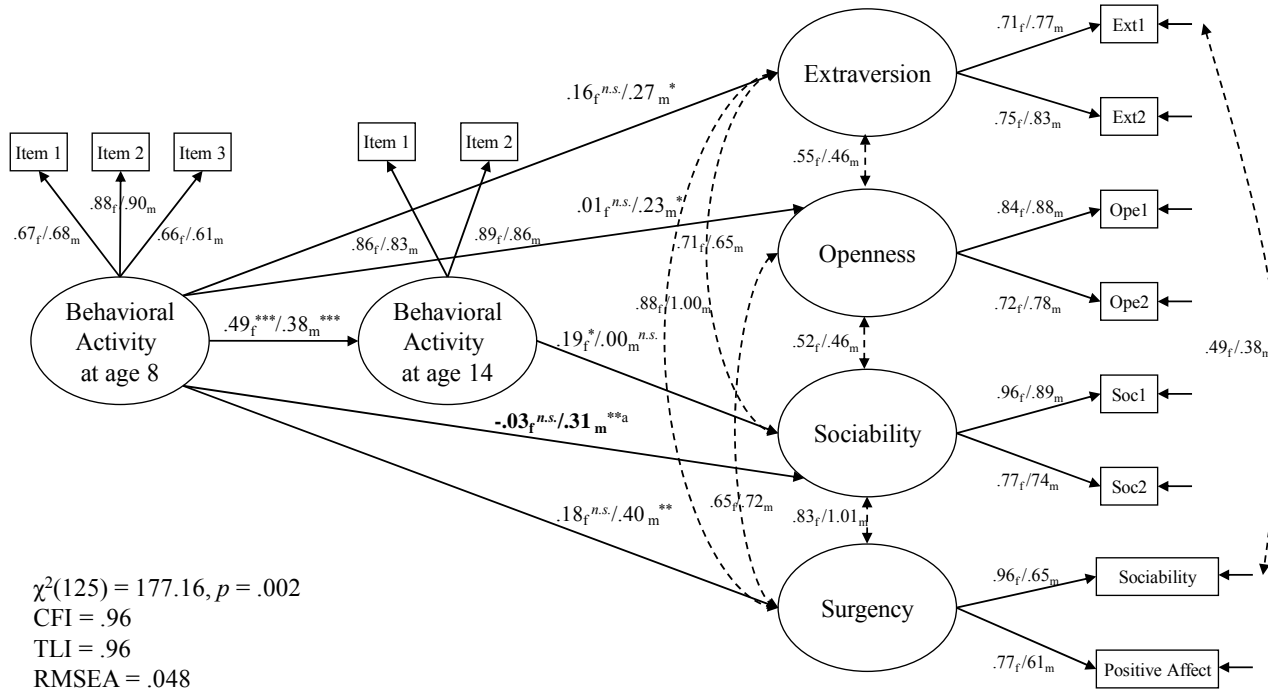
+*p < .10; *p < .05.

Figure 1. Continuity in behavioral activity from childhood through adolescence to adulthood (p. 1287). From Pulkkinen, L., Kokko, K., & Rantanen, J. (2012). Paths from socioemotional behavior in middle childhood to personality in middle adulthood. Developmental Psychology, 48(5), 1283-1291. http://dx.doi.org/10.1037/a0027463. Copyright © 2012 American Psychological Association. Reproduced with permission.

Age 42   Age 50

N1 $.80_f/.83_m$ **Neuroticism** $.77_f$***/$.83_m$***   **Neuroticism** $R^2 = .58/.68$ $.80_f/.82_m$ **N1**

N2 $.90_f/.97_m$ $(.65_f$***/$.81_m$***$)$ $.91_f/.96_m$ **N2**

E1 $.84_f/.90_m$ **Extraversion** $.91_f$***/$.92_m$***   **Extraversion** $R^2 = .84/.85$ $.83_f/.90_m$ **E1**

E2 $.77_f/.77_m$ $(.76_f$***/$.97_m$***$)$ $.76_f/.75_m$ **E2**

O1 $.93_f/.92_m$ **Openness to Experience** $.88_f$***/$.95_m$***   **Openness to Experience** $R^2 = .78/.90$ $.93_f/.90_m$ **O1**

O2 $.73_f/.68_m$ $(.95_f$***/$.90_m$***$)$ $.71_f/.64_m$ **O2**

A1 $.83_f/.74_m$ **Agreeableness** $.92_f$***/$.84_m$***   **Agreeableness** $R^2 = .84/.70$ $.77_f/.70_m$ **A1**

A2 $.92_f/.86_m$ $(.85_f$***/$.83_m$***$)$ $.88_f/.83_m$ **A2**

C1 $.96_f/.84_m$ **Conscientiousness** $.85_f$***/$.73_m$***   **Conscientiousness** $R^2 = .72/.53$ $.94_f/.85_m$ **C1**

C2 $.75_f/.73_m$ $(.66_f$***/$.73_m$***$)$ $.71_f/.73_m$ **C2**

$\chi^2 (367) = 555.26, p = .000, \text{RMSEA} = .06, \text{CFI} = .93, \text{TLI} = .92$
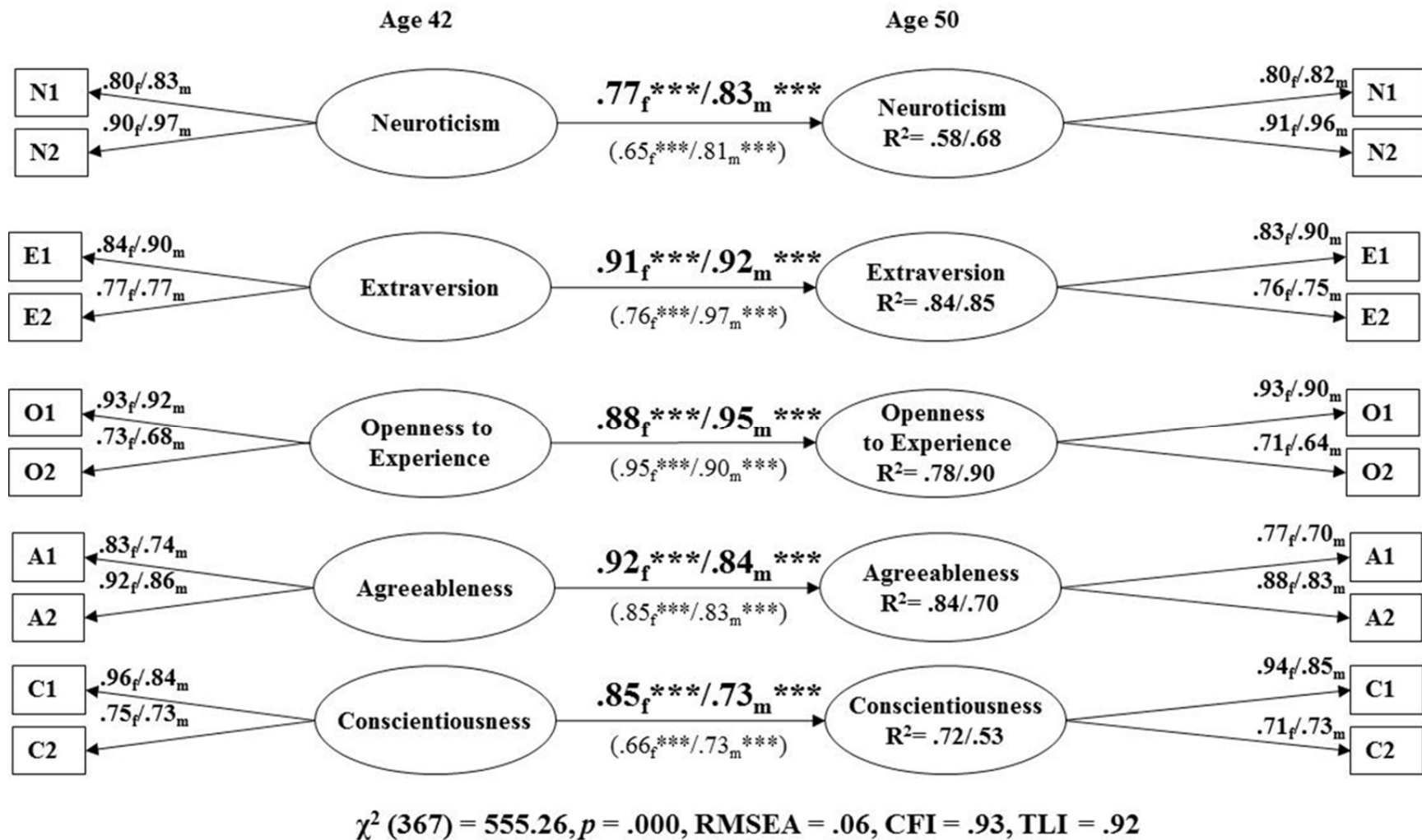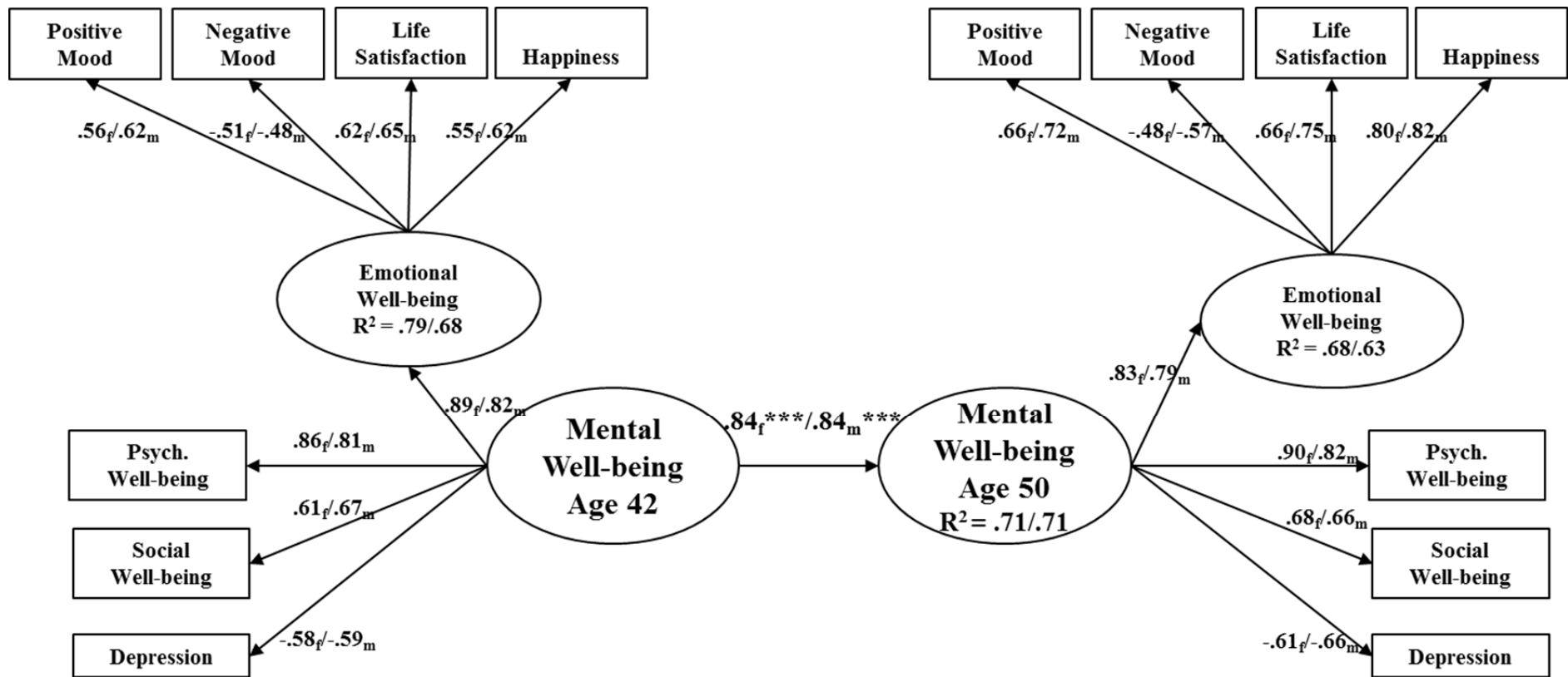
Figure 2. Structural Equation Model (with Item Parcels) of the Relative Stability of the Personality Traits from Age 42 to 50 for Females and Males. The Respective Stability Coefficients for Age 33 to 42 are shown in Parentheses (see Rantanen et al., 2007) below the Coefficient for 42 to 50: Female Coefficient is Shown First.

Figure 3. Structural Equation Model of the Relative Stability of the Latent Mental Well-being Factor from Age 42 to 50 for Females and Males: Female Coefficient is Shown First.
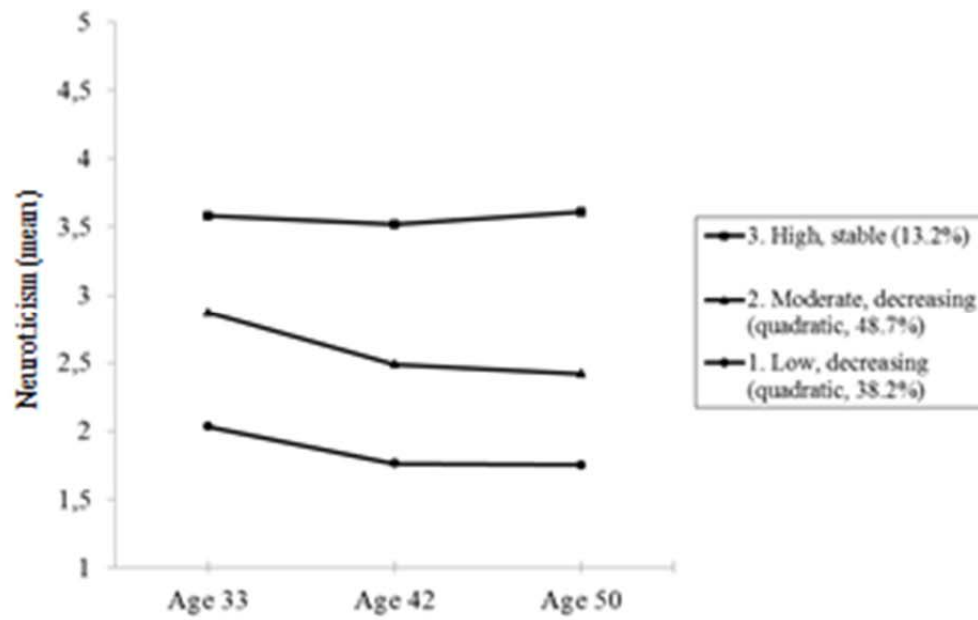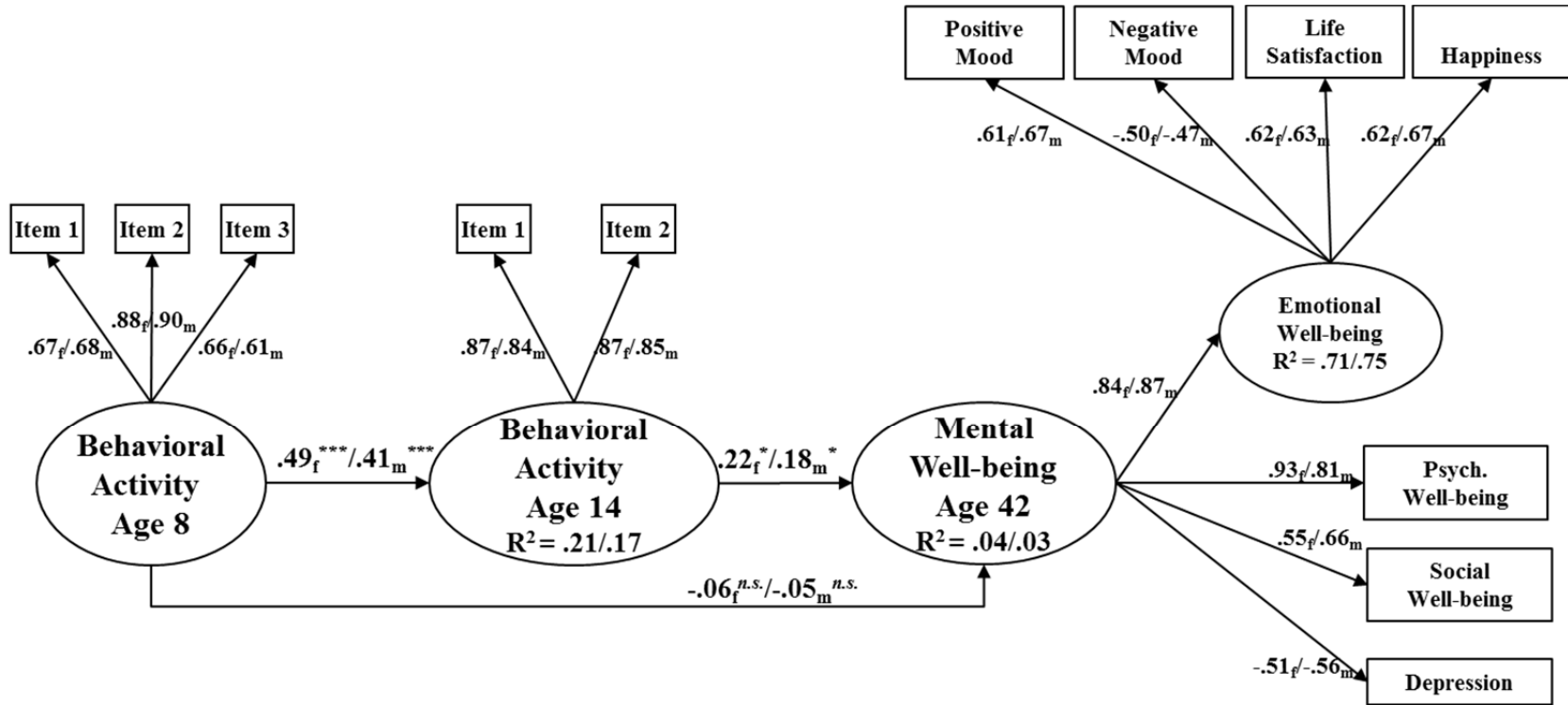
Figure 4. Developmental Trajectories of Neuroticism at Ages 33, 42, and 50.

Figure 5. Behavioral Activity at Ages 8 and 14 as a Predictor of Mental Well-Being at Age 42 for Females and Males: Female Coefficient is Shown First.