# The Transition to Grandparenthood: No Consistent Evidence for Personality Development

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**Abstract**

Intergenerational relations have received increased attention amidst an aging demographic and increased childcare responsibilities taken on by grandparents. However, few studies have investigated the psychological consequences of becoming a grandparent. For Big Five personality development, the transition to grandparenthood has been proposed as a developmental task in middle adulthood and old age contributing to personality maturation through this new role adoption—in line with the social investment principle. In this preregistered study, we used nationally representative panel data from the Netherlands ($N = 250$) and the USA ($N = 846$) to analyze first-time grandparents' development of the Big Five and life satisfaction in terms of mean-level changes, interindividual differences in change, and rank-order stability. We tested gender, paid work, and grandchild care as moderators of change trajectories. To address confounding bias, we employed propensity score matching in two procedures: matching grandparents with parents as well as nonparents in order to achieve balance in different sets of carefully selected covariates. Longitudinal multilevel models demonstrated mostly stability of the Big Five and life satisfaction over the transition to grandparenthood, and no consistent moderation effects. A few small effects that suggested personality maturation did not replicate across analysis samples. Contrary to expectations, we also found no consistent evidence for larger interindividual differences in change in the grandparents, or for smaller rank-order stability compared to the controls. Our findings add to recent failed tests of the social investment principle and are discussed in light of characteristics specific to grandparenthood that might moderate personality development.

*Keywords:* grandparenthood, Big Five, life satisfaction, development, propensity score matching

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Becoming a grandparent is an important life event for many people in midlife or old age (Infurna et al., 2020). At the same time, there is considerable heterogeneity in how intensely grandparents are involved in their grandchildren's lives and care (Meyer & Kandic, 2017). In the context of an aging demographic, the time that grandparents are alive and in good health during grandparenthood is prolonged compared to previous generations (Bengtson, 2001; Leopold & Skopek, 2015; Margolis & Wright, 2017). In addition, an increased share of childcare functions are being fulfilled by grandparents (Hayslip et al., 2019; Pilkauskas et al., 2020). Thus, intergenerational relations have received heightened attention from psychological and sociological research in recent years (Bengtson, 2001; Coall & Hertwig, 2011; Fingerman et al., 2020). With regard to personality development, the transition to grandparenthood has been posited as an important developmental task in old age (Hutteman et al., 2014). However, empirical research into the psychological consequences of becoming a grandparent is sparse. Testing hypotheses derived from neo-socioanalytic theory (Roberts & Wood, 2006) in a prospective matched control-group design (see Luhmann et al., 2014), we investigate whether the transition to grandparenthood affects the Big Five personality traits and life satisfaction using data from two nationally representative panel studies.

## Personality Development in Middle Adulthood and Old Age

The life span perspective characterizes aging as a lifelong process of development and adaptation (Baltes et al., 2006). In accordance with this perspective, research has found personality traits to be subject to change throughout the entire life span (Costa et al., 2019; Graham et al., 2020; Specht, 2017; Specht et al., 2014; for recent reviews, see Bleidorn et al., 2021; Roberts & Yoon, 2021). Although a major portion of personality development takes place in adolescence and emerging adulthood (Bleidorn & Schwaba,

2017; Pusch et al., 2019; Schwaba & Bleidorn, 2018), evidence has accumulated that personality traits also undergo changes in middle and old adulthood (e.g., Allemand et al., 2008; Damian et al., 2019; Kandler et al., 2015; Lucas & Donnellan, 2011; Mõttus et al., 2012; Mueller et al., 2016; Seifert et al., 2021; Wagner et al., 2016; for a review, see Specht, 2017).

Here, we examine the Big Five personality traits—agreeableness, conscientiousness, extraversion, neuroticism, and openness to experience—which constitute a broad categorization of universal patterns of thought, affect, and behavior (John et al., 2008; John & Srivastava, 1999). Changes over time in the Big Five occur both in mean trait levels (i.e., mean-level change; Roberts et al., 2006) and in the relative ordering of people to each other on trait dimensions (i.e., rank-order stability; Anusic & Schimmack, 2016; Roberts & DelVecchio, 2000). No observed changes in mean trait levels do not necessarily mean that individual trait levels are stable over time, and perfect rank-order stability does not preclude mean-level changes. Mean-level changes in early to middle adulthood (ca. 30–60 years old; Hutteman et al., 2014) are typically characterized in terms of greater maturity as evidenced by increased agreeableness and conscientiousness, and decreased neuroticism (Damian et al., 2019; Roberts et al., 2006). In old age (ca. 60 years and older; Hutteman et al., 2014), research is generally more sparse but there is some evidence for a *reversal* of the maturity effect following retirement (sometimes termed *la dolce vita* effect; Asselmann & Specht, 2021; Marsh et al., 2013; cf. Schwaba & Bleidorn, 2019) and at the end of life in ill health (Wagner et al., 2016).

In terms of rank-order stability, most prior studies have shown support for an inverted U-shape trajectory (Ardelt, 2000; Lucas & Donnellan, 2011; Seifert et al., 2021; Specht et al., 2011; Wortman et al., 2012): Rank-order stability rises until reaching a plateau in midlife, and decreases, again, in old age. However, evidence is mixed whether rank-order stability actually decreases again in old age (see Costa et al., 2019; Wagner et al., 2019). Nonetheless, the historical view that personality is stable, or "set like plaster"

(Specht, 2017, p. 64) after one reaches adulthood (or leaves emerging adulthood behind; Bleidorn & Schwaba, 2017) can largely be abandoned (Specht et al., 2014).

Theories explaining the mechanisms of personality development in middle adulthood and old age emphasize both genetic influences and life experiences as interdependent sources of stability and change (Bleidorn et al., 2021; Specht et al., 2014; Wagner et al., 2020). We conceptualize the transition to grandparenthood as a life experience offering the adoption of a new social role according to the social investment principle of neo-socioanalytic theory (Lodi-Smith & Roberts, 2007; Roberts & Wood, 2006). The social investment principle states that normative life events or transitions such as entering the work force or becoming a parent lead to personality maturation through the adoption of new social roles (Roberts et al., 2005). These new roles encourage or compel people to act in a more agreeable, conscientious, and emotionally stable (i.e., less neurotic) way, and the experiences in these roles as well as societal expectations towards them are hypothesized to drive long-term personality development (Lodi-Smith & Roberts, 2007; Wrzus & Roberts, 2017). Conversely, consistent social roles foster personality stability.

The paradoxical theory of personality coherence (Caspi & Moffitt, 1993) offers a complimentary perspective for personality development through role transitions: trait change is supposedly more likely whenever people transition into unknown environments where pre-existing behavioral responses are no longer appropriate and social expectations give clear indications how to behave instead. On the other hand, stability is favored in environments where no clear guidance for how to behave is available. Thus, the finding that age-graded, normative life experiences, such as the transition to grandparenthood, drive personality development would also be in line with the paradoxical theory of personality coherence (see Specht et al., 2014).

Empirically, certain life events such as the first romantic relationship (Wagner et al., 2015) or the transition from high school to university or the first job (Asselmann & Specht, 2021; Golle et al., 2019; Lüdtke et al., 2011) have been found to co-occur with mean-level

increases (partly) consistent with the social investment principle (for a review, see Bleidorn et al., 2018). However, recent evidence regarding the transition to parenthood failed to support the social investment principle (Asselmann & Specht, 2020b; van Scheppingen et al., 2016). An analysis of trajectories of the Big Five before and after eight major life events only found limited support for the social investment principle: small increases were found in emotional stability following the transition to employment but not for the other traits or for the other life events theoretically linked to social investment (Denissen et al., 2019).

Overall, much remains unknown regarding the environmental factors underlying personality development in middle adulthood and old age. One indication that age-graded, normative life experiences contribute to change following a period of relative stability in midlife is offered by recent research on retirement (Bleidorn & Schwaba, 2018; Schwaba & Bleidorn, 2019). These results were only partly in line with the social investment principle in terms of mean-level changes and displayed substantial interindividual differences in change trajectories. Schwaba and Bleidorn discuss that as a social role "divestment" (2019, p. 660; termed personality *relaxation* in another paper, see Asselmann & Specht, 2021) retirement functions differently compared to social *investment* which adds a role. Grandparenthood could represent such an investment into a new role in middle adulthood and old age—given that grandparents have regular contact with their grandchild and actively take part in childcare to some degree (i.e., invest psychologically in the new grandparent role; Lodi-Smith & Roberts, 2007).

## Grandparenthood

The transition to grandparenthood, that is, the birth of the first grandchild, can be described as a time-discrete life event marking the beginning of one's status as a grandparent (Luhmann et al., 2012). In terms of characteristics of major life events (Luhmann et al., 2020), the transition to grandparenthood stands out in that it is externally caused (by one's own children; see also Arpino, Gumà, et al., 2018; Margolis &

Verdery, 2019), while at the same time being predictable as soon as one's children reveal their pregnancy or family planning. The transition to grandparenthood has been labeled a countertransition due to this lack of direct control over if and when someone has their first grandchild (Hagestad & Neugarten, 1985; as cited in Arpino, Gumà, et al., 2018). Grandparenthood is also generally positive in valence and emotionally significant—given one maintains a good relationship with their child.

Grandparenthood can be characterized as a developmental task (Hutteman et al., 2014) in (early) old age—although considerable variation in the age at the transition to grandparenthood exists both within and between cultures (Leopold & Skopek, 2015; Skopek & Leopold, 2017). Still, the period where parents on average experience the birth of their first grandchild coincides with the end of (relative) personality stability in midlife (Specht, 2017), where retirement, shifting social roles, and initial cognitive and health declines can be disruptive to life circumstances putting personality development into motion (e.g., Mueller et al., 2016; Stephan et al., 2014). As a developmental task, grandparenthood is expected to be part of a normative sequence of aging that is subject to societal expectations and values differing across cultures and historical time (Baltes et al., 2006; Hutteman et al., 2014). Mastering developmental tasks (i.e., fulfilling roles and expectations to a high degree) is hypothesized to drive personality development towards maturation similarly to propositions by the social investment principle, that is, leading to higher levels of agreeableness and conscientiousness, and lower levels of neuroticism (Roberts et al., 2005; Roberts & Wood, 2006). Grandparental investment in their grandchildren has been discussed as beneficial in terms of the evolutionary, economic, and sociological advantages it provides for the whole intergenerational family structure (Coall et al., 2018; Coall & Hertwig, 2011).

In comparison to the transition to parenthood which has been found to be ambivalent in terms of both personality maturation and life satisfaction (Aassve et al., 2021; Johnson & Rodgers, 2006; Krämer & Rodgers, 2020; van Scheppingen et al., 2016),

Hutteman et al. (2014) hypothesize that the transition to grandparenthood is generally seen as positive because it (usually) does not impose the stressful demands of daily childcare on grandparents. However, societal expectations on how grandparents should behave (e.g., "Grandparents should help parents with childcare if needed") are less clearly defined compared to parenthood, and strongly depend on the degree of (possible) grandparental investment (Lodi-Smith & Roberts, 2007). Thus, societal expectations and role demands differ depending on how close grandparents live to their children, the quality of the relationship with their children, and sociodemographic factors that exert conflicting role demands (Bordone et al., 2017; Lumsdaine & Vermeer, 2015; Silverstein & Marenco, 2001; cf. Muller & Litwin, 2011). In the whole population of first-time grandparents this diversity of role investment might generate pronounced interindividual differences in intraindividual personality change.

While we could not find prior studies investigating development of the Big Five over the transition to grandparenthood, there is some evidence for changes in life satisfaction across the transition to grandparenthood. In cross-sectional studies, grandparents who provide grandchild care or have close relationships with their older grandchildren often have higher life satisfaction (e.g., Mahne & Huxhold, 2014; Triadó et al., 2014). There are a few longitudinal studies, albeit they offer conflicting conclusions: Data from the Survey of Health, Ageing and Retirement in Europe (SHARE) showed that the birth of a grandchild was followed by improvements in quality of life and life satisfaction, but only among women (Tanskanen et al., 2019) and only in first-time grandmothers via their daughters (Di Gessa et al., 2019). Several studies emphasized that grandparents actively involved in childcare experienced larger increases in life satisfaction (Arpino, Bordone, et al., 2018; Danielsbacka et al., 2019; Danielsbacka & Tanskanen, 2016). On the other hand, fixed effects regression models[1] using SHARE data did not find any effects of first-time

[1] Fixed effects regression models exclusively rely on within-person variance (see Brüderl & Ludwig, 2015; McNeish & Kelley, 2019).

grandparenthood on life satisfaction regardless of grandparental investment and only minor decreases of grandmothers' depressive symptoms (Sheppard & Monden, 2019).

In a similar vein, some prospective studies reported beneficial effects of the transition to grandparenthood and of grandparental childcare investment on various health measures, especially in women (Chung & Park, 2018; Condon et al., 2018; Di Gessa et al., 2016a, 2016b). Again, the beneficial effects of grandparenthood on self-rated health did not persevere in fixed effects analyses, such as those reported in Ates's (2017) analyses of longitudinal data from the German Aging Survey (DEAS).

We are not aware of any study investigating trait rank-order stability over the transition to grandparenthood. The occurrence of other life events has been shown to be associated with rank-order stability of personality and well-being, although only for certain events and traits (e.g., Denissen et al., 2019; Hentschel et al., 2017; Specht et al., 2011). Altogether, prior evidence is lacking for the Big Five and inconclusive for life satisfaction (and related measures) which might be due to different methodological approaches that did not always account for confounding (i.e., selection effects).

## Methodological Considerations

Effects of life events on psychological traits generally tend to be small and need to be properly analyzed using robust, prospective designs, and appropriate control groups (Bleidorn et al., 2018; Luhmann et al., 2014). This is necessary because pre-existing differences between prospective grandparents and non-grandparents in variables related to the development of the Big Five or life satisfaction introduce confounding bias when estimating the effects of an event such as the transition to grandparenthood (VanderWeele et al., 2020). The impact of adjusting (or not adjusting) for pre-existing differences, or background characteristics, has recently been emphasized in the prediction of life outcomes from personality in a mega-analytic framework of ten large panel studies (Beck & Jackson, 2021). Propensity score matching is one technique to account for confounding bias by

equating groups in their estimated propensity to experience the event (Thoemmes & Kim, 2011). This propensity is calculated from regressing the so-called treatment variable (i.e., the group variable indicating whether someone experienced the event) on covariates related to the likelihood of experiencing the event and to the outcomes. This approach addresses confounding bias by creating balance between the groups in the covariates used to calculate the propensity score (Stuart, 2010).

We adopt a prospective design that tests the effects of becoming first-time grandparents separately against two propensity-score-matched control groups: first, parents (but not grandparents) with at least one child in reproductive age, and, second, nonparents. Adopting two control groups allows us to disentangle potential effects attributable to becoming a grandparent from effects attributable to being a parent already (i.e., parents who eventually become grandparents might share additional similarity with parents who do not). Thus, we are able to address selection effects into grandparenthood more comprehensively than previous research and we cover the first two of three causal pathways to not experiencing grandparenthood pointed out by demographic research (Margolis & Verdery, 2019): one's own childlessness, childlessness of one's children, and not living long enough to become a grandparent. Our comparative design controls for average age-related and historical trends in the Big Five traits and life satisfaction (Luhmann et al., 2014). The design also enables us to report effects of the transition to grandparenthood unconfounded by instrumentation effects, which describe the tendency of reporting lower well-being scores with each repeated measurement (Baird et al., 2010).

We improve upon previous longitudinal studies using matched control groups (e.g., Anusic et al., 2014a, 2014b; Yap et al., 2012) by matching at a specific time point preceding the transition to grandparenthood (i.e., at least two years beforehand) and not based on individual survey years. This design choice ensures that the covariates involved in the matching procedure are not already influenced by the event or anticipation of it (Greenland, 2003; Rosenbaum, 1984; VanderWeele, 2019; VanderWeele et al., 2020),

thereby reducing the risk of introducing confounding through collider bias (Elwert & Winship, 2014). Similar approaches in the study of life events have recently been adopted (Balbo & Arpino, 2016; Krämer & Rodgers, 2020; van Scheppingen & Leopold, 2020).

## Current Study

In the current study, we examine development of the Big Five personality traits across the transition to grandparenthood in a prospective, quasi-experimental design, thereby extending previous research on effects of this transition on well-being to psychological development in a more general sense. We also revisit the development of life satisfaction which we define as the general, cognitive appraisal of one's well-being in life based on subjective criteria (Eid & Larsen, 2008). Three research questions motivate the current study which—to our knowledge—is the first to analyze Big Five personality development over the transition to grandparenthood:

1. What are the effects of the transition to grandparenthood on mean-level trajectories of the Big Five traits and life satisfaction?
2. How large are interindividual differences in intraindividual change for the Big Five traits and life satisfaction over the transition to grandparenthood?
3. How does the transition to grandparenthood affect rank-order stability of the Big Five traits and life satisfaction?

To address these questions, we use two nationally representative panel data sets and compare grandparents' development over the transition to grandparenthood with that of matched respondents who do not become grandparents during the study period (Luhmann et al., 2014). Informed by the social investment principle and previous research on personality development in middle adulthood and old age, we preregistered the following hypotheses (prior to data analysis; see blinded file *Preregistration.pdf* on https://osf.io/75a4r/?view_only=ac929a2c41fb4afd9d1a64a3909848d0/):

- H1a: Following the birth of their first grandchild, grandparents increase in agreeableness and conscientiousness, and decrease in neuroticism compared to the matched control groups of parents (but not grandparents) and nonparents. We do not expect the groups to differ in their trajectories of extraversion and openness to experience.
- H1b: Grandparents' post-transition increases in agreeableness and conscientiousness, and decreases in neuroticism are more pronounced among those who provide substantial grandchild care.
- H1c: Grandmothers increase in life satisfaction following the transition to grandparenthood as compared to the matched control groups but grandfathers do not.
- H2: Individual differences in intraindividual change in the Big Five and life satisfaction are larger in the grandparent group than the control groups.
- H3: Compared to the matched control groups, grandparents' rank-order stability of the Big Five and life satisfaction over the transition to grandparenthood is smaller.

Finally, commitments to other institutions necessarily constrain the amount of possible grandparental investment. Thus, exploratorily, we further probe the moderator performing paid work which could constitute a potential role conflict among grandparents.

## Methods

### Samples

To evaluate these hypotheses, we used data from two population-representative panel studies: the Longitudinal Internet Studies for the Social Sciences (LISS) panel from the Netherlands and the Health and Retirement Study (HRS) from the United States.

The LISS panel is a representative sample of the Dutch population initiated in 2008 with data collection still ongoing (Scherpenzeel, 2011; van der Laan, 2009). It is administered by Centerdata (Tilburg University, The Netherlands). Included households are a true probability sample of households drawn from the population register

(Scherpenzeel & Das, 2010). While roughly half of invited households consented to participate, refreshment samples were drawn in order to oversample previously underrepresented groups using information about response rates and their association with demographic variables (household type, age, ethnicity; see https://www.lissdata.nl/about-panel/sample-and-recruitment/). Data collection was carried out online and respondents lacking the necessary technical equipment were outfitted with it. We included yearly assessments from 2008 to 2020 from several modules (see *Measures*) as well as data on basic demographics which was assessed on a monthly rate. For later coding of covariates from these monthly demographic data we used the first available assessment in each year.

The HRS is an ongoing longitudinal population-representative study of older adults in the US (Sonnega et al., 2014) administered by the Survey Research Center (University of Michigan, United States). Initiated in 1992 with a first cohort of individuals aged 51-61 and their spouses, the study has since been extended with additional cohorts in the 1990s (see https://hrs.isr.umich.edu/documentation/survey-design/). In addition to the core interview every two years (in-person or as a telephone survey), the study has since 2006 included a leave-behind questionnaire covering psychosocial topics including the Big Five personality traits and life satisfaction. These topics, however, were only administered every four years starting in 2006 for one half of the sample and in 2008 for the other half. We included personality data from 2006 to 2018, all available data for the coding of the transition to grandparenthood from 1996 to 2018, as well as covariate data from 2006 to 2018 including variables drawn from the Imputations File and the Family Data (only available up to 2014).

These two panel studies provided the advantage that they contained several waves of personality data as well as information on grandparent status and a broad range of covariates at each wave. While the HRS provided a large sample with a wider age range, the LISS was smaller and younger but provided more frequent personality assessments

spaced every one to two years. Included grandparents from the LISS were younger because grandparenthood questions were part of the *Work and Schooling* module and—for reasons unknown to us—filtered to respondents performing paid work. Thus, older, retired first-time grandparents from the LISS could not be identified. Even though we have published using the LISS and HRS data before (see preregistration, https://osf.io/75a4r/?view_only=ac929a2c41fb4afd9d1a64a3909848d0/), these publications do not overlap with the current study in the focus of grandparenthood.[2] The present study used de-identified archival data in the public domain, and, thus, it was not necessary to obtain ethical approval from an IRB.

## Measures

### *Personality*

In the LISS, the Big Five personality traits were assessed using the 50-item version of the IPIP Big-Five Inventory scales (Goldberg, 1992). For each Big Five trait, ten 5-point Likert-scale items were answered (1 = *very inaccurate*, 2 = *moderately inaccurate*, 3 = *neither inaccurate nor accurate*, 4 = *moderately accurate*, 5 = *very accurate*). Example items included "Like order" (conscientiousness), "Sympathize with others' feelings" (agreeableness), "Worry about things" (neuroticism), "Have a vivid imagination" (openness to experience), and "Start conversations" (extraversion). At each wave, we took a respondent's mean of each subscale as their trait score. Internal consistencies at the time of matching, as indicated by McDonald's $\omega$ (McNeish, 2018), averaged $\omega = 0.83$ over all traits ranging from $\omega = 0.77$ (conscientiousness in the parent control group) to $\omega = 0.90$ (extraversion in the nonparent control group). Other studies have shown measurement invariance for these scales across time and age groups, and convergent validity with the Big Five Inventory (BFI-2) (Denissen et al., 2020; Schwaba & Bleidorn, 2018). The Big Five

[2] Publications using LISS data can be searched at https://www.dataarchive.lissdata.nl/publications/. Publications using HRS data can be searched at https://hrs.isr.umich.edu/publications/biblio/.

(and life satisfaction) were contained in the *Personality* module which was administered yearly but with planned missingness in some years for certain cohorts (see Denissen et al., 2019).

In the HRS, the Midlife Development Inventory (MIDI) scales measured the Big Five (Lachman & Weaver, 1997). This instrument was constructed for use in large-scale panel studies of adults and consisted of 26 adjectives (five each for conscientiousness, agreeableness, and extraversion, four for neuroticism, and seven for openness to experience). Respondents were asked to rate on a 4-point scale how well each item described them (1 = *a lot*, 2 = *some*, 3 = *a little*, 4 = *not at all*). Example adjectives included "Organized" (conscientiousness), "Sympathetic" (agreeableness), "Worrying" (neuroticism), "Imaginative" (openness to experience), and "Talkative" (extraversion). For better comparability with the LISS panel, we reverse scored all items so that higher values corresponded to higher trait levels and, at each wave, took the mean of each subscale as the trait score. Big Five trait scores showed satisfactory internal consistencies at the time of matching which averaged $\omega = 0.75$ over all traits ranging from $\omega = 0.68$ (conscientiousness in the nonparent control group) to $\omega = 0.81$ (agreeableness in the nonparent control group).

### *Life Satisfaction*

In both samples, life satisfaction was assessed using the 5-item Satisfaction with Life Scale (SWLS; Diener et al., 1985) which respondents answered on a 7-point Likert scale (1 = *strongly disagree*, 2 = *somewhat disagree*, 3 = *slightly disagree*, 4 = *neither agree or disagree*, 5 = *slightly agree*, 6 = *somewhat agree*, 7 = *strongly agree*)[3]. An example item was "I am satisfied with my life". Internal consistency at the time of matching was $\omega = 0.90$ in the LISS with the parent control sample ($\omega = 0.88$ with the nonparent control sample), and $\omega = 0.91$ in the HRS with the parent control sample ($\omega = 0.91$ with the nonparent control sample).

[3] In the LISS, the "somewhat" was omitted and instead of "or", "nor" was used.

### *Transition to Grandparenthood*

The procedure to obtain information on the transition to grandparenthood generally followed the same steps in both samples. The items this coding was based on, however, differed slightly: In the LISS, respondents were asked "Do you have children and/or grandchildren?" with "children", "grandchildren", and "no children or grandchildren" as possible answer categories. This question was part of the *Work and Schooling* module and filtered to respondents performing paid work. In the HRS, all respondents were asked for the total number of grandchildren: "Altogether, how many grandchildren do you (or your husband / wife / partner, or your late husband / wife / partner) have? Include as grandchildren any children of your (or your [late] husband's / wife's / partner's) biological, step- or adopted children".[4]

In both samples, we tracked grandparenthood status over time. Due to longitudinally inconsistent data in some cases, we included in the grandparent group only respondents with one transition from 0 (*no grandchildren*) to 1 (*at least one grandchild*) in this status variable, and no transitions backwards (see Figure S1). We marked respondents who consistently indicated that they had no grandchildren as potential members of the control groups.

### *Moderators*

Based on insights from previous research, we tested three variables as potential moderators of the mean-level trajectories of the Big Five and life satisfaction over the transition to grandparenthood: First, we analyzed whether female gender (0 = *male*, 1 = *female*) acted as a moderator as indicated by research on life satisfaction (see Tanskanen et al., 2019; Di Gessa et al., 2019).

Second, we tested whether performing paid work (0 = *no*, 1 = *yes*) was associated with divergent trajectories of the Big Five and life satisfaction (see Schwaba & Bleidorn,

[4] The listing of biological, step-, or adopted children has been added since wave 2006.

2019). Since the LISS subsample exclusively comprised respondents performing paid work, we performed these analyses only in the HRS subsample. This served two purposes: to test how respondents involved in the workforce differed from those not working, which might shed light on role conflict and have implications for social investment mechanisms. These moderation analyses also allowed us to assess whether potential differences in results between the LISS and HRS samples could be accounted for by including performing paid work as a moderator in HRS analyses. In other words, perhaps the results in the HRS respondents performing paid work are similar to those seen in the LISS sample, which had already been conditioned on this variable through filtering in the questionnaire.

Third, we examined how involvement in grandchild care moderated trajectories of the Big Five and life satisfaction (see Arpino, Bordone, et al., 2018; Danielsbacka et al., 2019; Danielsbacka & Tanskanen, 2016). We coded a moderator variable (0 = *provided less than 100 hours of grandchild care*, 1 = *provided 100 or more hours of grandchild care*) based on the question "Did you (or your [late] husband / wife / partner) spend 100 or more hours in total since the last interview / in the last two years taking care of grand- or great grandchildren?".[5] This information was only available for grandparents in the HRS; in the LISS, too few respondents answered respective follow-up questions to be included in analyses.

## Procedure

Drawing on all available data, three main restrictions defined the final analysis samples of grandparents (see Figure S1): First, we identified respondents who indicated having grandchildren for the first time during study participation (see *Measures*; $N_{LISS}$ = 337; $N_{HRS}$ = 3272, including HRS waves 1996-2004 before personality assessments were introduced). Second, we restricted the sample to respondents with at least one valid

[5] Dichotomization of a continuous construct (hours of care) is not ideal for moderation analysis (MacCallum et al., 2002). However, there were too many missing values in the variable assessing hours of care continuously (variables *E063).

personality assessment (valid in the sense that at least one of the six outcomes was non-missing; $N_{LISS} = 335$; $N_{HRS} = 1702$).[6] Third, we included only respondents with both a valid personality assessment before and one after the transition to grandparenthood ($N_{LISS} = 253$; $N_{HRS} = 859$). Lastly, few respondents were excluded because of inconsistent or missing information regarding their children resulting in the final analysis samples of first-time grandparents, $N_{LISS} = 250$ (53.60% female; age at transition to grandparenthood $M = 57.94$, $SD = 4.87$) and $N_{HRS} = 846$ (54.85% female; age at transition to grandparenthood $M = 61.80$, $SD = 6.88$).

We defined two pools of potential control subjects to be involved in the matching procedure: The first pool comprised parents who had at least one child in reproductive age (defined as $15 \leq age_{firstborn} \leq 65$) but no grandchildren throughout the observation period ($N_{LISS} = 844$ with 3040 longitudinal observations; $N_{HRS} = 1485$ with 2703 longitudinal observations). The second comprised respondents who reported being childless throughout the observation period ($N_{LISS} = 1077$ with 4337 longitudinal observations; $N_{HRS} = 1340$ with 2346 longitudinal observations). The two control groups were, thus, by definition mutually exclusive.

### *Covariates*

In order to match each grandparent with the control respondent from each pool of potential controls who was most similar in terms of the included covariates we utilized propensity score matching.

Although critical to the design, covariate selection has seldom been explicitly discussed in studies estimating effects of life events (e.g., in matching designs). We see two (in part conflicting) traditions that address covariate selection: First, classical recommendations from psychology argue to include all available variables that are associated with both the treatment assignment process (i.e., selection into treatment) and

[6] We also excluded $N = 30$ HRS grandparents in a previous step who reported unrealistically high numbers of grandchildren ($> 10$) in their first assessment following the transition to grandparenthood.

the outcome (e.g., Steiner et al., 2010; Stuart, 2010). Second, recommendations from a structural causal modeling perspective (see Elwert & Winship, 2014; Rohrer, 2018) are more cautious aiming to avoid pitfalls such as conditioning on a pre-treatment collider (collider bias) or a mediator (overcontrol bias). Structural causal modeling, however, requires advanced knowledge of the causal structures underlying the involved variables (Pearl, 2009).

In selecting covariates, we followed guidelines by VanderWeele et al. (2019; 2020) which reconcile both views and offer practical guidance when complete knowledge of the underlying causal structures is unknown, particularly when using large archival datasets. The "modified disjunctive cause criterion" (VanderWeele, 2019, p. 218) recommends to select all available covariates which are assumed to be causes of the outcomes, treatment exposure (i.e., the transition to grandparenthood), or both, as well as any proxies for an unmeasured common cause of the outcomes and treatment exposure. To be excluded from this selection are variables assumed to be instrumental variables (i.e., assumed causes of treatment exposure that are unrelated to the outcomes except through the exposure) and collider variables (Elwert & Winship, 2014). Because all covariates we used for matching were measured at least two years before the birth of the grandchild, we judge the risk of introducing collider bias or overcontrol bias to be relatively small. In addition, as mentioned in the *Introduction*, the event transition to grandparenthood is not planned by or under direct control of grandparents which further reduces the risk of bias introduced by controlling for pre-treatment colliders.

Following these guidelines (VanderWeele et al., 2020), we selected covariates covering respondents' demographics (e.g., age, education), economic situation (e.g., income), and health (e.g., mobility difficulties). We also included the pre-transition outcome variables as covariates—as recommended in the literature (Cook et al., 2020; Hallberg et al., 2018; Steiner et al., 2010; VanderWeele et al., 2020), as well as the panel wave participation count and assessment year in order to control for instrumentation effects

and historical trends (e.g., 2008/2009 financial crisis; Baird et al., 2010; Luhmann et al., 2014). For matching grandparents with the parent control group we additionally selected covariates containing information on fertility and family history (e.g., number of children, age of first three children) which were causally related to the timing of the transition to grandparenthood (Arpino, Gumà, et al., 2018; Margolis & Verdery, 2019).

An overview of all covariates we used to compute the propensity scores can be found in the supplemental materials (see Tables S5 & S6). Importantly, as part of our preregistration we also provided justification for each covariate on whether we assume it to be related to treatment assignment, the outcomes, or both (see *gp-covariates-overview.xlsx* on https://osf.io/75a4r/?view_only=ac929a2c41fb4afd9d1a64a3909848d0). We tried to find substantively equivalent covariates in both samples but had to compromise in a few cases (e.g., children's educational level only in HRS vs. children living at home only in LISS).

Estimating propensity scores required complete covariate data. Therefore, we performed multiple imputations in order to account for missingness in our covariates (Greenland & Finkle, 1995). Using five imputed data sets computed by classification and regression trees (CART; Burgette & Reiter, 2010) in the *mice* R package (van Buuren & Groothuis-Oudshoorn, 2011), we predicted treatment assignment (i.e., the transition to grandparenthood) five times per observation in logistic regressions with a logit link function.[7] We averaged these five scores per observation to compute the final propensity score to be used for matching (Mitra & Reiter, 2016). We used imputed data only for propensity score computation and not in later analyses because nonresponse in the outcome variables was negligible.

[7] In these logistic regressions we included all covariates listed above as predictors except for *female* which was later used for exact matching and health-related covariates in LISS-wave 2014 which were not assessed in that wave.

### *Propensity Score Matching*

The time of matching preceded the survey year when the transition to grandparenthood was first reported by at least two years (aside from that choosing the smallest available gap between matching and transition). This ensured that the covariates were not affected by the event itself or its anticipation (i.e., matching occurred well prior to one's child being pregnant with their first child; Greenland, 2003; Rosenbaum, 1984; VanderWeele et al., 2020). Propensity score matching was performed using the *MatchIt* R package (Ho et al., 2011) with exact matching on gender combined with Mahalanobis distance matching on the propensity score. Four matchings were performed; two per sample (LISS; HRS) and two per control group (parents; nonparents). We matched 1:4 with replacement because of the relatively small pools of available controls. This meant that each grandparent was matched with four control observations in each matching procedure, and that control observations were allowed to be used multiple times for matching[8]. We did not specify a caliper because our goal was to find matches for all grandparents, and because we achieved good covariate balance this way.

We evaluated the matching procedure in terms of covariate balance and, graphically, in terms of overlap of the distributions of the propensity score (Stuart, 2010). Covariate balance as indicated by the standardized difference in means between the grandparent and the controls after matching was good (see Tables S5 & S6) lying below 0.25 as recommended in the literature (Stuart, 2010), and below 0.10 with few exceptions (Austin, 2011). Graphically, group differences in the distribution of propensity scores were small and indicated no substantial missing overlap (see Figure S2).

After matching, each matched control observation received the same value as their

[8] In the LISS data, 250 grandparent observations were matched with 1000 control observations; these control observations corresponded to 523 unique person-year observations stemming from 270 unique respondents for the parent control group, and to 464 unique person-year observations stemming from 189 unique respondents for the nonparent control group. In the HRS data, 846 grandparent observations were matched with 3384 control observations; these control observations corresponded to 1393 unique person-year observations stemming from 982 unique respondents for the parent control group, and to 1008 unique person-year observations stemming from 704 unique respondents for the nonparent control group.

matched grandparent in the *time* variable describing the temporal relation to treatment, and the control respondent's other longitudinal observations were centered around this matched observation. Thereby, we coded a counterfactual transition time frame for each control respondent. Due to left- and right-censored longitudinal data (i.e., panel entry or attrition), we restricted the final analysis samples to six years before and six years after the transition as shown in Table S2.

The final LISS analysis samples (see Figure S1) contained 250 grandparents with 1368 longitudinal observations, matched with 1000 control respondents with either 5167 (parent control group) or 5340 longitudinal observations (nonparent control group). The final HRS analysis samples contained 846 grandparents with 2262 longitudinal observations, matched with 3384 control respondents with either 8257 (parent control group) or 8167 longitudinal observations (nonparent control group). In the HRS, there were a few additional missing values in the outcomes ranging from 18 to 105 longitudinal observations which were listwise deleted in the respective analyses.

## Analytical Strategy

We used R (Version 4.0.4; R Core Team, 2021) and the R-packages *lme4* (Version 1.1.26; Bates et al., 2015), and *lmerTest* (Version 3.1.3; Kuznetsova et al., 2017) for multilevel modeling, as well as *tidyverse* (Wickham et al., 2019) for data wrangling, and *papaja* (Aust & Barth, 2020) for reproducible manuscript production. A complete list of software we used is provided in the supplemental materials. Scripts for data wrangling, analyses, and to reproduce this manuscript can be found on the OSF (https://osf.io/75a4r/?view_only=ac929a2c41fb4afd9d1a64a3909848d0/) and on GitHub (https://github.com/ [blinded]). Following Benjamin et al. (2018), we set the $\alpha$-level for all confirmatory analyses to .005.

Our design can be referred to as an interrupted time-series with a "nonequivalent no-treatment control group" (Shadish et al., 2002, p. 182) where treatment, that is, the

transition to grandparenthood, is not deliberately manipulated. First, to analyze mean-level changes (research question 1), we used linear piecewise regression coefficients in multilevel models with person-year observations nested within respondents and households (Hoffman, 2015). To model change over time in relation to the transition to grandparenthood, we coded three piecewise regression coefficients: a *before-slope* representing linear change in the years leading up to the transition to grandparenthood, an *after-slope* representing linear change in the years after the transition, and a *shift* coefficient shifting the intercept directly after the transition was first reported, thus representing sudden changes that go beyond changes already modeled by the *after-slope* (see Table S2 for the coding scheme of these coefficients; Hoffman, 2015). Other studies of personality development have recently adopted similar piecewise coefficients (e.g., Bleidorn & Schwaba, 2018; Krämer & Rodgers, 2020; Schwaba & Bleidorn, 2019; van Scheppingen & Leopold, 2020).

All effects of the transition to grandparenthood on the Big Five and life satisfaction were modeled as deviations from patterns in the matched control groups by interacting the three piecewise coefficients with the treatment variable (0 = *control*, 1 = *grandparent*). In additional models, we interacted these coefficients with the moderator variables resulting in two- and three-way interactions. To test differences in the growth parameters between two groups in cases where these differences were represented by multiple fixed-effects coefficients, we defined linear contrasts using the *linearHypothesis* command from the *car* package (Fox & Weisberg, 2019). All models of mean-level changes were estimated using maximum likelihood and included random intercepts but no random slopes. We included the propensity score as a level-2 covariate for a double-robust approach (Austin, 2017). Model equations can be found in the supplemental materials.

Second, to assess interindividual differences in change (research question 2), we added random slopes to the models. In other words, we allowed for differences between individuals in their trajectories of change to be modeled, that is, differences in the

*before-slope*, *after-slope*, and *shift* coefficients. Because multiple simultaneous random slopes are often not computationally feasible, we added random slopes one at a time and used likelihood ratio tests to determine whether the addition of the respective random slope led to a significant improvement in model fit. To statistically test differences in the random slope variance between the grandparent group and each control group, we respecified the models as heterogeneous variance models using the *nlme* R package (Pinheiro et al., 2021), which allowed for separate random slope variances to be estimated in the grandparent group and the control group within the same model. Model fit of these heterogeneous variance models was compared to corresponding models with a homogeneous (single) random slope variance via likelihood ratio tests.

Third, to examine rank-order stability in the Big Five and life satisfaction over the transition to grandparenthood (research question 3), we computed the test-retest correlation of measurements prior to the transition to grandparenthood (at the time of matching) and the first available measurement afterwards. To test differences in test-retest correlations between grandparents and either of the control groups, we entered the pre-treatment measure, the treatment variable (0 = *control*, 1 = *grandparent*), and their interaction into multiple regression models predicting the Big Five and life satisfaction (post-transition). The interaction tests for significant differences in the rank-order stability between those who experienced the transition to grandparenthood and those who did not (for a similar approach, see Denissen et al., 2019; McCrae, 1993).

## Results

Throughout the results section, we referred to statistical tests with $.005 < p < .05$ as *suggestive evidence* as stated in our preregistration.

### Descriptive Results

Means and standard deviations of the Big Five and life satisfaction over the analyzed time points are presented in Tables S3 and S4. Visually represented (see Figure

S3-S8), all six outcomes display marked stability over time in both LISS and HRS. Intra-class correlations (see Table S1) show that large portions of the total variance in the Big Five could be explained by nesting in respondents (*median* = 0.75), while nesting in households only accounted for minor portions (*median* = 0.03). For outcome–subsample combinations with an $ICC_{hid}$ below 0.05 we omitted the household nesting factor from all models to bypass computational errors—a small deviation from our preregistration. For life satisfaction the nesting in households accounted for slightly larger portions of the total variance (*median* = 0.36) than nesting in respondents (*median* = 0.32). Over all outcomes, the proportion of variance due to within-person factors was relatively low (*median* = 0.22).

## Mean-Level Changes

### *Agreeableness*

In the basic (i.e., unmoderated) models (see Tables S7 & S8 and Figure S9), grandparents in the LISS increased slightly in agreeableness in the years after the transition to grandparenthood as compared to the parent controls, $\hat{\gamma}_{21} = 0.02$, 95% CI $[0.01, 0.03]$, $p = .003$. However, this effect was quite small and not significant when compared against the nonparent controls, or against either control sample in the HRS sample (suggestive evidence in the HRS nonparents: $\hat{\gamma}_{21} = 0.02$, 95% CI $[0.01, 0.04]$, $p = .006$). The models including the gender interaction (see Tables S9 & S10 and Figure S9) indicated that grandfathers' post-transition increases in agreeableness were more pronounced as compared to parent (LISS: $\hat{\gamma}_{21} = 0.03$, 95% CI $[0.01, 0.05]$, $p < .001$; HRS: $\hat{\gamma}_{21} = 0.04$, 95% CI $[0.01, 0.06]$, $p = .003$) and nonparent controls (HRS: $\hat{\gamma}_{21} = 0.03$, 95% CI $[0.01, 0.05]$, $p = .004$), whereas grandmothers did not differ from female controls.

There was no consistent evidence for moderation by paid work (see Tables S11 & S12 and Figure S10). Grandparents providing substantial grandchild care increased in agreeableness after the transition to grandparenthood compared to matched nonparent controls (difference in *after* parameter: $[\hat{\gamma}_{21} + \hat{\gamma}_{31}] = 0.04$, 95% CI [0.01, 0.06], $p = .002$;

suggestive evidence in the parent sample: $[\hat{\gamma}_{21} + \hat{\gamma}_{31}] = 0.04$, 95% CI [0.01, 0.06], $p = .006$; see Tables S13 & S14 and Figure S11). However, differences between caring and non-caring grandparents—as specified in hypothesis H1b—were not significant in either sample.

### *Conscientiousness*

We found a slight post-transition increase in grandparents' conscientiousness in comparison to the controls in the HRS (parents: $\hat{\gamma}_{21} = 0.02$, 95% CI $[0.01, 0.04]$, $p = .002$; nonparents: $\hat{\gamma}_{21} = 0.02$, 95% CI $[0.01, 0.04]$, $p = .003$; suggestive evidence in the LISS parent sample: $\hat{\gamma}_{21} = 0.02$, 95% CI $[0.00, 0.03]$, $p = .006$; see Tables S15 & S16 and Figure S12). Grandparents' conscientiousness trajectories were not significantly moderated by gender (see Tables S17 & S18 and Figure S12).

There were significant differences in conscientiousness depending on grandparents' work status (see Tables S19 & S20 and Figure S13): non-working grandparents saw more pronounced increases in conscientiousness in the years before the transition to grandparenthood compared to non-working parent, $\hat{\gamma}_{21} = 0.08$, 95% CI $[0.04, 0.13]$, $p <$ .001, and nonparent controls, $\hat{\gamma}_{21} = 0.07$, 95% CI $[0.03, 0.12]$, $p = .002$, and compared to working grandparents (difference in *before* parameter; parents: $[\hat{\gamma}_{30} + \hat{\gamma}_{31}] =$ -0.08, 95% CI [-0.13, -0.03], $p = .002$; nonparents: $[\hat{\gamma}_{30} + \hat{\gamma}_{31}] =$ -0.08, 95% CI [-0.12, -0.03], $p = .001$). Grandparents providing substantial grandchild care increased in conscientiousness to a greater degree than the matched respondents (difference in *after* parameter; parents: $[\hat{\gamma}_{21} + \hat{\gamma}_{31}] = 0.04$, 95% CI [0.02, 0.07], $p < .001$; nonparents: $[\hat{\gamma}_{21} + \hat{\gamma}_{31}] = 0.05$, 95% CI [0.03, 0.07], $p < .001$; see Tables S21 & S22 and Figure S14). There was only suggestive evidence that grandparents who provided substantial grandchild care increased more strongly in conscientiousness after the transition compared to grandparents who did not (difference in *after* parameter; parents: $[\hat{\gamma}_{30} + \hat{\gamma}_{31}] = 0.03$, 95% CI [0.00, 0.06], $p = .034$; nonparents: $[\hat{\gamma}_{30} + \hat{\gamma}_{31}] = 0.03$, 95% CI [0.00, 0.06], $p = .022$).

### *Extraversion*

The trajectories of grandparents' extraversion closely followed those of the matched controls. There were no significant effects indicating differences between grandparents and controls in the basic models (see Tables S23 & S24 and Figure S15), the models including the gender interaction (see Tables S25 & S26 and Figure S15), or the models of moderation by paid work (see Tables S27 & S28 and Figure S16). The only significant effect for extraversion was found in the analysis of moderation by grandchild care (see Tables S29 & S30 and Figure S17): compared to matched parent controls, grandparents providing substantial grandchild care increased slightly more strongly in extraversion after the transition to grandparenthood (difference in *after* parameter: $[\hat{\gamma}_{21} + \hat{\gamma}_{31}] = 0.04$, 95% CI [0.02, 0.07], $p = .001$; suggestive evidence in the nonparent sample: $[\hat{\gamma}_{21} + \hat{\gamma}_{31}] = 0.04$, 95% CI [0.01, 0.06], $p = .007$).

### *Neuroticism*

The basic models for neuroticism (see Tables S31 & S32 and Figure S18) showed only minor differences between grandparents and matched controls: Compared to HRS parent controls, HRS grandparents shifted slightly downward in their neuroticism immediately after the transition to grandparenthood (difference in *shift* parameter: $[\hat{\gamma}_{21} + \hat{\gamma}_{31}] = -0.08$, 95% CI [-0.12, -0.03], $p < .001$), which was not the case in the three other samples (HRS nonparents, LISS parents, and LISS nonparents). The models including the gender interaction (see Tables S33 & S34 and Figure S18) showed one significant effect in the comparison of grandparents and controls: In the HRS, grandfathers, compared to male parent controls, shifted downward in neuroticism directly after the transition to grandparenthood (difference in *shift* parameter: $[\hat{\gamma}_{21} + \hat{\gamma}_{31}] = -0.16$, 95% CI [-0.22, -0.09], $p < .001$; suggestive evidence in the nonparent sample: $[\hat{\gamma}_{21} + \hat{\gamma}_{31}] = -0.07$, 95% CI [-0.14, -0.01], $p = .024$). Thus, the effect present in the basic models seemed to be mostly due to differences in the grandfathers (vs. male controls).

Grandparents' trajectories of neuroticism as compared to the controls were significantly moderated by paid work (see Tables S35 & S36 and Figure S19): Compared to working nonparent controls, working grandparents increased more strongly in neuroticism in the years before the transition to grandparenthood (difference in *before* parameter: $[\hat{\gamma}_{21} + \hat{\gamma}_{31}] = 0.06$, 95% CI [0.03, 0.10], $p < .001$; suggestive evidence in the parent sample: $[\hat{\gamma}_{21} + \hat{\gamma}_{31}] = 0.05$, 95% CI [0.01, 0.08], $p = .015$). At the first post-transition assessment, working grandparents shifted downward in neuroticism compared to working parent controls (difference in *shift* parameter: $[\hat{\gamma}_{41} + \hat{\gamma}_{61} + \hat{\gamma}_{51} + \hat{\gamma}_{71}] = -0.08$, 95% CI [-0.14, -0.03], $p = .004$; suggestive evidence in the nonparent sample: $[\hat{\gamma}_{41} + \hat{\gamma}_{61} + \hat{\gamma}_{51} + \hat{\gamma}_{71}] = -0.06$, 95% CI [-0.11, 0.00], $p = .034$). There was suggestive evidence that grandparents providing substantial grandchild care decreased more strongly in neuroticism after the transition to grandparenthood than grandparents who did not (difference in *after* parameter; parents: $[\hat{\gamma}_{30} + \hat{\gamma}_{31}] = -0.04$, 95% CI [-0.07, 0.00], $p = .044$; nonparents: $[\hat{\gamma}_{30} + \hat{\gamma}_{31}] = -0.04$, 95% CI [-0.07, 0.00], $p = .048$; see Tables S37 & S38 and Figure S20).

### *Openness*

For openness, we also found a high degree of similarity between the grandparents and the matched control respondents in their trajectories based on the basic models (see Tables S39 & S40 and Figure S21) and models including the gender interaction (see Tables S41 & S42 and Figure S21). Grandparents in the HRS shifted downward in openness in the first assessment after the transition to grandparenthood compared to the parent controls (difference in *shift* parameter: $[\hat{\gamma}_{21} + \hat{\gamma}_{31}] = -0.05$, 95% CI [-0.09, -0.02], $p = .004$; suggestive evidence in the nonparent sample: $[\hat{\gamma}_{21} + \hat{\gamma}_{31}] = -0.04$, 95% CI [-0.07, 0.00], $p = .039$), which was due to significant differences between grandfathers and male parent controls (difference in *shift* parameter: $[\hat{\gamma}_{21} + \hat{\gamma}_{31}] = -0.11$, 95% CI [-0.17, -0.06], $p < .001$).

Performing paid work moderated grandparents' openness trajectories in subtle ways (see Tables S43 & S44 and Figure S22): Non-working grandparents increased more strongly

in openness post-transition than non-working controls (parents: $\hat{\gamma}_{41} = 0.05$, 95% CI $[0.02, 0.07]$, $p < .001$; nonparents: $\hat{\gamma}_{41} = 0.04$, 95% CI $[0.02, 0.06]$, $p < .001$). Further, there was suggestive evidence that openness of non-working grandparents shifted downward directly after the transition compared to non-working controls (difference in *shift* parameter; parents: $[\hat{\gamma}_{41} + \hat{\gamma}_{61}]$ = -0.09, 95% CI [-0.15, -0.02], $p = .007$; nonparents: $[\hat{\gamma}_{41} + \hat{\gamma}_{61}]$ = -0.07, 95% CI [-0.13, -0.01], $p = .014$). However, compared to non-working grandparents, working grandparents shifted upward in openness directly after the transition (suggestive evidence for difference in *shift* parameter; parents: $[\hat{\gamma}_{50} + \hat{\gamma}_{70} + \hat{\gamma}_{51} + \hat{\gamma}_{71}] =$ 0.08, 95% CI [0.00, 0.15], $p = .038$; nonparents: $[\hat{\gamma}_{50} + \hat{\gamma}_{70} + \hat{\gamma}_{51} + \hat{\gamma}_{71}] = 0.08$, 95% CI [0.01, 0.14], $p = .023$) and decreased afterwards (suggestive evidence for difference in *after* parameter; parents: $[\hat{\gamma}_{50} + \hat{\gamma}_{51}]$ = -0.04, 95% CI [-0.07, -0.01], $p = .016$; nonparents: $[\hat{\gamma}_{50} + \hat{\gamma}_{51}]$ = -0.04, 95% CI [-0.07, -0.01], $p = .007$). The analysis of moderation by grandchild care (see Tables S45 & S46 and Figure S23) revealed that grandparents providing substantial grandchild care increased more strongly in openness after the transition to grandparenthood than the matched nonparent controls (difference in *after* parameter: $[\hat{\gamma}_{21} + \hat{\gamma}_{31}] = 0.04$, 95% CI [0.01, 0.06], $p = .002$; suggestive evidence in the parent sample: $[\hat{\gamma}_{21} + \hat{\gamma}_{31}] = 0.04$, 95% CI [0.01, 0.07], $p = .005$). At the same time, the plotted trajectories demonstrated that the described moderation effects for openness were all quite small.

### *Life Satisfaction*

The basic models for life satisfaction (see Tables S47 & S48 and Figure S24) showed that grandparents in the LISS increased more strongly in life satisfaction directly following the transition compared to nonparent controls (difference in *shift* parameter: $[\hat{\gamma}_{21} + \hat{\gamma}_{31}] =$ 0.18, 95% CI [0.06, 0.30], $p = .004$). There was evidence in the models including the gender interaction (see Tables S49 & S50 and Figure S24) that this difference was due to grandmothers, who increased more strongly in life satisfaction directly following the transition to grandparenthood than female nonparent controls in the LISS (difference in

*shift* parameter: $[\hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{23} + \hat{\gamma}_{33}] = 0.24$, 95% CI [0.08, 0.41], $p = .004$). HRS grandmothers increased more strongly before the transition to grandparenthood compared to female parent controls (difference in *before* parameter: $[\hat{\gamma}_{11} + \hat{\gamma}_{13}] = 0.21$, 95% CI [0.09, 0.33], $p < .001$).

There was no consistent evidence for a moderation of life satisfaction by performing paid work (see Tables S51 & S52 and Figure S25) or grandchild care (see Tables S53 & S54 and Figure S26).

## Interindividual Differences in Change

First, we conducted comparisons of model fit between the random-intercept models reported previously and models where a random slope variance was estimated, separately for each change parameter. These comparisons showed a substantial amount of interindividual differences in change for all random slopes in all models as indicated by increases in model fit significant at $p < .001$.

Second, we estimated models with heterogeneous random slope variances of the grandparents and each control group in order to test whether interindividual differences in change were significantly larger in the grandparents. Contrary to hypothesis H2, for agreeableness, conscientiousness, and extraversion, interindividual differences in intraindividual change were greater in the control group for all tested effects (see Tables S55, S56, & S57). In the two HRS samples, assuming group heterogeneity in the random slope variances lead to significant improvements in model fit in all model comparisons. In the two LISS samples, this was the case for around half the tests.

Interindividual differences in changes in neuroticism before the transition to grandparenthood were significantly greater in the HRS grandparents than the nonparent controls (random slope variances of the *before* parameter), *likelihood ratio* = 73.45, $p < .001$. However, this was not the case in the comparison of grandparents with parent controls in the HRS or either control group in the LISS (see Table S58). The other

parameters of change in neuroticism did not differ significantly between groups in their random slope variances or—in the HRS—displayed significantly larger random slope variances in the respective control group.

For openness, interindividual differences in changes before the transition to grandparenthood were significantly greater in the LISS grandparents than the nonparent controls (random slope variances of the *before* parameter), *likelihood ratio* = 25.90, $p <$ .001. Again, this result could not be replicated in the other three samples, and the other parameters of change did either not differ between groups in their random slope variances or had significantly larger random slope variances in the respective control group (see Table S59).

We found partial evidence for larger interindividual differences in grandparents' changes in life satisfaction (see Table S60): In the LISS, grandparents' changes before the transition to grandparenthood varied interindividually to a larger extent compared to the parent controls (random slope variances of the *before* parameter), *likelihood ratio* = 41.47, $p$ < .001, and in the HRS compared to the nonparent controls, *likelihood ratio* = 111.97, $p <$ .001. Still, the majority of tests for heterogeneous random slope variance in life satisfaction indicated either non-significant differences or significantly larger random slope variances in the control sample.

## Rank-Order Stability

As indicators of rank-order stability, we computed test-retest correlations for the Big Five and life satisfaction for the matched sample, as well as separately for grandparents only and controls only (see Table S61). In 6 out of 24 comparisons grandparents' test-retest correlation was lower than that of the respective control group. However, differences in rank-order stability between the grandparents and control respondents did not reach significance in any of these comparisons. Overall, we found no confirmatory evidence in

support of hypothesis H3.[9]

## Discussion

In an analysis of first-time grandparents in comparison with both parent and nonparent matched control respondents we found pronounced stability in the Big Five and life satisfaction over the transition to grandparenthood. Although there were a few isolated effects in line with our hypotheses on mean-level increases in agreeableness and conscientiousness, and decreases in neuroticism (H1a), they were very small in size and also not consistent over the two analyzed panel studies (LISS and HRS) or the two matched control groups (parents and nonparents). We found suggestive evidence that grandparents providing substantial grandchild care increased slightly more strongly in conscientiousness and decreased slightly more strongly in neuroticism than those grandparents who did not (H1b), as well as partial evidence for moderation of the mean-level trajectories of conscientiousness, neuroticism, and openness by performing paid work. There was no consistent evidence that grandmothers reached higher levels of life satisfaction following the transition to grandparenthood (H1c). While interindividual differences in change were present for all parameters of change, they were only greater in the grandparents compared to the controls in a stark minority of conducted model comparisons (H2). Lastly, rank-order stability did not differ between grandparents and either control group, or was larger in the control group—contrary to expectations (H3).

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[9] In addition to the preregistered retest interval, we have also computed a maximally large retest interval between the first available pre-transition assessment and the last available post-transition assessment within the observation period. Here, 5 out of 24 comparisons indicated that rank-order stability was lower in the grandparents. There was only one significant difference in rank-order stability in accordance with our hypothesis: in the HRS, grandparents' rank-order stability in openness was lower than that of the nonparents, $p < .001$ (see Table S62). Another analysis also failed to provide convincing evidence that grandparents' rank-order stability was lower: we followed the preregistered approach but then excluded any duplicate control respondents resulting from matching with replacement who might bias results towards greater stability in the controls. Descriptively, 14 out of 24 comparisons showed lower rank-order stability in the grandparents compared to either control group (see Table S63). However, differences between groups were small and nonsignificant throughout.

825 **Social Investment Principle**

826 We conducted a preregistered, cross-study, and multi-comparison test of the social
827 investment principle (Lodi-Smith & Roberts, 2007; Roberts & Wood, 2006) in middle
828 adulthood and old age where the transition to grandparenthood has been put forward as a
829 potentially important developmental task driving personality development of the Big Five
830 (Hutteman et al., 2014). Across all analyzed traits, we found more evidence for trait
831 stability than change.

832 Still, whereas we did not find *consistent* evidence for personality development across
833 the transition to grandparenthood, the direction of the (sparse) effects we uncovered
834 generally supported the social investment principle—in contrast to development following
835 parenthood (Asselmann & Specht, 2020b; van Scheppingen et al., 2016). Below we
836 summarize our findings in support of the social investment principle because even small
837 psychological effects may be meaningful and involve real world consequences (Götz et al.,
838 2021): For agreeableness and conscientiousness we found slight post-transition increases in
839 comparison to the matched control groups which were line with the social investment
840 principle. However, the effects were not only small but also inconsistent across samples.
841 Agreeableness only increased in the LISS (compared to parents) and conscientiousness only
842 in the HRS (compared to both parents and nonparents). In the HRS, neuroticism
843 decreased in grandparents directly following the transition to grandparenthood when
844 compared to matched parent respondents. This was not the case in the LISS or compared
845 to HRS nonparents.

846 In the case of agreeableness and neuroticism, these effects were only present in the
847 comparison of grandfathers and male controls, whereas no effects were found for
848 grandmothers. In contrast, past research—mostly in the domains of well-being and
849 health—found more pronounced effects of the transition to grandparenthood for
850 grandmothers (Di Gessa et al., 2016b, 2019; Sheppard & Monden, 2019; Tanskanen et al.,
851 2019). This was discussed in the context of grandmothers spending more time with their

grandchildren than grandfathers and providing more hours of care (Condon et al., 2013; Di Gessa et al., 2020), thus making a higher social investment.[10] In our analysis, we found partial support for this for life satisfaction (see below). Yet our results for the Big Five were not in agreement with this line of thought. Instead, one possible explanation is that (future) grandfathers have on average been previously more invested in their work lives than in child rearing, and at the end of their career or after retirement found investment in grandchild care to be a more novel and meaningful transition than grandmothers (StGeorge & Fletcher, 2014; Tanskanen et al., 2021). Currently, however, empirical research specifically into the grandfather role is sparse (for a qualitative approach, see Mann & Leeson, 2010), while the demography of grandparenthood is undergoing swift changes toward a higher proportion of actively involved grandfathers (see Coall et al., 2016; Mann, 2007). Thus, more research into grandfathers' experience of the transition to grandparenthood is needed to substantiate our tentative findings.

To gain more insight into social investment mechanisms, we tested paid work and grandchild care as moderators. For conscientiousness, we found that grandparents who were not gainfully employed increased more strongly in anticipation of the transition to grandparenthood than working grandparents (and than the matched nonworking controls). Although this could imply that working grandparents did not find as much time for social investment because of the role conflict with the employee/worker role (see Tanskanen et al., 2021), we would have expected these moderation effects after the transition where grandparents were indeed able to spend time with their grandchild. However, such post-transition differences did not surface. Results for neuroticism were even less clearly in line with the social investment principle: Working grandparents increased in neuroticism in anticipation of the transition to grandparenthood (compared to nonparents), and decreased immediately following the transition (compared to parents). Regarding moderation by

[10] In the HRS analysis sample, the proportion of grandparents reporting that they have provided at least 100 hours of grandchild care since the last assessment was also slightly higher in grandmothers ($M = 0.45$, $SD = 0.50$) than grandfathers ($M = 0.41$, $SD = 0.49$).

grandchild care, our results suggested that grandparents who provided substantial grandchild care increased more in conscientiousness and decreased more in neuroticism compared to grandparents who did not. However, the strength of evidence was weak and indicates a need for temporally more fine-grained assessments with more extensive instruments of grandchild care (e.g., Vermote et al., 2021; see also Fingerman et al., 2020).

In total, evidence in favor of the social investment principle in our analyses was rather thin. This adds to other recent empirical tests in the context of parenthood and romantic relationships (Asselmann & Specht, 2020a, 2020b; Spikic et al., 2021; van Scheppingen et al., 2016) that have challenged the original core assumption of personality maturation through age-graded social role transitions. It now seems likely that distinct (or additional) theoretical assumptions and mechanisms are required to explain empirical findings of personality development in middle adulthood and old age. First steps in that direction include the recent distinction between social investment and divestment [Schwaba and Bleidorn (2019); or the similar distinction between personality maturation and relaxation (Asselmann & Specht, 2021) in the context of retirement, as well as the hypothesis that personality development is more closely tied to the subjective perceptions of adult role competency than to the transitions per se (Roberts & Davis, 2016).

Nonetheless, the possibility remains that preconditions we have not considered have to be met for grandparents to undergo personality development after the transition to grandparenthood. For example, grandparents might need to live in close proximity to their grandchild, see them on a regular basis, and provide grandchild care above a certain quantity and quality (e.g., level of responsibility). To our knowledge, however, there are presently no datasets with such detailed information regarding the grandparent role in conjunction with multiple waves of Big Five personality data. Studies in the well-being literature have provided initial evidence that more frequent contact with grandchildren was associated with higher grandparental well-being (Arpino, Bordone, et al., 2018; Danielsbacka et al., 2019; Danielsbacka & Tanskanen, 2016). However, Danielsbacka et

al. (2019) noted that this effect was due to between-person differences in grandparents, thus limiting a causal interpretation of frequency of grandchild care as a mechanism of development in psychological characteristics like life satisfaction and personality.

## Life Satisfaction

Related, we did not find convincing evidence that life satisfaction changed as a consequence of the transition to grandparenthood. Only in the LISS in comparison with the nonparent control group did grandparents' life satisfaction increase slightly at the first assessment following the transition to grandparenthood. This difference was present in grandmothers but not grandfathers. While this pattern of effects is in line with several studies reporting increases associated with women becoming grandmothers (e.g., Di Gessa et al., 2019; Tanskanen et al., 2019), we did not uncover it reliably in both samples or with both comparison groups and also did not see consistent effects in the linear trajectories after the transition to grandparenthood. As mentioned in the introduction, a study into the effects of the transition on first-time grandparents' life satisfaction that used fixed effects regressions also did not discover any positive within-person effects of the transition (Sheppard & Monden, 2019). Further, in line with this study, we did not find evidence that grandparents who provided substantial grandchild care increased more strongly in life satisfaction than those who did not, and, likewise, grandparents' life satisfaction trajectories were not moderated by employment status (Sheppard & Monden, 2019).

Overall, research has accumulated that there is an association between having grandchildren and higher life satisfaction on the between-person level—especially for (maternal) grandmothers who provide frequent grandchild care (Danielsbacka et al., 2011; Danielsbacka & Tanskanen, 2016)—but no within-person effect of the transition. The main reason for this divergence is the presence of *selection* effects, that is, confounding which we have accounted for via the propensity score matching design, but which was present in previous within-person estimates of change (Luhmann et al., 2014; Thoemmes & Kim,

2011; VanderWeele et al., 2020).

## Interindividual Differences in Change

Analyzing how grandparents differed interindividually in their trajectories of change provided additional insight beyond the analysis of mean-level change. All parameters of change exhibited considerable interindividual differences. Similar to Denissen et al. (2019) who found significant model fit improvements of random slopes in most models (see also Doré & Bolger, 2018) this pattern indicates that respondents—both grandparents and matched controls—deviated to a considerable extent from the average trajectories that we reported on previously.

We expected larger interindividual differences in the grandparents because life events and transitions differ in the impact they have on people's daily lives and in the degree that those who experience them perceive them as meaningful or emotionally significant (Doré & Bolger, 2018; Luhmann et al., 2020). Our results, however, indicated that interindividual differences were larger in the controls than the grandparents for many models or that there were no significant group differences. Only in a stark minority of tests for neuroticism, openness, and life satisfaction were interindividual differences significantly larger in grandparents (concerning the linear slope in anticipation of grandparenthood). Overall, we did not find supporting evidence for the hypothesis that interindividual differences in change would be larger in the grandparents than the controls (H2).

Integrating this result into the literature, it is important to point out that most previous studies did not compare interindividual differences in personality change between the event group and a comparison group (even if they did use comparison groups for the main analyses; Denissen et al., 2019; Schwaba & Bleidorn, 2019; cf. Jackson & Beck, 2021). As demonstrated by an analysis across the entire life span (i.e., irrespective of life events; Schwaba & Bleidorn, 2018), interindividual differences in personality change—while largest in emerging adulthood—were substantial up until circa 70 years of age for most domains.

Regarding the substantive question of how the transition to grandparenthood affects interindividual differences in change, we, therefore, propose that it is more informative to test grandparents' degree of variability in change against well-matched control groups than against no groups as often done previously.

Recently, Jackson and Beck (2021) have presented evidence that the experience of sixteen commonly analyzed life events was mostly associated with decreases in interindividual variation in the Big Five. They used a comparable approach to ours but in a SEM latent growth curve framework and not accounting for covariates related to pre-existing group differences (i.e., without matching). Their results based on the German SOEP data suggested—counter to their expectations—that most life events made people *more* similar to each other (Jackson & Beck, 2021). Thus, coupled with our results it seems that the assumption that life events and transitions ostensibly produce increased heterogeneity between people needs to be scrutinized in future studies.

### Rank-Order Stability

We also investigated whether grandparents' rank-order stability in the Big Five personality traits and life satisfaction over the transition to grandparenthood was lower than that of the matched controls. Conceptually, rank-order changes are possible in the absence of mean-level changes. Empirically, though, we did not find evidence supporting our hypothesis (H3): Rank-order stability did not differ significantly between grandparents and controls and, descriptively, was larger in the grandparents in the majority of comparisons. In a recent study of the effects of eight different life events on the development of the Big Five personality traits and life satisfaction (Denissen et al., 2019), comparably high rank-order stability was reported in the event groups. Only particularly adverse events such as widowhood and disability significantly lowered respondents' rank-order stability (Chopik, 2018; Denissen et al., 2019).

Regarding the Big Five's general age trajectories of rank-order stability, support for

inverted U-shape trajectories was recently strengthened in a study of two panel data sets (Seifert et al., 2021). This study also explored that health deterioration accounted for parts of the decline of personality stability in old age. Therefore, it is possible that in later developmental phases (see also Hutteman et al., 2014) rank-order stability of personality is largely influenced by health status and less by normative life events. In the context of grandparenthood, this relates to research into health benefits (Chung & Park, 2018; Condon et al., 2018; Di Gessa et al., 2016a, 2016b; cf. Ates, 2017) and decreases to mortality risk associated with grandparenthood or grandchild care (Choi, 2020; Christiansen, 2014; Hilbrand et al., 2017; cf. Ellwardt et al., 2021). Thereby, grandparenthood might have a time-lagged effect on personality stability through protective effects on health. However, with the currently available data such a mediating effect cannot be reliably recovered (under realistic assumptions; Rohrer et al., 2021).

### Limitations and Future Directions

The current study has a number of strengths that bolster the robustness of its inferences: It features a preregistered analysis of archival data with an internal cross-study replication, a propensity score matching design that carefully deliberated covariate choice, and a twofold comparison of all effects of the grandparents—against matched parents (with children in reproductive age) and nonparents. To obtain a comprehensive picture of personality development, we analyzed mean-level changes, interindividual differences in change, and changes to rank-order stability. Both of the panel studies we used had its strengths and weaknesses: The HRS had a larger sample of first-time grandparents besides information on important moderators but assessed personality and life satisfaction only every four years. The LISS assessed the outcomes every year (apart from a few waves with planned missingness) but restricted the grandparent sample through filtering of the relevant questions to employed respondents resulting in a smaller and younger sample. Together, the strengths of one dataset partially compensated for the limitations of the other.

Still, a number of limitations need to be addressed: First, there remains some doubt whether we were able to follow truly socially invested grandparents over time. More detailed information regarding a grandparent's relationship with their first and later grandchildren and the level of care a grandparent provides would be a valuable source of information on social investment, as would be information on possible constraining factors such as length and cost of travel between grandparent and grandchild. Lacking such precise contextual information, the multidimensionality of the grandparent role (Buchanan & Rotkirch, 2018; Findler et al., 2013; Thiele & Whelan, 2006) might lend itself to future investigations into grandparents' personality development using growth mixture models (Grimm & Ram, 2009; Ram & Grimm, 2009). On a similar note, we did not consider grandparents' subjective perception of the transition to grandparenthood in terms of the emotional significance, meaningfulness, and impact to daily lives which might be responsible for differential individual change trajectories (Kritzler et al., 2021; Luhmann et al., 2020).

Second, we relied on self-report personality data and did not include other-reports by family members or close friends (Luan et al., 2017; McCrae, 2018; McCrae & Mõttus, 2019; Mõttus et al., 2019). Thus, our results might be influenced by common method bias (Podsakoff et al., 2003) and other self-report biases which were shown to differ across the life span (Soubelet & Salthouse, 2011). Large-scale panel data incorporating both self- and other-reports of personality over time would be needed to address this issue (e.g., Oltmanns et al., 2020).

Third, a causal interpretation of our results rests on a number of assumptions that are not directly testable with the data (Li, 2013; Stuart, 2010): most importantly, we assumed that we picked the right sets of covariates, that our model to estimate the propensity score was correctly specified, and that there was no substantial remaining bias due to unmeasured confounding. Working with archival data meant that we had no influence on data collection, and we also aimed for roughly equivalent sets of covariates

across both data sets. Therefore, we had to make some compromises to covariate choice. Still, we believe that our procedure to select covariates following recent state-of-the-art recommendations (see *Methods*; VanderWeele et al., 2020), and to substantiate each covariate's selection explicitly within our preregistration improved upon previously applied practices. Regarding the propensity score estimation, we opted to estimate the grandparents' propensity scores at a specific time point at least two years before the transition to grandparenthood which had the advantages that (*1*) the covariates were uncontaminated by anticipation of the transition, and (*2*) the matched controls had a clear counterfactual timeline of transition (for similar recent approaches analyzing life events, see Balbo & Arpino, 2016; Krämer & Rodgers, 2020; van Scheppingen & Leopold, 2020). Regarding the timing of measurements and the transition to grandparenthood, it also has to be emphasized that we might have missed more short-term effects playing out over months instead of years.

Fourth, our results only pertain to the countries for which our data are representative on a population-level, the Netherlands and the United States. Personality development, and more specifically personality maturation, have been examined cross-culturally (e.g., Bleidorn et al., 2013; Chopik & Kitayama, 2018). On the one hand, these studies showed universal average patterns of change towards greater maturity over the life span. On the other hand, they emphasized cultural differences regarding norms and values and the temporal onset of social roles. For grandparenthood, there are substantial demographic differences between countries (Leopold & Skopek, 2015), as well as differences in public child care systems which may demand different levels of grandparental involvement (Bordone et al., 2017; Hank & Buber, 2009). Compared to the US, Dutch people on average become grandparents six years later (Leopold & Skopek, 2015) and, although both countries have largely market-based systems for early child care, Dutch parents on average have access to more fully developed child care systems through (capped) governmental benefits (OECD, 2020). Despite these differences, our results from

the Dutch and US samples did not indicate systematic discrepancies.

Lastly, while we assessed our dependent variables through highly reliable scales, there was a conceptual difference in the Big Five measures (see John & Srivastava, 1999) in the two studies: In the LISS, the IPIP Big-Five Inventory (Goldberg, 1992) presented as items statements to which respondents indicated how accurately they described them (using a bipolar response scale). However, in the HRS, the Midlife Development Inventory (Lachman & Weaver, 1997) used adjectives as items to ask respondents how well they described them (using a unipolar response scale). This discrepancy hindered the between-sample comparison somewhat and also resulted in different distributions of the Big Five across samples (see Figure S3-S8). The possibility should also be pointed out that our analyses on the domain-level of the Big Five could be too broad conceptually to identify patterns of personality development over the transition to grandparenthood that are discernible on the level of facets or nuances (Mõttus & Rozgonjuk, 2021).

## Conclusion

Do personality traits change over the transition to grandparenthood? Using data from two nationally representative panel studies in a preregistered propensity score matching design, the current study revealed that trajectories of the Big Five personality traits remained predominantly stable in first-time grandparents over this transition compared to matched parents and nonparents. We found slight post-transition increases to grandparents' agreeableness and conscientiousness in line with our hypothesis of personality development based on the social investment principle. However, these effects were minuscule and inconsistent across analysis samples. In addition, our analyses revealed (*1*) a lack of consistent moderation of personality development by grandparents providing substantial grandchild care, (*2*) interindividual differences in change that were mostly smaller in grandparents than in matched respondents, and (*3*) comparable rank-order stability in grandparents and matched respondents. Thus, we conclude that the transition

to grandparenthood did not act as a straightforwardly important developmental task driving personality development in middle adulthood and old age (as previously proposed, see Hutteman et al., 2014). With more detailed assessment of the grandparent role, future research could investigate if personality development occurs in a subset of grandparents who are highly socially invested.

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# Supplemental Material

## Model Equations

Model equation for the basic (i.e., unmoderated) models (ignoring the additional nesting in households applied to the majority of models):

$$\begin{aligned} y_{ti} =& \beta_{0i} + \beta_{1i} before_{ti} + \beta_{2i} after_{ti} + \beta_{3i} shift_{ti} + e_{ti} \\ \beta_{0i} &= \gamma_{00} + \gamma_{01} grandparent_i + \gamma_{02} pscore_i + \upsilon_{0i} \\ \beta_{1i} &= \gamma_{10} + \gamma_{11} grandparent_i \\ \beta_{2i} &= \gamma_{20} + \gamma_{21} grandparent_i \\ \beta_{3i} &= \gamma_{30} + \gamma_{31} grandparent_i \ , \end{aligned} \tag{1}$$

where at time $t$ for person $i$ $e_{ti} \sim N(0, \sigma_e^2)$ and $\upsilon_{0i} \sim N(0, \tau_{00})$. $y_{ti}$ represented one of the Big Five or life satisfaction. Separate models were computed for LISS and HRS samples, and for parent and nonparent matched controls.

Model equation for the models including the gender interaction (moderator variable $female_i$):

$$\begin{aligned} y_{ti} =& \beta_{0i} + \beta_{1i} before_{ti} + \beta_{2i} after_{ti} + \beta_{3i} shift_{ti} + e_{ti} \\ \beta_{0i} &= \gamma_{00} + \gamma_{01} grandparent_i + \gamma_{02} female_i + \gamma_{03} grandparent_i female_i \\ &\quad + \gamma_{04} pscore_i + \upsilon_{0i} \\ \beta_{1i} &= \gamma_{10} + \gamma_{11} grandparent_i + \gamma_{12} female_i + \gamma_{13} grandparent_i female_i \\ \beta_{2i} &= \gamma_{20} + \gamma_{21} grandparent_i + \gamma_{22} female_i + \gamma_{23} grandparent_i female_i \\ \beta_{3i} &= \gamma_{30} + \gamma_{31} grandparent_i + \gamma_{32} female_i + \gamma_{33} grandparent_i female_i \ , \end{aligned} \tag{2}$$

where $e_{ti} \sim N(0, \sigma_e^2)$ and $\upsilon_{0i} \sim N(0, \tau_{00})$. Again, we estimated separate models for each sample (LISS, HRS) and each comparison group (parents, nonparents).

Model equation for the models including the interaction by paid work (moderator variable $working_{ti}$):

$$
\begin{aligned}
y_{ti} =& \beta_{0i} + \beta_{1i} working_{ti} + \beta_{2i} before_{ti} + \beta_{3i} before_{ti} working_{ti} + \beta_{4i} after_{ti} \\
&+ \beta_{5i} after_{ti} working_{ti} + \beta_{6i} shift_{ti} + \beta_{7i} shift_{ti} working_{ti} + e_{ti} \\
\beta_{0i} &= \gamma_{00} + \gamma_{01} grandparent_i + \gamma_{02} pscore_i + \upsilon_{0i} \\
\beta_{1i} &= \gamma_{10} + \gamma_{11} grandparent_i \\
\beta_{2i} &= \gamma_{20} + \gamma_{21} grandparent_i \\
\beta_{3i} &= \gamma_{30} + \gamma_{31} grandparent_i \\
\beta_{4i} &= \gamma_{40} + \gamma_{41} grandparent_i \\
\beta_{5i} &= \gamma_{50} + \gamma_{51} grandparent_i \\
\beta_{6i} &= \gamma_{60} + \gamma_{61} grandparent_i \\
\beta_{7i} &= \gamma_{70} + \gamma_{71} grandparent_i \ ,
\end{aligned}
\tag{3}
$$

where $e_{ti} \sim N(0, \sigma_e^2)$ and $\upsilon_{0i} \sim N(0, \tau_{00})$. We estimated separate models for each comparison group (parents, nonparents) in the HRS.

Model equation for the models including the interaction by grandchild care (moderator variable $caring_{ti}$):

$$
\begin{aligned}
y_{ti} =& \beta_{0i} + \beta_{1i} caring_{ti} + \beta_{2i} after_{ti} + \beta_{3i} after_{ti} caring_{ti} + e_{ti} \\
\beta_{0i} &= \gamma_{00} + \gamma_{01} grandparent_i + \gamma_{02} pscore_i + \upsilon_{0i} \\
\beta_{1i} &= \gamma_{10} + \gamma_{11} grandparent_i \\
\beta_{2i} &= \gamma_{20} + \gamma_{21} grandparent_i \\
\beta_{3i} &= \gamma_{30} + \gamma_{31} grandparent_i \ ,
\end{aligned}
\tag{4}
$$

where $e_{ti} \sim N(0, \sigma_e^2)$ and $\upsilon_{0i} \sim N(0, \tau_{00})$. Restricted to the HRS post-transition period, we estimated separate models for each comparison group (parents, nonparents).

## Supplemental Tables

### Table S1

*Intra-Class Correlations of Grandparents and Matched Controls in the Four Analysis Samples.*

| | A | C | E | N | O | LS |
|---|---|---|---|---|---|---|
| LISS: Parent controls | | | | | | |
| $ICC_{pid}$ | 0.74 | 0.77 | 0.81 | 0.71 | 0.78 | 0.35 |
| $ICC_{hid}$ | 0.05 | 0.01 | 0.02 | 0.07 | 0.00 | 0.37 |
| $ICC_{pid/hid}$ | 0.79 | 0.78 | 0.83 | 0.78 | 0.78 | 0.71 |
| LISS: Nonparent controls | | | | | | |
| $ICC_{pid}$ | 0.76 | 0.76 | 0.64 | 0.67 | 0.79 | 0.32 |
| $ICC_{hid}$ | 0.00 | 0.00 | 0.22 | 0.10 | 0.02 | 0.36 |
| $ICC_{pid/hid}$ | 0.76 | 0.77 | 0.85 | 0.77 | 0.81 | 0.67 |
| HRS: Parent controls | | | | | | |
| $ICC_{pid}$ | 0.76 | 0.69 | 0.79 | 0.73 | 0.57 | 0.31 |
| $ICC_{hid}$ | 0.00 | 0.07 | 0.00 | 0.01 | 0.21 | 0.35 |
| $ICC_{pid/hid}$ | 0.76 | 0.76 | 0.79 | 0.74 | 0.78 | 0.67 |
| HRS: Nonparent controls | | | | | | |
| $ICC_{pid}$ | 0.71 | 0.73 | 0.77 | 0.76 | 0.59 | 0.33 |
| $ICC_{hid}$ | 0.07 | 0.06 | 0.04 | 0.00 | 0.23 | 0.38 |
| $ICC_{pid/hid}$ | 0.78 | 0.79 | 0.80 | 0.76 | 0.82 | 0.71 |

*Note.* A = agreeableness, C = conscientiousness, E = extraversion, N = neuroticism, O = openness, LS = life satisfaction. Intra-class correlations are the proportion of total variation that is explained by the respective nesting factor. $ICC_{pid}$ is the proportion of total variance explained by nesting in respondents which corresponds to the correlation between two randomly selected observations from the same respondent. $ICC_{hid}$ is the proportion of total variance explained by nesting in households which corresponds to the correlation between two randomly selected observations from the same household. $ICC_{pid/hid}$ is the proportion of total variance explained by nesting in respondents and in households which corresponds to the correlation between two randomly selected observations from the same respondent and the same household.

**Table S2**

*Longitudinal Sample Size in the Analysis Samples and Coding Scheme for the Piecewise Regression Coefficients.*

| | Pre-transition years | | | | | | Post-transition years | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | -6 | -5 | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| LISS: Analysis samples | | | | | | | | | | | | | |
| Grandparents: obs. | 92 | 105 | 108 | 121 | 156 | 116 | 133 | 138 | 108 | 108 | 69 | 62 | 52 |
| Grandparents: % women | 51.09 | 48.57 | 52.78 | 51.24 | 56.41 | 62.93 | 47.37 | 52.90 | 51.85 | 50.00 | 56.52 | 66.13 | 53.85 |
| Parent controls: obs. | 335 | 425 | 381 | 540 | 740 | 351 | 450 | 488 | 333 | 394 | 365 | 164 | 201 |
| Parent controls: % women | 57.61 | 51.06 | 55.12 | 51.48 | 55.00 | 56.13 | 53.11 | 54.10 | 56.76 | 51.27 | 56.99 | 59.76 | 48.76 |
| Nonparent controls: obs. | 331 | 399 | 407 | 554 | 739 | 354 | 473 | 516 | 367 | 477 | 375 | 146 | 202 |
| Nonparent controls: % women | 52.57 | 54.89 | 57.99 | 52.71 | 55.21 | 54.52 | 49.26 | 54.46 | 52.86 | 52.83 | 54.67 | 48.63 | 51.49 |
| LISS: Coding scheme | | | | | | | | | | | | | |
| Before-slope | 0 | 1 | 2 | 3 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| After-slope | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Shift | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| HRS: Analysis samples | | | | | | | | | | | | | |
| Grandparents: obs. | 162 | | 388 | | 461 | | 380 | | 444 | | 195 | | 232 |
| Grandparents: % women | 57.41 | | 54.12 | | 55.53 | | 53.95 | | 55.41 | | 56.41 | | 53.45 |
| Parent controls: obs. | 619 | | 1540 | | 1844 | | 1228 | | 1504 | | 658 | | 864 |
| Parent controls: % women | 55.41 | | 54.03 | | 55.53 | | 54.64 | | 56.45 | | 56.08 | | 57.64 |
| Nonparent controls: obs. | 620 | | 1541 | | 1844 | | 1205 | | 1448 | | 688 | | 821 |
| Nonparent controls: % women | 56.45 | | 54.06 | | 55.53 | | 56.10 | | 58.91 | | 57.56 | | 60.54 |
| HRS: Coding scheme | | | | | | | | | | | | | |
| Before-slope | 0 | | 1 | | 2 | | 2 | | 2 | | 2 | | 2 |
| After-slope | 0 | | 0 | | 0 | | 1 | | 2 | | 3 | | 4 |
| Shift | 0 | | 0 | | 0 | | 1 | | 1 | | 1 | | 1 |

*Note.* obs. = observations. $time = 0$ marks the first year where the transition to grandparenthood has been reported. The number of grandparent respondents included in the final samples is $N_{LISS} = 250$ and $N_{HRS} = 846$.

**Table S3**

*Means and Standard Deviations of the Big Five and Life Satisfaction over Time in the LISS Panel.*

| | Pre-transition years | | | | | | Post-transition years | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | -6 | -5 | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Agreeableness | | | | | | | | | | | | | |
| Grandparents | 3.85 | 3.87 | 3.93 | 3.87 | 3.90 | 3.93 | 3.87 | 3.92 | 3.91 | 3.91 | 3.89 | 4.01 | 3.98 |
| | (0.52) | (0.50) | (0.46) | (0.49) | (0.54) | (0.47) | (0.49) | (0.52) | (0.52) | (0.51) | (0.52) | (0.49) | (0.37) |
| Parent controls | 3.93 | 3.89 | 3.90 | 3.87 | 3.91 | 3.95 | 3.91 | 3.89 | 3.90 | 3.92 | 3.86 | 3.86 | 3.81 |
| | (0.52) | (0.51) | (0.47) | (0.50) | (0.48) | (0.48) | (0.47) | (0.51) | (0.53) | (0.48) | (0.50) | (0.43) | (0.43) |
| Nonparent controls | 3.95 | 3.94 | 3.98 | 3.98 | 3.94 | 3.91 | 3.94 | 3.95 | 3.94 | 3.94 | 3.92 | 3.92 | 3.88 |
| | (0.47) | (0.50) | (0.45) | (0.50) | (0.49) | (0.47) | (0.44) | (0.45) | (0.46) | (0.47) | (0.41) | (0.44) | (0.42) |
| Conscientiousness | | | | | | | | | | | | | |
| Grandparents | 3.76 | 3.84 | 3.74 | 3.75 | 3.77 | 3.79 | 3.77 | 3.78 | 3.75 | 3.79 | 3.84 | 3.74 | 3.76 |
| | (0.50) | (0.45) | (0.49) | (0.46) | (0.53) | (0.48) | (0.49) | (0.51) | (0.49) | (0.51) | (0.44) | (0.48) | (0.43) |
| Parent controls | 3.80 | 3.78 | 3.80 | 3.77 | 3.79 | 3.83 | 3.82 | 3.79 | 3.80 | 3.79 | 3.78 | 3.76 | 3.77 |
| | (0.52) | (0.50) | (0.52) | (0.49) | (0.49) | (0.50) | (0.49) | (0.47) | (0.47) | (0.46) | (0.43) | (0.44) | (0.45) |
| Nonparent controls | 3.77 | 3.79 | 3.76 | 3.80 | 3.74 | 3.75 | 3.77 | 3.72 | 3.82 | 3.81 | 3.78 | 3.84 | 3.80 |
| | (0.53) | (0.50) | (0.51) | (0.50) | (0.51) | (0.53) | (0.50) | (0.50) | (0.50) | (0.51) | (0.48) | (0.46) | (0.50) |
| Extraversion | | | | | | | | | | | | | |
| Grandparents | 3.23 | 3.20 | 3.31 | 3.32 | 3.28 | 3.30 | 3.19 | 3.24 | 3.22 | 3.19 | 3.33 | 3.34 | 3.19 |
| | (0.66) | (0.74) | (0.54) | (0.58) | (0.64) | (0.57) | (0.61) | (0.69) | (0.65) | (0.60) | (0.60) | (0.58) | (0.55) |
| Parent controls | 3.32 | 3.30 | 3.28 | 3.27 | 3.26 | 3.30 | 3.25 | 3.20 | 3.22 | 3.28 | 3.19 | 3.19 | 3.14 |
| | (0.58) | (0.59) | (0.58) | (0.59) | (0.59) | (0.59) | (0.64) | (0.62) | (0.59) | (0.61) | (0.58) | (0.53) | (0.56) |
| Nonparent controls | 3.31 | 3.27 | 3.21 | 3.32 | 3.32 | 3.28 | 3.30 | 3.27 | 3.31 | 3.31 | 3.28 | 3.13 | 3.26 |
| | (0.74) | (0.70) | (0.79) | (0.75) | (0.69) | (0.70) | (0.72) | (0.73) | (0.77) | (0.78) | (0.73) | (0.75) | (0.74) |
| Neuroticism | | | | | | | | | | | | | |
| Grandparents | 2.39 | 2.31 | 2.33 | 2.41 | 2.45 | 2.47 | 2.30 | 2.39 | 2.30 | 2.36 | 2.33 | 2.44 | 2.53 |
| | (0.71) | (0.64) | (0.60) | (0.64) | (0.65) | (0.71) | (0.67) | (0.76) | (0.68) | (0.66) | (0.67) | (0.80) | (0.67) |
| Parent controls | 2.43 | 2.42 | 2.42 | 2.38 | 2.40 | 2.37 | 2.35 | 2.35 | 2.30 | 2.28 | 2.35 | 2.31 | 2.33 |
| | (0.59) | (0.63) | (0.56) | (0.58) | (0.58) | (0.60) | (0.63) | (0.65) | (0.56) | (0.56) | (0.60) | (0.55) | (0.56) |
| Nonparent controls | 2.41 | 2.44 | 2.47 | 2.36 | 2.43 | 2.37 | 2.33 | 2.37 | 2.34 | 2.33 | 2.35 | 2.48 | 2.35 |
| | (0.64) | (0.63) | (0.69) | (0.70) | (0.69) | (0.63) | (0.69) | (0.71) | (0.74) | (0.68) | (0.70) | (0.82) | (0.83) |

Table S3 continued

| | Pre-transition years | | | | | | Post-transition years | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | -6 | -5 | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Openness | | | | | | | | | | | | | |
| Grandparents | 3.43 | 3.50 | 3.54 | 3.49 | 3.49 | 3.50 | 3.48 | 3.48 | 3.50 | 3.45 | 3.50 | 3.43 | 3.36 |
| | (0.51) | (0.50) | (0.49) | (0.45) | (0.49) | (0.50) | (0.48) | (0.54) | (0.43) | (0.46) | (0.50) | (0.53) | (0.56) |
| Parent controls | 3.53 | 3.46 | 3.43 | 3.48 | 3.48 | 3.48 | 3.50 | 3.49 | 3.44 | 3.51 | 3.42 | 3.37 | 3.42 |
| | (0.52) | (0.52) | (0.50) | (0.53) | (0.51) | (0.51) | (0.52) | (0.50) | (0.48) | (0.48) | (0.49) | (0.48) | (0.42) |
| Nonparent controls | 3.53 | 3.57 | 3.53 | 3.58 | 3.52 | 3.51 | 3.52 | 3.55 | 3.54 | 3.59 | 3.53 | 3.51 | 3.51 |
| | (0.52) | (0.51) | (0.51) | (0.52) | (0.52) | (0.51) | (0.51) | (0.51) | (0.52) | (0.51) | (0.50) | (0.47) | (0.53) |
| Life satisfaction | | | | | | | | | | | | | |
| Grandparents | 5.18 | 5.29 | 5.23 | 5.16 | 5.28 | 5.24 | 5.31 | 5.24 | 5.37 | 5.38 | 5.39 | 5.25 | 5.15 |
| | (1.06) | (0.93) | (1.13) | (0.95) | (0.93) | (1.10) | (0.93) | (1.03) | (1.09) | (0.90) | (1.10) | (1.10) | (1.00) |
| Parent controls | 5.21 | 5.30 | 5.26 | 5.23 | 5.28 | 5.29 | 5.36 | 5.25 | 5.26 | 5.45 | 5.33 | 5.40 | 5.41 |
| | (1.11) | (1.03) | (1.01) | (0.97) | (1.01) | (1.07) | (0.99) | (1.03) | (1.04) | (0.93) | (1.04) | (1.05) | (1.05) |
| Nonparent controls | 5.27 | 5.19 | 5.10 | 5.21 | 5.26 | 5.18 | 5.24 | 5.09 | 5.10 | 5.07 | 5.23 | 4.98 | 5.19 |
| | (0.92) | (0.87) | (0.90) | (0.92) | (0.95) | (0.90) | (0.96) | (1.04) | (1.12) | (1.13) | (1.08) | (1.30) | (1.18) |

*Note.* Standard deviations shown in parentheses; $time = 0$ marks the first year where the transition to grandparenthood was reported.

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**Table S4**

*Means and Standard Deviations of the Big Five and Life Satisfaction over Time in the HRS.*

| | Pre-transition years | | | | | | Post-transition years | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | -6 | -5 | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Agreeableness | | | | | | | | | | | | | |
| Grandparents | 3.46 | | 3.51 | | 3.51 | | 3.52 | | 3.52 | | 3.50 | | 3.56 |
| | (0.47) | | (0.48) | | (0.49) | | (0.49) | | (0.48) | | (0.53) | | (0.44) |
| Parent controls | 3.50 | | 3.48 | | 3.50 | | 3.49 | | 3.49 | | 3.44 | | 3.47 |
| | (0.48) | | (0.49) | | (0.46) | | (0.50) | | (0.48) | | (0.52) | | (0.51) |
| Nonparent controls | 3.50 | | 3.50 | | 3.50 | | 3.52 | | 3.52 | | 3.44 | | 3.48 |
| | (0.50) | | (0.50) | | (0.51) | | (0.50) | | (0.50) | | (0.53) | | (0.53) |
| Conscientiousness | | | | | | | | | | | | | |
| Grandparents | 3.47 | | 3.46 | | 3.47 | | 3.46 | | 3.45 | | 3.44 | | 3.49 |
| | (0.46) | | (0.45) | | (0.44) | | (0.45) | | (0.44) | | (0.43) | | (0.44) |
| Parent controls | 3.45 | | 3.45 | | 3.45 | | 3.47 | | 3.46 | | 3.43 | | 3.44 |
| | (0.45) | | (0.45) | | (0.45) | | (0.45) | | (0.46) | | (0.50) | | (0.50) |
| Nonparent controls | 3.50 | | 3.48 | | 3.49 | | 3.50 | | 3.48 | | 3.46 | | 3.49 |
| | (0.44) | | (0.44) | | (0.44) | | (0.42) | | (0.45) | | (0.45) | | (0.43) |
| Extraversion | | | | | | | | | | | | | |
| Grandparents | 3.15 | | 3.22 | | 3.20 | | 3.21 | | 3.19 | | 3.22 | | 3.22 |
| | (0.56) | | (0.56) | | (0.54) | | (0.56) | | (0.58) | | (0.59) | | (0.58) |
| Parent controls | 3.20 | | 3.18 | | 3.19 | | 3.21 | | 3.21 | | 3.17 | | 3.19 |
| | (0.51) | | (0.56) | | (0.54) | | (0.54) | | (0.54) | | (0.55) | | (0.56) |
| Nonparent controls | 3.19 | | 3.20 | | 3.20 | | 3.23 | | 3.22 | | 3.23 | | 3.24 |
| | (0.55) | | (0.54) | | (0.56) | | (0.54) | | (0.54) | | (0.56) | | (0.57) |
| Neuroticism | | | | | | | | | | | | | |
| Grandparents | 2.00 | | 1.97 | | 2.06 | | 1.91 | | 1.96 | | 1.91 | | 1.91 |
| | (0.56) | | (0.63) | | (0.62) | | (0.60) | | (0.58) | | (0.59) | | (0.61) |
| Parent controls | 2.01 | | 2.05 | | 2.01 | | 2.03 | | 2.00 | | 2.01 | | 1.95 |
| | (0.59) | | (0.60) | | (0.59) | | (0.61) | | (0.61) | | (0.61) | | (0.60) |
| Nonparent controls | 2.05 | | 2.00 | | 2.02 | | 1.92 | | 1.97 | | 1.84 | | 1.90 |
| | (0.56) | | (0.58) | | (0.60) | | (0.57) | | (0.59) | | (0.55) | | (0.58) |

Table S4 continued

| | Pre-transition years | | | | | | Post-transition years | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | -6 | -5 | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Openness | | | | | | | | | | | | | |
| Grandparents | 3.00 | | 3.02 | | 3.04 | | 3.01 | | 3.00 | | 2.96 | | 3.04 |
| | (0.51) | | (0.53) | | (0.51) | | (0.52) | | (0.52) | | (0.59) | | (0.51) |
| Parent controls | 3.03 | | 3.00 | | 2.98 | | 3.03 | | 3.00 | | 2.96 | | 2.96 |
| | (0.51) | | (0.56) | | (0.54) | | (0.54) | | (0.52) | | (0.58) | | (0.56) |
| Nonparent controls | 3.06 | | 3.05 | | 3.05 | | 3.07 | | 3.06 | | 3.02 | | 3.04 |
| | (0.54) | | (0.53) | | (0.55) | | (0.54) | | (0.55) | | (0.57) | | (0.57) |
| Life satisfaction | | | | | | | | | | | | | |
| Grandparents | 5.14 | | 5.08 | | 5.15 | | 5.17 | | 5.16 | | 5.29 | | 5.28 |
| | (1.44) | | (1.45) | | (1.46) | | (1.40) | | (1.44) | | (1.38) | | (1.50) |
| Parent controls | 5.14 | | 4.98 | | 5.01 | | 5.11 | | 5.10 | | 5.06 | | 5.12 |
| | (1.52) | | (1.57) | | (1.57) | | (1.52) | | (1.53) | | (1.47) | | (1.47) |
| Nonparent controls | 5.10 | | 5.14 | | 5.09 | | 5.26 | | 5.21 | | 5.40 | | 5.40 |
| | (1.49) | | (1.50) | | (1.52) | | (1.44) | | (1.51) | | (1.30) | | (1.36) |

*Note.* Standard deviations shown in parentheses; $time = 0$ marks the first year where the transition to grandparenthood was reported. To aid comparability with the LISS panel measures, we reverse scored all items so that higher values corresponded to higher trait levels.

**Table S5**

*Standardized Difference in Means for Covariates Used in Propensity Score Matching and the Propensity Score in the LISS.*

| | | | Parent control group | | Nonparent control group | |
|---|---|---|---|---|---|---|
| Covariate | Description | Raw variables | Before PSM | After PSM | Before PSM | After PSM |
| pscore | Propensity score | / | 1.14 | 0.02 | 1.34 | 0.04 |
| female | Gender (f.=1, m.=0) | geslacht | 0.05 | 0.00 | 0.05 | 0.00 |
| age | Age | gebjaar | 0.85 | -0.10 | 4.05 | -0.01 |
| degreehighersec | Higher secondary/preparatory university education | oplmet | 0.07 | -0.06 | -0.07 | 0.12 |
| degreevocational | Intermediate vocational education | oplmet | -0.20 | -0.06 | -0.02 | 0.00 |
| degreecollege | Higher vocational education | oplmet | 0.00 | 0.05 | 0.02 | -0.09 |
| degreeuniversity | University degree | oplmet | -0.08 | 0.14 | -0.15 | -0.05 |
| religion | Member of religion/church | cr*012 | 0.10 | 0.08 | 0.33 | 0.07 |
| speakdutch | Dutch spoken at home (primarily) | cr*089 | -0.02 | -0.06 | 0.00 | -0.02 |
| divorced | Divorced (marital status) | burgstat | 0.02 | -0.03 | 0.29 | -0.02 |
| widowed | Widowed (marital status) | burgstat | 0.09 | -0.12 | 0.13 | -0.07 |
| livetogether | Live together with partner | cf*025 | -0.08 | 0.04 | 1.05 | -0.02 |
| rooms | Rooms in dwelling | cd*034 | -0.03 | 0.05 | 0.63 | -0.11 |
| logincome | Personal net monthly income in Euros (logarithm) | nettoink | -0.01 | 0.04 | 0.59 | -0.14 |
| rental | Live for rent (vs. self-owned dwelling) | woning | -0.08 | -0.09 | -0.47 | -0.03 |
| financialsit | Financial situation of household (scale from 1-5) | ci*252 | 0.08 | 0.00 | -0.03 | 0.00 |
| jobhours | Average work hours per week | cw*127 | 0.02 | 0.08 | 0.11 | -0.04 |
| mobility | Mobility problems (walking, staircase, shopping) | ch*023/027/041 | 0.07 | 0.04 | 0.09 | -0.02 |
| dep | Depression items from Mental Health Inventory | ch*011 - ch*015 | -0.01 | 0.08 | -0.22 | -0.08 |
| betterhealth | Poor/moderate health status (ref.: good) | ch*004 | 0.00 | -0.01 | -0.26 | 0.07 |
| worsehealth | Very good/excellent health status (ref.: good) | ch*004 | 0.04 | -0.02 | 0.11 | -0.04 |
| totalchildren | Number living children | cf*455 / cf*036 | 0.25 | 0.02 | NA | NA |
| totalresidentkids | Number of living-at-home children in household | aantalki | -0.71 | 0.02 | NA | NA |
| secondkid | Has two or more children | cf*455 / cf*036 | 0.20 | 0.04 | NA | NA |
| thirdkid | Has three or more children | cf*455 / cf*036 | 0.26 | 0.01 | NA | NA |
| kid1female | Gender of first child (f.=1, m.=0) | cf*068 | 0.04 | 0.04 | NA | NA |
| kid2female | Gender of second child (f.=1, m.=0) | cf*069 | 0.01 | -0.06 | NA | NA |
| kid3female | Gender of third child (f.=1, m.=0) | cf*070 | 0.17 | 0.02 | NA | NA |
| kid1age | Age of first child | cf*456 / cf*037 | 1.70 | -0.17 | NA | NA |
| kid2age | Age of second child | cf*457 / cf*038 | 0.87 | -0.01 | NA | NA |
| kid3age | Age of third child | cf*458 / cf*039 | 0.40 | 0.01 | NA | NA |
| kid1home | First child living at home | cf*083 | -1.56 | 0.05 | NA | NA |

Table S5 continued

| | | | Parent control group | | Nonparent control group | |
|---|---|---|---|---|---|---|
| Covariate | Description | Raw variables | Before PSM | After PSM | Before PSM | After PSM |
| kid2home | Second child living at home | cf*084 | -1.05 | 0.04 | NA | NA |
| kid3home | Third child living at home | cf*085 | -0.05 | 0.00 | NA | NA |
| swls | Satisfaction with Life Scale | cp*014 - cp*018 | 0.10 | -0.03 | 0.25 | -0.06 |
| agree | Agreeableness | cp*021 - cp*066 | 0.05 | -0.01 | 0.13 | -0.13 |
| con | Conscientiousness | cp*022 - cp*067 | -0.06 | -0.05 | 0.16 | 0.00 |
| extra | Extraversion | cp*020 - cp*065 | 0.05 | 0.02 | 0.02 | -0.07 |
| neur | Neuroticism | cp*023 - cp*068 | -0.02 | 0.02 | -0.26 | 0.03 |
| open | Openness | cp*024 - cp*069 | 0.06 | 0.05 | -0.16 | -0.08 |
| participation | Waves participated | / | -0.27 | -0.09 | 0.09 | -0.03 |
| year | Year of assessment | wave | -0.23 | -0.07 | 0.08 | -0.06 |

*Note.* PSM = propensity score matching, ref. = reference category, f. = female, m. = male, NA = covariate not used in this sample. The standardized difference in means between the grandparent and the two control groups (parent and nonparent) was computed by $(\bar{x}_{gp} - \bar{x}_c)/(\hat{\sigma}_{gp})$. Rules of thumb say that this measure should ideally be below .25 (Stuart, 2010) or below .10 (Austin, 2011).

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**Table S6**

*Standardized Difference in Means for Covariates Used in Propensity Score Matching and the Propensity Score in the HRS.*

| | | | Parent control group | | Nonparent control group | |
|---|---|---|---|---|---|---|
| Covariate | Description | Raw variables | Before PSM | After PSM | Before PSM | After PSM |
| pscore | Propensity score | / | 0.92 | 0.01 | 1.45 | 0.00 |
| female | Gender (f.=1, m.=0) | RAGENDER | -0.07 | 0.00 | 0.01 | 0.00 |
| age | Age | RABYEAR | -0.46 | -0.01 | -1.02 | 0.11 |
| schlyrs | Years of education | RAEDYRS | 0.11 | 0.03 | 0.25 | -0.04 |
| religyear | Religious attendance: yearly | *B082 | 0.04 | 0.01 | 0.13 | 0.00 |
| religmonth | Religious attendance: monthly | *B082 | 0.01 | -0.02 | 0.10 | 0.05 |
| religweek | Religious attendance: weekly | *B082 | 0.06 | 0.02 | 0.04 | 0.03 |
| religmore | Religious attendance: more | *B082 | 0.09 | -0.04 | 0.06 | -0.01 |
| notusaborn | Not born in the US | *Z230 | -0.05 | 0.03 | 0.13 | -0.02 |
| black | Race: black/african american (ref.: white) | RARACEM | -0.13 | -0.08 | -0.22 | 0.01 |
| raceother | Race: other (ref.: white) | RARACEM | -0.09 | -0.06 | 0.01 | -0.05 |
| divorced | Divorced (marital status) | R*MSTAT | -0.06 | 0.01 | 0.01 | 0.03 |
| widowed | Widowed (marital status) | R*MSTAT | -0.31 | 0.02 | -0.41 | 0.04 |
| livetogether | Live together with partner | *A030 / *XF065_R | 0.25 | -0.02 | 1.05 | -0.04 |
| roomslessthree | Number of rooms (in housing unit) | *H147 / *066 | -0.15 | -0.05 | -0.59 | -0.01 |
| roomsfourfive | Number of rooms (in housing unit) | *H147 / *066 | 0.00 | -0.02 | -0.25 | -0.03 |
| roomsmoreeight | Number of rooms (in housing unit) | *H147 / *066 | 0.07 | -0.03 | 0.28 | 0.00 |
| loghhincome | Household income (logarithm) | *ITOT | 0.03 | 0.03 | 0.41 | 0.00 |
| loghhwealth | Household wealth (logarithm) | *ATOTB | 0.07 | 0.05 | 0.34 | -0.02 |
| renter | Live for rent (vs. self-owned dwelling) | *H004 | -0.10 | -0.08 | -0.51 | -0.02 |
| jobhours | Hours worked/week main job | R*JHOURS | 0.25 | 0.08 | 0.59 | 0.00 |
| paidwork | Working for pay | *J020 | 0.28 | 0.07 | 0.62 | -0.04 |
| mobilitydiff | Difficulty in mobility rated from 0-5 | R*MOBILA | -0.16 | -0.04 | -0.52 | 0.00 |
| cesd | CESD score (depression) | R*CESD | -0.13 | -0.04 | -0.26 | -0.04 |
| conde | Sum of health conditions | R*CONDE | -0.22 | -0.03 | -0.51 | 0.04 |
| healthexcellent | Self-report of health - excellent (ref: good) | R*SHLT | 0.05 | 0.02 | 0.15 | -0.03 |
| healthverygood | Self-report of health - very good (ref: good) | R*SHLT | 0.23 | 0.02 | 0.31 | -0.02 |
| healthfair | Self-report of health - fair (ref: good) | R*SHLT | -0.16 | -0.02 | -0.29 | 0.00 |
| healthpoor | Self-report of health - poor (ref: good) | R*SHLT | -0.07 | -0.03 | -0.24 | 0.02 |
| totalnonresidentkids | Number of nonresident kids | *A100 | 0.66 | -0.05 | NA | NA |
| totalresidentkids | Number of resident children | *A099 | -0.22 | 0.00 | NA | NA |
| secondkid | Has two or more children | KIDID | 0.52 | -0.03 | NA | NA |

Table S6 continued

| Covariate | Description | Raw variables | Parent control group | | Nonparent control group | |
|---|---|---|---|---|---|---|
| | | | Before PSM | After PSM | Before PSM | After PSM |
| thirdkid | Has three or more children | KIDID | 0.38 | -0.03 | NA | NA |
| kid1female | Gender of first child (f.=1, m.=0) | KAGENDERBG | 0.11 | 0.03 | NA | NA |
| kid2female | Gender of second child (f.=1, m.=0) | KAGENDERBG | 0.17 | -0.01 | NA | NA |
| kid3female | Gender of third child (f.=1, m.=0) | KAGENDERBG | 0.24 | 0.02 | NA | NA |
| kid1age | Age of first child | KABYEARBG | -0.35 | -0.02 | NA | NA |
| kid2age | Age of second child | KABYEARBG | 0.36 | -0.03 | NA | NA |
| kid3age | Age of third child | KABYEARBG | 0.35 | -0.01 | NA | NA |
| kid1educ | Education of first child (years) | KAEDUC | 0.30 | 0.02 | NA | NA |
| kid2educ | Education of second child (years) | KAEDUC | 0.57 | 0.00 | NA | NA |
| kid3educ | Education of third child (years) | KAEDUC | 0.40 | -0.02 | NA | NA |
| childrenclose | Children live within 10 miles | *E012 | 0.14 | 0.01 | NA | NA |
| siblings | Number of living siblings | R*LIVSIB | 0.05 | -0.04 | 0.21 | 0.03 |
| swls | Satisfaction with Life Scale | *LB003* | 0.17 | 0.08 | 0.30 | 0.00 |
| agree | Agreeableness | *LB033* | 0.06 | 0.04 | 0.11 | 0.02 |
| con | Conscientiousness | *LB033* | 0.14 | 0.04 | 0.26 | -0.04 |
| extra | Extraversion | *LB033* | 0.04 | 0.04 | 0.18 | 0.01 |
| neur | Neuroticism | *LB033* | -0.06 | 0.00 | -0.04 | 0.01 |
| open | Openness | *LB033* | 0.04 | 0.07 | 0.05 | -0.04 |
| participation | Waves participated (2006-2018) | / | -0.36 | -0.01 | -0.26 | -0.04 |
| interviewyear | Date of interview - year | *A501 | -0.33 | -0.05 | -0.18 | -0.05 |

*Note.* PSM = propensity score matching, ref. = reference category, f. = female, m. = male, NA = covariate not used in this sample. The standardized difference in means between the grandparent and the two control groups (parent and nonparent) was computed by $(\bar{x}_{gp} - \bar{x}_c)/(\hat{\sigma}_{gp})$. Rules of thumb say that this measure should ideally be below .25 (Stuart, 2010) or below .10 (Austin, 2011).

**Table S7**

*Fixed Effects of Agreeableness Over the Transition to Grandparenthood.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.86 | [3.80, 3.92] | 131.70 | $< .001$ | 3.90 | [3.83, 3.97] | 112.97 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | -0.02 | [-0.10, 0.05] | -0.56 | .572 | -0.01 | [-0.08, 0.06] | -0.20 | .838 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.00 | [-0.01, 0.00] | -0.25 | .802 | -0.01 | [-0.01, 0.00] | -1.81 | .070 |
| After-slope, $\hat{\gamma}_{20}$ | -0.02 | [-0.02, -0.01] | -6.76 | $< .001$ | -0.01 | [-0.01, 0.00] | -3.32 | .001 |
| Shift, $\hat{\gamma}_{30}$ | 0.04 | [0.01, 0.06] | 3.12 | .002 | 0.03 | [0.00, 0.05] | 1.98 | .048 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.06 | [-0.03, 0.15] | 1.33 | .183 | 0.01 | [-0.08, 0.11] | 0.30 | .768 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | -0.01 | [-0.02, 0.01] | -1.06 | .289 | 0.00 | [-0.01, 0.01] | -0.26 | .791 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.02 | [0.01, 0.03] | 2.99 | .003 | 0.01 | [0.00, 0.02] | 1.44 | .149 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.01 | [-0.06, 0.04] | -0.37 | .714 | 0.00 | [-0.06, 0.06] | 0.08 | .937 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.46 | [3.43, 3.50] | 196.32 | $< .001$ | 3.48 | [3.44, 3.52] | 166.19 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.08 | [0.02, 0.14] | 2.51 | .012 | 0.05 | [-0.01, 0.11] | 1.51 | .131 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.01 | [0.00, 0.02] | 1.37 | .169 | -0.01 | [-0.02, 0.00] | -1.33 | .184 |
| After-slope, $\hat{\gamma}_{20}$ | -0.01 | [-0.02, 0.00] | -2.87 | .004 | -0.02 | [-0.02, -0.01] | -5.16 | $< .001$ |
| Shift, $\hat{\gamma}_{30}$ | 0.01 | [-0.01, 0.03] | 0.71 | .476 | 0.04 | [0.02, 0.06] | 4.30 | $< .001$ |
| Grandparent, $\hat{\gamma}_{01}$ | 0.02 | [-0.03, 0.08] | 0.88 | .378 | 0.01 | [-0.04, 0.07] | 0.44 | .662 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | -0.01 | [-0.04, 0.01] | -0.87 | .384 | 0.00 | [-0.02, 0.03] | 0.28 | .781 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.01 | [0.00, 0.03] | 1.71 | .088 | 0.02 | [0.01, 0.04] | 2.78 | .006 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.01 | [-0.05, 0.04] | -0.35 | .729 | -0.04 | [-0.09, 0.00] | -1.97 | .049 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval.

**Table S8**

*Linear Contrasts for Agreeableness.*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| LISS | | | | | | |
| Shift of the controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.02 | 4.00 | .046 | 0.02 | 2.22 | .136 |
| Shift of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.03 | 1.79 | .181 | 0.03 | 1.51 | .219 |
| Shift of the controls vs. shift of the grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.01 | 0.08 | .779 | 0.01 | 0.18 | .668 |
| Before-slope of the grandparents vs. 0 ($\hat{\gamma}_{10} + \hat{\gamma}_{11}$) | -0.01 | 1.72 | .189 | -0.01 | 1.45 | .228 |
| After-slope of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{21}$) | 0.00 | 0.01 | .934 | 0.00 | 0.00 | .958 |
| HRS | | | | | | |
| Shift of the controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.00 | 0.12 | .725 | 0.03 | 10.76 | .001 |
| Shift of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.00 | 0.03 | .859 | 0.00 | 0.03 | .862 |
| Shift of the controls vs. shift of the grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.01 | 0.10 | .751 | -0.02 | 1.77 | .183 |
| Before-slope of the grandparents vs. 0 ($\hat{\gamma}_{10} + \hat{\gamma}_{11}$) | 0.00 | 0.09 | .762 | 0.00 | 0.11 | .743 |
| After-slope of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{21}$) | 0.00 | 0.23 | .633 | 0.00 | 0.28 | .596 |

*Note.* The linear contrasts are needed in cases where estimates of interest are represented by multiple fixed-effects coefficients and are computed using the *linearHypothesis* function from the *car* R package (Fox & Weisberg, 2019) based on the models from Table S7. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S9**

*Fixed Effects of Agreeableness Over the Transition to Grandparenthood Moderated by Gender.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.65 | [3.58, 3.73] | 93.02 | $< .001$ | 3.66 | [3.57, 3.75] | 79.73 | $< .001$ |
| Propensity score, $\hat{\gamma}_{04}$ | -0.01 | [-0.08, 0.07] | -0.21 | .833 | 0.02 | [-0.05, 0.08] | 0.45 | .653 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.00 | [-0.01, 0.01] | 0.02 | .984 | 0.00 | [-0.01, 0.01] | -0.37 | .712 |
| After-slope, $\hat{\gamma}_{20}$ | -0.02 | [-0.03, -0.02] | -6.37 | $< .001$ | -0.01 | [-0.02, 0.00] | -2.49 | .013 |
| Shift, $\hat{\gamma}_{30}$ | 0.03 | [-0.01, 0.07] | 1.66 | .097 | 0.07 | [0.03, 0.11] | 3.66 | $< .001$ |
| Grandparent, $\hat{\gamma}_{01}$ | 0.06 | [-0.06, 0.17] | 0.92 | .356 | 0.04 | [-0.09, 0.17] | 0.60 | .550 |
| Female, $\hat{\gamma}_{02}$ | 0.38 | [0.27, 0.48] | 7.16 | $< .001$ | 0.44 | [0.32, 0.56] | 7.11 | $< .001$ |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | -0.01 | [-0.03, 0.01] | -0.73 | .466 | 0.00 | [-0.02, 0.01] | -0.50 | .615 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.03 | [0.01, 0.05] | 3.43 | .001 | 0.01 | [0.00, 0.03] | 1.64 | .101 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.01 | [-0.09, 0.07] | -0.33 | .739 | -0.05 | [-0.14, 0.03] | -1.23 | .217 |
| Before-slope * Female, $\hat{\gamma}_{12}$ | 0.00 | [-0.01, 0.01] | -0.26 | .799 | -0.01 | [-0.02, 0.00] | -1.14 | .254 |
| After-slope * Female, $\hat{\gamma}_{22}$ | 0.01 | [0.00, 0.02] | 2.34 | .019 | 0.00 | [-0.01, 0.01] | 0.28 | .781 |
| Shift * Female, $\hat{\gamma}_{32}$ | 0.02 | [-0.03, 0.06] | 0.60 | .550 | -0.08 | [-0.14, -0.03] | -3.18 | .001 |
| Grandparent * Female, $\hat{\gamma}_{03}$ | 0.01 | [-0.15, 0.17] | 0.15 | .883 | -0.05 | [-0.22, 0.12] | -0.57 | .568 |
| Before-slope * Grandparent * Female, $\hat{\gamma}_{13}$ | 0.00 | [-0.03, 0.02] | -0.05 | .959 | 0.00 | [-0.02, 0.03] | 0.35 | .728 |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | -0.02 | [-0.04, 0.00] | -1.92 | .056 | -0.01 | [-0.03, 0.01] | -0.93 | .351 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | 0.01 | [-0.10, 0.12] | 0.21 | .836 | 0.11 | [-0.01, 0.23] | 1.87 | .061 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.27 | [3.23, 3.32] | 132.82 | $< .001$ | 3.38 | [3.33, 3.43] | 122.35 | $< .001$ |
| Propensity score, $\hat{\gamma}_{04}$ | 0.09 | [0.03, 0.15] | 2.91 | .004 | 0.04 | [-0.03, 0.10] | 1.12 | .261 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.02 | [0.01, 0.04] | 2.98 | .003 | -0.01 | [-0.02, 0.01] | -1.12 | .262 |
| After-slope, $\hat{\gamma}_{20}$ | -0.02 | [-0.03, -0.01] | -3.95 | $< .001$ | -0.02 | [-0.03, -0.01] | -3.43 | .001 |
| Shift, $\hat{\gamma}_{30}$ | 0.04 | [0.01, 0.07] | 2.77 | .006 | 0.03 | [0.00, 0.06] | 1.68 | .093 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.08 | [0.00, 0.16] | 1.97 | .048 | -0.01 | [-0.09, 0.08] | -0.16 | .877 |
| Female, $\hat{\gamma}_{02}$ | 0.33 | [0.27, 0.39] | 10.55 | $< .001$ | 0.20 | [0.13, 0.26] | 5.76 | $< .001$ |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | -0.04 | [-0.08, 0.00] | -2.18 | .030 | -0.01 | [-0.04, 0.03] | -0.47 | .640 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.04 | [0.01, 0.06] | 3.00 | .003 | 0.03 | [0.01, 0.05] | 2.85 | .004 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.05 | [-0.12, 0.02] | -1.50 | .133 | -0.03 | [-0.10, 0.03] | -1.04 | .298 |
| Before-slope * Female, $\hat{\gamma}_{12}$ | -0.03 | [-0.05, -0.01] | -2.84 | .004 | 0.00 | [-0.02, 0.02] | 0.38 | .702 |
| After-slope * Female, $\hat{\gamma}_{22}$ | 0.02 | [0.01, 0.03] | 2.74 | .006 | 0.00 | [-0.01, 0.01] | 0.08 | .937 |
| Shift * Female, $\hat{\gamma}_{32}$ | -0.06 | [-0.11, -0.02] | -3.07 | .002 | 0.03 | [-0.01, 0.07] | 1.50 | .134 |

Table S9 continued

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| Grandparent * Female, $\hat{\gamma}_{03}$ | -0.10 | [-0.20, 0.01] | -1.77 | .077 | 0.03 | [-0.07, 0.14] | 0.64 | .521 |
| Before-slope * Grandparent * Female, $\hat{\gamma}_{13}$ | 0.06 | [0.01, 0.11] | 2.20 | .028 | 0.02 | [-0.03, 0.07] | 0.86 | .392 |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | -0.04 | [-0.07, -0.01] | -2.48 | .013 | -0.02 | [-0.05, 0.01] | -1.34 | .180 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | 0.08 | [-0.01, 0.17] | 1.73 | .084 | -0.01 | [-0.10, 0.07] | -0.31 | .758 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval.

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**Table S10**

*Linear Contrasts for Agreeableness (Moderated by Gender).*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| LISS | | | | | | |
| Shift of male controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.01 | 0.19 | .665 | 0.06 | 13.04 | $< .001$ |
| Shift of female controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{22} + \hat{\gamma}_{32}$) | 0.03 | 5.25 | .022 | -0.02 | 1.90 | .168 |
| Shift of grandfathers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.02 | 0.47 | .493 | 0.02 | 0.40 | .525 |
| Shift of grandmothers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | 0.04 | 1.79 | .181 | 0.04 | 1.56 | .212 |
| Shift of male controls vs. grandfathers ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.01 | 0.17 | .678 | -0.04 | 1.05 | .305 |
| Before-slope of female controls vs. grandmothers ($\hat{\gamma}_{11} + \hat{\gamma}_{13}$) | -0.01 | 0.78 | .376 | 0.00 | 0.00 | .971 |
| After-slope of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{23}$) | 0.01 | 0.78 | .377 | 0.00 | 0.15 | .695 |
| Shift of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | 0.00 | 0.02 | .886 | 0.06 | 3.02 | .082 |
| Shift of male vs. female controls ($\hat{\gamma}_{22} + \hat{\gamma}_{32}$) | 0.03 | 1.51 | .219 | -0.08 | 12.80 | $< .001$ |
| Before-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{12} + \hat{\gamma}_{13}$) | 0.00 | 0.03 | .853 | 0.00 | 0.03 | .857 |
| After-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{23}$) | -0.01 | 0.92 | .337 | -0.01 | 0.82 | .366 |
| Shift of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | 0.02 | 0.15 | .695 | 0.02 | 0.14 | .712 |
| HRS | | | | | | |
| Shift of male controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.02 | 3.34 | .067 | 0.01 | 0.41 | .520 |
| Shift of female controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{22} + \hat{\gamma}_{32}$) | -0.02 | 4.49 | .034 | 0.04 | 14.19 | $< .001$ |
| Shift of grandfathers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.01 | 0.05 | .818 | 0.01 | 0.05 | .815 |
| Shift of grandmothers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | 0.00 | 0.01 | .927 | 0.00 | 0.01 | .936 |
| Shift of male controls vs. grandfathers ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.02 | 0.39 | .531 | 0.00 | 0.01 | .929 |
| Before-slope of female controls vs. grandmothers ($\hat{\gamma}_{11} + \hat{\gamma}_{13}$) | 0.01 | 0.74 | .390 | 0.01 | 0.58 | .445 |
| After-slope of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{23}$) | 0.00 | 0.15 | .701 | 0.01 | 1.32 | .250 |
| Shift of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | 0.02 | 1.07 | .301 | -0.04 | 2.61 | .106 |
| Shift of male vs. female controls ($\hat{\gamma}_{22} + \hat{\gamma}_{32}$) | -0.04 | 7.70 | .006 | 0.03 | 3.92 | .048 |
| Before-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{12} + \hat{\gamma}_{13}$) | 0.02 | 1.17 | .279 | 0.02 | 1.28 | .258 |
| After-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{23}$) | -0.02 | 1.94 | .163 | -0.02 | 2.13 | .144 |
| Shift of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | 0.00 | 0.01 | .912 | 0.00 | 0.01 | .904 |

*Note.* The linear contrasts are based on the models from Table S9. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S11**

*Fixed Effects of Agreeableness Over the Transition to Grandparenthood Moderated by Performing Paid Work.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| Intercept, $\hat{\gamma}_{00}$ | 3.50 | [3.45, 3.54] | 157.26 | $< .001$ | 3.48 | [3.43, 3.52] | 138.40 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.09 | [0.03, 0.15] | 2.93 | .003 | 0.04 | [-0.03, 0.10] | 1.14 | .253 |
| Before-slope, $\hat{\gamma}_{20}$ | 0.01 | [-0.01, 0.03] | 0.91 | .363 | 0.00 | [-0.02, 0.02] | -0.23 | .819 |
| After-slope, $\hat{\gamma}_{40}$ | -0.02 | [-0.03, -0.01] | -4.07 | $< .001$ | -0.03 | [-0.04, -0.02] | -5.38 | $< .001$ |
| Shift, $\hat{\gamma}_{60}$ | -0.01 | [-0.04, 0.02] | -0.53 | .594 | 0.07 | [0.03, 0.10] | 3.93 | $< .001$ |
| Grandparent, $\hat{\gamma}_{01}$ | -0.11 | [-0.20, -0.02] | -2.33 | .020 | -0.07 | [-0.16, 0.02] | -1.49 | .137 |
| Working, $\hat{\gamma}_{10}$ | -0.06 | [-0.10, -0.02] | -2.77 | .006 | 0.01 | [-0.03, 0.05] | 0.61 | .540 |
| Before-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.04 | [-0.01, 0.09] | 1.55 | .121 | 0.05 | [0.00, 0.10] | 2.09 | .037 |
| After-slope * Grandparent, $\hat{\gamma}_{41}$ | 0.02 | [0.00, 0.05] | 1.96 | .050 | 0.03 | [0.01, 0.05] | 2.68 | .007 |
| Shift * Grandparent, $\hat{\gamma}_{61}$ | 0.00 | [-0.08, 0.07] | -0.07 | .947 | -0.08 | [-0.15, -0.01] | -2.17 | .030 |
| Before-slope * Working, $\hat{\gamma}_{30}$ | 0.00 | [-0.03, 0.02] | -0.30 | .767 | 0.00 | [-0.03, 0.02] | -0.37 | .712 |
| After-slope * Working, $\hat{\gamma}_{50}$ | 0.02 | [0.01, 0.04] | 2.87 | .004 | 0.02 | [0.01, 0.03] | 2.83 | .005 |
| Shift * Working, $\hat{\gamma}_{70}$ | 0.02 | [-0.03, 0.06] | 0.77 | .441 | -0.04 | [-0.08, 0.00] | -1.87 | .061 |
| Grandparent * Working, $\hat{\gamma}_{11}$ | 0.18 | [0.08, 0.28] | 3.68 | $< .001$ | 0.11 | [0.02, 0.20] | 2.40 | .017 |
| Before-slope * Grandparent * Working, $\hat{\gamma}_{31}$ | -0.06 | [-0.12, -0.01] | -2.15 | .032 | -0.06 | [-0.12, -0.01] | -2.22 | .026 |
| After-slope * Grandparent * Working, $\hat{\gamma}_{51}$ | -0.02 | [-0.05, 0.02] | -0.97 | .333 | -0.01 | [-0.05, 0.02] | -0.94 | .347 |
| Shift * Grandparent * Working, $\hat{\gamma}_{71}$ | -0.01 | [-0.10, 0.09] | -0.11 | .914 | 0.05 | [-0.04, 0.14] | 1.08 | .282 |

*Note.* Two models were computed (only HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval. *working* = 1 indicates being employed in paid work.

**Table S12**

*Linear Contrasts for Agreeableness (Moderated by Paid Work; only HRS).*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| Shift of not-working controls vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60}$) | -0.03 | 5.08 | .024 | 0.04 | 7.79 | .005 |
| Shift of working controls vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60} + \hat{\gamma}_{50} + \hat{\gamma}_{70}$) | 0.01 | 0.52 | .472 | 0.02 | 3.86 | .049 |
| Shift of not-working grandparents vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60} + \hat{\gamma}_{41} + \hat{\gamma}_{61}$) | -0.01 | 0.14 | .713 | -0.01 | 0.15 | .699 |
| Shift of working grandparents vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60} + \hat{\gamma}_{41} + \hat{\gamma}_{61} + \hat{\gamma}_{50} + \hat{\gamma}_{70} + \hat{\gamma}_{51} + \hat{\gamma}_{71}$) | 0.01 | 0.10 | .755 | 0.01 | 0.09 | .768 |
| Shift of not-working controls vs. not-working grandparents ($\hat{\gamma}_{41} + \hat{\gamma}_{61}$) | 0.02 | 0.44 | .505 | -0.05 | 2.76 | .097 |
| Before-slope of working controls vs. working grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.02 | 2.73 | .099 | -0.01 | 0.76 | .383 |
| After-slope of working controls vs. working grandparents ($\hat{\gamma}_{41} + \hat{\gamma}_{51}$) | 0.01 | 0.36 | .548 | 0.02 | 2.00 | .157 |
| Shift of working controls vs. working grandparents ($\hat{\gamma}_{41} + \hat{\gamma}_{61} + \hat{\gamma}_{51} + \hat{\gamma}_{71}$) | 0.00 | 0.00 | .966 | -0.01 | 0.35 | .553 |
| Shift of not-working controls vs. working controls ($\hat{\gamma}_{50} + \hat{\gamma}_{70}$) | 0.04 | 4.89 | .027 | -0.02 | 1.43 | .232 |
| Before-slope of not-working grandparents vs. working grandparents ($\hat{\gamma}_{30} + \hat{\gamma}_{31}$) | -0.07 | 6.12 | .013 | -0.07 | 6.87 | .009 |
| After-slope of not-working grandparents vs. working grandparents ($\hat{\gamma}_{50} + \hat{\gamma}_{51}$) | 0.01 | 0.12 | .734 | 0.01 | 0.13 | .714 |
| Shift of not-working grandparents vs. working grandparents ($\hat{\gamma}_{50} + \hat{\gamma}_{70} + \hat{\gamma}_{51} + \hat{\gamma}_{71}$) | 0.02 | 0.22 | .637 | 0.02 | 0.23 | .633 |

*Note.* The linear contrasts are based on the models from Table S11. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S13**

*Fixed Effects of Agreeableness Over the Transition to Grandparenthood Moderated by Grandchild Care.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| Intercept, $\hat{\gamma}_{00}$ | 3.47 | [3.43, 3.52] | 155.84 | $< .001$ | 3.47 | [3.42, 3.53] | 130.92 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.16 | [0.08, 0.24] | 3.91 | $< .001$ | 0.15 | [0.07, 0.23] | 3.67 | $< .001$ |
| After-slope, $\hat{\gamma}_{20}$ | -0.02 | [-0.03, -0.01] | -4.36 | $< .001$ | -0.02 | [-0.03, -0.01] | -3.63 | $< .001$ |
| Grandparent, $\hat{\gamma}_{01}$ | -0.04 | [-0.11, 0.03] | -1.16 | .246 | -0.05 | [-0.12, 0.02] | -1.49 | .137 |
| Caring, $\hat{\gamma}_{10}$ | 0.00 | [-0.04, 0.03] | -0.27 | .784 | 0.02 | [-0.01, 0.05] | 1.09 | .276 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.03 | [0.00, 0.05] | 2.36 | .018 | 0.02 | [0.00, 0.04] | 2.02 | .044 |
| After-slope * Caring, $\hat{\gamma}_{30}$ | 0.00 | [-0.01, 0.02] | 0.29 | .773 | 0.00 | [-0.02, 0.01] | -0.60 | .550 |
| Grandparent * Caring, $\hat{\gamma}_{11}$ | 0.02 | [-0.07, 0.11] | 0.46 | .645 | 0.00 | [-0.09, 0.08] | -0.09 | .925 |
| After-slope * Grandparent * Caring, $\hat{\gamma}_{31}$ | 0.01 | [-0.02, 0.04] | 0.57 | .572 | 0.02 | [-0.02, 0.05] | 1.00 | .319 |

*Note.* Two models were computed (only HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval. *caring* = 1 indicates more than 100 hours of grandchild care since the last assessment.

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**Table S14**

*Linear Contrasts for Agreeableness (Moderated by Grandchild Care; only HRS).*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| After-slope of caring controls vs. caring grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.04 | 7.62 | .006 | 0.04 | 9.15 | .002 |
| After-slope of not-caring grandparents vs. caring grandparents ($\hat{\gamma}_{30} + \hat{\gamma}_{31}$) | 0.01 | 0.61 | .434 | 0.01 | 0.66 | .415 |

*Note.* The linear contrasts are based on the models from Table S13. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S15**

*Fixed Effects of Conscientiousness Over the Transition to Grandparenthood.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.77 | [3.72, 3.83] | 130.27 | $< .001$ | 3.82 | [3.75, 3.88] | 112.10 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.00 | [-0.08, 0.08] | -0.02 | .987 | 0.01 | [-0.06, 0.08] | 0.24 | .813 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.00 | [-0.01, 0.00] | -0.84 | .402 | 0.00 | [-0.01, 0.01] | -0.26 | .796 |
| After-slope, $\hat{\gamma}_{20}$ | -0.02 | [-0.02, -0.01] | -6.17 | $< .001$ | 0.01 | [0.00, 0.01] | 3.45 | .001 |
| Shift, $\hat{\gamma}_{30}$ | 0.04 | [0.02, 0.07] | 3.14 | .002 | 0.00 | [-0.03, 0.02] | -0.15 | .881 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.01 | [-0.10, 0.08] | -0.24 | .813 | -0.06 | [-0.15, 0.04] | -1.22 | .225 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.00 | [-0.01, 0.02] | 0.77 | .439 | 0.00 | [-0.01, 0.02] | 0.50 | .617 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.02 | [0.00, 0.03] | 2.73 | .006 | -0.01 | [-0.02, 0.00] | -1.61 | .107 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.04 | [-0.10, 0.01] | -1.49 | .137 | 0.00 | [-0.06, 0.06] | 0.01 | .989 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.41 | [3.38, 3.44] | 206.26 | $< .001$ | 3.35 | [3.31, 3.38] | 172.70 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.08 | [0.03, 0.14] | 2.86 | .004 | 0.17 | [0.11, 0.23] | 5.74 | $< .001$ |
| Before-slope, $\hat{\gamma}_{10}$ | 0.00 | [-0.01, 0.01] | 0.31 | .754 | 0.00 | [-0.01, 0.01] | 0.72 | .473 |
| After-slope, $\hat{\gamma}_{20}$ | -0.01 | [-0.02, -0.01] | -4.11 | $< .001$ | -0.01 | [-0.02, -0.01] | -3.84 | $< .001$ |
| Shift, $\hat{\gamma}_{30}$ | 0.02 | [0.00, 0.04] | 1.93 | .053 | 0.00 | [-0.02, 0.02] | 0.01 | .991 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.02 | [-0.04, 0.07] | 0.60 | .547 | 0.03 | [-0.02, 0.08] | 1.08 | .280 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.01 | [-0.02, 0.03] | 0.55 | .580 | 0.00 | [-0.02, 0.03] | 0.43 | .664 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.02 | [0.01, 0.04] | 3.06 | .002 | 0.02 | [0.01, 0.04] | 3.01 | .003 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.05 | [-0.09, -0.01] | -2.36 | .018 | -0.03 | [-0.07, 0.01] | -1.59 | .111 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval.

**Table S16**

*Linear Contrasts for Conscientiousness.*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| LISS | | | | | | |
| Shift of the controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.02 | 4.71 | .030 | 0.01 | 0.40 | .525 |
| Shift of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.00 | 0.01 | .928 | 0.00 | 0.01 | .932 |
| Shift of the controls vs. shift of the grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.03 | 1.14 | .286 | -0.01 | 0.13 | .718 |
| Before-slope of the grandparents vs. 0 ($\hat{\gamma}_{10} + \hat{\gamma}_{11}$) | 0.00 | 0.20 | .655 | 0.00 | 0.18 | .667 |
| After-slope of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{21}$) | 0.00 | 0.01 | .942 | 0.00 | 0.01 | .943 |
| HRS | | | | | | |
| Shift of the controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.01 | 0.47 | .491 | -0.01 | 2.83 | .092 |
| Shift of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.02 | 2.49 | .114 | -0.02 | 2.82 | .093 |
| Shift of the controls vs. shift of the grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.03 | 2.96 | .085 | -0.01 | 0.54 | .462 |
| Before-slope of the grandparents vs. 0 ($\hat{\gamma}_{10} + \hat{\gamma}_{11}$) | 0.01 | 0.59 | .444 | 0.01 | 0.68 | .409 |
| After-slope of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{21}$) | 0.01 | 1.88 | .170 | 0.01 | 2.13 | .145 |

*Note.* The linear contrasts are needed in cases where estimates of interest are represented by multiple fixed-effects coefficients and are computed using the *linearHypothesis* function from the *car* R package (Fox & Weisberg, 2019) based on the models from Table S15. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S17**

*Fixed Effects of Conscientiousness Over the Transition to Grandparenthood Moderated by Gender.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.69 | [3.60, 3.77] | 87.30 | $< .001$ | 3.70 | [3.61, 3.80] | 75.84 | $< .001$ |
| Propensity score, $\hat{\gamma}_{04}$ | 0.00 | [-0.08, 0.07] | -0.03 | .976 | 0.01 | [-0.06, 0.08] | 0.34 | .732 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.00 | [-0.01, 0.01] | 0.64 | .524 | 0.00 | [-0.01, 0.01] | 0.75 | .455 |
| After-slope, $\hat{\gamma}_{20}$ | -0.01 | [-0.02, -0.01] | -3.43 | .001 | 0.00 | [0.00, 0.01] | 0.71 | .477 |
| Shift, $\hat{\gamma}_{30}$ | 0.04 | [0.00, 0.08] | 2.16 | .031 | 0.00 | [-0.03, 0.04] | 0.14 | .892 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.03 | [-0.09, 0.16] | 0.48 | .634 | 0.01 | [-0.13, 0.14] | 0.12 | .907 |
| Female, $\hat{\gamma}_{02}$ | 0.16 | [0.05, 0.27] | 2.88 | .004 | 0.22 | [0.09, 0.34] | 3.26 | .001 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.00 | [-0.02, 0.02] | -0.01 | .994 | 0.00 | [-0.02, 0.02] | -0.06 | .953 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.02 | [0.00, 0.04] | 2.53 | .011 | 0.01 | [-0.01, 0.02] | 0.65 | .513 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.04 | [-0.13, 0.04] | -1.07 | .286 | -0.01 | [-0.09, 0.08] | -0.14 | .886 |
| Before-slope * Female, $\hat{\gamma}_{12}$ | -0.01 | [-0.02, 0.00] | -1.61 | .108 | -0.01 | [-0.02, 0.00] | -1.23 | .218 |
| After-slope * Female, $\hat{\gamma}_{22}$ | -0.01 | [-0.02, 0.00] | -1.11 | .268 | 0.01 | [0.00, 0.02] | 2.38 | .017 |
| Shift * Female, $\hat{\gamma}_{32}$ | 0.00 | [-0.05, 0.05] | -0.04 | .970 | -0.01 | [-0.06, 0.04] | -0.41 | .683 |
| Grandparent * Female, $\hat{\gamma}_{03}$ | -0.07 | [-0.24, 0.10] | -0.81 | .418 | -0.12 | [-0.30, 0.06] | -1.30 | .193 |
| Before-slope * Grandparent * Female, $\hat{\gamma}_{13}$ | 0.01 | [-0.02, 0.03] | 0.61 | .542 | 0.01 | [-0.02, 0.03] | 0.44 | .663 |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | -0.01 | [-0.03, 0.01] | -0.84 | .403 | -0.03 | [-0.05, 0.00] | -2.37 | .018 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | 0.01 | [-0.11, 0.12] | 0.11 | .916 | 0.02 | [-0.10, 0.13] | 0.27 | .787 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.35 | [3.30, 3.39] | 143.72 | $< .001$ | 3.26 | [3.21, 3.31] | 124.79 | $< .001$ |
| Propensity score, $\hat{\gamma}_{04}$ | 0.09 | [0.03, 0.14] | 3.00 | .003 | 0.17 | [0.11, 0.23] | 5.65 | $< .001$ |
| Before-slope, $\hat{\gamma}_{10}$ | 0.01 | [-0.01, 0.02] | 1.19 | .234 | 0.01 | [0.00, 0.03] | 2.08 | .037 |
| After-slope, $\hat{\gamma}_{20}$ | -0.01 | [-0.02, 0.00] | -2.42 | .016 | 0.00 | [-0.01, 0.01] | -0.10 | .920 |
| Shift, $\hat{\gamma}_{30}$ | 0.02 | [-0.01, 0.05] | 1.18 | .237 | -0.01 | [-0.04, 0.02] | -0.74 | .462 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.03 | [-0.10, 0.05] | -0.74 | .461 | 0.01 | [-0.07, 0.09] | 0.28 | .780 |
| Female, $\hat{\gamma}_{02}$ | 0.11 | [0.05, 0.17] | 3.81 | $< .001$ | 0.15 | [0.09, 0.22] | 4.67 | $< .001$ |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.01 | [-0.02, 0.05] | 0.74 | .460 | 0.01 | [-0.03, 0.04] | 0.45 | .651 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.03 | [0.01, 0.05] | 2.64 | .008 | 0.02 | [0.00, 0.04] | 1.71 | .088 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.08 | [-0.15, -0.02] | -2.57 | .010 | -0.06 | [-0.12, 0.00] | -1.85 | .064 |
| Before-slope * Female, $\hat{\gamma}_{12}$ | -0.01 | [-0.03, 0.01] | -1.34 | .180 | -0.02 | [-0.04, 0.00] | -2.16 | .031 |
| After-slope * Female, $\hat{\gamma}_{22}$ | 0.00 | [-0.02, 0.01] | -0.39 | .695 | -0.02 | [-0.03, -0.01] | -3.05 | .002 |
| Shift * Female, $\hat{\gamma}_{32}$ | 0.00 | [-0.04, 0.04] | 0.13 | .895 | 0.02 | [-0.02, 0.05] | 0.92 | .356 |

Table S17 continued

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| Grandparent * Female, $\hat{\gamma}_{03}$ | 0.08 | [-0.02, 0.18] | 1.64 | .101 | 0.03 | [-0.07, 0.13] | 0.62 | .538 |
| Before-slope * Grandparent * Female, $\hat{\gamma}_{13}$ | -0.01 | [-0.06, 0.03] | -0.47 | .637 | 0.00 | [-0.05, 0.04] | -0.21 | .836 |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | -0.01 | [-0.04, 0.02] | -0.79 | .428 | 0.00 | [-0.02, 0.03] | 0.29 | .770 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | 0.06 | [-0.03, 0.14] | 1.34 | .181 | 0.05 | [-0.04, 0.13] | 1.11 | .269 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval.

**Table S18**

*Linear Contrasts for Conscientiousness (Moderated by Gender).*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| LISS | | | | | | |
| Shift of male controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.03 | 2.83 | .092 | 0.01 | 0.10 | .750 |
| Shift of female controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{22} + \hat{\gamma}_{32}$) | 0.02 | 1.93 | .165 | 0.01 | 0.22 | .640 |
| Shift of grandfathers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.00 | 0.02 | .883 | 0.00 | 0.02 | .886 |
| Shift of grandmothers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.01 | 0.04 | .849 | -0.01 | 0.03 | .857 |
| Shift of male controls vs. grandfathers ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.02 | 0.40 | .528 | 0.00 | 0.00 | .991 |
| Before-slope of female controls vs. grandmothers ($\hat{\gamma}_{11} + \hat{\gamma}_{13}$) | 0.01 | 0.81 | .368 | 0.01 | 0.34 | .560 |
| After-slope of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{23}$) | 0.01 | 2.25 | .133 | -0.02 | 7.67 | .006 |
| Shift of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.03 | 0.64 | .422 | -0.01 | 0.14 | .709 |
| Shift of male vs. female controls ($\hat{\gamma}_{22} + \hat{\gamma}_{32}$) | -0.01 | 0.09 | .763 | 0.00 | 0.01 | .930 |
| Before-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{12} + \hat{\gamma}_{13}$) | 0.00 | 0.02 | .901 | 0.00 | 0.02 | .899 |
| After-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{23}$) | -0.02 | 2.25 | .134 | -0.02 | 2.12 | .146 |
| Shift of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.01 | 0.06 | .812 | -0.01 | 0.05 | .820 |
| HRS | | | | | | |
| Shift of male controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.01 | 0.21 | .648 | -0.01 | 1.00 | .317 |
| Shift of female controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{22} + \hat{\gamma}_{32}$) | 0.01 | 0.26 | .609 | -0.01 | 1.95 | .163 |
| Shift of grandfathers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.05 | 4.94 | .026 | -0.05 | 5.72 | .017 |
| Shift of grandmothers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | 0.00 | 0.01 | .906 | 0.00 | 0.01 | .912 |
| Shift of male controls vs. grandfathers ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.05 | 4.78 | .029 | -0.04 | 2.75 | .097 |
| Before-slope of female controls vs. grandmothers ($\hat{\gamma}_{11} + \hat{\gamma}_{13}$) | 0.00 | 0.02 | .900 | 0.00 | 0.04 | .839 |
| After-slope of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{23}$) | 0.02 | 2.96 | .085 | 0.02 | 5.42 | .020 |
| Shift of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.01 | 0.11 | .737 | 0.01 | 0.27 | .600 |
| Shift of male vs. female controls ($\hat{\gamma}_{22} + \hat{\gamma}_{32}$) | 0.00 | 0.00 | .998 | 0.00 | 0.02 | .877 |
| Before-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{12} + \hat{\gamma}_{13}$) | -0.02 | 1.36 | .244 | -0.03 | 1.58 | .208 |
| After-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{23}$) | -0.01 | 1.17 | .279 | -0.02 | 1.43 | .232 |
| Shift of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | 0.05 | 2.47 | .116 | 0.05 | 2.90 | .089 |

*Note.* The linear contrasts are based on the models from Table S17. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S19**

*Fixed Effects of Conscientiousness Over the Transition to Grandparenthood Moderated by Performing Paid Work.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| Intercept, $\hat{\gamma}_{00}$ | 3.41 | [3.37, 3.45] | 165.13 | $< .001$ | 3.37 | [3.33, 3.42] | 146.02 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.06 | [0.00, 0.12] | 2.13 | .033 | 0.14 | [0.09, 0.20] | 4.83 | $< .001$ |
| Before-slope, $\hat{\gamma}_{20}$ | -0.01 | [-0.03, 0.00] | -1.55 | .121 | 0.00 | [-0.02, 0.02] | -0.28 | .779 |
| After-slope, $\hat{\gamma}_{40}$ | -0.02 | [-0.03, -0.01] | -3.55 | $< .001$ | -0.02 | [-0.03, -0.01] | -4.10 | $< .001$ |
| Shift, $\hat{\gamma}_{60}$ | 0.02 | [-0.01, 0.05] | 1.49 | .137 | -0.02 | [-0.05, 0.01] | -1.30 | .193 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.09 | [-0.18, -0.01] | -2.19 | .029 | -0.10 | [-0.18, -0.01] | -2.30 | .022 |
| Working, $\hat{\gamma}_{10}$ | 0.01 | [-0.03, 0.05] | 0.45 | .650 | -0.03 | [-0.06, 0.01] | -1.60 | .109 |
| Before-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.08 | [0.04, 0.13] | 3.54 | $< .001$ | 0.07 | [0.03, 0.12] | 3.16 | .002 |
| After-slope * Grandparent, $\hat{\gamma}_{41}$ | 0.03 | [0.01, 0.05] | 2.66 | .008 | 0.03 | [0.01, 0.05] | 2.96 | .003 |
| Shift * Grandparent, $\hat{\gamma}_{61}$ | -0.09 | [-0.16, -0.02] | -2.64 | .008 | -0.05 | [-0.11, 0.02] | -1.46 | .145 |
| Before-slope * Working, $\hat{\gamma}_{30}$ | 0.02 | [0.00, 0.05] | 2.21 | .027 | 0.01 | [-0.01, 0.03] | 0.91 | .362 |
| After-slope * Working, $\hat{\gamma}_{50}$ | 0.01 | [0.00, 0.03] | 1.92 | .055 | 0.02 | [0.01, 0.03] | 2.96 | .003 |
| Shift * Working, $\hat{\gamma}_{70}$ | -0.01 | [-0.05, 0.03] | -0.45 | .653 | 0.03 | [-0.01, 0.06] | 1.30 | .194 |
| Grandparent * Working, $\hat{\gamma}_{11}$ | 0.14 | [0.05, 0.23] | 3.16 | .002 | 0.17 | [0.09, 0.26] | 4.05 | $< .001$ |
| Before-slope * Grandparent * Working, $\hat{\gamma}_{31}$ | -0.10 | [-0.16, -0.05] | -3.69 | $< .001$ | -0.09 | [-0.14, -0.04] | -3.31 | .001 |
| After-slope * Grandparent * Working, $\hat{\gamma}_{51}$ | -0.01 | [-0.04, 0.02] | -0.76 | .449 | -0.02 | [-0.05, 0.01] | -1.17 | .240 |
| Shift * Grandparent * Working, $\hat{\gamma}_{71}$ | 0.06 | [-0.03, 0.15] | 1.31 | .191 | 0.02 | [-0.06, 0.11] | 0.56 | .578 |

*Note.* Two models were computed (only HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval. $working = 1$ indicates being employed in paid work.

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**Table S20**

*Linear Contrasts for Conscientiousness (Moderated by Paid Work; only HRS).*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| Shift of not-working controls vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60}$) | 0.01 | 0.23 | .635 | -0.04 | 9.72 | .002 |
| Shift of working controls vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60} + \hat{\gamma}_{50} + \hat{\gamma}_{70}$) | 0.01 | 1.06 | .304 | 0.00 | 0.28 | .598 |
| Shift of not-working grandparents vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60} + \hat{\gamma}_{41} + \hat{\gamma}_{61}$) | -0.06 | 5.20 | .023 | -0.06 | 5.93 | .015 |
| Shift of working grandparents vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60} + \hat{\gamma}_{41} + \hat{\gamma}_{61} + \hat{\gamma}_{50} + \hat{\gamma}_{70} + \hat{\gamma}_{51} + \hat{\gamma}_{71}$) | -0.01 | 0.09 | .768 | -0.01 | 0.13 | .717 |
| Shift of not-working controls vs. not-working grandparents ($\hat{\gamma}_{41} + \hat{\gamma}_{61}$) | -0.06 | 5.09 | .024 | -0.02 | 0.46 | .498 |
| Before-slope of working controls vs. working grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.02 | 1.75 | .185 | -0.02 | 1.50 | .221 |
| After-slope of working controls vs. working grandparents ($\hat{\gamma}_{41} + \hat{\gamma}_{51}$) | 0.02 | 2.59 | .107 | 0.01 | 1.83 | .176 |
| Shift of working controls vs. working grandparents ($\hat{\gamma}_{41} + \hat{\gamma}_{61} + \hat{\gamma}_{51} + \hat{\gamma}_{71}$) | -0.02 | 0.52 | .469 | -0.01 | 0.31 | .578 |
| Shift of not-working controls vs. working controls ($\hat{\gamma}_{50} + \hat{\gamma}_{70}$) | 0.00 | 0.06 | .809 | 0.04 | 8.10 | .004 |
| Before-slope of not-working grandparents vs. working grandparents ($\hat{\gamma}_{30} + \hat{\gamma}_{31}$) | -0.08 | 9.38 | .002 | -0.08 | 10.44 | .001 |
| After-slope of not-working grandparents vs. working grandparents ($\hat{\gamma}_{50} + \hat{\gamma}_{51}$) | 0.00 | 0.01 | .920 | 0.00 | 0.02 | .879 |
| Shift of not-working grandparents vs. working grandparents ($\hat{\gamma}_{50} + \hat{\gamma}_{70} + \hat{\gamma}_{51} + \hat{\gamma}_{71}$) | 0.05 | 2.62 | .106 | 0.05 | 2.89 | .089 |

*Note.* The linear contrasts are based on the models from Table S19. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S21**

*Fixed Effects of Conscientiousness Over the Transition to Grandparenthood Moderated by Grandchild Care.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| Intercept, $\hat{\gamma}_{00}$ | 3.44 | [3.40, 3.48] | 168.69 | $< .001$ | 3.34 | [3.30, 3.39] | 138.33 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.08 | [0.00, 0.15] | 2.03 | .042 | 0.29 | [0.22, 0.37] | 7.78 | $< .001$ |
| After-slope, $\hat{\gamma}_{20}$ | -0.02 | [-0.03, -0.01] | -3.80 | $< .001$ | -0.01 | [-0.02, 0.00] | -2.74 | .006 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.02 | [-0.08, 0.05] | -0.51 | .610 | -0.02 | [-0.09, 0.04] | -0.74 | .462 |
| Caring, $\hat{\gamma}_{10}$ | 0.00 | [-0.03, 0.03] | 0.03 | .972 | 0.02 | [0.00, 0.05] | 1.64 | .102 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.01 | [-0.01, 0.03] | 1.37 | .170 | 0.01 | [-0.01, 0.02] | 0.73 | .468 |
| After-slope * Caring, $\hat{\gamma}_{30}$ | 0.00 | [-0.01, 0.01] | 0.01 | .993 | -0.01 | [-0.02, 0.00] | -1.72 | .085 |
| Grandparent * Caring, $\hat{\gamma}_{11}$ | -0.04 | [-0.12, 0.04] | -0.93 | .355 | -0.07 | [-0.14, 0.01] | -1.74 | .081 |
| After-slope * Grandparent * Caring, $\hat{\gamma}_{31}$ | 0.03 | [0.00, 0.06] | 1.88 | .060 | 0.04 | [0.01, 0.07] | 2.82 | .005 |

*Note.* Two models were computed (only HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval. *caring* = 1 indicates more than 100 hours of grandchild care since the last assessment.

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**Table S22**

*Linear Contrasts for Conscientiousness (Moderated by Grandchild Care; only HRS).*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| After-slope of caring controls vs. caring grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.04 | 13.75 | $< .001$ | 0.05 | 19.49 | $< .001$ |
| After-slope of not-caring grandparents vs. caring grandparents ($\hat{\gamma}_{30} + \hat{\gamma}_{31}$) | 0.03 | 4.48 | .034 | 0.03 | 5.28 | .022 |

*Note.* The linear contrasts are based on the models from Table S21. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S23**

*Fixed Effects of Extraversion Over the Transition to Grandparenthood.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.25 | [3.18, 3.33] | 87.65 | $< .001$ | 3.29 | [3.20, 3.39] | 67.72 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | -0.01 | [-0.10, 0.07] | -0.26 | .793 | 0.01 | [-0.07, 0.08] | 0.18 | .860 |
| Before-slope, $\hat{\gamma}_{10}$ | -0.01 | [-0.01, 0.00] | -1.77 | .077 | 0.00 | [0.00, 0.01] | 0.65 | .515 |
| After-slope, $\hat{\gamma}_{20}$ | 0.00 | [-0.01, 0.00] | -1.47 | .141 | -0.01 | [-0.02, 0.00] | -3.62 | $< .001$ |
| Shift, $\hat{\gamma}_{30}$ | -0.01 | [-0.04, 0.01] | -0.97 | .332 | -0.01 | [-0.03, 0.02] | -0.41 | .683 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.06 | [-0.05, 0.17] | 1.03 | .306 | 0.01 | [-0.12, 0.14] | 0.19 | .849 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.00 | [-0.02, 0.01] | -0.40 | .690 | -0.01 | [-0.02, 0.00] | -1.44 | .150 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.00 | [-0.01, 0.02] | 0.57 | .569 | 0.01 | [0.00, 0.02] | 1.45 | .146 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.02 | [-0.08, 0.05] | -0.51 | .607 | -0.02 | [-0.08, 0.04] | -0.73 | .467 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.20 | [3.16, 3.24] | 159.82 | $< .001$ | 3.11 | [3.07, 3.16] | 133.29 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.02 | [-0.05, 0.08] | 0.56 | .577 | 0.05 | [-0.02, 0.12] | 1.44 | .150 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.00 | [-0.01, 0.01] | -0.52 | .604 | 0.01 | [-0.01, 0.02] | 0.99 | .321 |
| After-slope, $\hat{\gamma}_{20}$ | 0.00 | [-0.01, 0.01] | -0.64 | .520 | 0.00 | [-0.01, 0.01] | -0.35 | .729 |
| Shift, $\hat{\gamma}_{30}$ | 0.02 | [0.00, 0.04] | 1.68 | .093 | 0.01 | [-0.01, 0.03] | 1.07 | .285 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.00 | [-0.06, 0.06] | 0.05 | .957 | 0.07 | [0.01, 0.14] | 2.20 | .028 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.00 | [-0.02, 0.03] | 0.31 | .757 | 0.00 | [-0.03, 0.02] | -0.35 | .728 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.01 | [0.00, 0.03] | 1.46 | .143 | 0.01 | [0.00, 0.03] | 1.38 | .169 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.04 | [-0.09, 0.01] | -1.55 | .121 | -0.03 | [-0.08, 0.02] | -1.30 | .193 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval.

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**Table S24**

*Linear Contrasts for Extraversion.*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| LISS | | | | | | |
| Shift of the controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | -0.02 | 2.12 | .145 | -0.02 | 1.73 | .188 |
| Shift of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.03 | 1.58 | .208 | -0.03 | 1.47 | .225 |
| Shift of the controls vs. shift of the grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.01 | 0.21 | .647 | -0.01 | 0.25 | .620 |
| Before-slope of the grandparents vs. 0 ($\hat{\gamma}_{10} + \hat{\gamma}_{11}$) | -0.01 | 1.77 | .183 | -0.01 | 1.65 | .200 |
| After-slope of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{21}$) | 0.00 | 0.01 | .912 | 0.00 | 0.03 | .852 |
| HRS | | | | | | |
| Shift of the controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.02 | 3.63 | .057 | 0.01 | 1.51 | .219 |
| Shift of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.01 | 0.34 | .561 | -0.01 | 0.36 | .548 |
| Shift of the controls vs. shift of the grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.03 | 1.90 | .168 | -0.02 | 1.19 | .275 |
| Before-slope of the grandparents vs. 0 ($\hat{\gamma}_{10} + \hat{\gamma}_{11}$) | 0.00 | 0.01 | .925 | 0.00 | 0.01 | .929 |
| After-slope of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{21}$) | 0.01 | 1.73 | .189 | 0.01 | 1.86 | .173 |

*Note.* The linear contrasts are needed in cases where estimates of interest are represented by multiple fixed-effects coefficients and are computed using the *linearHypothesis* function from the *car* R package (Fox & Weisberg, 2019) based on the models from Table S23. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S25**

*Fixed Effects of Extraversion Over the Transition to Grandparenthood Moderated by Gender.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.28 | [3.18, 3.39] | 60.26 | $< .001$ | 3.22 | [3.08, 3.35] | 46.79 | $< .001$ |
| Propensity score, $\hat{\gamma}_{04}$ | -0.01 | [-0.09, 0.08] | -0.15 | .881 | 0.01 | [-0.06, 0.09] | 0.30 | .765 |
| Before-slope, $\hat{\gamma}_{10}$ | -0.01 | [-0.02, 0.00] | -1.82 | .069 | 0.02 | [0.01, 0.03] | 4.00 | $< .001$ |
| After-slope, $\hat{\gamma}_{20}$ | -0.01 | [-0.02, 0.00] | -2.56 | .011 | 0.00 | [-0.01, 0.00] | -1.08 | .280 |
| Shift, $\hat{\gamma}_{30}$ | -0.04 | [-0.08, 0.01] | -1.68 | .094 | -0.05 | [-0.09, -0.01] | -2.43 | .015 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.01 | [-0.15, 0.17] | 0.09 | .929 | 0.07 | [-0.11, 0.26] | 0.78 | .435 |
| Female, $\hat{\gamma}_{02}$ | -0.06 | [-0.20, 0.09] | -0.78 | .436 | 0.13 | [-0.05, 0.31] | 1.45 | .148 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.00 | [-0.02, 0.02] | 0.14 | .893 | -0.03 | [-0.05, -0.01] | -2.49 | .013 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.01 | [-0.01, 0.03] | 1.19 | .236 | 0.00 | [-0.01, 0.02] | 0.48 | .628 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.01 | [-0.10, 0.08] | -0.12 | .903 | 0.01 | [-0.08, 0.10] | 0.22 | .825 |
| Before-slope * Female, $\hat{\gamma}_{12}$ | 0.01 | [-0.01, 0.02] | 0.87 | .386 | -0.03 | [-0.04, -0.02] | -4.83 | $< .001$ |
| After-slope * Female, $\hat{\gamma}_{22}$ | 0.01 | [0.00, 0.02] | 2.10 | .035 | -0.01 | [-0.02, 0.00] | -2.03 | .043 |
| Shift * Female, $\hat{\gamma}_{32}$ | 0.04 | [-0.02, 0.09] | 1.36 | .174 | 0.08 | [0.03, 0.14] | 2.91 | .004 |
| Grandparent * Female, $\hat{\gamma}_{03}$ | 0.09 | [-0.13, 0.31] | 0.82 | .411 | -0.11 | [-0.36, 0.13] | -0.90 | .369 |
| Before-slope * Grandparent * Female, $\hat{\gamma}_{13}$ | -0.01 | [-0.04, 0.02] | -0.53 | .593 | 0.03 | [0.00, 0.06] | 2.09 | .037 |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | -0.01 | [-0.04, 0.01] | -1.11 | .266 | 0.01 | [-0.02, 0.03] | 0.71 | .475 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | -0.02 | [-0.14, 0.10] | -0.29 | .768 | -0.06 | [-0.18, 0.06] | -0.98 | .328 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.15 | [3.09, 3.21] | 108.70 | $< .001$ | 3.11 | [3.04, 3.17] | 96.32 | $< .001$ |
| Propensity score, $\hat{\gamma}_{04}$ | 0.02 | [-0.04, 0.09] | 0.64 | .520 | 0.05 | [-0.02, 0.12] | 1.31 | .191 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.01 | [-0.01, 0.02] | 0.70 | .482 | 0.00 | [-0.02, 0.01] | -0.37 | .709 |
| After-slope, $\hat{\gamma}_{20}$ | 0.01 | [0.00, 0.02] | 2.05 | .040 | 0.00 | [-0.01, 0.01] | 0.51 | .609 |
| Shift, $\hat{\gamma}_{30}$ | -0.01 | [-0.04, 0.02] | -0.52 | .601 | -0.01 | [-0.04, 0.03] | -0.41 | .685 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.01 | [-0.10, 0.08] | -0.28 | .782 | 0.02 | [-0.08, 0.11] | 0.39 | .697 |
| Female, $\hat{\gamma}_{02}$ | 0.08 | [0.01, 0.16] | 2.24 | .025 | 0.01 | [-0.07, 0.09] | 0.30 | .767 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | -0.02 | [-0.06, 0.02] | -0.85 | .397 | -0.01 | [-0.05, 0.03] | -0.41 | .684 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.00 | [-0.02, 0.03] | 0.35 | .730 | 0.01 | [-0.01, 0.04] | 1.09 | .276 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | 0.00 | [-0.08, 0.07] | -0.12 | .905 | -0.01 | [-0.08, 0.06] | -0.19 | .853 |
| Before-slope * Female, $\hat{\gamma}_{12}$ | -0.02 | [-0.04, 0.01] | -1.44 | .150 | 0.02 | [-0.01, 0.04] | 1.40 | .161 |
| After-slope * Female, $\hat{\gamma}_{22}$ | -0.03 | [-0.04, -0.01] | -3.28 | .001 | -0.01 | [-0.02, 0.01] | -0.98 | .327 |
| Shift * Female, $\hat{\gamma}_{32}$ | 0.05 | [0.00, 0.09] | 2.17 | .030 | 0.03 | [-0.01, 0.07] | 1.45 | .146 |

Table S25 continued

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| Grandparent * Female, $\hat{\gamma}_{03}$ | 0.03 | [-0.09, 0.15] | 0.45 | .649 | 0.10 | [-0.03, 0.22] | 1.51 | .131 |
| Before-slope * Grandparent * Female, $\hat{\gamma}_{13}$ | 0.04 | [-0.01, 0.09] | 1.42 | .155 | 0.01 | [-0.05, 0.06] | 0.23 | .817 |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | 0.01 | [-0.02, 0.05] | 0.79 | .431 | 0.00 | [-0.04, 0.03] | -0.27 | .790 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | -0.06 | [-0.16, 0.04] | -1.19 | .234 | -0.04 | [-0.14, 0.05] | -0.87 | .383 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval.

1703

**Table S26**

*Linear Contrasts for Extraversion (Moderated by Gender).*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| LISS | | | | | | |
| Shift of male controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | -0.05 | 6.28 | .012 | -0.05 | 9.10 | .003 |
| Shift of female controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{22} + \hat{\gamma}_{32}$) | 0.01 | 0.09 | .763 | 0.02 | 0.95 | .330 |
| Shift of grandfathers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.04 | 1.25 | .264 | -0.04 | 1.16 | .281 |
| Shift of grandmothers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.02 | 0.45 | .500 | -0.02 | 0.41 | .520 |
| Shift of male controls vs. grandfathers ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.01 | 0.02 | .891 | 0.01 | 0.13 | .716 |
| Before-slope of female controls vs. grandmothers ($\hat{\gamma}_{11} + \hat{\gamma}_{13}$) | -0.01 | 0.42 | .518 | 0.00 | 0.13 | .720 |
| After-slope of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{23}$) | 0.00 | 0.13 | .722 | 0.01 | 2.45 | .117 |
| Shift of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.03 | 0.54 | .461 | -0.04 | 1.03 | .311 |
| Shift of male vs. female controls ($\hat{\gamma}_{22} + \hat{\gamma}_{32}$) | 0.05 | 4.20 | .040 | 0.07 | 8.22 | .004 |
| Before-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{12} + \hat{\gamma}_{13}$) | 0.00 | 0.03 | .871 | 0.00 | 0.01 | .943 |
| After-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{23}$) | 0.00 | 0.03 | .857 | 0.00 | 0.04 | .834 |
| Shift of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | 0.02 | 0.14 | .709 | 0.02 | 0.13 | .717 |
| HRS | | | | | | |
| Shift of male controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.00 | 0.06 | .812 | 0.00 | 0.09 | .765 |
| Shift of female controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{22} + \hat{\gamma}_{32}$) | 0.03 | 5.44 | .020 | 0.02 | 3.52 | .061 |
| Shift of grandfathers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.00 | 0.01 | .905 | 0.00 | 0.01 | .903 |
| Shift of grandmothers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.02 | 0.73 | .393 | -0.02 | 0.78 | .377 |
| Shift of male controls vs. grandfathers ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.00 | 0.00 | .999 | 0.01 | 0.06 | .805 |
| Before-slope of female controls vs. grandmothers ($\hat{\gamma}_{11} + \hat{\gamma}_{13}$) | 0.02 | 1.42 | .234 | 0.00 | 0.01 | .909 |
| After-slope of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{23}$) | 0.02 | 2.40 | .122 | 0.01 | 0.65 | .419 |
| Shift of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.05 | 3.28 | .070 | -0.04 | 2.65 | .104 |
| Shift of male vs. female controls ($\hat{\gamma}_{22} + \hat{\gamma}_{32}$) | 0.02 | 1.88 | .171 | 0.02 | 2.10 | .147 |
| Before-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{12} + \hat{\gamma}_{13}$) | 0.02 | 0.79 | .373 | 0.02 | 0.85 | .357 |
| After-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{23}$) | -0.01 | 0.57 | .452 | -0.01 | 0.62 | .431 |
| Shift of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.02 | 0.44 | .508 | -0.02 | 0.47 | .495 |

*Note.* The linear contrasts are based on the models from Table S25. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S27**

*Fixed Effects of Extraversion Over the Transition to Grandparenthood Moderated by Performing Paid Work.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| Intercept, $\hat{\gamma}_{00}$ | 3.18 | [3.13, 3.23] | 129.04 | $< .001$ | 3.12 | [3.07, 3.17] | 112.49 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.01 | [-0.06, 0.08] | 0.31 | .757 | 0.03 | [-0.04, 0.10] | 0.77 | .439 |
| Before-slope, $\hat{\gamma}_{20}$ | 0.02 | [0.00, 0.04] | 1.69 | .091 | 0.00 | [-0.02, 0.02] | 0.09 | .927 |
| After-slope, $\hat{\gamma}_{40}$ | 0.00 | [-0.01, 0.01] | 0.12 | .901 | -0.01 | [-0.02, 0.00] | -1.24 | .213 |
| Shift, $\hat{\gamma}_{60}$ | -0.04 | [-0.08, -0.01] | -2.48 | .013 | 0.02 | [-0.02, 0.05] | 0.91 | .364 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.06 | [-0.16, 0.04] | -1.23 | .217 | -0.01 | [-0.11, 0.09] | -0.18 | .853 |
| Working, $\hat{\gamma}_{10}$ | 0.03 | [-0.02, 0.07] | 1.19 | .232 | 0.00 | [-0.05, 0.04] | -0.12 | .902 |
| Before-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.02 | [-0.03, 0.07] | 0.74 | .460 | 0.04 | [-0.02, 0.09] | 1.38 | .169 |
| After-slope * Grandparent, $\hat{\gamma}_{41}$ | 0.02 | [0.00, 0.04] | 1.65 | .099 | 0.03 | [0.00, 0.05] | 2.32 | .021 |
| Shift * Grandparent, $\hat{\gamma}_{61}$ | -0.02 | [-0.10, 0.06] | -0.46 | .643 | -0.08 | [-0.16, 0.00] | -2.02 | .044 |
| Before-slope * Working, $\hat{\gamma}_{30}$ | -0.03 | [-0.05, -0.01] | -2.38 | .017 | 0.01 | [-0.02, 0.03] | 0.59 | .556 |
| After-slope * Working, $\hat{\gamma}_{50}$ | 0.00 | [-0.02, 0.01] | -0.19 | .848 | 0.01 | [0.00, 0.03] | 1.79 | .074 |
| Shift * Working, $\hat{\gamma}_{70}$ | 0.10 | [0.05, 0.14] | 4.18 | $< .001$ | -0.01 | [-0.06, 0.04] | -0.43 | .667 |
| Grandparent * Working, $\hat{\gamma}_{11}$ | 0.08 | [-0.02, 0.18] | 1.53 | .126 | 0.11 | [0.01, 0.21] | 2.13 | .034 |
| Before-slope * Grandparent * Working, $\hat{\gamma}_{31}$ | -0.01 | [-0.08, 0.05] | -0.46 | .646 | -0.05 | [-0.11, 0.01] | -1.69 | .092 |
| After-slope * Grandparent * Working, $\hat{\gamma}_{51}$ | -0.01 | [-0.05, 0.02] | -0.80 | .425 | -0.03 | [-0.06, 0.00] | -1.69 | .090 |
| Shift * Grandparent * Working, $\hat{\gamma}_{71}$ | -0.03 | [-0.13, 0.08] | -0.49 | .623 | 0.08 | [-0.02, 0.18] | 1.57 | .115 |

*Note.* Two models were computed (only HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval. $working = 1$ indicates being employed in paid work.

**Table S28**

*Linear Contrasts for Extraversion (Moderated by Paid Work; only HRS).*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| Shift of not-working controls vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60}$) | -0.04 | 9.28 | .002 | 0.01 | 0.42 | .515 |
| Shift of working controls vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60} + \hat{\gamma}_{50} + \hat{\gamma}_{70}$) | 0.05 | 22.76 | $<$ .001 | 0.01 | 1.67 | .196 |
| Shift of not-working grandparents vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60} + \hat{\gamma}_{41} + \hat{\gamma}_{61}$) | -0.04 | 2.05 | .152 | -0.04 | 2.20 | .138 |
| Shift of working grandparents vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60} + \hat{\gamma}_{41} + \hat{\gamma}_{61} + \hat{\gamma}_{50} + \hat{\gamma}_{70} + \hat{\gamma}_{51} + \hat{\gamma}_{71}$) | 0.01 | 0.40 | .526 | 0.01 | 0.42 | .517 |
| Shift of not-working controls vs. not-working grandparents ($\hat{\gamma}_{41} + \hat{\gamma}_{61}$) | 0.00 | 0.00 | .957 | -0.05 | 2.60 | .107 |
| Before-slope of working controls vs. working grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.01 | 0.12 | .729 | -0.02 | 1.06 | .303 |
| After-slope of working controls vs. working grandparents ($\hat{\gamma}_{41} + \hat{\gamma}_{51}$) | 0.01 | 0.28 | .598 | 0.00 | 0.00 | .948 |
| Shift of working controls vs. working grandparents ($\hat{\gamma}_{41} + \hat{\gamma}_{61} + \hat{\gamma}_{51} + \hat{\gamma}_{71}$) | -0.04 | 2.46 | .117 | 0.00 | 0.00 | .987 |
| Shift of not-working controls vs. working controls ($\hat{\gamma}_{50} + \hat{\gamma}_{70}$) | 0.10 | 27.75 | $<$ .001 | 0.00 | 0.04 | .852 |
| Before-slope of not-working grandparents vs. working grandparents ($\hat{\gamma}_{30} + \hat{\gamma}_{31}$) | -0.04 | 2.34 | .126 | -0.04 | 2.52 | .113 |
| After-slope of not-working grandparents vs. working grandparents ($\hat{\gamma}_{50} + \hat{\gamma}_{51}$) | -0.02 | 0.97 | .325 | -0.02 | 1.01 | .314 |
| Shift of not-working grandparents vs. working grandparents ($\hat{\gamma}_{50} + \hat{\gamma}_{70} + \hat{\gamma}_{51} + \hat{\gamma}_{71}$) | 0.06 | 2.24 | .135 | 0.06 | 2.38 | .123 |

*Note.* The linear contrasts are based on the models from Table S27. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S29**

*Fixed Effects of Extraversion Over the Transition to Grandparenthood Moderated by Grandchild Care.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| Intercept, $\hat{\gamma}_{00}$ | 3.19 | [3.14, 3.24] | 128.26 | $< .001$ | 3.12 | [3.06, 3.18] | 102.87 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.13 | [0.04, 0.22] | 2.98 | .003 | 0.08 | [-0.01, 0.17] | 1.67 | .096 |
| After-slope, $\hat{\gamma}_{20}$ | -0.01 | [-0.03, 0.00] | -2.61 | .009 | 0.00 | [-0.01, 0.01] | -0.39 | .694 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.04 | [-0.11, 0.03] | -1.05 | .296 | 0.04 | [-0.04, 0.12] | 1.06 | .288 |
| Caring, $\hat{\gamma}_{10}$ | 0.00 | [-0.03, 0.04] | 0.23 | .815 | 0.02 | [-0.02, 0.05] | 0.86 | .391 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.02 | [-0.01, 0.04] | 1.32 | .186 | 0.00 | [-0.02, 0.02] | 0.30 | .767 |
| After-slope * Caring, $\hat{\gamma}_{30}$ | 0.00 | [-0.02, 0.02] | -0.04 | .965 | 0.00 | [-0.02, 0.01] | -0.42 | .676 |
| Grandparent * Caring, $\hat{\gamma}_{11}$ | -0.04 | [-0.13, 0.06] | -0.74 | .461 | -0.05 | [-0.14, 0.04] | -1.04 | .299 |
| After-slope * Grandparent * Caring, $\hat{\gamma}_{31}$ | 0.03 | [-0.01, 0.06] | 1.56 | .119 | 0.03 | [0.00, 0.07] | 1.83 | .067 |

*Note.* Two models were computed (only HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval. *caring* = 1 indicates more than 100 hours of grandchild care since the last assessment.

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**Table S30**

*Linear Contrasts for Extraversion (Moderated by Grandchild Care; only HRS).*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| After-slope of caring controls vs. caring grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.04 | 10.45 | .001 | 0.04 | 7.39 | .007 |
| After-slope of not-caring grandparents vs. caring grandparents ($\hat{\gamma}_{30} + \hat{\gamma}_{31}$) | 0.03 | 2.98 | .084 | 0.03 | 3.37 | .066 |

*Note.* The linear contrasts are based on the models from Table S29. $\hat{\gamma}_c$ = combined fixed-effects estimate.

1708

**Table S31**

*Fixed Effects of Neuroticism Over the Transition to Grandparenthood.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 2.48 | [2.40, 2.56] | 63.09 | $< .001$ | 2.45 | [2.35, 2.54] | 51.88 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.01 | [-0.09, 0.11] | 0.19 | .852 | 0.00 | [-0.09, 0.09] | 0.04 | .967 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.00 | [-0.01, 0.01] | -0.56 | .575 | -0.01 | [-0.02, -0.01] | -3.66 | $< .001$ |
| After-slope, $\hat{\gamma}_{20}$ | 0.00 | [0.00, 0.01] | 0.94 | .350 | 0.00 | [0.00, 0.01] | 1.31 | .190 |
| Shift, $\hat{\gamma}_{30}$ | -0.05 | [-0.08, -0.02] | -2.96 | .003 | -0.03 | [-0.06, 0.01] | -1.58 | .115 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.08 | [-0.20, 0.03] | -1.37 | .170 | -0.04 | [-0.17, 0.08] | -0.67 | .500 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.00 | [-0.01, 0.02] | 0.43 | .668 | 0.02 | [0.00, 0.03] | 1.83 | .067 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.00 | [-0.02, 0.01] | -0.33 | .744 | 0.00 | [-0.02, 0.01] | -0.48 | .635 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.02 | [-0.09, 0.06] | -0.41 | .684 | -0.04 | [-0.12, 0.04] | -1.01 | .312 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 2.07 | [2.03, 2.11] | 94.42 | $< .001$ | 2.07 | [2.02, 2.12] | 79.36 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.00 | [-0.07, 0.08] | 0.12 | .902 | 0.15 | [0.07, 0.23] | 3.70 | $< .001$ |
| Before-slope, $\hat{\gamma}_{10}$ | -0.01 | [-0.03, 0.00] | -1.90 | .057 | -0.03 | [-0.04, -0.02] | -4.70 | $< .001$ |
| After-slope, $\hat{\gamma}_{20}$ | -0.01 | [-0.01, 0.00] | -1.20 | .230 | -0.01 | [-0.02, -0.01] | -3.18 | .001 |
| Shift, $\hat{\gamma}_{30}$ | 0.01 | [-0.02, 0.03] | 0.42 | .675 | -0.03 | [-0.06, -0.01] | -2.36 | .018 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.06 | [-0.13, 0.01] | -1.64 | .100 | -0.12 | [-0.19, -0.05] | -3.31 | .001 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.02 | [-0.01, 0.05] | 1.28 | .201 | 0.04 | [0.01, 0.07] | 2.42 | .016 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | -0.02 | [-0.04, 0.00] | -1.52 | .127 | -0.01 | [-0.03, 0.01] | -0.80 | .424 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.06 | [-0.12, 0.00] | -2.12 | .034 | -0.03 | [-0.08, 0.03] | -0.88 | .381 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval.

**Table S32**

*Linear Contrasts for Neuroticism.*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| LISS | | | | | | |
| Shift of the controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | -0.05 | 10.12 | .001 | -0.02 | 2.26 | .133 |
| Shift of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.07 | 4.99 | .025 | -0.07 | 4.74 | .029 |
| Shift of the controls vs. shift of the grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.02 | 0.30 | .587 | -0.04 | 1.62 | .203 |
| Before-slope of the grandparents vs. 0 ($\hat{\gamma}_{10} + \hat{\gamma}_{11}$) | 0.00 | 0.04 | .842 | 0.00 | 0.05 | .830 |
| After-slope of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{21}$) | 0.00 | 0.01 | .914 | 0.00 | 0.02 | .900 |
| HRS | | | | | | |
| Shift of the controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.00 | 0.00 | .993 | -0.04 | 20.02 | $< .001$ |
| Shift of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.08 | 15.10 | $< .001$ | -0.08 | 15.78 | $< .001$ |
| Shift of the controls vs. shift of the grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.08 | 12.06 | .001 | -0.03 | 2.29 | .130 |
| Before-slope of the grandparents vs. 0 ($\hat{\gamma}_{10} + \hat{\gamma}_{11}$) | 0.01 | 0.25 | .618 | 0.01 | 0.19 | .666 |
| After-slope of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{21}$) | -0.02 | 5.29 | .021 | -0.02 | 6.13 | .013 |

*Note.* The linear contrasts are needed in cases where estimates of interest are represented by multiple fixed-effects coefficients and are computed using the *linearHypothesis* function from the *car* R package (Fox & Weisberg, 2019) based on the models from Table S31. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S33**

*Fixed Effects of Neuroticism Over the Transition to Grandparenthood Moderated by Gender.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 2.45 | [2.34, 2.56] | 43.45 | $< .001$ | 2.32 | [2.19, 2.45] | 34.99 | $< .001$ |
| Propensity score, $\hat{\gamma}_{04}$ | 0.02 | [-0.09, 0.12] | 0.30 | .767 | 0.02 | [-0.08, 0.11] | 0.33 | .744 |
| Before-slope, $\hat{\gamma}_{10}$ | -0.01 | [-0.02, 0.00] | -1.89 | .059 | -0.01 | [-0.02, 0.00] | -1.12 | .263 |
| After-slope, $\hat{\gamma}_{20}$ | 0.01 | [0.00, 0.02] | 2.82 | .005 | 0.01 | [0.00, 0.02] | 2.43 | .015 |
| Shift, $\hat{\gamma}_{30}$ | -0.06 | [-0.11, -0.01] | -2.24 | .025 | -0.05 | [-0.10, 0.00] | -1.95 | .052 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.18 | [-0.35, -0.01] | -2.11 | .035 | -0.05 | [-0.23, 0.13] | -0.56 | .574 |
| Female, $\hat{\gamma}_{02}$ | 0.05 | [-0.09, 0.20] | 0.72 | .474 | 0.22 | [0.05, 0.40] | 2.52 | .012 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.01 | [-0.01, 0.04] | 0.82 | .413 | 0.01 | [-0.02, 0.03] | 0.46 | .643 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | -0.02 | [-0.04, 0.01] | -1.36 | .173 | -0.01 | [-0.04, 0.01] | -1.15 | .250 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.03 | [-0.14, 0.08] | -0.51 | .612 | -0.04 | [-0.15, 0.08] | -0.63 | .529 |
| Before-slope * Female, $\hat{\gamma}_{12}$ | 0.02 | [0.00, 0.03] | 2.03 | .043 | -0.01 | [-0.03, 0.00] | -1.83 | .067 |
| After-slope * Female, $\hat{\gamma}_{22}$ | -0.02 | [-0.03, -0.01] | -2.99 | .003 | -0.01 | [-0.03, 0.00] | -2.10 | .036 |
| Shift * Female, $\hat{\gamma}_{32}$ | 0.01 | [-0.05, 0.08] | 0.39 | .700 | 0.04 | [-0.03, 0.11] | 1.19 | .234 |
| Grandparent * Female, $\hat{\gamma}_{03}$ | 0.18 | [-0.05, 0.40] | 1.54 | .123 | 0.01 | [-0.24, 0.25] | 0.06 | .951 |
| Before-slope * Grandparent * Female, $\hat{\gamma}_{13}$ | -0.01 | [-0.05, 0.02] | -0.66 | .508 | 0.02 | [-0.02, 0.05] | 1.08 | .279 |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | 0.02 | [-0.01, 0.05] | 1.48 | .138 | 0.02 | [-0.01, 0.05] | 1.08 | .282 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | 0.03 | [-0.12, 0.18] | 0.35 | .730 | 0.00 | [-0.16, 0.15] | -0.03 | .975 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 1.98 | [1.91, 2.04] | 62.73 | $< .001$ | 2.01 | [1.94, 2.08] | 56.33 | $< .001$ |
| Propensity score, $\hat{\gamma}_{04}$ | 0.01 | [-0.07, 0.09] | 0.26 | .798 | 0.15 | [0.07, 0.23] | 3.58 | $< .001$ |
| Before-slope, $\hat{\gamma}_{10}$ | -0.02 | [-0.04, 0.00] | -2.11 | .035 | -0.03 | [-0.05, -0.01] | -3.18 | .001 |
| After-slope, $\hat{\gamma}_{20}$ | -0.02 | [-0.03, 0.00] | -2.40 | .017 | -0.02 | [-0.03, -0.01] | -2.92 | .003 |
| Shift, $\hat{\gamma}_{30}$ | 0.08 | [0.04, 0.12] | 4.02 | $< .001$ | 0.00 | [-0.03, 0.04] | 0.21 | .834 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.06 | [-0.16, 0.04] | -1.10 | .272 | -0.16 | [-0.26, -0.05] | -2.89 | .004 |
| Female, $\hat{\gamma}_{02}$ | 0.17 | [0.09, 0.25] | 4.19 | $< .001$ | 0.10 | [0.01, 0.19] | 2.23 | .026 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.06 | [0.01, 0.10] | 2.26 | .024 | 0.06 | [0.02, 0.11] | 2.72 | .007 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.00 | [-0.03, 0.03] | 0.31 | .755 | 0.01 | [-0.02, 0.04] | 0.48 | .630 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.16 | [-0.25, -0.07] | -3.60 | $< .001$ | -0.08 | [-0.17, 0.00] | -1.89 | .059 |
| Before-slope * Female, $\hat{\gamma}_{12}$ | 0.01 | [-0.01, 0.04] | 1.04 | .300 | 0.00 | [-0.03, 0.03] | 0.09 | .926 |
| After-slope * Female, $\hat{\gamma}_{22}$ | 0.02 | [0.00, 0.04] | 2.19 | .029 | 0.01 | [-0.01, 0.03] | 1.15 | .250 |
| Shift * Female, $\hat{\gamma}_{32}$ | -0.14 | [-0.19, -0.08] | -5.02 | $< .001$ | -0.06 | [-0.11, -0.01] | -2.33 | .020 |

Table S33 continued

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| Grandparent * Female, $\hat{\gamma}_{03}$ | 0.00 | [-0.14, 0.13] | -0.01 | .993 | 0.06 | [-0.08, 0.20] | 0.82 | .410 |
| Before-slope * Grandparent * Female, $\hat{\gamma}_{13}$ | -0.06 | [-0.12, 0.00] | -1.85 | .065 | -0.05 | [-0.11, 0.01] | -1.49 | .138 |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | -0.04 | [-0.08, 0.00] | -1.80 | .073 | -0.03 | [-0.07, 0.01] | -1.35 | .176 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | 0.17 | [0.06, 0.29] | 2.90 | .004 | 0.10 | [-0.01, 0.21] | 1.71 | .087 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval.

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**Table S34**

*Linear Contrasts for Neuroticism (Moderated by Gender).*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| LISS | | | | | | |
| Shift of male controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | -0.04 | 3.64 | .056 | -0.04 | 2.76 | .096 |
| Shift of female controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{22} + \hat{\gamma}_{32}$) | -0.05 | 6.02 | .014 | -0.01 | 0.24 | .621 |
| Shift of grandfathers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.09 | 3.89 | .048 | -0.09 | 3.67 | .055 |
| Shift of grandmothers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.04 | 1.25 | .263 | -0.05 | 1.20 | .273 |
| Shift of male controls vs. grandfathers ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.04 | 0.80 | .371 | -0.05 | 0.97 | .325 |
| Before-slope of female controls vs. grandmothers ($\hat{\gamma}_{11} + \hat{\gamma}_{13}$) | 0.00 | 0.01 | .935 | 0.03 | 4.48 | .034 |
| After-slope of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{23}$) | 0.01 | 0.51 | .476 | 0.00 | 0.12 | .730 |
| Shift of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | 0.01 | 0.01 | .904 | -0.03 | 0.57 | .451 |
| Shift of male vs. female controls ($\hat{\gamma}_{22} + \hat{\gamma}_{32}$) | -0.01 | 0.06 | .799 | 0.03 | 0.76 | .382 |
| Before-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{12} + \hat{\gamma}_{13}$) | 0.00 | 0.08 | .783 | 0.00 | 0.09 | .765 |
| After-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{23}$) | 0.00 | 0.02 | .882 | 0.00 | 0.02 | .875 |
| Shift of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | 0.04 | 0.50 | .481 | 0.04 | 0.46 | .498 |
| HRS | | | | | | |
| Shift of male controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.06 | 17.37 | $< .001$ | -0.02 | 1.08 | .299 |
| Shift of female controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{22} + \hat{\gamma}_{32}$) | -0.05 | 13.66 | $< .001$ | -0.07 | 25.37 | $< .001$ |
| Shift of grandfathers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.09 | 9.12 | .003 | -0.09 | 9.50 | .002 |
| Shift of grandmothers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.07 | 6.49 | .011 | -0.07 | 6.77 | .009 |
| Shift of male controls vs. grandfathers ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.16 | 20.99 | $< .001$ | -0.07 | 5.10 | .024 |
| Before-slope of female controls vs. grandmothers ($\hat{\gamma}_{11} + \hat{\gamma}_{13}$) | 0.00 | 0.05 | .821 | 0.02 | 0.73 | .392 |
| After-slope of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{23}$) | -0.03 | 5.41 | .020 | -0.02 | 2.20 | .138 |
| Shift of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.02 | 0.37 | .541 | 0.00 | 0.01 | .943 |
| Shift of male vs. female controls ($\hat{\gamma}_{22} + \hat{\gamma}_{32}$) | -0.12 | 31.04 | $< .001$ | -0.05 | 6.32 | .012 |
| Before-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{12} + \hat{\gamma}_{13}$) | -0.05 | 2.41 | .120 | -0.05 | 2.56 | .109 |
| After-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{23}$) | -0.02 | 0.84 | .360 | -0.02 | 0.88 | .349 |
| Shift of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | 0.02 | 0.30 | .584 | 0.02 | 0.31 | .577 |

*Note.* The linear contrasts are based on the models from Table S33. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S35**

*Fixed Effects of Neuroticism Over the Transition to Grandparenthood Moderated by Performing Paid Work.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| Intercept, $\hat{\gamma}_{00}$ | 2.02 | [1.96, 2.07] | 72.21 | $< .001$ | 2.02 | [1.96, 2.08] | 63.73 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.00 | [-0.08, 0.08] | 0.01 | .993 | 0.15 | [0.06, 0.23] | 3.46 | .001 |
| Before-slope, $\hat{\gamma}_{20}$ | 0.00 | [-0.02, 0.03] | 0.18 | .860 | -0.01 | [-0.04, 0.02] | -0.84 | .400 |
| After-slope, $\hat{\gamma}_{40}$ | -0.01 | [-0.02, 0.01] | -0.79 | .429 | -0.01 | [-0.02, 0.00] | -1.41 | .159 |
| Shift, $\hat{\gamma}_{60}$ | 0.04 | [0.00, 0.08] | 1.91 | .056 | -0.03 | [-0.07, 0.01] | -1.32 | .188 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.13 | [0.02, 0.25] | 2.28 | .022 | 0.07 | [-0.04, 0.19] | 1.27 | .203 |
| Working, $\hat{\gamma}_{10}$ | 0.08 | [0.03, 0.13] | 2.94 | .003 | 0.07 | [0.02, 0.12] | 2.63 | .009 |
| Before-slope * Grandparent, $\hat{\gamma}_{21}$ | -0.07 | [-0.13, 0.00] | -2.04 | .042 | -0.06 | [-0.12, 0.01] | -1.73 | .084 |
| After-slope * Grandparent, $\hat{\gamma}_{41}$ | -0.02 | [-0.05, 0.01] | -1.55 | .122 | -0.02 | [-0.05, 0.01] | -1.37 | .170 |
| Shift * Grandparent, $\hat{\gamma}_{61}$ | -0.05 | [-0.15, 0.05] | -1.03 | .303 | 0.02 | [-0.07, 0.11] | 0.45 | .655 |
| Before-slope * Working, $\hat{\gamma}_{30}$ | -0.02 | [-0.05, 0.01] | -1.43 | .153 | -0.02 | [-0.05, 0.01] | -1.54 | .123 |
| After-slope * Working, $\hat{\gamma}_{50}$ | 0.00 | [-0.02, 0.02] | -0.23 | .820 | -0.01 | [-0.02, 0.01] | -0.73 | .463 |
| Shift * Working, $\hat{\gamma}_{70}$ | -0.05 | [-0.11, 0.00] | -1.90 | .058 | 0.00 | [-0.05, 0.06] | 0.13 | .893 |
| Grandparent * Working, $\hat{\gamma}_{11}$ | -0.25 | [-0.38, -0.13] | -4.08 | $< .001$ | -0.25 | [-0.37, -0.13] | -4.20 | $< .001$ |
| Before-slope * Grandparent * Working, $\hat{\gamma}_{31}$ | 0.11 | [0.04, 0.19] | 2.95 | .003 | 0.12 | [0.04, 0.19] | 3.13 | .002 |
| After-slope * Grandparent * Working, $\hat{\gamma}_{51}$ | 0.01 | [-0.03, 0.05] | 0.51 | .613 | 0.02 | [-0.02, 0.06] | 0.75 | .451 |
| Shift * Grandparent * Working, $\hat{\gamma}_{71}$ | -0.02 | [-0.15, 0.10] | -0.33 | .740 | -0.08 | [-0.20, 0.04] | -1.23 | .217 |

*Note.* Two models were computed (only HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval. *working* = 1 indicates being employed in paid work.

**Table S36**

*Linear Contrasts for Neuroticism (Moderated by Paid Work; only HRS).*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| Shift of not-working controls vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60}$) | 0.04 | 4.30 | .038 | -0.04 | 4.61 | .032 |
| Shift of working controls vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60} + \hat{\gamma}_{50} + \hat{\gamma}_{70}$) | -0.02 | 2.18 | .140 | -0.04 | 11.64 | .001 |
| Shift of not-working grandparents vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60} + \hat{\gamma}_{41} + \hat{\gamma}_{61}$) | -0.04 | 1.12 | .290 | -0.04 | 1.24 | .266 |
| Shift of working grandparents vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60} + \hat{\gamma}_{41} + \hat{\gamma}_{61} + \hat{\gamma}_{50} + \hat{\gamma}_{70} + \hat{\gamma}_{51} + \hat{\gamma}_{71}$) | -0.10 | 15.38 | $< .001$ | -0.10 | 16.09 | $< .001$ |
| Shift of not-working controls vs. not-working grandparents ($\hat{\gamma}_{41} + \hat{\gamma}_{61}$) | -0.07 | 3.47 | .063 | 0.00 | 0.00 | .974 |
| Before-slope of working controls vs. working grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.05 | 5.89 | .015 | 0.06 | 11.29 | .001 |
| After-slope of working controls vs. working grandparents ($\hat{\gamma}_{41} + \hat{\gamma}_{51}$) | -0.01 | 0.72 | .396 | 0.00 | 0.11 | .743 |
| Shift of working controls vs. working grandparents ($\hat{\gamma}_{41} + \hat{\gamma}_{61} + \hat{\gamma}_{51} + \hat{\gamma}_{71}$) | -0.08 | 8.11 | .004 | -0.06 | 4.48 | .034 |
| Shift of not-working controls vs. working controls ($\hat{\gamma}_{50} + \hat{\gamma}_{70}$) | -0.06 | 6.36 | .012 | 0.00 | 0.02 | .895 |
| Before-slope of not-working grandparents vs. working grandparents ($\hat{\gamma}_{30} + \hat{\gamma}_{31}$) | 0.09 | 6.73 | .009 | 0.09 | 7.45 | .006 |
| After-slope of not-working grandparents vs. working grandparents ($\hat{\gamma}_{50} + \hat{\gamma}_{51}$) | 0.01 | 0.20 | .651 | 0.01 | 0.23 | .634 |
| Shift of not-working grandparents vs. working grandparents ($\hat{\gamma}_{50} + \hat{\gamma}_{70} + \hat{\gamma}_{51} + \hat{\gamma}_{71}$) | -0.07 | 2.14 | .143 | -0.06 | 2.17 | .141 |

*Note.* The linear contrasts are based on the models from Table S35. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S37**

*Fixed Effects of Neuroticism Over the Transition to Grandparenthood Moderated by Grandchild Care.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| Intercept, $\hat{\gamma}_{00}$ | 2.04 | [1.99, 2.09] | 75.41 | $< .001$ | 1.97 | [1.91, 2.04] | 59.05 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | -0.02 | [-0.12, 0.07] | -0.45 | .652 | 0.14 | [0.03, 0.24] | 2.59 | .010 |
| After-slope, $\hat{\gamma}_{20}$ | 0.00 | [-0.01, 0.01] | -0.02 | .982 | -0.02 | [-0.03, 0.00] | -2.67 | .008 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.10 | [-0.18, -0.02] | -2.45 | .014 | -0.11 | [-0.20, -0.02] | -2.43 | .015 |
| Caring, $\hat{\gamma}_{10}$ | 0.01 | [-0.04, 0.05] | 0.33 | .740 | 0.00 | [-0.04, 0.04] | -0.09 | .930 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.00 | [-0.03, 0.02] | -0.17 | .865 | 0.01 | [-0.01, 0.04] | 1.06 | .291 |
| After-slope * Caring, $\hat{\gamma}_{30}$ | -0.01 | [-0.03, 0.01] | -1.01 | .311 | 0.01 | [-0.01, 0.03] | 0.68 | .494 |
| Grandparent * Caring, $\hat{\gamma}_{11}$ | 0.09 | [-0.02, 0.20] | 1.57 | .117 | 0.09 | [-0.02, 0.21] | 1.67 | .095 |
| After-slope * Grandparent * Caring, $\hat{\gamma}_{31}$ | -0.03 | [-0.07, 0.01] | -1.34 | .182 | -0.04 | [-0.09, 0.00] | -2.07 | .038 |

*Note.* Two models were computed (only HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval. *caring* = 1 indicates more than 100 hours of grandchild care since the last assessment.

**Table S38**

*Linear Contrasts for Neuroticism (Moderated by Grandchild Care; only HRS).*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| After-slope of caring controls vs. caring grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.03 | 3.78 | .052 | -0.03 | 3.60 | .058 |
| After-slope of not-caring grandparents vs. caring grandparents ($\hat{\gamma}_{30} + \hat{\gamma}_{31}$) | -0.04 | 4.06 | .044 | -0.04 | 3.90 | .048 |

*Note.* The linear contrasts are based on the models from Table S37. $\hat{\gamma}_c$ = combined fixed-effects estimate.

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**Table S39**

*Fixed Effects of Openness Over the Transition to Grandparenthood.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.48 | [3.42, 3.53] | 118.77 | $< .001$ | 3.52 | [3.45, 3.59] | 104.18 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.00 | [-0.08, 0.07] | -0.07 | .944 | 0.03 | [-0.03, 0.09] | 1.02 | .309 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.00 | [-0.01, 0.00] | -1.58 | .114 | 0.00 | [-0.01, 0.00] | -0.68 | .494 |
| After-slope, $\hat{\gamma}_{20}$ | -0.01 | [-0.01, 0.00] | -2.36 | .018 | 0.00 | [0.00, 0.01] | 1.95 | .051 |
| Shift, $\hat{\gamma}_{30}$ | 0.02 | [0.00, 0.05] | 1.88 | .061 | 0.00 | [-0.02, 0.02] | 0.00 | .998 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.01 | [-0.08, 0.09] | 0.16 | .872 | -0.05 | [-0.14, 0.04] | -1.06 | .290 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.01 | [0.00, 0.02] | 1.23 | .220 | 0.01 | [-0.01, 0.02] | 0.87 | .384 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.00 | [-0.01, 0.01] | 0.11 | .910 | -0.01 | [-0.02, 0.00] | -1.92 | .055 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.03 | [-0.08, 0.03] | -1.05 | .296 | -0.01 | [-0.06, 0.04] | -0.21 | .832 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.04 | [3.00, 3.08] | 149.49 | $< .001$ | 3.01 | [2.96, 3.06] | 129.29 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.03 | [-0.04, 0.09] | 0.82 | .411 | 0.00 | [-0.06, 0.07] | 0.13 | .895 |
| Before-slope, $\hat{\gamma}_{10}$ | -0.02 | [-0.03, -0.01] | -3.29 | .001 | 0.00 | [-0.01, 0.01] | -0.68 | .495 |
| After-slope, $\hat{\gamma}_{20}$ | -0.02 | [-0.03, -0.01] | -5.28 | $< .001$ | -0.02 | [-0.02, -0.01] | -4.83 | $< .001$ |
| Shift, $\hat{\gamma}_{30}$ | 0.06 | [0.03, 0.08] | 4.92 | $< .001$ | 0.03 | [0.01, 0.05] | 3.26 | .001 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.02 | [-0.08, 0.05] | -0.55 | .582 | 0.02 | [-0.04, 0.09] | 0.75 | .451 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.02 | [-0.01, 0.04] | 1.36 | .172 | 0.00 | [-0.02, 0.03] | 0.19 | .850 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.02 | [0.00, 0.03] | 2.01 | .044 | 0.01 | [0.00, 0.03] | 1.74 | .083 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.07 | [-0.12, -0.02] | -2.86 | .004 | -0.05 | [-0.09, 0.00] | -2.16 | .031 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval.

**Table S40**

*Linear Contrasts for Openness.*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| LISS | | | | | | |
| Shift of the controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.02 | 2.57 | .109 | 0.00 | 0.21 | .650 |
| Shift of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.01 | 0.25 | .618 | -0.01 | 0.30 | .585 |
| Shift of the controls vs. shift of the grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.03 | 1.38 | .241 | -0.02 | 0.48 | .489 |
| Before-slope of the grandparents vs. 0 ($\hat{\gamma}_{10} + \hat{\gamma}_{11}$) | 0.00 | 0.34 | .561 | 0.00 | 0.40 | .528 |
| After-slope of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{21}$) | -0.01 | 1.15 | .284 | -0.01 | 1.36 | .244 |
| HRS | | | | | | |
| Shift of the controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.03 | 16.48 | $< .001$ | 0.02 | 4.36 | .037 |
| Shift of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.02 | 1.31 | .253 | -0.02 | 1.57 | .210 |
| Shift of the controls vs. shift of the grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.05 | 8.14 | .004 | -0.04 | 4.25 | .039 |
| Before-slope of the grandparents vs. 0 ($\hat{\gamma}_{10} + \hat{\gamma}_{11}$) | 0.00 | 0.00 | .946 | 0.00 | 0.01 | .908 |
| After-slope of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{21}$) | 0.00 | 0.14 | .709 | 0.00 | 0.20 | .658 |

*Note.* The linear contrasts are needed in cases where estimates of interest are represented by multiple fixed-effects coefficients and are computed using the *linearHypothesis* function from the *car* R package (Fox & Weisberg, 2019) based on the models from Table S39. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S41**

*Fixed Effects of Openness Over the Transition to Grandparenthood Moderated by Gender.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.47 | [3.39, 3.55] | 81.39 | $< .001$ | 3.54 | [3.45, 3.64] | 73.02 | $< .001$ |
| Propensity score, $\hat{\gamma}_{04}$ | 0.00 | [-0.08, 0.07] | -0.04 | .970 | 0.03 | [-0.03, 0.09] | 0.94 | .347 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.00 | [-0.01, 0.01] | 0.17 | .864 | 0.01 | [0.00, 0.02] | 2.39 | .017 |
| After-slope, $\hat{\gamma}_{20}$ | 0.00 | [-0.01, 0.00] | -1.05 | .292 | 0.01 | [0.00, 0.01] | 1.53 | .126 |
| Shift, $\hat{\gamma}_{30}$ | -0.02 | [-0.05, 0.02] | -0.93 | .353 | -0.01 | [-0.04, 0.02] | -0.64 | .523 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.11 | [-0.01, 0.24] | 1.78 | .076 | 0.03 | [-0.10, 0.16] | 0.44 | .661 |
| Female, $\hat{\gamma}_{02}$ | 0.01 | [-0.10, 0.12] | 0.16 | .871 | -0.05 | [-0.17, 0.08] | -0.69 | .488 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.00 | [-0.02, 0.01] | -0.39 | .694 | -0.01 | [-0.03, 0.00] | -1.42 | .156 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | -0.01 | [-0.02, 0.01] | -0.88 | .380 | -0.02 | [-0.03, 0.00] | -2.16 | .031 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | 0.03 | [-0.05, 0.12] | 0.84 | .400 | 0.03 | [-0.05, 0.10] | 0.75 | .452 |
| Before-slope * Female, $\hat{\gamma}_{12}$ | -0.01 | [-0.02, 0.00] | -1.64 | .102 | -0.02 | [-0.03, -0.01] | -3.89 | $< .001$ |
| After-slope * Female, $\hat{\gamma}_{22}$ | 0.00 | [-0.01, 0.01] | -0.79 | .431 | 0.00 | [-0.01, 0.01] | -0.24 | .812 |
| Shift * Female, $\hat{\gamma}_{32}$ | 0.08 | [0.03, 0.13] | 2.98 | .003 | 0.02 | [-0.03, 0.06] | 0.84 | .402 |
| Grandparent * Female, $\hat{\gamma}_{03}$ | -0.20 | [-0.37, -0.03] | -2.31 | .021 | -0.15 | [-0.33, 0.03] | -1.59 | .113 |
| Before-slope * Grandparent * Female, $\hat{\gamma}_{13}$ | 0.02 | [0.00, 0.05] | 1.70 | .090 | 0.03 | [0.01, 0.06] | 2.80 | .005 |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | 0.01 | [-0.01, 0.04] | 1.29 | .197 | 0.01 | [-0.01, 0.03] | 1.14 | .255 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | -0.12 | [-0.23, -0.01] | -2.11 | .035 | -0.06 | [-0.16, 0.04] | -1.21 | .225 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.06 | [3.00, 3.12] | 108.70 | $< .001$ | 3.03 | [2.97, 3.09] | 97.90 | $< .001$ |
| Propensity score, $\hat{\gamma}_{04}$ | 0.03 | [-0.04, 0.09] | 0.86 | .391 | 0.00 | [-0.06, 0.07] | 0.03 | .976 |
| Before-slope, $\hat{\gamma}_{10}$ | -0.02 | [-0.04, 0.00] | -2.44 | .015 | -0.01 | [-0.03, 0.00] | -1.90 | .058 |
| After-slope, $\hat{\gamma}_{20}$ | -0.03 | [-0.04, -0.02] | -5.75 | $< .001$ | -0.01 | [-0.02, 0.00] | -2.04 | .042 |
| Shift, $\hat{\gamma}_{30}$ | 0.11 | [0.07, 0.14] | 6.34 | $< .001$ | 0.00 | [-0.03, 0.03] | -0.29 | .772 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.03 | [-0.12, 0.06] | -0.62 | .535 | 0.01 | [-0.08, 0.10] | 0.24 | .813 |
| Female, $\hat{\gamma}_{02}$ | -0.03 | [-0.09, 0.04] | -0.80 | .423 | -0.04 | [-0.11, 0.04] | -0.98 | .328 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.01 | [-0.03, 0.05] | 0.41 | .685 | 0.00 | [-0.03, 0.04] | 0.05 | .960 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.03 | [0.01, 0.06] | 2.66 | .008 | 0.01 | [-0.01, 0.03] | 0.94 | .346 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.15 | [-0.22, -0.07] | -3.93 | $< .001$ | -0.03 | [-0.10, 0.03] | -1.00 | .316 |
| Before-slope * Female, $\hat{\gamma}_{12}$ | 0.00 | [-0.02, 0.03] | 0.28 | .781 | 0.02 | [0.00, 0.04] | 1.97 | .049 |
| After-slope * Female, $\hat{\gamma}_{22}$ | 0.02 | [0.01, 0.04] | 3.05 | .002 | -0.01 | [-0.02, 0.00] | -1.47 | .141 |
| Shift * Female, $\hat{\gamma}_{32}$ | -0.09 | [-0.14, -0.05] | -4.11 | $< .001$ | 0.06 | [0.03, 0.10] | 3.21 | .001 |

Table S41 continued

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| Grandparent * Female, $\hat{\gamma}_{03}$ | 0.02 | [-0.10, 0.13] | 0.30 | .763 | 0.03 | [-0.09, 0.14] | 0.45 | .652 |
| Before-slope * Grandparent * Female, $\hat{\gamma}_{13}$ | 0.02 | [-0.04, 0.07] | 0.67 | .504 | 0.00 | [-0.05, 0.05] | 0.08 | .939 |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | -0.03 | [-0.06, 0.00] | -1.75 | .079 | 0.00 | [-0.03, 0.03] | 0.27 | .790 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | 0.14 | [0.04, 0.23] | 2.71 | .007 | -0.02 | [-0.11, 0.06] | -0.52 | .603 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval.

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**Table S42**

*Linear Contrasts for Openness (Moderated by Gender).*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| LISS | | | | | | |
| Shift of male controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | -0.02 | 1.70 | .192 | -0.01 | 0.14 | .706 |
| Shift of female controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{22} + \hat{\gamma}_{32}$) | 0.05 | 11.29 | .001 | 0.01 | 0.84 | .359 |
| Shift of grandfathers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.01 | 0.03 | .853 | 0.01 | 0.04 | .833 |
| Shift of grandmothers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.03 | 0.78 | .378 | -0.03 | 0.93 | .335 |
| Shift of male controls vs. grandfathers ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.03 | 0.57 | .450 | 0.01 | 0.13 | .721 |
| Before-slope of female controls vs. grandmothers ($\hat{\gamma}_{11} + \hat{\gamma}_{13}$) | 0.02 | 4.38 | .036 | 0.02 | 6.74 | .009 |
| After-slope of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{23}$) | 0.01 | 0.91 | .341 | 0.00 | 0.42 | .517 |
| Shift of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.08 | 5.37 | .020 | -0.04 | 1.63 | .202 |
| Shift of male vs. female controls ($\hat{\gamma}_{22} + \hat{\gamma}_{32}$) | 0.07 | 10.45 | .001 | 0.02 | 0.82 | .366 |
| Before-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{12} + \hat{\gamma}_{13}$) | 0.01 | 1.16 | .282 | 0.01 | 1.41 | .236 |
| After-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{23}$) | 0.01 | 1.10 | .294 | 0.01 | 1.33 | .249 |
| Shift of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.03 | 0.53 | .466 | -0.03 | 0.65 | .421 |
| HRS | | | | | | |
| Shift of male controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.07 | 32.25 | $< .001$ | -0.02 | 1.67 | .197 |
| Shift of female controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{22} + \hat{\gamma}_{32}$) | 0.00 | 0.15 | .698 | 0.04 | 15.02 | $< .001$ |
| Shift of grandfathers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.04 | 2.39 | .122 | -0.04 | 2.82 | .093 |
| Shift of grandmothers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | 0.00 | 0.01 | .919 | 0.00 | 0.02 | .899 |
| Shift of male controls vs. grandfathers ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.11 | 15.71 | $< .001$ | -0.02 | 0.80 | .372 |
| Before-slope of female controls vs. grandmothers ($\hat{\gamma}_{11} + \hat{\gamma}_{13}$) | 0.03 | 2.17 | .141 | 0.00 | 0.03 | .863 |
| After-slope of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{23}$) | 0.00 | 0.10 | .747 | 0.01 | 2.08 | .150 |
| Shift of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.01 | 0.07 | .791 | -0.04 | 3.38 | .066 |
| Shift of male vs. female controls ($\hat{\gamma}_{22} + \hat{\gamma}_{32}$) | -0.07 | 15.92 | $< .001$ | 0.05 | 12.31 | $< .001$ |
| Before-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{12} + \hat{\gamma}_{13}$) | 0.02 | 0.76 | .382 | 0.02 | 1.04 | .307 |
| After-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{23}$) | -0.01 | 0.19 | .660 | -0.01 | 0.19 | .663 |
| Shift of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | 0.04 | 1.17 | .280 | 0.04 | 1.35 | .245 |

*Note.* The linear contrasts are based on the models from Table S41. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S43**

*Fixed Effects of Openness Over the Transition to Grandparenthood Moderated by Performing Paid Work.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| Intercept, $\hat{\gamma}_{00}$ | 3.02 | [2.97, 3.06] | 121.17 | $< .001$ | 3.03 | [2.97, 3.08] | 111.81 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.01 | [-0.06, 0.07] | 0.25 | .800 | -0.01 | [-0.08, 0.05] | -0.39 | .693 |
| Before-slope, $\hat{\gamma}_{20}$ | -0.01 | [-0.03, 0.01] | -1.03 | .303 | -0.01 | [-0.03, 0.01] | -0.96 | .339 |
| After-slope, $\hat{\gamma}_{40}$ | -0.03 | [-0.04, -0.02] | -5.25 | $< .001$ | -0.02 | [-0.03, -0.01] | -4.51 | $< .001$ |
| Shift, $\hat{\gamma}_{60}$ | 0.06 | [0.02, 0.09] | 3.20 | .001 | 0.04 | [0.00, 0.07] | 2.21 | .027 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.05 | [-0.15, 0.05] | -1.04 | .299 | -0.06 | [-0.15, 0.04] | -1.17 | .243 |
| Working, $\hat{\gamma}_{10}$ | 0.05 | [0.01, 0.09] | 2.26 | .024 | -0.02 | [-0.06, 0.02] | -0.88 | .378 |
| Before-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.04 | [-0.02, 0.09] | 1.30 | .194 | 0.03 | [-0.01, 0.08] | 1.38 | .167 |
| After-slope * Grandparent, $\hat{\gamma}_{41}$ | 0.05 | [0.02, 0.07] | 3.86 | $< .001$ | 0.04 | [0.02, 0.06] | 3.73 | $< .001$ |
| Shift * Grandparent, $\hat{\gamma}_{61}$ | -0.14 | [-0.22, -0.06] | -3.37 | .001 | -0.12 | [-0.19, -0.04] | -3.14 | .002 |
| Before-slope * Working, $\hat{\gamma}_{30}$ | -0.01 | [-0.04, 0.01] | -0.86 | .389 | 0.01 | [-0.01, 0.03] | 0.82 | .414 |
| After-slope * Working, $\hat{\gamma}_{50}$ | 0.02 | [0.01, 0.04] | 2.94 | .003 | 0.02 | [0.00, 0.03] | 2.15 | .031 |
| Shift * Working, $\hat{\gamma}_{70}$ | -0.01 | [-0.06, 0.04] | -0.44 | .661 | -0.01 | [-0.05, 0.03] | -0.52 | .606 |
| Grandparent * Working, $\hat{\gamma}_{11}$ | 0.04 | [-0.06, 0.14] | 0.79 | .429 | 0.11 | [0.02, 0.20] | 2.33 | .020 |
| Before-slope * Grandparent * Working, $\hat{\gamma}_{31}$ | -0.02 | [-0.08, 0.04] | -0.56 | .578 | -0.04 | [-0.10, 0.02] | -1.34 | .179 |
| After-slope * Grandparent * Working, $\hat{\gamma}_{51}$ | -0.06 | [-0.10, -0.03] | -3.46 | .001 | -0.05 | [-0.08, -0.02] | -3.35 | .001 |
| Shift * Grandparent * Working, $\hat{\gamma}_{71}$ | 0.13 | [0.02, 0.23] | 2.37 | .018 | 0.12 | [0.03, 0.22] | 2.62 | .009 |

*Note.* Two models were computed (only HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval. *working* = 1 indicates being employed in paid work.

**Table S44**

*Linear Contrasts for Openness (Moderated by Paid Work; only HRS).*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| Shift of not-working controls vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60}$) | 0.03 | 3.80 | .051 | 0.01 | 1.06 | .303 |
| Shift of working controls vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60} + \hat{\gamma}_{50} + \hat{\gamma}_{70}$) | 0.04 | 13.84 | $<$ .001 | 0.02 | 3.72 | .054 |
| Shift of not-working grandparents vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60} + \hat{\gamma}_{41} + \hat{\gamma}_{61}$) | -0.06 | 4.22 | .040 | -0.06 | 5.04 | .025 |
| Shift of working grandparents vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60} + \hat{\gamma}_{41} + \hat{\gamma}_{61} + \hat{\gamma}_{50} + \hat{\gamma}_{70} + \hat{\gamma}_{51} + \hat{\gamma}_{71}$) | 0.02 | 0.61 | .433 | 0.02 | 0.75 | .385 |
| Shift of not-working controls vs. not-working grandparents ($\hat{\gamma}_{41} + \hat{\gamma}_{61}$) | -0.09 | 7.30 | .007 | -0.07 | 6.07 | .014 |
| Before-slope of working controls vs. working grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.02 | 1.23 | .267 | 0.00 | 0.10 | .751 |
| After-slope of working controls vs. working grandparents ($\hat{\gamma}_{41} + \hat{\gamma}_{51}$) | -0.01 | 1.08 | .299 | -0.01 | 1.00 | .317 |
| Shift of working controls vs. working grandparents ($\hat{\gamma}_{41} + \hat{\gamma}_{61} + \hat{\gamma}_{51} + \hat{\gamma}_{71}$) | -0.02 | 0.93 | .336 | 0.00 | 0.00 | .951 |
| Shift of not-working controls vs. working controls ($\hat{\gamma}_{50} + \hat{\gamma}_{70}$) | 0.01 | 0.48 | .487 | 0.00 | 0.05 | .818 |
| Before-slope of not-working grandparents vs. working grandparents ($\hat{\gamma}_{30} + \hat{\gamma}_{31}$) | -0.03 | 0.96 | .327 | -0.03 | 1.22 | .270 |
| After-slope of not-working grandparents vs. working grandparents ($\hat{\gamma}_{50} + \hat{\gamma}_{51}$) | -0.04 | 5.78 | .016 | -0.04 | 7.17 | .007 |
| Shift of not-working grandparents vs. working grandparents ($\hat{\gamma}_{50} + \hat{\gamma}_{70} + \hat{\gamma}_{51} + \hat{\gamma}_{71}$) | 0.08 | 4.30 | .038 | 0.08 | 5.16 | .023 |

*Note.* The linear contrasts are based on the models from Table S43. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S45**

*Fixed Effects of Openness Over the Transition to Grandparenthood Moderated by Grandchild Care.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| Intercept, $\hat{\gamma}_{00}$ | 3.06 | [3.01, 3.10] | 125.52 | $< .001$ | 3.00 | [2.95, 3.06] | 103.68 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.08 | [-0.01, 0.16] | 1.81 | .070 | 0.22 | [0.13, 0.30] | 5.00 | $< .001$ |
| After-slope, $\hat{\gamma}_{20}$ | -0.04 | [-0.05, -0.03] | -6.73 | $< .001$ | -0.02 | [-0.03, -0.01] | -4.90 | $< .001$ |
| Grandparent, $\hat{\gamma}_{01}$ | -0.06 | [-0.14, 0.01] | -1.74 | .082 | -0.08 | [-0.16, -0.01] | -2.21 | .027 |
| Caring, $\hat{\gamma}_{10}$ | -0.02 | [-0.06, 0.02] | -1.09 | .275 | 0.01 | [-0.02, 0.04] | 0.67 | .503 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.02 | [0.00, 0.05] | 2.10 | .036 | 0.01 | [-0.01, 0.03] | 0.88 | .377 |
| After-slope * Caring, $\hat{\gamma}_{30}$ | 0.01 | [0.00, 0.03] | 1.52 | .129 | 0.00 | [-0.02, 0.01] | -0.24 | .807 |
| Grandparent * Caring, $\hat{\gamma}_{11}$ | 0.00 | [-0.10, 0.10] | 0.02 | .985 | -0.04 | [-0.12, 0.05] | -0.79 | .432 |
| After-slope * Grandparent * Caring, $\hat{\gamma}_{31}$ | 0.01 | [-0.02, 0.05] | 0.74 | .457 | 0.03 | [0.00, 0.06] | 1.73 | .084 |

*Note.* Two models were computed (only HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval. *caring* = 1 indicates more than 100 hours of grandchild care since the last assessment.

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**Table S46**

*Linear Contrasts for Openness (Moderated by Grandchild Care; only HRS).*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| After-slope of caring controls vs. caring grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.04 | 7.78 | .005 | 0.04 | 9.46 | .002 |
| After-slope of not-caring grandparents vs. caring grandparents ($\hat{\gamma}_{30} + \hat{\gamma}_{31}$) | 0.03 | 2.58 | .108 | 0.03 | 3.26 | .071 |

*Note.* The linear contrasts are based on the models from Table S45. $\hat{\gamma}_c$ = combined fixed-effects estimate.

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**Table S47**

*Fixed Effects of Life Satisfaction Over the Transition to Grandparenthood.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 5.11 | [4.99, 5.23] | 85.63 | $< .001$ | 5.13 | [4.99, 5.27] | 72.47 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.07 | [-0.10, 0.24] | 0.78 | .433 | 0.01 | [-0.15, 0.17] | 0.17 | .863 |
| Before-slope, $\hat{\gamma}_{10}$ | -0.01 | [-0.02, 0.01] | -1.06 | .288 | 0.02 | [0.00, 0.03] | 2.18 | .029 |
| After-slope, $\hat{\gamma}_{20}$ | 0.01 | [0.00, 0.02] | 2.13 | .033 | -0.01 | [-0.02, 0.01] | -0.93 | .351 |
| Shift, $\hat{\gamma}_{30}$ | 0.02 | [-0.04, 0.08] | 0.72 | .470 | -0.11 | [-0.17, -0.05] | -3.42 | .001 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.07 | [-0.11, 0.25] | 0.73 | .464 | 0.07 | [-0.13, 0.26] | 0.66 | .510 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.02 | [-0.01, 0.04] | 1.03 | .301 | -0.01 | [-0.04, 0.02] | -0.47 | .637 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | -0.02 | [-0.05, 0.00] | -1.78 | .075 | 0.00 | [-0.03, 0.02] | -0.33 | .741 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | 0.05 | [-0.08, 0.18] | 0.79 | .428 | 0.18 | [0.04, 0.32] | 2.57 | .010 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 4.81 | [4.69, 4.92] | 82.17 | $< .001$ | 4.58 | [4.45, 4.72] | 66.89 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.40 | [0.19, 0.61] | 3.78 | $< .001$ | 0.33 | [0.11, 0.54] | 3.01 | .003 |
| Before-slope, $\hat{\gamma}_{10}$ | -0.03 | [-0.07, 0.01] | -1.53 | .125 | 0.05 | [0.01, 0.08] | 2.50 | .013 |
| After-slope, $\hat{\gamma}_{20}$ | 0.01 | [-0.01, 0.04] | 0.83 | .405 | 0.04 | [0.01, 0.06] | 3.14 | .002 |
| Shift, $\hat{\gamma}_{30}$ | 0.02 | [-0.05, 0.10] | 0.58 | .564 | -0.05 | [-0.12, 0.02] | -1.50 | .135 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.02 | [-0.21, 0.16] | -0.24 | .812 | 0.20 | [0.00, 0.39] | 1.98 | .048 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.12 | [0.03, 0.21] | 2.58 | .010 | 0.05 | [-0.04, 0.13] | 1.06 | .290 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.03 | [-0.02, 0.09] | 1.17 | .241 | 0.01 | [-0.05, 0.06] | 0.31 | .753 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.08 | [-0.24, 0.09] | -0.93 | .351 | -0.01 | [-0.17, 0.15] | -0.13 | .897 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval.

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**Table S48**

*Linear Contrasts for Life Satisfaction.*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| LISS | | | | | | |
| Shift of the controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.03 | 1.76 | .185 | -0.12 | 17.14 | $< .001$ |
| Shift of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.06 | 1.51 | .219 | 0.06 | 1.29 | .256 |
| Shift of the controls vs. shift of the grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.03 | 0.24 | .622 | 0.18 | 8.25 | .004 |
| Before-slope of the grandparents vs. 0 ($\hat{\gamma}_{10} + \hat{\gamma}_{11}$) | 0.01 | 0.39 | .532 | 0.01 | 0.32 | .574 |
| After-slope of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{21}$) | -0.01 | 0.84 | .358 | -0.01 | 0.70 | .403 |
| HRS | | | | | | |
| Shift of the controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.03 | 1.26 | .262 | -0.02 | 0.30 | .581 |
| Shift of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.01 | 0.04 | .833 | -0.02 | 0.10 | .754 |
| Shift of the controls vs. shift of the grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.04 | 0.49 | .485 | 0.00 | 0.00 | .978 |
| Before-slope of the grandparents vs. 0 ($\hat{\gamma}_{10} + \hat{\gamma}_{11}$) | 0.09 | 4.51 | .034 | 0.09 | 5.61 | .018 |
| After-slope of the grandparents vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{21}$) | 0.04 | 2.98 | .084 | 0.05 | 3.67 | .055 |

*Note.* The linear contrasts are needed in cases where estimates of interest are represented by multiple fixed-effects coefficients and are computed using the *linearHypothesis* function from the *car* R package (Fox & Weisberg, 2019) based on the models from Table S47. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S49**

*Fixed Effects of Life Satisfaction Over the Transition to Grandparenthood Moderated by Gender.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 5.05 | [4.89, 5.21] | 61.49 | < .001 | 5.05 | [4.86, 5.24] | 51.98 | < .001 |
| Propensity score, $\hat{\gamma}_{04}$ | 0.06 | [-0.11, 0.23] | 0.70 | .485 | 0.01 | [-0.15, 0.17] | 0.17 | .866 |
| Before-slope, $\hat{\gamma}_{10}$ | -0.01 | [-0.03, 0.01] | -1.13 | .258 | 0.02 | [0.00, 0.05] | 2.28 | .023 |
| After-slope, $\hat{\gamma}_{20}$ | 0.01 | [0.00, 0.03] | 1.55 | .122 | -0.03 | [-0.04, -0.01] | -2.76 | .006 |
| Shift, $\hat{\gamma}_{30}$ | 0.10 | [0.01, 0.18] | 2.25 | .025 | 0.00 | [-0.09, 0.09] | -0.01 | .988 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.21 | [-0.04, 0.46] | 1.67 | .096 | 0.23 | [-0.04, 0.50] | 1.65 | .099 |
| Female, $\hat{\gamma}_{02}$ | 0.12 | [-0.08, 0.32] | 1.18 | .239 | 0.16 | [-0.08, 0.40] | 1.28 | .203 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.00 | [-0.04, 0.04] | 0.10 | .922 | -0.03 | [-0.08, 0.01] | -1.38 | .168 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | -0.03 | [-0.07, 0.01] | -1.62 | .104 | 0.01 | [-0.03, 0.05] | 0.36 | .718 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | 0.01 | [-0.18, 0.20] | 0.10 | .919 | 0.11 | [-0.10, 0.31] | 1.03 | .303 |
| Before-slope * Female, $\hat{\gamma}_{12}$ | 0.01 | [-0.02, 0.03] | 0.55 | .581 | -0.02 | [-0.04, 0.01] | -1.10 | .273 |
| After-slope * Female, $\hat{\gamma}_{22}$ | 0.00 | [-0.02, 0.02] | -0.11 | .913 | 0.04 | [0.01, 0.06] | 2.95 | .003 |
| Shift * Female, $\hat{\gamma}_{32}$ | -0.14 | [-0.26, -0.02] | -2.37 | .018 | -0.21 | [-0.33, -0.08] | -3.28 | .001 |
| Grandparent * Female, $\hat{\gamma}_{03}$ | -0.27 | [-0.59, 0.05] | -1.67 | .097 | -0.31 | [-0.66, 0.05] | -1.71 | .088 |
| Before-slope * Grandparent * Female, $\hat{\gamma}_{13}$ | 0.03 | [-0.03, 0.08] | 0.87 | .385 | 0.05 | [-0.02, 0.11] | 1.48 | .138 |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | 0.01 | [-0.04, 0.07] | 0.51 | .607 | -0.03 | [-0.08, 0.03] | -0.90 | .369 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | 0.08 | [-0.17, 0.34] | 0.63 | .530 | 0.15 | [-0.13, 0.43] | 1.07 | .283 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 4.67 | [4.52, 4.82] | 60.70 | < .001 | 4.54 | [4.37, 4.71] | 52.50 | < .001 |
| Propensity score, $\hat{\gamma}_{04}$ | 0.41 | [0.20, 0.62] | 3.84 | < .001 | 0.30 | [0.08, 0.51] | 2.71 | .007 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.01 | [-0.04, 0.07] | 0.49 | .625 | 0.05 | [-0.01, 0.10] | 1.61 | .107 |
| After-slope, $\hat{\gamma}_{20}$ | 0.00 | [-0.04, 0.04] | 0.09 | .931 | 0.02 | [-0.01, 0.06] | 1.31 | .190 |
| Shift, $\hat{\gamma}_{30}$ | 0.07 | [-0.04, 0.18] | 1.23 | .220 | -0.16 | [-0.27, -0.05] | -2.91 | .004 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.11 | [-0.15, 0.37] | 0.81 | .419 | 0.25 | [-0.02, 0.51] | 1.82 | .070 |
| Female, $\hat{\gamma}_{02}$ | 0.24 | [0.07, 0.41] | 2.75 | .006 | 0.10 | [-0.10, 0.29] | 0.98 | .329 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.00 | [-0.13, 0.14] | 0.03 | .978 | -0.02 | [-0.15, 0.11] | -0.33 | .745 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.04 | [-0.04, 0.13] | 1.05 | .294 | 0.03 | [-0.05, 0.10] | 0.62 | .536 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.08 | [-0.33, 0.16] | -0.65 | .514 | 0.14 | [-0.10, 0.37] | 1.16 | .246 |
| Before-slope * Female, $\hat{\gamma}_{12}$ | -0.08 | [-0.16, 0.00] | -2.08 | .037 | 0.01 | [-0.07, 0.08] | 0.14 | .887 |
| After-slope * Female, $\hat{\gamma}_{22}$ | 0.02 | [-0.03, 0.07] | 0.64 | .525 | 0.02 | [-0.03, 0.07] | 0.84 | .399 |
| Shift * Female, $\hat{\gamma}_{32}$ | -0.09 | [-0.24, 0.06] | -1.14 | .254 | 0.19 | [0.05, 0.33] | 2.59 | .010 |

Table S49 continued

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| Grandparent * Female, $\hat{\gamma}_{03}$ | -0.23 | [-0.55, 0.09] | -1.42 | .156 | -0.08 | [-0.40, 0.25] | -0.47 | .637 |
| Before-slope * Grandparent * Female, $\hat{\gamma}_{13}$ | 0.21 | [0.03, 0.39] | 2.28 | .023 | 0.11 | [-0.05, 0.28] | 1.34 | .181 |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | -0.02 | [-0.13, 0.09] | -0.37 | .714 | -0.03 | [-0.13, 0.08] | -0.50 | .615 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | 0.01 | [-0.32, 0.34] | 0.06 | .954 | -0.26 | [-0.57, 0.05] | -1.63 | .103 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval.

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**Table S50**

*Linear Contrasts for Life Satisfaction (Moderated by Gender).*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| LISS | | | | | | |
| Shift of male controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.11 | 8.55 | .003 | -0.03 | 0.42 | .515 |
| Shift of female controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{22} + \hat{\gamma}_{32}$) | -0.03 | 0.77 | .379 | -0.20 | 26.82 | $< .001$ |
| Shift of grandfathers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.09 | 1.42 | .233 | 0.09 | 1.17 | .279 |
| Shift of grandmothers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | 0.04 | 0.39 | .531 | 0.04 | 0.35 | .552 |
| Shift of male controls vs. grandfathers ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.02 | 0.07 | .794 | 0.12 | 1.58 | .208 |
| Before-slope of female controls vs. grandmothers ($\hat{\gamma}_{11} + \hat{\gamma}_{13}$) | 0.03 | 1.96 | .161 | 0.01 | 0.47 | .493 |
| After-slope of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{23}$) | -0.02 | 0.99 | .320 | -0.02 | 0.86 | .353 |
| Shift of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | 0.07 | 0.92 | .338 | 0.24 | 8.27 | .004 |
| Shift of male vs. female controls ($\hat{\gamma}_{22} + \hat{\gamma}_{32}$) | -0.14 | 7.55 | .006 | -0.17 | 9.46 | .002 |
| Before-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{12} + \hat{\gamma}_{13}$) | 0.03 | 1.56 | .211 | 0.03 | 1.23 | .267 |
| After-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{23}$) | 0.01 | 0.27 | .602 | 0.01 | 0.22 | .638 |
| Shift of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.05 | 0.21 | .647 | -0.04 | 0.16 | .690 |
| HRS | | | | | | |
| Shift of male controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30}$) | 0.07 | 2.68 | .101 | -0.14 | 10.20 | .001 |
| Shift of female controls vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{22} + \hat{\gamma}_{32}$) | 0.00 | 0.00 | .973 | 0.07 | 4.01 | .045 |
| Shift of grandfathers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.04 | 0.17 | .680 | 0.03 | 0.12 | .732 |
| Shift of grandmothers vs. 0 ($\hat{\gamma}_{20} + \hat{\gamma}_{30} + \hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.05 | 0.37 | .541 | -0.05 | 0.48 | .489 |
| Shift of male controls vs. grandfathers ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.04 | 0.15 | .700 | 0.16 | 3.22 | .073 |
| Before-slope of female controls vs. grandmothers ($\hat{\gamma}_{11} + \hat{\gamma}_{13}$) | 0.21 | 12.04 | .001 | 0.09 | 2.72 | .099 |
| After-slope of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{23}$) | 0.02 | 0.38 | .540 | 0.00 | 0.00 | .953 |
| Shift of female controls vs. grandmothers ($\hat{\gamma}_{21} + \hat{\gamma}_{31} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.05 | 0.31 | .575 | -0.12 | 2.31 | .129 |
| Shift of male vs. female controls ($\hat{\gamma}_{22} + \hat{\gamma}_{32}$) | -0.07 | 1.44 | .229 | 0.21 | 13.91 | $< .001$ |
| Before-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{12} + \hat{\gamma}_{13}$) | 0.13 | 2.33 | .127 | 0.12 | 2.41 | .121 |
| After-slope of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{23}$) | 0.00 | 0.01 | .931 | -0.01 | 0.02 | .894 |
| Shift of grandfathers vs. grandmothers ($\hat{\gamma}_{22} + \hat{\gamma}_{32} + \hat{\gamma}_{23} + \hat{\gamma}_{33}$) | -0.08 | 0.52 | .471 | -0.08 | 0.52 | .470 |

*Note.* The linear contrasts are based on the models from Table S49. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S51**

*Fixed Effects of Life Satisfaction Over the Transition to Grandparenthood Moderated by Performing Paid Work.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| Intercept, $\hat{\gamma}_{00}$ | 4.78 | [4.63, 4.93] | 62.86 | $< .001$ | 4.55 | [4.38, 4.71] | 53.96 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.36 | [0.15, 0.57] | 3.33 | .001 | 0.28 | [0.06, 0.50] | 2.50 | .012 |
| Before-slope, $\hat{\gamma}_{20}$ | -0.06 | [-0.13, 0.01] | -1.77 | .077 | -0.02 | [-0.09, 0.05] | -0.51 | .613 |
| After-slope, $\hat{\gamma}_{40}$ | -0.03 | [-0.07, 0.00] | -1.73 | .083 | 0.08 | [0.04, 0.12] | 4.32 | $< .001$ |
| Shift, $\hat{\gamma}_{60}$ | 0.13 | [0.01, 0.25] | 2.11 | .034 | 0.07 | [-0.05, 0.19] | 1.17 | .243 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.02 | [-0.33, 0.30] | -0.09 | .925 | 0.22 | [-0.09, 0.53] | 1.37 | .169 |
| Working, $\hat{\gamma}_{10}$ | 0.07 | [-0.07, 0.22] | 0.99 | .324 | 0.12 | [-0.02, 0.25] | 1.64 | .102 |
| Before-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.14 | [-0.04, 0.32] | 1.50 | .134 | 0.10 | [-0.07, 0.27] | 1.12 | .264 |
| After-slope * Grandparent, $\hat{\gamma}_{41}$ | 0.07 | [-0.02, 0.15] | 1.57 | .116 | -0.05 | [-0.12, 0.03] | -1.20 | .231 |
| Shift * Grandparent, $\hat{\gamma}_{61}$ | -0.04 | [-0.31, 0.22] | -0.31 | .755 | 0.01 | [-0.24, 0.27] | 0.10 | .917 |
| Before-slope * Working, $\hat{\gamma}_{30}$ | 0.05 | [-0.03, 0.14] | 1.21 | .225 | 0.09 | [0.00, 0.17] | 1.99 | .047 |
| After-slope * Working, $\hat{\gamma}_{50}$ | 0.10 | [0.05, 0.15] | 3.83 | $< .001$ | -0.08 | [-0.13, -0.03] | -3.16 | .002 |
| Shift * Working, $\hat{\gamma}_{70}$ | -0.20 | [-0.35, -0.04] | -2.50 | .012 | -0.15 | [-0.30, 0.00] | -1.94 | .052 |
| Grandparent * Working, $\hat{\gamma}_{11}$ | -0.02 | [-0.36, 0.32] | -0.11 | .912 | -0.07 | [-0.39, 0.25] | -0.42 | .676 |
| Before-slope * Grandparent * Working, $\hat{\gamma}_{31}$ | -0.03 | [-0.24, 0.18] | -0.28 | .777 | -0.06 | [-0.26, 0.13] | -0.63 | .527 |
| After-slope * Grandparent * Working, $\hat{\gamma}_{51}$ | -0.08 | [-0.20, 0.03] | -1.40 | .161 | 0.10 | [-0.01, 0.21] | 1.79 | .073 |
| Shift * Grandparent * Working, $\hat{\gamma}_{71}$ | -0.03 | [-0.38, 0.32] | -0.18 | .859 | -0.09 | [-0.42, 0.24] | -0.54 | .590 |

*Note.* Two models were computed (only HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval. *working* = 1 indicates being employed in paid work.

**Table S52**

*Linear Contrasts for Life Satisfaction (Moderated by Paid Work; only HRS).*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| Shift of not-working controls vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60}$) | 0.10 | 3.85 | .050 | 0.15 | 9.24 | .002 |
| Shift of working controls vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60} + \hat{\gamma}_{50} + \hat{\gamma}_{70}$) | 0.00 | 0.00 | .969 | -0.08 | 5.03 | .025 |
| Shift of not-working grandparents vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60} + \hat{\gamma}_{41} + \hat{\gamma}_{61}$) | 0.12 | 1.47 | .226 | 0.12 | 1.63 | .201 |
| Shift of working grandparents vs. 0 ($\hat{\gamma}_{40} + \hat{\gamma}_{60} + \hat{\gamma}_{41} + \hat{\gamma}_{61} + \hat{\gamma}_{50} + \hat{\gamma}_{70} + \hat{\gamma}_{51} + \hat{\gamma}_{71}$) | -0.09 | 1.57 | .210 | -0.10 | 2.13 | .144 |
| Shift of not-working controls vs. not-working grandparents ($\hat{\gamma}_{41} + \hat{\gamma}_{61}$) | 0.02 | 0.04 | .834 | -0.03 | 0.10 | .746 |
| Before-slope of working controls vs. working grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | 0.11 | 3.95 | .047 | 0.03 | 0.44 | .505 |
| After-slope of working controls vs. working grandparents ($\hat{\gamma}_{41} + \hat{\gamma}_{51}$) | -0.02 | 0.17 | .676 | 0.05 | 1.82 | .178 |
| Shift of working controls vs. working grandparents ($\hat{\gamma}_{41} + \hat{\gamma}_{61} + \hat{\gamma}_{51} + \hat{\gamma}_{71}$) | -0.09 | 1.21 | .270 | -0.03 | 0.11 | .746 |
| Shift of not-working controls vs. working controls ($\hat{\gamma}_{50} + \hat{\gamma}_{70}$) | -0.10 | 2.47 | .116 | -0.23 | 13.96 | $< .001$ |
| Before-slope of not-working grandparents vs. working grandparents ($\hat{\gamma}_{30} + \hat{\gamma}_{31}$) | 0.02 | 0.05 | .823 | 0.02 | 0.05 | .818 |
| After-slope of not-working grandparents vs. working grandparents ($\hat{\gamma}_{50} + \hat{\gamma}_{51}$) | 0.02 | 0.12 | .727 | 0.02 | 0.17 | .678 |
| Shift of not-working grandparents vs. working grandparents ($\hat{\gamma}_{50} + \hat{\gamma}_{70} + \hat{\gamma}_{51} + \hat{\gamma}_{71}$) | -0.21 | 2.87 | .090 | -0.22 | 3.48 | .062 |

*Note.* The linear contrasts are based on the models from Table S51. $\hat{\gamma}_c$ = combined fixed-effects estimate.

**Table S53**

*Fixed Effects of Life Satisfaction Over the Transition to Grandparenthood Moderated by Grandchild Care.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| Intercept, $\hat{\gamma}_{00}$ | 4.86 | [4.72, 5.00] | 67.71 | $< .001$ | 4.75 | [4.58, 4.92] | 55.25 | $< .001$ |
| Propensity score, $\hat{\gamma}_{02}$ | 0.27 | [0.01, 0.53] | 2.05 | .040 | 0.05 | [-0.21, 0.31] | 0.35 | .728 |
| After-slope, $\hat{\gamma}_{20}$ | 0.00 | [-0.04, 0.03] | -0.02 | .986 | 0.03 | [0.00, 0.06] | 1.99 | .047 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.00 | [-0.22, 0.21] | -0.04 | .967 | 0.17 | [-0.06, 0.40] | 1.45 | .148 |
| Caring, $\hat{\gamma}_{10}$ | -0.10 | [-0.22, 0.02] | -1.67 | .094 | 0.02 | [-0.09, 0.12] | 0.34 | .738 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.07 | [0.00, 0.14] | 1.85 | .065 | 0.04 | [-0.02, 0.11] | 1.24 | .216 |
| After-slope * Caring, $\hat{\gamma}_{30}$ | 0.04 | [-0.01, 0.10] | 1.70 | .089 | -0.01 | [-0.06, 0.03] | -0.59 | .557 |
| Grandparent * Caring, $\hat{\gamma}_{11}$ | 0.32 | [0.02, 0.62] | 2.08 | .038 | 0.21 | [-0.07, 0.48] | 1.45 | .147 |
| After-slope * Grandparent * Caring, $\hat{\gamma}_{31}$ | -0.08 | [-0.19, 0.03] | -1.40 | .162 | -0.03 | [-0.13, 0.08] | -0.51 | .613 |

*Note.* Two models were computed (only HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval. *caring* = 1 indicates more than 100 hours of grandchild care since the last assessment.

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**Table S54**

*Linear Contrasts for Life Satisfaction (Moderated by Grandchild Care; only HRS).*

| | Parent controls | | | Nonparent controls | | |
|---|---|---|---|---|---|---|
| Linear Contrast | $\hat{\gamma}_c$ | $\chi^2$ | $p$ | $\hat{\gamma}_c$ | $\chi^2$ | $p$ |
| After-slope of caring controls vs. caring grandparents ($\hat{\gamma}_{21} + \hat{\gamma}_{31}$) | -0.01 | 0.10 | .751 | 0.01 | 0.13 | .722 |
| After-slope of not-caring grandparents vs. caring grandparents ($\hat{\gamma}_{30} + \hat{\gamma}_{31}$) | -0.04 | 0.49 | .486 | -0.04 | 0.73 | .392 |

*Note.* The linear contrasts are based on the models from Table S53. $\hat{\gamma}_c$ = combined fixed-effects estimate.

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**Table S55**

*Tests of Heterogeneous Random Slope Variance Models for Agreeableness Against Comparison Models With a Uniform Random Slope Variance.*

| | Parent controls | | | | | Nonparent controls | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Var. | SD | LR | p | GP greater | Var. | SD | LR | p | GP greater |
| LISS | | | | | | | | | | |
| Before-slope: uniform | 0.00 | 0.04 | | | | 0.00 | 0.04 | | | |
| Before-slope: heterogeneous (controls) | 0.00 | 0.05 | | | | 0.00 | 0.05 | | | |
| Before-slope: heterogeneous (grandparents) | 0.00 | 0.04 | 9.72 | .021 | no | 0.00 | 0.03 | 17.01 | < .001 | no |
| After-slope: uniform | 0.00 | 0.04 | | | | 0.00 | 0.04 | | | |
| After-slope: heterogeneous (controls) | 0.00 | 0.04 | | | | 0.00 | 0.04 | | | |
| After-slope: heterogeneous (grandparents) | 0.00 | 0.03 | 3.34 | .343 | no | 0.00 | 0.03 | 9.22 | .026 | no |
| Shift: uniform | 0.03 | 0.16 | | | | 0.02 | 0.15 | | | |
| Shift: heterogeneous (controls) | 0.03 | 0.17 | | | | 0.03 | 0.16 | | | |
| Shift: heterogeneous (grandparents) | 0.02 | 0.13 | 3.79 | .285 | no | 0.01 | 0.12 | 7.32 | .062 | no |
| HRS | | | | | | | | | | |
| Before-slope: uniform | 0.01 | 0.12 | | | | 0.01 | 0.12 | | | |
| Before-slope: heterogeneous (controls) | 0.02 | 0.15 | | | | 0.02 | 0.15 | | | |
| Before-slope: heterogeneous (grandparents) | 0.01 | 0.12 | 75.87 | < .001 | no | 0.02 | 0.14 | 82.20 | < .001 | no |
| After-slope: uniform | 0.01 | 0.10 | | | | 0.01 | 0.11 | | | |
| After-slope: heterogeneous (controls) | 0.01 | 0.11 | | | | 0.02 | 0.13 | | | |
| After-slope: heterogeneous (grandparents) | 0.01 | 0.08 | 37.85 | < .001 | no | 0.01 | 0.09 | 69.06 | < .001 | no |
| Shift: uniform | 0.06 | 0.25 | | | | 0.07 | 0.26 | | | |
| Shift: heterogeneous (controls) | 0.08 | 0.28 | | | | 0.09 | 0.29 | | | |
| Shift: heterogeneous (grandparents) | 0.05 | 0.22 | 68.99 | < .001 | no | 0.06 | 0.24 | 91.90 | < .001 | no |

*Note.* The heterogeneous variance models ($df = 16$) differ only in the random effects from the comparison models ($df = 13$). In addition to two random slope variances (instead of one), the heterogeneous variance models estimate two additional random intercept/slope covariances. Both models estimate heterogeneous random intercept variances for the grandparent and control groups. *Var.* = random slope variance; *SD* = standard deviation; *LR* = likelihood ratio; *p* = *p*-value (of the LR test); *GP greater* = indicating if the random slope variance of the grandparents is larger than that of either control group.

**Table S56**

*Tests of Heterogeneous Random Slope Variance Models for Conscientiousness Against Comparison Models With a Uniform Random Slope Variance.*

| | Parent controls | | | | | Nonparent controls | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Var. | SD | LR | p | GP greater | Var. | SD | LR | p | GP greater |
| LISS | | | | | | | | | | |
| Before-slope: uniform | 0.00 | 0.04 | | | | 0.00 | 0.04 | | | |
| Before-slope: heterogeneous (controls) | 0.00 | 0.05 | | | | 0.00 | 0.05 | | | |
| Before-slope: heterogeneous (grandparents) | 0.00 | 0.02 | 45.09 | < .001 | no | 0.00 | 0.02 | 26.46 | < .001 | no |
| After-slope: uniform | 0.00 | 0.04 | | | | 0.00 | 0.04 | | | |
| After-slope: heterogeneous (controls) | 0.00 | 0.05 | | | | 0.00 | 0.04 | | | |
| After-slope: heterogeneous (grandparents) | 0.00 | 0.03 | 18.06 | < .001 | no | 0.00 | 0.03 | 8.69 | .034 | no |
| Shift: uniform | 0.03 | 0.16 | | | | 0.02 | 0.14 | | | |
| Shift: heterogeneous (controls) | 0.04 | 0.19 | | | | 0.02 | 0.16 | | | |
| Shift: heterogeneous (grandparents) | 0.02 | 0.12 | 21.47 | < .001 | no | 0.01 | 0.11 | 8.86 | .031 | no |
| HRS | | | | | | | | | | |
| Before-slope: uniform | 0.01 | 0.11 | | | | 0.01 | 0.11 | | | |
| Before-slope: heterogeneous (controls) | 0.02 | 0.14 | | | | 0.02 | 0.14 | | | |
| Before-slope: heterogeneous (grandparents) | 0.01 | 0.11 | 92.92 | < .001 | no | 0.02 | 0.13 | 103.88 | < .001 | no |
| After-slope: uniform | 0.01 | 0.10 | | | | 0.01 | 0.10 | | | |
| After-slope: heterogeneous (controls) | 0.01 | 0.11 | | | | 0.01 | 0.12 | | | |
| After-slope: heterogeneous (grandparents) | 0.01 | 0.09 | 61.33 | < .001 | no | 0.01 | 0.09 | 77.41 | < .001 | no |
| Shift: uniform | 0.06 | 0.24 | | | | 0.06 | 0.25 | | | |
| Shift: heterogeneous (controls) | 0.07 | 0.27 | | | | 0.08 | 0.28 | | | |
| Shift: heterogeneous (grandparents) | 0.06 | 0.23 | 83.05 | < .001 | no | 0.06 | 0.25 | 97.85 | < .001 | no |

*Note.* The heterogeneous variance models ($df = 16$) differ only in the random effects from the comparison models ($df = 13$). In addition to two random slope variances (instead of one), the heterogeneous variance models estimate two additional random intercept/slope covariances. Both models estimate heterogeneous random intercept variances for the grandparent and control groups. *Var.* = random slope variance; *SD* = standard deviation; *LR* = likelihood ratio; *p* = *p*-value (of the LR test); *GP greater* = indicating if the random slope variance of the grandparents is larger than that of either control group.

**Table S57**

*Tests of Heterogeneous Random Slope Variance Models for Extraversion Against Comparison Models With a Uniform Random Slope Variance.*

| | Parent controls | | | | | Nonparent controls | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Var. | SD | LR | p | GP greater | Var. | SD | LR | p | GP greater |
| LISS | | | | | | | | | | |
| Before-slope: uniform | 0.00 | 0.05 | | | | 0.00 | 0.05 | | | |
| Before-slope: heterogeneous (controls) | 0.00 | 0.06 | | | | 0.00 | 0.06 | | | |
| Before-slope: heterogeneous (grandparents) | 0.00 | 0.04 | 14.67 | .002 | no | 0.00 | 0.04 | 25.96 | < .001 | no |
| After-slope: uniform | 0.00 | 0.04 | | | | 0.00 | 0.05 | | | |
| After-slope: heterogeneous (controls) | 0.00 | 0.04 | | | | 0.00 | 0.05 | | | |
| After-slope: heterogeneous (grandparents) | 0.00 | 0.03 | 7.37 | .061 | no | 0.00 | 0.03 | 13.50 | .004 | no |
| Shift: uniform | 0.03 | 0.17 | | | | 0.03 | 0.18 | | | |
| Shift: heterogeneous (controls) | 0.04 | 0.19 | | | | 0.04 | 0.21 | | | |
| Shift: heterogeneous (grandparents) | 0.01 | 0.12 | 11.13 | .011 | no | 0.02 | 0.13 | 13.00 | .005 | no |
| HRS | | | | | | | | | | |
| Before-slope: uniform | 0.02 | 0.12 | | | | 0.01 | 0.12 | | | |
| Before-slope: heterogeneous (controls) | 0.02 | 0.15 | | | | 0.02 | 0.14 | | | |
| Before-slope: heterogeneous (grandparents) | 0.01 | 0.12 | 59.59 | < .001 | no | 0.02 | 0.13 | 61.85 | < .001 | no |
| After-slope: uniform | 0.01 | 0.10 | | | | 0.01 | 0.12 | | | |
| After-slope: heterogeneous (controls) | 0.01 | 0.11 | | | | 0.02 | 0.14 | | | |
| After-slope: heterogeneous (grandparents) | 0.01 | 0.09 | 27.05 | < .001 | no | 0.01 | 0.10 | 61.55 | < .001 | no |
| Shift: uniform | 0.07 | 0.26 | | | | 0.08 | 0.29 | | | |
| Shift: heterogeneous (controls) | 0.08 | 0.29 | | | | 0.10 | 0.32 | | | |
| Shift: heterogeneous (grandparents) | 0.06 | 0.25 | 44.54 | < .001 | no | 0.07 | 0.26 | 70.11 | < .001 | no |

*Note.* The heterogeneous variance models ($df = 16$) differ only in the random effects from the comparison models ($df = 13$). In addition to two random slope variances (instead of one), the heterogeneous variance models estimate two additional random intercept/slope covariances. Both models estimate heterogeneous random intercept variances for the grandparent and control groups. *Var.* = random slope variance; *SD* = standard deviation; *LR* = likelihood ratio; *p* = *p*-value (of the LR test); *GP greater* = indicating if the random slope variance of the grandparents is larger than that of either control group.

**Table S58**

*Tests of Heterogeneous Random Slope Variance Models for Neuroticism Against Comparison Models With a Uniform Random Slope Variance.*

| | Parent controls | | | | | Nonparent controls | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Var. | SD | LR | p | GP greater | Var. | SD | LR | p | GP greater |
| LISS | | | | | | | | | | |
| Before-slope: uniform | 0.00 | 0.06 | | | | 0.00 | 0.07 | | | |
| Before-slope: heterogeneous (controls) | 0.00 | 0.06 | | | | 0.01 | 0.08 | | | |
| Before-slope: heterogeneous (grandparents) | 0.00 | 0.06 | 3.74 | .291 | yes | 0.00 | 0.06 | 19.38 | < .001 | no |
| After-slope: uniform | 0.00 | 0.05 | | | | 0.00 | 0.06 | | | |
| After-slope: heterogeneous (controls) | 0.00 | 0.05 | | | | 0.00 | 0.07 | | | |
| After-slope: heterogeneous (grandparents) | 0.00 | 0.05 | 1.09 | .781 | no | 0.00 | 0.05 | 6.22 | .101 | no |
| Shift: uniform | 0.04 | 0.20 | | | | 0.06 | 0.24 | | | |
| Shift: heterogeneous (controls) | 0.04 | 0.20 | | | | 0.07 | 0.26 | | | |
| Shift: heterogeneous (grandparents) | 0.04 | 0.21 | 3.32 | .344 | yes | 0.05 | 0.21 | 3.27 | .352 | no |
| HRS | | | | | | | | | | |
| Before-slope: uniform | 0.02 | 0.15 | | | | 0.02 | 0.15 | | | |
| Before-slope: heterogeneous (controls) | 0.03 | 0.19 | | | | 0.03 | 0.18 | | | |
| Before-slope: heterogeneous (grandparents) | 0.03 | 0.17 | 95.90 | < .001 | no | 0.03 | 0.18 | 73.45 | < .001 | yes |
| After-slope: uniform | 0.01 | 0.12 | | | | 0.02 | 0.12 | | | |
| After-slope: heterogeneous (controls) | 0.02 | 0.13 | | | | 0.02 | 0.15 | | | |
| After-slope: heterogeneous (grandparents) | 0.01 | 0.10 | 79.78 | < .001 | no | 0.01 | 0.11 | 101.07 | < .001 | no |
| Shift: uniform | 0.10 | 0.31 | | | | 0.10 | 0.32 | | | |
| Shift: heterogeneous (controls) | 0.13 | 0.35 | | | | 0.13 | 0.36 | | | |
| Shift: heterogeneous (grandparents) | 0.09 | 0.29 | 116.36 | < .001 | no | 0.09 | 0.30 | 116.43 | < .001 | no |

*Note.* The heterogeneous variance models ($df = 16$) differ only in the random effects from the comparison models ($df = 13$). In addition to two random slope variances (instead of one), the heterogeneous variance models estimate two additional random intercept/slope covariances. Both models estimate heterogeneous random intercept variances for the grandparent and control groups. *Var.* = random slope variance; *SD* = standard deviation; *LR* = likelihood ratio; $p$ = $p$-value (of the LR test); *GP greater* = indicating if the random slope variance of the grandparents is larger than that of either control group.

**Table S59**

*Tests of Heterogeneous Random Slope Variance Models for Openness Against Comparison Models With a Uniform Random Slope Variance.*

| | Parent controls | | | | | Nonparent controls | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Var. | SD | LR | p | GP greater | Var. | SD | LR | p | GP greater |
| LISS | | | | | | | | | | |
| Before-slope: uniform | 0.00 | 0.04 | | | | 0.00 | 0.03 | | | |
| Before-slope: heterogeneous (controls) | 0.00 | 0.05 | | | | 0.00 | 0.04 | | | |
| Before-slope: heterogeneous (grandparents) | 0.00 | 0.04 | 19.82 | < .001 | no | 0.00 | 0.04 | 25.90 | < .001 | yes |
| After-slope: uniform | 0.00 | 0.04 | | | | 0.00 | 0.03 | | | |
| After-slope: heterogeneous (controls) | 0.00 | 0.05 | | | | 0.00 | 0.03 | | | |
| After-slope: heterogeneous (grandparents) | 0.00 | 0.02 | 26.80 | < .001 | no | 0.00 | 0.02 | 9.20 | .027 | no |
| Shift: uniform | 0.03 | 0.16 | | | | 0.02 | 0.13 | | | |
| Shift: heterogeneous (controls) | 0.03 | 0.18 | | | | 0.02 | 0.14 | | | |
| Shift: heterogeneous (grandparents) | 0.01 | 0.10 | 17.96 | < .001 | no | 0.02 | 0.12 | 10.36 | .016 | no |
| HRS | | | | | | | | | | |
| Before-slope: uniform | 0.01 | 0.11 | | | | 0.01 | 0.12 | | | |
| Before-slope: heterogeneous (controls) | 0.02 | 0.14 | | | | 0.02 | 0.14 | | | |
| Before-slope: heterogeneous (grandparents) | 0.01 | 0.09 | 55.99 | < .001 | no | 0.02 | 0.14 | 50.54 | < .001 | no |
| After-slope: uniform | 0.01 | 0.10 | | | | 0.01 | 0.11 | | | |
| After-slope: heterogeneous (controls) | 0.01 | 0.11 | | | | 0.02 | 0.13 | | | |
| After-slope: heterogeneous (grandparents) | 0.01 | 0.09 | 37.59 | < .001 | no | 0.01 | 0.10 | 50.64 | < .001 | no |
| Shift: uniform | 0.07 | 0.26 | | | | 0.07 | 0.27 | | | |
| Shift: heterogeneous (controls) | 0.08 | 0.28 | | | | 0.09 | 0.30 | | | |
| Shift: heterogeneous (grandparents) | 0.06 | 0.24 | 58.39 | < .001 | no | 0.07 | 0.26 | 67.21 | < .001 | no |

*Note.* The heterogeneous variance models ($df = 16$) differ only in the random effects from the comparison models ($df = 13$). In addition to two random slope variances (instead of one), the heterogeneous variance models estimate two additional random intercept/slope covariances. Both models estimate heterogeneous random intercept variances for the grandparent and control groups. *Var.* = random slope variance; *SD* = standard deviation; *LR* = likelihood ratio; *p* = *p*-value (of the LR test); *GP greater* = indicating if the random slope variance of the grandparents is larger than that of either control group.

**Table S60**

*Tests of Heterogeneous Random Slope Variance Models for Life Satisfaction Against Comparison Models With a Uniform Random Slope Variance.*

| | Parent controls | | | | | Nonparent controls | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Var. | SD | LR | p | GP greater | Var. | SD | LR | p | GP greater |
| LISS | | | | | | | | | | |
| Before-slope: uniform | 0.01 | 0.11 | | | | 0.01 | 0.10 | | | |
| Before-slope: heterogeneous (controls) | 0.02 | 0.13 | | | | 0.01 | 0.12 | | | |
| Before-slope: heterogeneous (grandparents) | 0.02 | 0.14 | 41.47 | < .001 | yes | 0.01 | 0.12 | 21.10 | < .001 | no |
| After-slope: uniform | 0.01 | 0.11 | | | | 0.01 | 0.12 | | | |
| After-slope: heterogeneous (controls) | 0.01 | 0.10 | | | | 0.01 | 0.12 | | | |
| After-slope: heterogeneous (grandparents) | 0.02 | 0.13 | 11.74 | .008 | yes | 0.02 | 0.12 | 5.26 | .154 | yes |
| Shift: uniform | 0.20 | 0.45 | | | | 0.18 | 0.42 | | | |
| Shift: heterogeneous (controls) | 0.19 | 0.44 | | | | 0.17 | 0.41 | | | |
| Shift: heterogeneous (grandparents) | 0.25 | 0.50 | 10.00 | .019 | yes | 0.21 | 0.46 | 4.50 | .212 | yes |
| HRS | | | | | | | | | | |
| Before-slope: uniform | 0.14 | 0.37 | | | | 0.14 | 0.37 | | | |
| Before-slope: heterogeneous (controls) | 0.28 | 0.53 | | | | 0.22 | 0.47 | | | |
| Before-slope: heterogeneous (grandparents) | 0.26 | 0.50 | 140.31 | < .001 | no | 0.34 | 0.58 | 111.97 | < .001 | yes |
| After-slope: uniform | 0.10 | 0.32 | | | | 0.14 | 0.37 | | | |
| After-slope: heterogeneous (controls) | 0.13 | 0.36 | | | | 0.21 | 0.46 | | | |
| After-slope: heterogeneous (grandparents) | 0.08 | 0.28 | 93.14 | < .001 | no | 0.10 | 0.32 | 108.41 | < .001 | no |
| Shift: uniform | 0.83 | 0.91 | | | | 0.93 | 0.96 | | | |
| Shift: heterogeneous (controls) | 1.07 | 1.04 | | | | 1.24 | 1.11 | | | |
| Shift: heterogeneous (grandparents) | 0.80 | 0.89 | 172.53 | < .001 | no | 0.91 | 0.96 | 153.16 | < .001 | no |

*Note.* The heterogeneous variance models ($df = 16$) differ only in the random effects from the comparison models ($df = 13$). In addition to two random slope variances (instead of one), the heterogeneous variance models estimate two additional random intercept/slope covariances. Both models estimate heterogeneous random intercept variances for the grandparent and control groups. *Var.* = random slope variance; *SD* = standard deviation; *LR* = likelihood ratio; *p* = *p*-value (of the LR test); *GP greater* = indicating if the random slope variance of the grandparents is larger than that of either control group.

**Table S61**

*Rank-Order Stability.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Outcome | $Cor_{all}$ | $Cor_{GP}$ | $Cor_{con}$ | $p$ | $Cor_{all}$ | $Cor_{GP}$ | $Cor_{con}$ | $p$ |
| LISS | | | | | | | | |
| Agreeableness | 0.79 | 0.81 | 0.78 | .619 | 0.76 | 0.81 | 0.75 | .009 |
| Conscientiousness | 0.76 | 0.80 | 0.75 | .102 | 0.79 | 0.80 | 0.78 | .480 |
| Extraversion | 0.81 | 0.86 | 0.80 | .768 | 0.86 | 0.86 | 0.85 | .284 |
| Neuroticism | 0.71 | 0.77 | 0.68 | .060 | 0.76 | 0.77 | 0.76 | .262 |
| Openness | 0.75 | 0.79 | 0.74 | .126 | 0.79 | 0.79 | 0.79 | .531 |
| Life Satisfaction | 0.69 | 0.66 | 0.70 | .647 | 0.63 | 0.66 | 0.62 | .674 |
| HRS | | | | | | | | |
| Agreeableness | 0.68 | 0.70 | 0.67 | .506 | 0.73 | 0.70 | 0.74 | .304 |
| Conscientiousness | 0.71 | 0.69 | 0.72 | .201 | 0.70 | 0.69 | 0.70 | .467 |
| Extraversion | 0.72 | 0.75 | 0.71 | .007 | 0.74 | 0.75 | 0.74 | .029 |
| Neuroticism | 0.66 | 0.71 | 0.65 | .654 | 0.68 | 0.71 | 0.67 | .709 |
| Openness | 0.69 | 0.73 | 0.67 | .015 | 0.76 | 0.73 | 0.76 | .241 |
| Life Satisfaction | 0.51 | 0.55 | 0.50 | .090 | 0.55 | 0.55 | 0.55 | .439 |

*Note.* Test-retest correlations as indicators of rank-order stability, and p-values indicating significant group differences therein between grandparents and each control group. The average retest intervals in years are 3.06 ($SD = 0.91$) for the LISS parent sample, 3.06 ($SD = 0.89$) for the LISS nonparent sample, 4.15 ($SD = 0.77$) for the HRS parent sample, and 4.11 ($SD = 0.67$) for the HRS nonparent sample. $Cor$ = correlation; $GP$ = grandparents; $con$ = controls.

**Table S62**

*Rank-Order Stability With Maximal Retest Interval.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Outcome | $Cor_{all}$ | $Cor_{GP}$ | $Cor_{con}$ | $p$ | $Cor_{all}$ | $Cor_{GP}$ | $Cor_{con}$ | $p$ |
| LISS | | | | | | | | |
| Agreeableness | 0.73 | 0.73 | 0.73 | .754 | 0.60 | 0.73 | 0.57 | $< .001$ |
| Conscientiousness | 0.68 | 0.77 | 0.66 | .004 | 0.73 | 0.77 | 0.73 | .091 |
| Extraversion | 0.76 | 0.82 | 0.74 | .021 | 0.82 | 0.82 | 0.82 | .568 |
| Neuroticism | 0.68 | 0.76 | 0.65 | .001 | 0.72 | 0.76 | 0.71 | .534 |
| Openness | 0.72 | 0.77 | 0.71 | .290 | 0.81 | 0.77 | 0.82 | .316 |
| Life Satisfaction | 0.65 | 0.53 | 0.68 | .086 | 0.48 | 0.53 | 0.48 | .309 |
| HRS | | | | | | | | |
| Agreeableness | 0.67 | 0.68 | 0.67 | .641 | 0.70 | 0.68 | 0.71 | .498 |
| Conscientiousness | 0.65 | 0.68 | 0.65 | .289 | 0.64 | 0.68 | 0.63 | .819 |
| Extraversion | 0.70 | 0.73 | 0.70 | .093 | 0.71 | 0.73 | 0.70 | .038 |
| Neuroticism | 0.64 | 0.67 | 0.63 | .704 | 0.64 | 0.67 | 0.63 | .265 |
| Openness | 0.69 | 0.71 | 0.69 | .894 | 0.75 | 0.71 | 0.76 | .001 |
| Life Satisfaction | 0.53 | 0.54 | 0.53 | .675 | 0.48 | 0.54 | 0.47 | .166 |

*Note.* Test-retest correlations as indicators of rank-order stability, and p-values indicating significant group differences therein between grandparents and each control group. The average retest intervals in years are 8.08 ($SD = 2.06$) for the LISS parent sample, 8.13 ($SD = 1.95$) for the LISS nonparent sample, 6.83 ($SD = 2.23$) for the HRS parent sample, and 6.92 ($SD = 2.26$) for the HRS nonparent sample. $Cor$ = correlation; $GP$ = grandparents; $con$ = controls.

**Table S63**

*Rank-Order Stability Excluding Duplicate Control Observations.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Outcome | $Cor_{all}$ | $Cor_{GP}$ | $Cor_{con}$ | $p$ | $Cor_{all}$ | $Cor_{GP}$ | $Cor_{con}$ | $p$ |
| LISS | | | | | | | | |
| Agreeableness | 0.80 | 0.81 | 0.79 | .760 | 0.80 | 0.81 | 0.80 | .641 |
| Conscientiousness | 0.78 | 0.80 | 0.77 | .315 | 0.80 | 0.80 | 0.80 | .493 |
| Extraversion | 0.84 | 0.86 | 0.82 | .832 | 0.87 | 0.86 | 0.88 | .444 |
| Neuroticism | 0.78 | 0.77 | 0.78 | .522 | 0.80 | 0.77 | 0.84 | .914 |
| Openness | 0.79 | 0.79 | 0.79 | .547 | 0.79 | 0.79 | 0.80 | .467 |
| Life Satisfaction | 0.67 | 0.66 | 0.68 | .708 | 0.69 | 0.66 | 0.72 | .269 |
| HRS | | | | | | | | |
| Agreeableness | 0.69 | 0.70 | 0.69 | .504 | 0.71 | 0.70 | 0.74 | .445 |
| Conscientiousness | 0.71 | 0.69 | 0.72 | .208 | 0.70 | 0.69 | 0.72 | .297 |
| Extraversion | 0.75 | 0.75 | 0.75 | .315 | 0.74 | 0.75 | 0.73 | .122 |
| Neuroticism | 0.69 | 0.71 | 0.67 | .543 | 0.70 | 0.71 | 0.70 | .367 |
| Openness | 0.75 | 0.73 | 0.76 | .396 | 0.74 | 0.73 | 0.75 | .855 |
| Life Satisfaction | 0.58 | 0.55 | 0.59 | .317 | 0.58 | 0.55 | 0.61 | .015 |

*Note.* Test-retest correlations as indicators of rank-order stability, and p-values indicating significant group differences therein between grandparents and each control group. The average retest intervals in years are 2.94 ($SD = 0.94$) for the LISS parent sample, 2.95 ($SD = 0.92$) for the LISS nonparent sample, 3.88 ($SD = 1.01$) for the HRS parent sample, and 3.87 ($SD = 0.96$) for the HRS nonparent sample. $Cor$ = correlation; $GP$ = grandparents; $con$ = controls.

**Table S64**

*Fixed Effects of Agreeableness Over the Transition to Grandparenthood in the Restricted Models.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.86 | [3.80, 3.92] | 125.37 | < .001 | 3.90 | [3.83, 3.97] | 110.54 | < .001 |
| Propensity score, $\hat{\gamma}_{02}$ | -0.06 | [-0.15, 0.03] | -1.32 | .187 | -0.03 | [-0.11, 0.05] | -0.74 | .460 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.03 | [0.00, 0.06] | 1.97 | .049 | -0.06 | [-0.09, -0.03] | -3.76 | < .001 |
| After-slope, $\hat{\gamma}_{20}$ | -0.02 | [-0.02, -0.01] | -6.74 | < .001 | -0.01 | [-0.02, 0.00] | -3.80 | < .001 |
| Shift, $\hat{\gamma}_{30}$ | 0.01 | [-0.02, 0.04] | 0.82 | .415 | 0.07 | [0.04, 0.10] | 4.10 | < .001 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.06 | [-0.03, 0.15] | 1.23 | .218 | 0.01 | [-0.09, 0.10] | 0.16 | .877 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | -0.06 | [-0.13, 0.00] | -1.87 | .062 | 0.03 | [-0.04, 0.10] | 0.76 | .448 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.02 | [0.01, 0.03] | 3.14 | .002 | 0.01 | [0.00, 0.02] | 1.85 | .065 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | 0.03 | [-0.04, 0.10] | 0.83 | .408 | -0.03 | [-0.10, 0.04] | -0.79 | .428 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.47 | [3.43, 3.50] | 188.36 | < .001 | 3.47 | [3.43, 3.51] | 156.11 | < .001 |
| Propensity score, $\hat{\gamma}_{02}$ | 0.11 | [0.04, 0.18] | 3.26 | .001 | 0.06 | [-0.01, 0.14] | 1.77 | .077 |
| After-slope, $\hat{\gamma}_{20}$ | -0.01 | [-0.02, -0.01] | -3.42 | .001 | -0.02 | [-0.02, -0.01] | -4.75 | < .001 |
| Shift, $\hat{\gamma}_{30}$ | 0.01 | [-0.01, 0.03] | 0.60 | .545 | 0.04 | [0.02, 0.06] | 3.77 | < .001 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.00 | [-0.05, 0.05] | 0.09 | .925 | 0.01 | [-0.04, 0.07] | 0.51 | .608 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.02 | [0.00, 0.03] | 2.10 | .036 | 0.02 | [0.01, 0.04] | 2.77 | .006 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.01 | [-0.06, 0.04] | -0.44 | .661 | -0.04 | [-0.09, 0.00] | -1.83 | .068 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. Analyses samples were restricted to *time* [-2, 6] and the *before* coefficient recoded for the LISS samples (0 at *time*=-2 and 1 afterwards). CI = confidence interval.

**Table S65**

*Fixed Effects of Agreeableness Over the Transition to Grandparenthood Moderated by Gender in the Restricted Models.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.65 | [3.57, 3.73] | 88.52 | $< .001$ | 3.68 | [3.59, 3.77] | 78.17 | $< .001$ |
| Propensity score, $\hat{\gamma}_{04}$ | -0.04 | [-0.13, 0.05] | -0.94 | .347 | 0.00 | [-0.08, 0.07] | -0.12 | .907 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.07 | [0.02, 0.11] | 2.93 | .003 | -0.06 | [-0.11, -0.02] | -2.68 | .007 |
| After-slope, $\hat{\gamma}_{20}$ | -0.02 | [-0.03, -0.02] | -6.19 | $< .001$ | -0.01 | [-0.02, 0.00] | -2.58 | .010 |
| Shift, $\hat{\gamma}_{30}$ | -0.03 | [-0.07, 0.02] | -1.09 | .275 | 0.10 | [0.06, 0.15] | 4.25 | $< .001$ |
| Grandparent, $\hat{\gamma}_{01}$ | 0.02 | [-0.10, 0.15] | 0.36 | .722 | -0.02 | [-0.15, 0.12] | -0.26 | .795 |
| Female, $\hat{\gamma}_{02}$ | 0.38 | [0.27, 0.48] | 6.85 | $< .001$ | 0.40 | [0.28, 0.53] | 6.37 | $< .001$ |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | -0.06 | [-0.16, 0.05] | -1.06 | .287 | 0.07 | [-0.04, 0.18] | 1.26 | .207 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.03 | [0.01, 0.05] | 3.69 | $< .001$ | 0.02 | [0.00, 0.04] | 2.02 | .043 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | 0.04 | [-0.06, 0.14] | 0.76 | .444 | -0.09 | [-0.20, 0.02] | -1.59 | .112 |
| Before-slope * Female, $\hat{\gamma}_{12}$ | -0.06 | [-0.12, -0.01] | -2.13 | .033 | 0.01 | [-0.05, 0.07] | 0.25 | .805 |
| After-slope * Female, $\hat{\gamma}_{22}$ | 0.01 | [0.00, 0.02] | 2.09 | .037 | 0.00 | [-0.01, 0.01] | -0.05 | .961 |
| Shift * Female, $\hat{\gamma}_{32}$ | 0.07 | [0.01, 0.13] | 2.12 | .034 | -0.07 | [-0.13, 0.00] | -1.98 | .048 |
| Grandparent * Female, $\hat{\gamma}_{03}$ | 0.06 | [-0.11, 0.23] | 0.71 | .478 | 0.03 | [-0.15, 0.21] | 0.36 | .718 |
| Before-slope * Grandparent * Female, $\hat{\gamma}_{13}$ | -0.01 | [-0.15, 0.12] | -0.17 | .867 | -0.08 | [-0.23, 0.06] | -1.11 | .266 |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | -0.02 | [-0.05, 0.00] | -2.13 | .033 | -0.01 | [-0.04, 0.01] | -1.10 | .272 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | -0.01 | [-0.15, 0.12] | -0.20 | .843 | 0.12 | [-0.03, 0.27] | 1.61 | .108 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.30 | [3.25, 3.35] | 131.88 | $< .001$ | 3.36 | [3.31, 3.42] | 118.82 | $< .001$ |
| Propensity score, $\hat{\gamma}_{04}$ | 0.12 | [0.05, 0.19] | 3.54 | $< .001$ | 0.05 | [-0.02, 0.12] | 1.36 | .173 |
| After-slope, $\hat{\gamma}_{20}$ | -0.02 | [-0.03, -0.01] | -4.50 | $< .001$ | -0.02 | [-0.03, -0.01] | -3.33 | .001 |
| Shift, $\hat{\gamma}_{30}$ | 0.05 | [0.02, 0.08] | 3.23 | .001 | 0.03 | [0.00, 0.06] | 1.75 | .079 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.01 | [-0.06, 0.08] | 0.33 | .745 | -0.02 | [-0.10, 0.05] | -0.55 | .584 |
| Female, $\hat{\gamma}_{02}$ | 0.28 | [0.22, 0.34] | 9.26 | $< .001$ | 0.21 | [0.14, 0.27] | 6.14 | $< .001$ |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.04 | [0.02, 0.07] | 3.49 | $< .001$ | 0.04 | [0.01, 0.06] | 3.10 | .002 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.08 | [-0.15, 0.00] | -1.98 | .048 | -0.05 | [-0.13, 0.02] | -1.45 | .148 |
| After-slope * Female, $\hat{\gamma}_{22}$ | 0.02 | [0.01, 0.04] | 2.96 | .003 | 0.00 | [-0.01, 0.02] | 0.31 | .756 |
| Shift * Female, $\hat{\gamma}_{32}$ | -0.08 | [-0.12, -0.04] | -3.75 | $< .001$ | 0.02 | [-0.02, 0.06] | 0.93 | .354 |
| Grandparent * Female, $\hat{\gamma}_{03}$ | -0.01 | [-0.11, 0.09] | -0.20 | .842 | 0.06 | [-0.03, 0.16] | 1.28 | .200 |

Table S65 continued

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | -0.05 | [-0.08, -0.01] | -2.80 | .005 | -0.03 | [-0.06, 0.00] | -1.71 | .087 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | 0.12 | [0.02, 0.22] | 2.30 | .021 | 0.02 | [-0.08, 0.11] | 0.37 | .708 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval. Analyses samples were restricted to *time* [-2, 6] and the *before* coefficient recoded for the LISS samples (0 at *time*=-2 and 1 afterwards). CI = confidence interval.

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**Table S66**

*Fixed Effects of Conscientiousness Over the Transition to Grandparenthood in the Restricted Models.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.75 | [3.70, 3.81] | 126.81 | < .001 | 3.83 | [3.76, 3.89] | 110.66 | < .001 |
| Propensity score, $\hat{\gamma}_{02}$ | 0.01 | [-0.08, 0.10] | 0.23 | .816 | -0.04 | [-0.12, 0.04] | -0.98 | .328 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.02 | [-0.01, 0.05] | 1.36 | .175 | -0.01 | [-0.04, 0.03] | -0.34 | .733 |
| After-slope, $\hat{\gamma}_{20}$ | -0.01 | [-0.02, -0.01] | -5.47 | < .001 | 0.01 | [0.00, 0.01] | 3.07 | .002 |
| Shift, $\hat{\gamma}_{30}$ | 0.02 | [-0.01, 0.05] | 1.29 | .197 | 0.01 | [-0.03, 0.04] | 0.39 | .694 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.01 | [-0.08, 0.09] | 0.12 | .901 | -0.05 | [-0.15, 0.05] | -1.03 | .305 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.01 | [-0.06, 0.07] | 0.18 | .854 | 0.03 | [-0.04, 0.10] | 0.89 | .371 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.01 | [0.00, 0.02] | 2.26 | .024 | -0.01 | [-0.02, 0.00] | -1.50 | .133 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.03 | [-0.10, 0.03] | -0.99 | .320 | -0.02 | [-0.09, 0.05] | -0.56 | .578 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.41 | [3.38, 3.45] | 198.30 | < .001 | 3.35 | [3.31, 3.39] | 165.05 | < .001 |
| Propensity score, $\hat{\gamma}_{02}$ | 0.09 | [0.02, 0.15] | 2.67 | .008 | 0.23 | [0.17, 0.30] | 6.93 | < .001 |
| After-slope, $\hat{\gamma}_{20}$ | -0.01 | [-0.02, -0.01] | -4.44 | < .001 | -0.01 | [-0.02, 0.00] | -3.48 | .001 |
| Shift, $\hat{\gamma}_{30}$ | 0.02 | [0.00, 0.04] | 2.18 | .029 | 0.00 | [-0.02, 0.01] | -0.51 | .611 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.03 | [-0.02, 0.07] | 1.12 | .261 | 0.01 | [-0.04, 0.06] | 0.56 | .577 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.02 | [0.01, 0.04] | 2.86 | .004 | 0.02 | [0.00, 0.03] | 2.45 | .014 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.05 | [-0.10, 0.00] | -2.16 | .031 | -0.02 | [-0.07, 0.02] | -1.10 | .273 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. Analyses samples were restricted to *time* [-2, 6] and the *before* coefficient recoded for the LISS samples (0 at *time*=-2 and 1 afterwards). CI = confidence interval.

**Table S67**

*Fixed Effects of Conscientiousness Over the Transition to Grandparenthood Moderated by Gender in the Restricted Models.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.68 | [3.59, 3.76] | 85.58 | $< .001$ | 3.72 | [3.62, 3.82] | 75.14 | $< .001$ |
| Propensity score, $\hat{\gamma}_{04}$ | 0.01 | [-0.08, 0.10] | 0.25 | .801 | -0.04 | [-0.12, 0.04] | -0.92 | .359 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.05 | [0.01, 0.10] | 2.32 | .020 | 0.03 | [-0.02, 0.07] | 1.07 | .285 |
| After-slope, $\hat{\gamma}_{20}$ | -0.01 | [-0.02, 0.00] | -3.02 | .003 | 0.00 | [-0.01, 0.01] | 0.37 | .714 |
| Shift, $\hat{\gamma}_{30}$ | 0.00 | [-0.05, 0.05] | 0.05 | .964 | -0.01 | [-0.06, 0.04] | -0.38 | .701 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.01 | [-0.12, 0.14] | 0.13 | .893 | -0.01 | [-0.15, 0.13] | -0.19 | .853 |
| Female, $\hat{\gamma}_{02}$ | 0.14 | [0.03, 0.25] | 2.44 | .015 | 0.20 | [0.07, 0.34] | 3.06 | .002 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | -0.01 | [-0.12, 0.09] | -0.27 | .785 | 0.01 | [-0.10, 0.12] | 0.22 | .824 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.02 | [0.00, 0.03] | 2.11 | .035 | 0.01 | [-0.01, 0.02] | 0.59 | .557 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | 0.00 | [-0.11, 0.10] | -0.02 | .984 | 0.01 | [-0.10, 0.12] | 0.17 | .866 |
| Before-slope * Female, $\hat{\gamma}_{12}$ | -0.06 | [-0.12, 0.00] | -1.91 | .056 | -0.06 | [-0.12, 0.01] | -1.78 | .076 |
| After-slope * Female, $\hat{\gamma}_{22}$ | -0.01 | [-0.02, 0.00] | -1.02 | .308 | 0.01 | [0.00, 0.02] | 2.49 | .013 |
| Shift * Female, $\hat{\gamma}_{32}$ | 0.04 | [-0.03, 0.10] | 1.11 | .267 | 0.03 | [-0.04, 0.09] | 0.82 | .411 |
| Grandparent * Female, $\hat{\gamma}_{03}$ | -0.01 | [-0.18, 0.17] | -0.08 | .932 | -0.08 | [-0.26, 0.11] | -0.79 | .432 |
| Before-slope * Grandparent * Female, $\hat{\gamma}_{13}$ | 0.03 | [-0.11, 0.17] | 0.44 | .663 | 0.03 | [-0.11, 0.17] | 0.39 | .693 |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | -0.01 | [-0.03, 0.01] | -0.74 | .460 | -0.03 | [-0.05, 0.00] | -2.21 | .027 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | -0.05 | [-0.19, 0.09] | -0.74 | .461 | -0.04 | [-0.19, 0.10] | -0.59 | .556 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.36 | [3.31, 3.41] | 142.95 | $< .001$ | 3.28 | [3.23, 3.33] | 123.81 | $< .001$ |
| Propensity score, $\hat{\gamma}_{04}$ | 0.09 | [0.03, 0.15] | 2.76 | .006 | 0.23 | [0.16, 0.29] | 6.78 | $< .001$ |
| After-slope, $\hat{\gamma}_{20}$ | -0.01 | [-0.02, -0.01] | -2.97 | .003 | 0.00 | [-0.01, 0.01] | 0.26 | .796 |
| Shift, $\hat{\gamma}_{30}$ | 0.03 | [0.00, 0.06] | 1.95 | .051 | -0.01 | [-0.04, 0.01] | -1.02 | .309 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.00 | [-0.06, 0.07] | 0.12 | .908 | 0.02 | [-0.06, 0.09] | 0.42 | .676 |
| Female, $\hat{\gamma}_{02}$ | 0.09 | [0.04, 0.15] | 3.29 | .001 | 0.13 | [0.06, 0.19] | 3.96 | $< .001$ |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.03 | [0.01, 0.05] | 2.85 | .004 | 0.02 | [0.00, 0.04] | 1.55 | .120 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.10 | [-0.17, -0.03] | -2.79 | .005 | -0.06 | [-0.12, 0.01] | -1.70 | .089 |
| After-slope * Female, $\hat{\gamma}_{22}$ | 0.00 | [-0.01, 0.01] | 0.05 | .962 | -0.02 | [-0.03, -0.01] | -3.23 | .001 |
| Shift * Female, $\hat{\gamma}_{32}$ | -0.01 | [-0.05, 0.03] | -0.68 | .497 | 0.02 | [-0.02, 0.05] | 0.87 | .382 |
| Grandparent * Female, $\hat{\gamma}_{03}$ | 0.05 | [-0.04, 0.13] | 1.02 | .310 | 0.00 | [-0.09, 0.09] | -0.03 | .977 |

Table S67 continued

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | -0.02 | [-0.05, 0.01] | -1.28 | .201 | 0.00 | [-0.03, 0.03] | -0.01 | .989 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | 0.09 | [-0.01, 0.18] | 1.85 | .065 | 0.06 | [-0.03, 0.15] | 1.37 | .170 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval. Analyses samples were restricted to *time* [-2, 6] and the *before* coefficient recoded for the LISS samples (0 at *time*=-2 and 1 afterwards). CI = confidence interval.

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**Table S68**

*Fixed Effects of Extraversion Over the Transition to Grandparenthood in the Restricted Models.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.23 | [3.16, 3.31] | 83.85 | < .001 | 3.32 | [3.23, 3.41] | 69.89 | < .001 |
| Propensity score, $\hat{\gamma}_{02}$ | -0.10 | [-0.20, 0.01] | -1.81 | .070 | -0.02 | [-0.10, 0.07] | -0.36 | .716 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.02 | [-0.01, 0.05] | 1.18 | .239 | -0.06 | [-0.10, -0.03] | -3.70 | < .001 |
| After-slope, $\hat{\gamma}_{20}$ | -0.01 | [-0.01, 0.00] | -1.88 | .061 | -0.01 | [-0.02, -0.01] | -3.83 | < .001 |
| Shift, $\hat{\gamma}_{30}$ | -0.03 | [-0.06, 0.01] | -1.52 | .128 | 0.04 | [0.00, 0.07] | 2.01 | .044 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.08 | [-0.04, 0.19] | 1.33 | .185 | -0.03 | [-0.16, 0.09] | -0.51 | .607 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | -0.06 | [-0.13, 0.01] | -1.63 | .102 | 0.02 | [-0.05, 0.10] | 0.55 | .583 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.00 | [-0.01, 0.02] | 0.65 | .519 | 0.01 | [0.00, 0.02] | 1.48 | .139 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | 0.02 | [-0.05, 0.10] | 0.63 | .532 | -0.04 | [-0.11, 0.04] | -0.98 | .327 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.17 | [3.13, 3.22] | 152.34 | < .001 | 3.12 | [3.07, 3.17] | 126.23 | < .001 |
| Propensity score, $\hat{\gamma}_{02}$ | 0.08 | [0.00, 0.15] | 2.06 | .040 | 0.08 | [0.00, 0.16] | 1.93 | .054 |
| After-slope, $\hat{\gamma}_{20}$ | 0.00 | [-0.01, 0.00] | -1.01 | .313 | 0.00 | [-0.01, 0.00] | -0.69 | .489 |
| Shift, $\hat{\gamma}_{30}$ | 0.01 | [-0.01, 0.04] | 1.25 | .212 | 0.01 | [-0.01, 0.04] | 1.32 | .187 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.00 | [-0.05, 0.06] | 0.08 | .938 | 0.05 | [-0.01, 0.11] | 1.73 | .083 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.01 | [0.00, 0.03] | 1.63 | .103 | 0.01 | [0.00, 0.03] | 1.56 | .119 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.03 | [-0.09, 0.02] | -1.16 | .245 | -0.03 | [-0.09, 0.02] | -1.23 | .217 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. Analyses samples were restricted to *time* [-2, 6] and the *before* coefficient recoded for the LISS samples (0 at *time*=-2 and 1 afterwards). CI = confidence interval.

**Table S69**

*Fixed Effects of Extraversion Over the Transition to Grandparenthood Moderated by Gender in the Restricted Models.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.25 | [3.14, 3.36] | 57.66 | $< .001$ | 3.31 | [3.17, 3.44] | 47.97 | $< .001$ |
| Propensity score, $\hat{\gamma}_{04}$ | -0.09 | [-0.19, 0.01] | -1.73 | .084 | -0.02 | [-0.10, 0.07] | -0.35 | .724 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.03 | [-0.02, 0.08] | 1.21 | .225 | -0.04 | [-0.09, 0.01] | -1.69 | .092 |
| After-slope, $\hat{\gamma}_{20}$ | -0.01 | [-0.02, 0.00] | -3.08 | .002 | -0.01 | [-0.01, 0.00] | -1.37 | .171 |
| Shift, $\hat{\gamma}_{30}$ | -0.06 | [-0.11, -0.01] | -2.39 | .017 | -0.01 | [-0.06, 0.04] | -0.26 | .794 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.00 | [-0.16, 0.17] | 0.05 | .964 | -0.07 | [-0.26, 0.11] | -0.77 | .440 |
| Female, $\hat{\gamma}_{02}$ | -0.04 | [-0.19, 0.11] | -0.51 | .611 | 0.02 | [-0.16, 0.20] | 0.23 | .819 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.00 | [-0.11, 0.12] | 0.08 | .940 | 0.08 | [-0.04, 0.20] | 1.26 | .209 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.01 | [-0.01, 0.03] | 1.36 | .174 | 0.01 | [-0.01, 0.02] | 0.58 | .565 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | 0.01 | [-0.11, 0.12] | 0.14 | .891 | -0.05 | [-0.16, 0.07] | -0.78 | .436 |
| Before-slope * Female, $\hat{\gamma}_{12}$ | -0.02 | [-0.08, 0.05] | -0.52 | .602 | -0.04 | [-0.10, 0.03] | -1.10 | .272 |
| After-slope * Female, $\hat{\gamma}_{22}$ | 0.01 | [0.00, 0.02] | 2.43 | .015 | -0.01 | [-0.02, 0.00] | -1.83 | .067 |
| Shift * Female, $\hat{\gamma}_{32}$ | 0.06 | [-0.01, 0.13] | 1.75 | .080 | 0.08 | [0.01, 0.15] | 2.28 | .023 |
| Grandparent * Female, $\hat{\gamma}_{03}$ | 0.13 | [-0.09, 0.35] | 1.14 | .255 | 0.07 | [-0.18, 0.33] | 0.55 | .585 |
| Before-slope * Grandparent * Female, $\hat{\gamma}_{13}$ | -0.11 | [-0.25, 0.04] | -1.41 | .160 | -0.09 | [-0.24, 0.07] | -1.10 | .272 |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | -0.02 | [-0.04, 0.01] | -1.29 | .199 | 0.01 | [-0.02, 0.03] | 0.60 | .547 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | 0.02 | [-0.13, 0.17] | 0.27 | .784 | 0.00 | [-0.15, 0.16] | 0.02 | .985 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.14 | [3.09, 3.20] | 106.67 | $< .001$ | 3.09 | [3.03, 3.16] | 93.59 | $< .001$ |
| Propensity score, $\hat{\gamma}_{04}$ | 0.08 | [0.01, 0.15] | 2.10 | .035 | 0.07 | [-0.01, 0.15] | 1.80 | .071 |
| After-slope, $\hat{\gamma}_{20}$ | 0.01 | [0.00, 0.02] | 1.64 | .101 | 0.00 | [-0.01, 0.01] | -0.26 | .797 |
| Shift, $\hat{\gamma}_{30}$ | -0.01 | [-0.04, 0.03] | -0.44 | .659 | 0.00 | [-0.03, 0.04] | 0.24 | .813 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.05 | [-0.13, 0.04] | -1.11 | .268 | 0.00 | [-0.09, 0.09] | 0.01 | .995 |
| Female, $\hat{\gamma}_{02}$ | 0.05 | [-0.02, 0.12] | 1.46 | .144 | 0.05 | [-0.03, 0.13] | 1.15 | .252 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.01 | [-0.02, 0.03] | 0.62 | .535 | 0.02 | [-0.01, 0.04] | 1.52 | .128 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.01 | [-0.09, 0.07] | -0.30 | .766 | -0.03 | [-0.10, 0.05] | -0.62 | .532 |
| After-slope * Female, $\hat{\gamma}_{22}$ | -0.02 | [-0.04, -0.01] | -3.06 | .002 | 0.00 | [-0.02, 0.01] | -0.25 | .804 |
| Shift * Female, $\hat{\gamma}_{32}$ | 0.04 | [-0.01, 0.08] | 1.68 | .093 | 0.02 | [-0.03, 0.06] | 0.81 | .416 |
| Grandparent * Female, $\hat{\gamma}_{03}$ | 0.09 | [-0.02, 0.20] | 1.61 | .108 | 0.09 | [-0.02, 0.21] | 1.59 | .113 |

Table S69 continued

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | 0.01 | [-0.02, 0.04] | 0.56 | .575 | -0.01 | [-0.05, 0.02] | -0.68 | .494 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | -0.03 | [-0.14, 0.08] | -0.59 | .553 | -0.01 | [-0.12, 0.09] | -0.22 | .828 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval. Analyses samples were restricted to *time* [-2, 6] and the *before* coefficient recoded for the LISS samples (0 at *time*=-2 and 1 afterwards). CI = confidence interval.

**Table S70**

*Fixed Effects of Neuroticism Over the Transition to Grandparenthood in the Restricted Models.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 2.46 | [2.38, 2.54] | 59.44 | < .001 | 2.39 | [2.29, 2.48] | 49.20 | < .001 |
| Propensity score, $\hat{\gamma}_{02}$ | 0.14 | [0.02, 0.27] | 2.23 | .026 | 0.02 | [-0.08, 0.12] | 0.38 | .706 |
| Before-slope, $\hat{\gamma}_{10}$ | -0.01 | [-0.05, 0.03] | -0.59 | .558 | -0.04 | [-0.08, 0.00] | -2.11 | .035 |
| After-slope, $\hat{\gamma}_{20}$ | 0.00 | [0.00, 0.01] | 0.79 | .429 | 0.00 | [0.00, 0.01] | 1.42 | .156 |
| Shift, $\hat{\gamma}_{30}$ | -0.05 | [-0.09, 0.00] | -2.14 | .032 | -0.02 | [-0.06, 0.03] | -0.77 | .442 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.06 | [-0.19, 0.06] | -1.03 | .304 | 0.05 | [-0.09, 0.18] | 0.67 | .502 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | -0.02 | [-0.11, 0.07] | -0.44 | .657 | 0.01 | [-0.08, 0.10] | 0.22 | .825 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.00 | [-0.02, 0.01] | -0.18 | .856 | 0.00 | [-0.02, 0.01] | -0.42 | .672 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.02 | [-0.11, 0.07] | -0.40 | .693 | -0.05 | [-0.14, 0.04] | -1.03 | .301 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 2.05 | [2.01, 2.10] | 91.32 | < .001 | 2.03 | [1.97, 2.08] | 73.78 | < .001 |
| Propensity score, $\hat{\gamma}_{02}$ | -0.07 | [-0.15, 0.02] | -1.53 | .127 | 0.10 | [0.01, 0.19] | 2.18 | .029 |
| After-slope, $\hat{\gamma}_{20}$ | -0.01 | [-0.02, 0.00] | -1.42 | .156 | -0.02 | [-0.02, -0.01] | -3.47 | .001 |
| Shift, $\hat{\gamma}_{30}$ | 0.01 | [-0.02, 0.03] | 0.39 | .693 | -0.03 | [-0.05, 0.00] | -2.25 | .024 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.02 | [-0.04, 0.08] | 0.53 | .597 | -0.03 | [-0.10, 0.04] | -0.89 | .374 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | -0.01 | [-0.03, 0.01] | -0.98 | .326 | 0.00 | [-0.02, 0.02] | -0.27 | .786 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.09 | [-0.15, -0.02] | -2.67 | .008 | -0.05 | [-0.11, 0.01] | -1.52 | .128 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. Analyses samples were restricted to *time* [-2, 6] and the *before* coefficient recoded for the LISS samples (0 at *time*=-2 and 1 afterwards). CI = confidence interval.

**Table S71**

*Fixed Effects of Neuroticism Over the Transition to Grandparenthood Moderated by Gender in the Restricted Models.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 2.39 | [2.28, 2.51] | 40.48 | $< .001$ | 2.31 | [2.17, 2.44] | 33.87 | $< .001$ |
| Propensity score, $\hat{\gamma}_{04}$ | 0.15 | [0.02, 0.27] | 2.31 | .021 | 0.03 | [-0.07, 0.14] | 0.60 | .550 |
| Before-slope, $\hat{\gamma}_{10}$ | -0.02 | [-0.08, 0.04] | -0.76 | .448 | -0.03 | [-0.09, 0.03] | -0.90 | .368 |
| After-slope, $\hat{\gamma}_{20}$ | 0.01 | [0.01, 0.02] | 2.96 | .003 | 0.01 | [0.00, 0.02] | 2.64 | .008 |
| Shift, $\hat{\gamma}_{30}$ | -0.04 | [-0.11, 0.02] | -1.36 | .174 | -0.06 | [-0.12, 0.00] | -1.83 | .067 |
| Grandparent, $\hat{\gamma}_{01}$ | -0.15 | [-0.33, 0.02] | -1.69 | .092 | -0.03 | [-0.22, 0.16] | -0.32 | .749 |
| Female, $\hat{\gamma}_{02}$ | 0.12 | [-0.03, 0.28] | 1.58 | .115 | 0.15 | [-0.03, 0.32] | 1.65 | .101 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.09 | [-0.05, 0.24] | 1.29 | .196 | 0.10 | [-0.05, 0.24] | 1.34 | .179 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | -0.02 | [-0.04, 0.01] | -1.31 | .189 | -0.01 | [-0.04, 0.01] | -1.12 | .263 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.13 | [-0.27, 0.02] | -1.75 | .080 | -0.11 | [-0.26, 0.03] | -1.56 | .118 |
| Before-slope * Female, $\hat{\gamma}_{12}$ | 0.02 | [-0.06, 0.10] | 0.47 | .641 | -0.03 | [-0.11, 0.05] | -0.70 | .483 |
| After-slope * Female, $\hat{\gamma}_{22}$ | -0.02 | [-0.04, -0.01] | -3.31 | .001 | -0.02 | [-0.03, 0.00] | -2.29 | .022 |
| Shift * Female, $\hat{\gamma}_{32}$ | 0.00 | [-0.09, 0.08] | -0.01 | .989 | 0.08 | [-0.01, 0.16] | 1.82 | .069 |
| Grandparent * Female, $\hat{\gamma}_{03}$ | 0.16 | [-0.08, 0.40] | 1.33 | .184 | 0.14 | [-0.11, 0.39] | 1.07 | .287 |
| Before-slope * Grandparent * Female, $\hat{\gamma}_{13}$ | -0.18 | [-0.37, 0.00] | -1.94 | .053 | -0.14 | [-0.32, 0.05] | -1.44 | .151 |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | 0.02 | [-0.01, 0.05] | 1.54 | .123 | 0.02 | [-0.01, 0.05] | 1.08 | .282 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | 0.18 | [-0.01, 0.36] | 1.84 | .065 | 0.10 | [-0.09, 0.28] | 1.01 | .311 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 1.93 | [1.86, 1.99] | 61.29 | $< .001$ | 1.96 | [1.89, 2.03] | 53.75 | $< .001$ |
| Propensity score, $\hat{\gamma}_{04}$ | -0.06 | [-0.15, 0.02] | -1.42 | .155 | 0.10 | [0.00, 0.19] | 2.06 | .040 |
| After-slope, $\hat{\gamma}_{20}$ | -0.02 | [-0.03, 0.00] | -2.59 | .010 | -0.02 | [-0.03, -0.01] | -3.13 | .002 |
| Shift, $\hat{\gamma}_{30}$ | 0.09 | [0.05, 0.13] | 4.19 | $< .001$ | 0.01 | [-0.03, 0.05] | 0.47 | .636 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.12 | [0.03, 0.21] | 2.55 | .011 | 0.02 | [-0.08, 0.11] | 0.32 | .751 |
| Female, $\hat{\gamma}_{02}$ | 0.23 | [0.15, 0.30] | 5.87 | $< .001$ | 0.13 | [0.04, 0.21] | 2.80 | .005 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.01 | [-0.02, 0.04] | 0.89 | .374 | 0.02 | [-0.01, 0.05] | 1.04 | .297 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.21 | [-0.31, -0.12] | -4.36 | $< .001$ | -0.13 | [-0.23, -0.04] | -2.77 | .006 |
| After-slope * Female, $\hat{\gamma}_{22}$ | 0.02 | [0.00, 0.04] | 2.21 | .027 | 0.01 | [-0.01, 0.03] | 1.16 | .246 |
| Shift * Female, $\hat{\gamma}_{32}$ | -0.14 | [-0.20, -0.09] | -5.22 | $< .001$ | -0.07 | [-0.12, -0.02] | -2.56 | .011 |
| Grandparent * Female, $\hat{\gamma}_{03}$ | -0.18 | [-0.30, -0.06] | -2.89 | .004 | -0.08 | [-0.21, 0.05] | -1.24 | .217 |

Table S71 continued

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | -0.04 | [-0.08, 0.00] | -2.08 | .038 | -0.03 | [-0.07, 0.01] | -1.64 | .101 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | 0.22 | [0.10, 0.35] | 3.45 | .001 | 0.15 | [0.02, 0.27] | 2.34 | .019 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval. Analyses samples were restricted to *time* [-2, 6] and the *before* coefficient recoded for the LISS samples (0 at *time*=-2 and 1 afterwards). CI = confidence interval.

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**Table S72**

*Fixed Effects of Openness Over the Transition to Grandparenthood in the Restricted Models.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.46 | [3.40, 3.52] | 113.89 | < .001 | 3.52 | [3.45, 3.59] | 103.73 | < .001 |
| Propensity score, $\hat{\gamma}_{02}$ | -0.05 | [-0.14, 0.04] | -1.00 | .317 | -0.01 | [-0.08, 0.06] | -0.34 | .735 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.02 | [-0.01, 0.05] | 1.51 | .131 | -0.02 | [-0.04, 0.01] | -1.11 | .266 |
| After-slope, $\hat{\gamma}_{20}$ | 0.00 | [-0.01, 0.00] | -1.80 | .073 | 0.00 | [0.00, 0.01] | 1.48 | .139 |
| Shift, $\hat{\gamma}_{30}$ | -0.01 | [-0.04, 0.02] | -0.47 | .637 | 0.02 | [-0.01, 0.05] | 1.30 | .193 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.04 | [-0.05, 0.13] | 0.93 | .351 | -0.03 | [-0.13, 0.06] | -0.69 | .489 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | -0.02 | [-0.08, 0.05] | -0.48 | .633 | 0.02 | [-0.04, 0.08] | 0.69 | .489 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.00 | [-0.01, 0.01] | 0.15 | .877 | -0.01 | [-0.02, 0.00] | -1.33 | .183 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | 0.01 | [-0.06, 0.07] | 0.24 | .814 | -0.02 | [-0.08, 0.04] | -0.57 | .567 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 2.99 | [2.95, 3.04] | 141.19 | < .001 | 2.99 | [2.95, 3.04] | 120.94 | < .001 |
| Propensity score, $\hat{\gamma}_{02}$ | 0.05 | [-0.02, 0.13] | 1.34 | .179 | 0.06 | [-0.01, 0.14] | 1.69 | .090 |
| After-slope, $\hat{\gamma}_{20}$ | -0.02 | [-0.03, -0.01] | -5.66 | < .001 | -0.02 | [-0.02, -0.01] | -5.28 | < .001 |
| Shift, $\hat{\gamma}_{30}$ | 0.06 | [0.03, 0.08] | 4.73 | < .001 | 0.03 | [0.01, 0.05] | 3.33 | .001 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.03 | [-0.03, 0.08] | 0.91 | .364 | 0.02 | [-0.05, 0.08] | 0.50 | .615 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.02 | [0.00, 0.04] | 2.30 | .022 | 0.02 | [0.00, 0.03] | 2.05 | .040 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.08 | [-0.14, -0.02] | -2.85 | .004 | -0.06 | [-0.11, -0.01] | -2.32 | .020 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. Analyses samples were restricted to *time* [-2, 6] and the *before* coefficient recoded for the LISS samples (0 at *time*=-2 and 1 afterwards). CI = confidence interval.

**Table S73**

*Fixed Effects of Openness Over the Transition to Grandparenthood Moderated by Gender in the Restricted Models.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.47 | [3.38, 3.55] | 78.60 | < .001 | 3.60 | [3.50, 3.69] | 73.96 | < .001 |
| Propensity score, $\hat{\gamma}_{04}$ | -0.04 | [-0.13, 0.05] | -0.95 | .341 | -0.02 | [-0.09, 0.05] | -0.55 | .583 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.04 | [0.00, 0.08] | 1.88 | .060 | 0.00 | [-0.04, 0.04] | -0.21 | .833 |
| After-slope, $\hat{\gamma}_{20}$ | 0.00 | [-0.01, 0.00] | -0.82 | .413 | 0.00 | [0.00, 0.01] | 1.35 | .178 |
| Shift, $\hat{\gamma}_{30}$ | -0.06 | [-0.10, -0.01] | -2.51 | .012 | 0.00 | [-0.04, 0.04] | 0.13 | .897 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.08 | [-0.06, 0.21] | 1.13 | .257 | -0.06 | [-0.20, 0.07] | -0.93 | .351 |
| Female, $\hat{\gamma}_{02}$ | -0.02 | [-0.13, 0.10] | -0.31 | .760 | -0.14 | [-0.27, -0.01] | -2.18 | .030 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | 0.05 | [-0.06, 0.15] | 0.87 | .386 | 0.09 | [-0.01, 0.19] | 1.83 | .067 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.00 | [-0.02, 0.01] | -0.57 | .570 | -0.01 | [-0.03, 0.00] | -1.56 | .118 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | 0.02 | [-0.08, 0.13] | 0.45 | .656 | -0.04 | [-0.13, 0.06] | -0.77 | .444 |
| Before-slope * Female, $\hat{\gamma}_{12}$ | -0.03 | [-0.09, 0.02] | -1.14 | .255 | -0.02 | [-0.07, 0.03] | -0.74 | .462 |
| After-slope * Female, $\hat{\gamma}_{22}$ | 0.00 | [-0.01, 0.01] | -0.59 | .554 | 0.00 | [-0.01, 0.01] | -0.46 | .648 |
| Shift * Female, $\hat{\gamma}_{32}$ | 0.09 | [0.03, 0.15] | 2.94 | .003 | 0.03 | [-0.03, 0.09] | 1.06 | .289 |
| Grandparent * Female, $\hat{\gamma}_{03}$ | -0.07 | [-0.24, 0.11] | -0.74 | .459 | 0.06 | [-0.12, 0.24] | 0.62 | .533 |
| Before-slope * Grandparent * Female, $\hat{\gamma}_{13}$ | -0.10 | [-0.23, 0.04] | -1.43 | .154 | -0.11 | [-0.24, 0.02] | -1.70 | .088 |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | 0.01 | [-0.01, 0.03] | 0.94 | .348 | 0.01 | [-0.01, 0.03] | 0.91 | .362 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | -0.04 | [-0.18, 0.09] | -0.64 | .520 | 0.02 | [-0.11, 0.14] | 0.26 | .792 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 3.00 | [2.94, 3.05] | 105.74 | < .001 | 3.00 | [2.93, 3.06] | 93.85 | < .001 |
| Propensity score, $\hat{\gamma}_{04}$ | 0.05 | [-0.02, 0.13] | 1.35 | .178 | 0.06 | [-0.01, 0.14] | 1.63 | .103 |
| After-slope, $\hat{\gamma}_{20}$ | -0.03 | [-0.05, -0.02] | -5.72 | < .001 | -0.01 | [-0.02, 0.00] | -2.31 | .021 |
| Shift, $\hat{\gamma}_{30}$ | 0.10 | [0.07, 0.14] | 5.83 | < .001 | -0.01 | [-0.04, 0.03] | -0.35 | .726 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.00 | [-0.08, 0.09] | 0.09 | .926 | 0.00 | [-0.09, 0.08] | -0.08 | .935 |
| Female, $\hat{\gamma}_{02}$ | -0.01 | [-0.07, 0.06] | -0.21 | .836 | 0.00 | [-0.07, 0.07] | 0.01 | .995 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.04 | [0.01, 0.06] | 2.86 | .004 | 0.02 | [-0.01, 0.04] | 1.33 | .183 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.15 | [-0.24, -0.07] | -3.70 | < .001 | -0.04 | [-0.12, 0.03] | -1.14 | .252 |
| After-slope * Female, $\hat{\gamma}_{22}$ | 0.02 | [0.01, 0.04] | 2.66 | .008 | -0.01 | [-0.02, 0.00] | -1.44 | .149 |
| Shift * Female, $\hat{\gamma}_{32}$ | -0.09 | [-0.13, -0.04] | -3.61 | < .001 | 0.07 | [0.03, 0.11] | 3.30 | .001 |
| Grandparent * Female, $\hat{\gamma}_{03}$ | 0.04 | [-0.06, 0.14] | 0.78 | .435 | 0.03 | [-0.07, 0.14] | 0.63 | .532 |

Table S73 continued

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | -0.03 | [-0.07, 0.00] | -1.76 | .079 | 0.00 | [-0.03, 0.03] | 0.03 | .978 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | 0.13 | [0.02, 0.24] | 2.39 | .017 | -0.02 | [-0.12, 0.07] | -0.48 | .630 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval. Analyses samples were restricted to *time* [-2, 6] and the *before* coefficient recoded for the LISS samples (0 at *time*=-2 and 1 afterwards). CI = confidence interval.

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**Table S74**

*Fixed Effects of Life Satisfaction Over the Transition to Grandparenthood in the Restricted Models.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 5.05 | [4.92, 5.17] | 79.94 | < .001 | 5.26 | [5.12, 5.40] | 71.54 | < .001 |
| Propensity score, $\hat{\gamma}_{02}$ | 0.12 | [-0.08, 0.33] | 1.22 | .223 | 0.03 | [-0.15, 0.22] | 0.36 | .721 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.01 | [-0.06, 0.07] | 0.21 | .834 | -0.07 | [-0.15, 0.00] | -1.92 | .056 |
| After-slope, $\hat{\gamma}_{20}$ | 0.01 | [0.00, 0.03] | 2.57 | .010 | -0.01 | [-0.02, 0.00] | -1.49 | .136 |
| Shift, $\hat{\gamma}_{30}$ | 0.00 | [-0.07, 0.07] | 0.04 | .969 | -0.05 | [-0.13, 0.03] | -1.24 | .215 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.13 | [-0.06, 0.32] | 1.35 | .178 | -0.05 | [-0.26, 0.16] | -0.48 | .630 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | -0.01 | [-0.16, 0.14] | -0.18 | .858 | 0.06 | [-0.11, 0.23] | 0.72 | .473 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | -0.03 | [-0.05, 0.00] | -2.22 | .026 | 0.00 | [-0.03, 0.02] | -0.28 | .778 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | 0.11 | [-0.05, 0.26] | 1.36 | .175 | 0.16 | [-0.01, 0.33] | 1.81 | .070 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 4.73 | [4.61, 4.85] | 78.40 | < .001 | 4.69 | [4.55, 4.83] | 65.75 | < .001 |
| Propensity score, $\hat{\gamma}_{02}$ | 0.48 | [0.25, 0.72] | 3.99 | < .001 | 0.28 | [0.04, 0.52] | 2.31 | .021 |
| After-slope, $\hat{\gamma}_{20}$ | 0.01 | [-0.01, 0.04] | 1.03 | .302 | 0.03 | [0.01, 0.06] | 2.88 | .004 |
| Shift, $\hat{\gamma}_{30}$ | 0.01 | [-0.07, 0.09] | 0.22 | .824 | -0.03 | [-0.10, 0.04] | -0.89 | .371 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.22 | [0.06, 0.39] | 2.61 | .009 | 0.32 | [0.15, 0.50] | 3.60 | < .001 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.04 | [-0.02, 0.09] | 1.22 | .222 | 0.02 | [-0.04, 0.07] | 0.70 | .486 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | -0.09 | [-0.27, 0.09] | -0.99 | .322 | -0.07 | [-0.24, 0.10] | -0.76 | .449 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. Analyses samples were restricted to *time* [-2, 6] and the *before* coefficient recoded for the LISS samples (0 at *time*=-2 and 1 afterwards). CI = confidence interval.

**Table S75**

*Fixed Effects of Life Satisfaction Over the Transition to Grandparenthood Moderated by Gender in the Restricted Models.*

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| LISS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 4.96 | [4.79, 5.12] | 58.51 | < .001 | 5.22 | [5.02, 5.41] | 53.07 | < .001 |
| Propensity score, $\hat{\gamma}_{04}$ | 0.12 | [-0.08, 0.32] | 1.16 | .246 | 0.03 | [-0.15, 0.22] | 0.34 | .735 |
| Before-slope, $\hat{\gamma}_{10}$ | 0.06 | [-0.04, 0.16] | 1.23 | .219 | -0.08 | [-0.19, 0.03] | -1.47 | .142 |
| After-slope, $\hat{\gamma}_{20}$ | 0.01 | [0.00, 0.03] | 1.61 | .108 | -0.03 | [-0.05, -0.01] | -2.95 | .003 |
| Shift, $\hat{\gamma}_{30}$ | 0.02 | [-0.08, 0.13] | 0.41 | .679 | 0.07 | [-0.05, 0.18] | 1.17 | .242 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.21 | [-0.05, 0.47] | 1.61 | .108 | -0.01 | [-0.29, 0.28] | -0.04 | .968 |
| Female, $\hat{\gamma}_{02}$ | 0.16 | [-0.04, 0.36] | 1.57 | .117 | 0.08 | [-0.15, 0.32] | 0.68 | .494 |
| Before-slope * Grandparent, $\hat{\gamma}_{11}$ | -0.12 | [-0.36, 0.11] | -1.01 | .313 | 0.01 | [-0.25, 0.28] | 0.11 | .912 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | -0.03 | [-0.07, 0.01] | -1.57 | .117 | 0.01 | [-0.03, 0.05] | 0.52 | .602 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | 0.15 | [-0.08, 0.39] | 1.29 | .199 | 0.11 | [-0.15, 0.38] | 0.84 | .403 |
| Before-slope * Female, $\hat{\gamma}_{12}$ | -0.10 | [-0.23, 0.03] | -1.49 | .137 | 0.02 | [-0.13, 0.17] | 0.27 | .789 |
| After-slope * Female, $\hat{\gamma}_{22}$ | 0.00 | [-0.02, 0.03] | 0.22 | .827 | 0.03 | [0.01, 0.06] | 2.67 | .008 |
| Shift * Female, $\hat{\gamma}_{32}$ | -0.04 | [-0.18, 0.10] | -0.54 | .591 | -0.23 | [-0.38, -0.07] | -2.82 | .005 |
| Grandparent * Female, $\hat{\gamma}_{03}$ | -0.15 | [-0.47, 0.17] | -0.92 | .359 | -0.08 | [-0.44, 0.27] | -0.45 | .653 |
| Before-slope * Grandparent * Female, $\hat{\gamma}_{13}$ | 0.18 | [-0.12, 0.49] | 1.18 | .239 | 0.07 | [-0.28, 0.41] | 0.39 | .695 |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | 0.00 | [-0.05, 0.05] | 0.09 | .931 | -0.03 | [-0.09, 0.03] | -1.01 | .311 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | -0.08 | [-0.38, 0.23] | -0.48 | .630 | 0.11 | [-0.24, 0.45] | 0.60 | .547 |
| HRS | | | | | | | | |
| Intercept, $\hat{\gamma}_{00}$ | 4.67 | [4.52, 4.82] | 61.21 | < .001 | 4.66 | [4.49, 4.83] | 53.85 | < .001 |
| Propensity score, $\hat{\gamma}_{04}$ | 0.48 | [0.24, 0.72] | 3.99 | < .001 | 0.24 | [0.01, 0.48] | 2.00 | .045 |
| After-slope, $\hat{\gamma}_{20}$ | 0.01 | [-0.02, 0.05] | 0.74 | .457 | 0.03 | [-0.01, 0.06] | 1.39 | .164 |
| Shift, $\hat{\gamma}_{30}$ | 0.05 | [-0.07, 0.16] | 0.77 | .440 | -0.15 | [-0.26, -0.04] | -2.74 | .006 |
| Grandparent, $\hat{\gamma}_{01}$ | 0.08 | [-0.14, 0.31] | 0.73 | .466 | 0.17 | [-0.07, 0.40] | 1.40 | .162 |
| Female, $\hat{\gamma}_{02}$ | 0.11 | [-0.05, 0.26] | 1.31 | .191 | 0.08 | [-0.10, 0.26] | 0.85 | .396 |
| After-slope * Grandparent, $\hat{\gamma}_{21}$ | 0.02 | [-0.07, 0.11] | 0.47 | .637 | 0.01 | [-0.07, 0.09] | 0.33 | .743 |
| Shift * Grandparent, $\hat{\gamma}_{31}$ | 0.00 | [-0.27, 0.27] | 0.00 | .999 | 0.18 | [-0.07, 0.44] | 1.44 | .149 |
| After-slope * Female, $\hat{\gamma}_{22}$ | 0.00 | [-0.05, 0.05] | -0.08 | .938 | 0.01 | [-0.03, 0.06] | 0.54 | .587 |
| Shift * Female, $\hat{\gamma}_{32}$ | -0.07 | [-0.22, 0.09] | -0.84 | .402 | 0.21 | [0.07, 0.35] | 2.86 | .004 |
| Grandparent * Female, $\hat{\gamma}_{03}$ | 0.25 | [-0.02, 0.52] | 1.81 | .070 | 0.28 | [0.00, 0.56] | 1.97 | .049 |

Table S75 continued

| | Parent controls | | | | Nonparent controls | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | $\hat{\gamma}$ | 95% CI | $t$ | $p$ | $\hat{\gamma}$ | 95% CI | $t$ | $p$ |
| After-slope * Grandparent * Female, $\hat{\gamma}_{23}$ | 0.03 | [-0.09, 0.14] | 0.46 | .644 | 0.01 | [-0.09, 0.12] | 0.22 | .825 |
| Shift * Grandparent * Female, $\hat{\gamma}_{33}$ | -0.16 | [-0.52, 0.19] | -0.90 | .367 | -0.44 | [-0.77, -0.11] | -2.60 | .009 |

*Note.* Two models were computed for each of the two samples (LISS, HRS): grandparents matched with parent controls and with nonparent controls. CI = confidence interval. Analyses samples were restricted to *time* [-2, 6] and the *before* coefficient recoded for the LISS samples (0 at *time*=-2 and 1 afterwards). CI = confidence interval.

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## Supplemental Figures

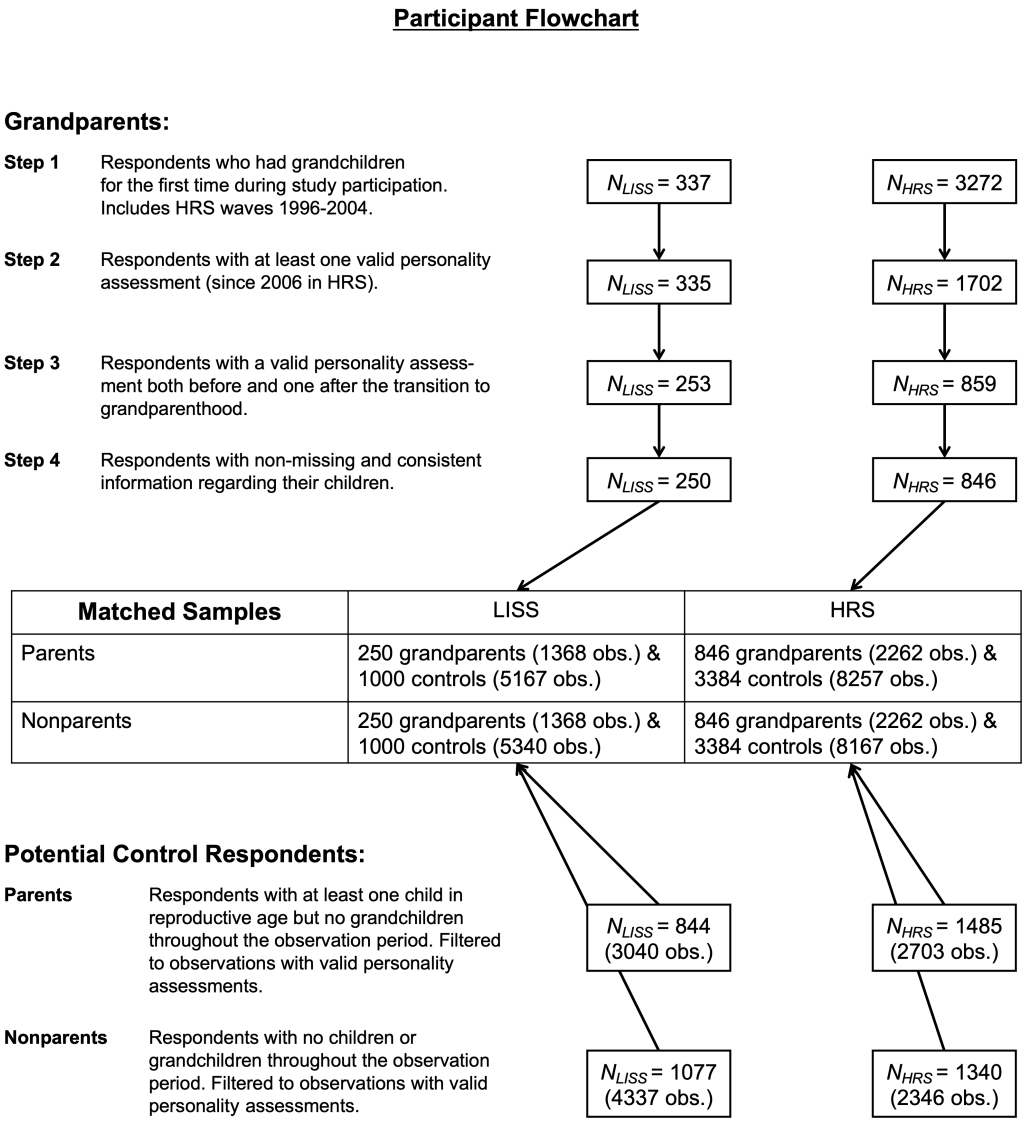


**Figure S1**

*Participant flowchart demonstrating the composition of the four analysis samples via matching (1:4 matching ratio with replacement). obs. = longitudinal observations.*

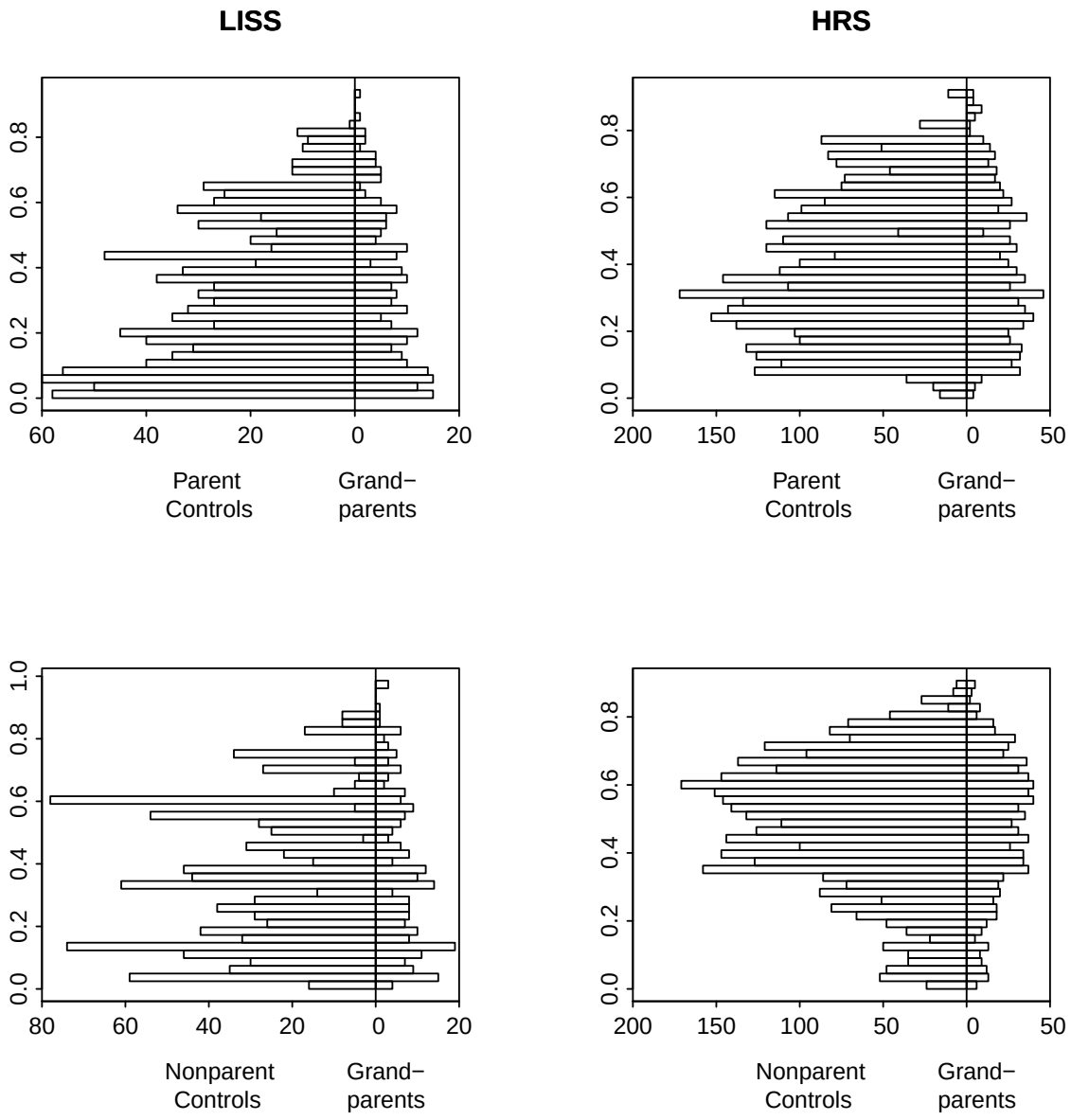


**Figure S2**

*Distributional Overlap of the Propensity Score in the Four Analysis Samples at the Time of Matching.*

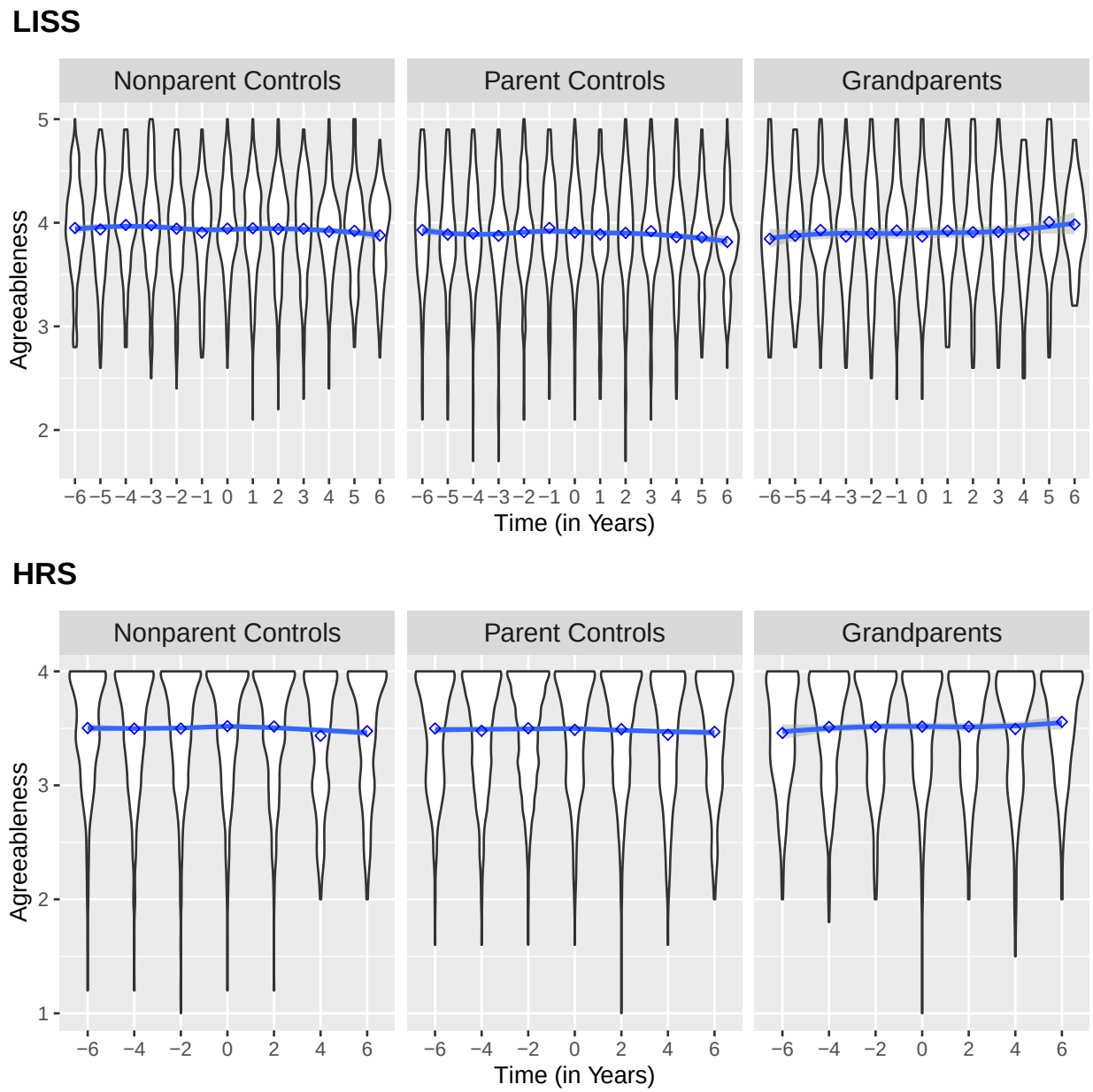


**Figure S3**

*Violin Plots for Agreeableness Including Means Over Time and LOESS Line.*

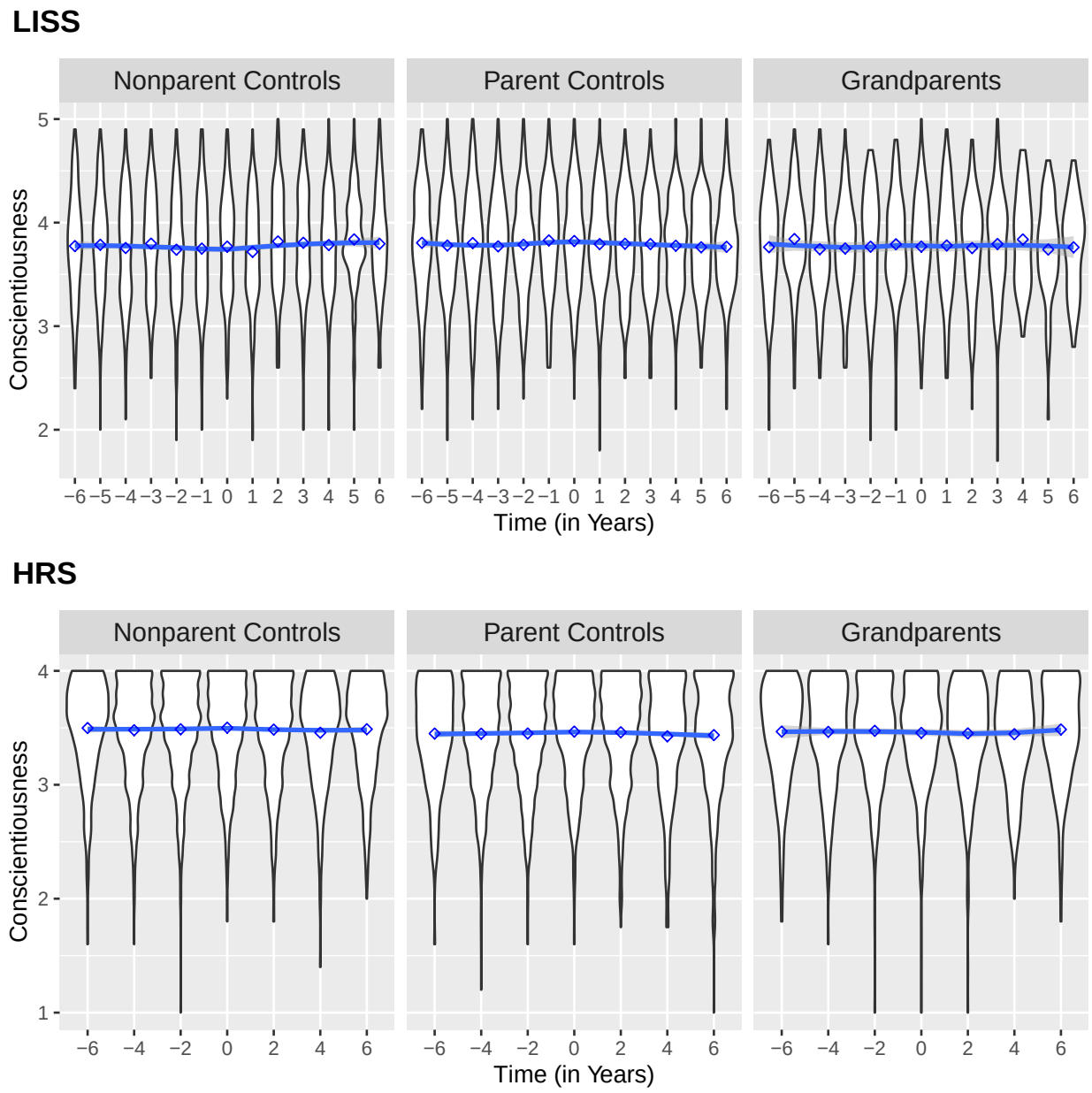


**Figure S4**

*Violin Plots for Conscientiousness Including Means Over Time and LOESS Line.*

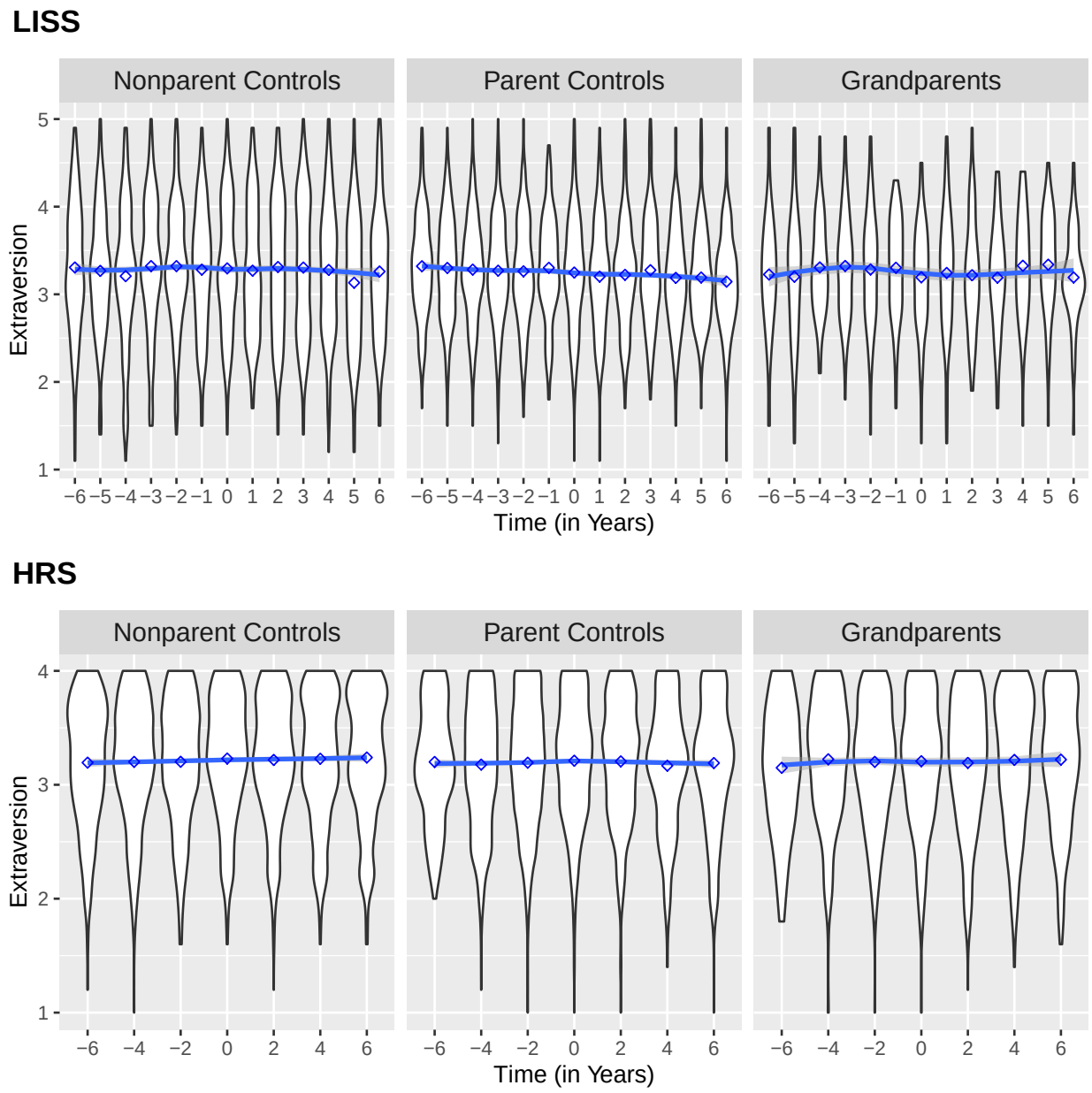


**Figure S5**

*Violin Plots for Extraversion Including Means Over Time and LOESS Line.*

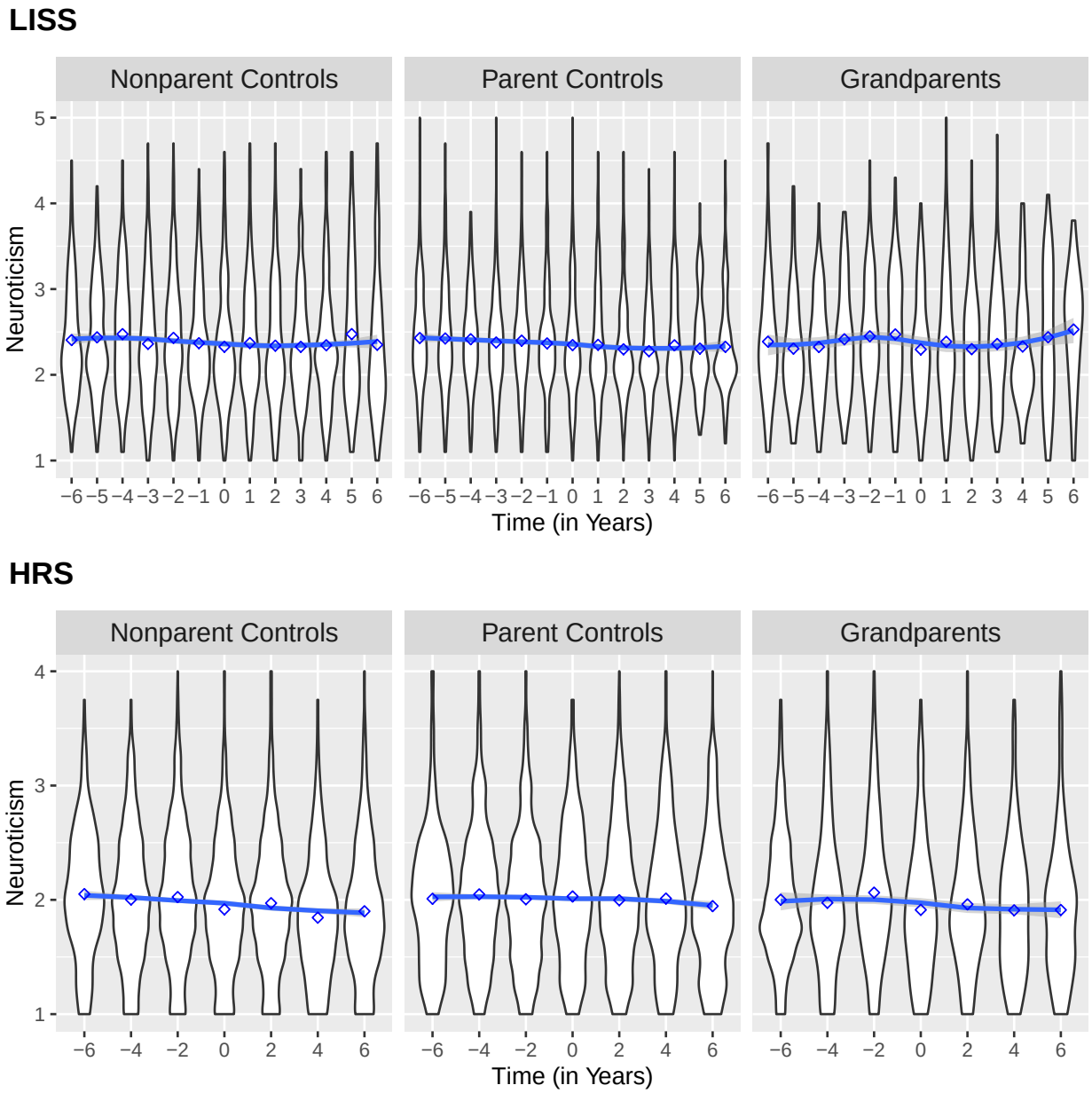


**Figure S6**

*Violin Plots for Neuroticism Including Means Over Time and LOESS Line.*

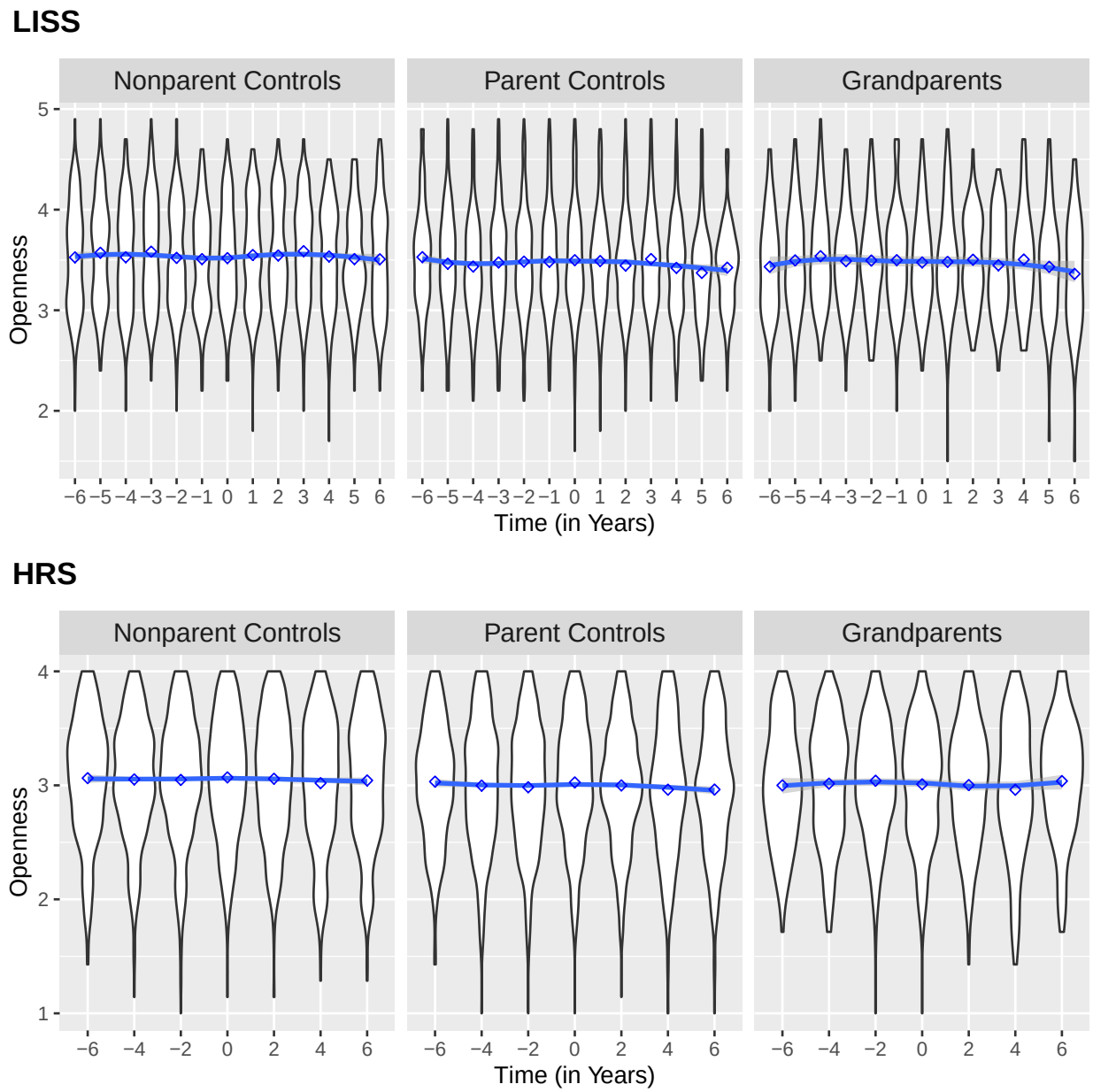


**Figure S7**

*Violin Plots for Openness Including Means Over Time and LOESS Line.*

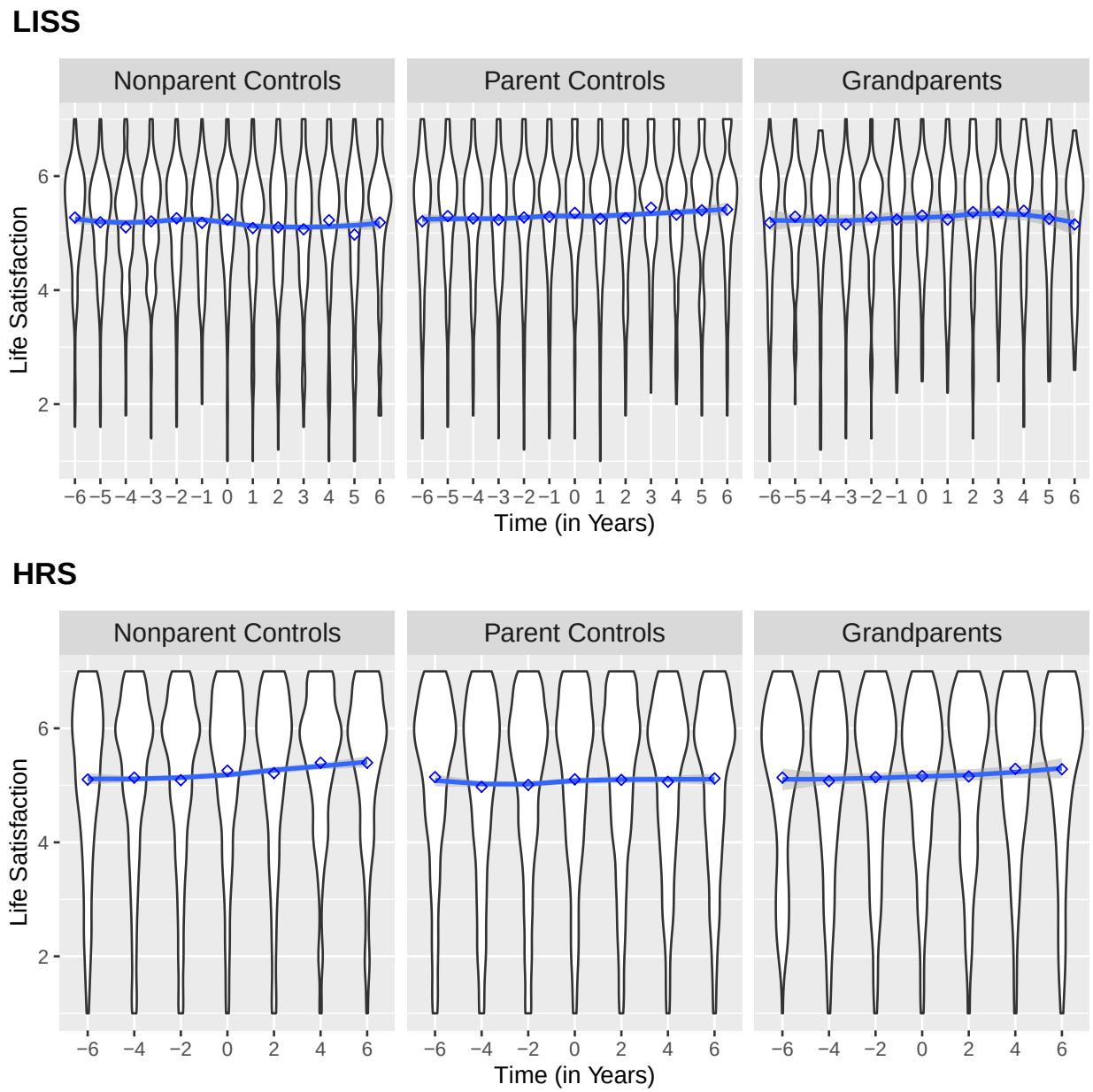


**Figure S8**

*Violin Plots for Life Satisfaction Including Means Over Time and LOESS Line.*

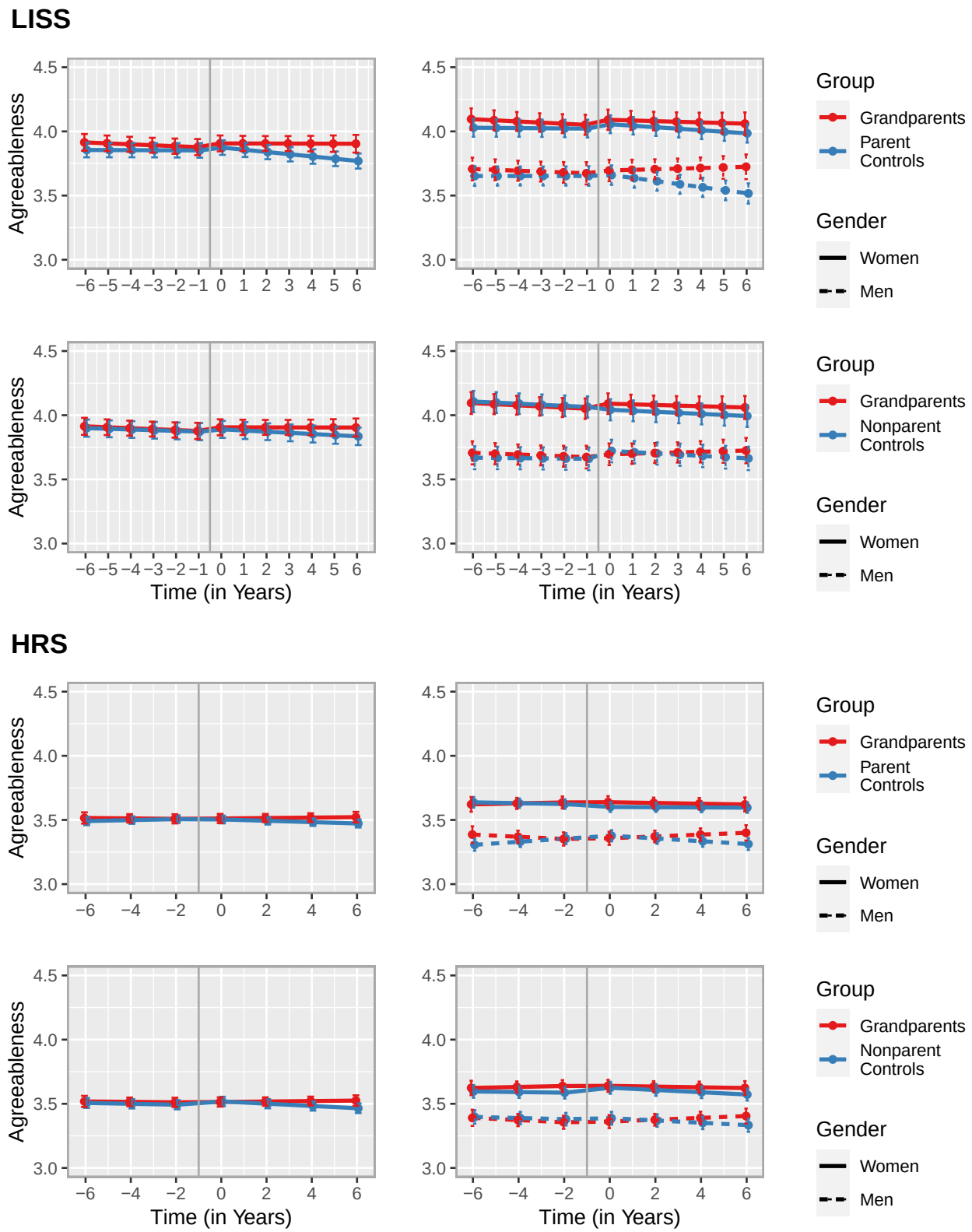


**Figure S9**

*Change trajectories of agreeableness based on the basic models (left column) and the models including the gender interaction (right column). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The vertical line indicates the approximate time of the transition to grandparenthood.*

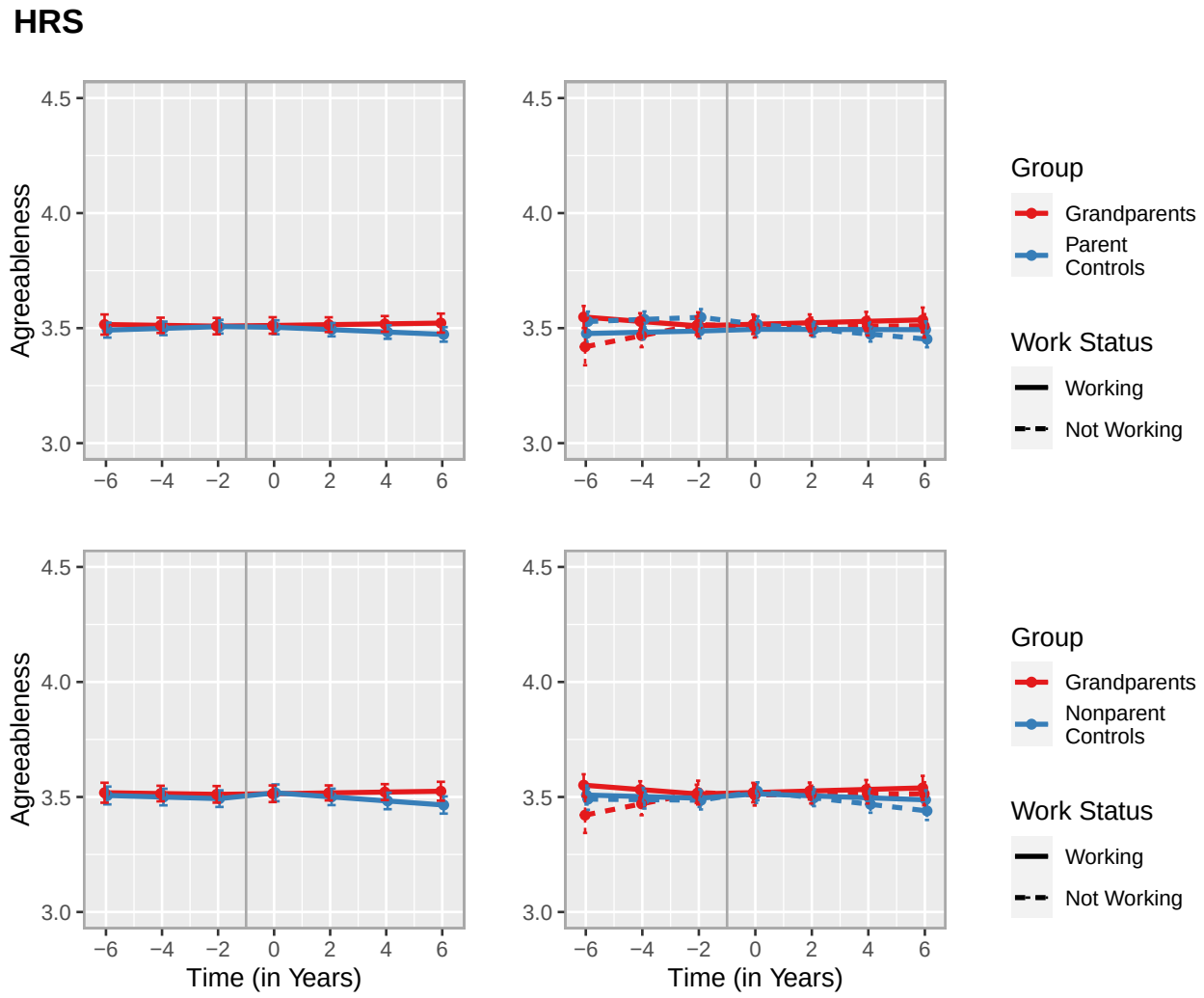


**Figure S10**

*Change trajectories of agreeableness based on the models of moderation by paid work (see Table S11). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The vertical line indicates the approximate time of the transition to grandparenthood. The plots in the left column are the same as in Figure S9 (basic models) and added here for better comparability.*

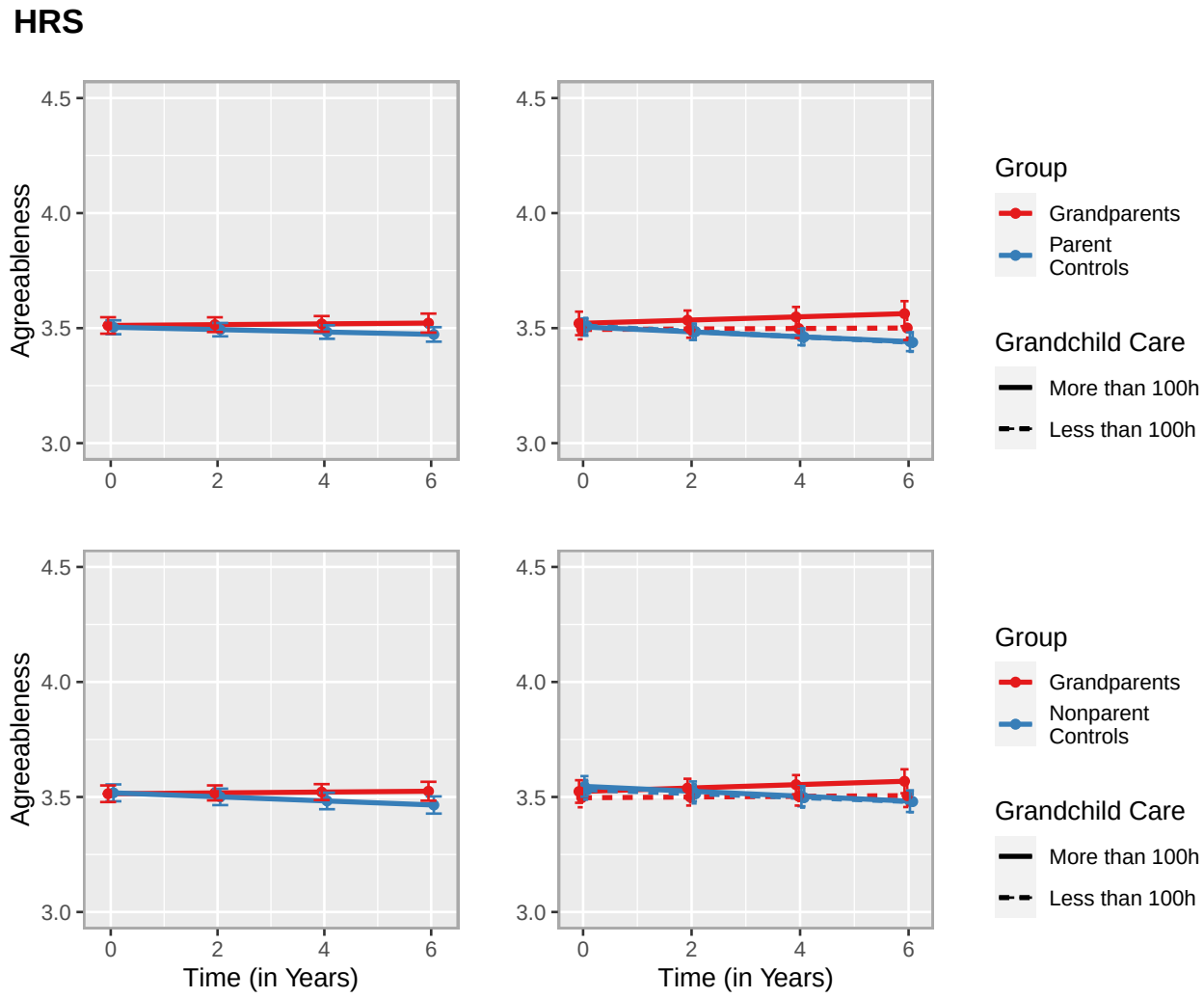


**Figure S11**

*Change trajectories of agreeableness based on the models of moderation by grandchild care (see Table S13). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The plots in the left column are the same as in Figure S9 (basic models) but restricted to the post-transition period for better comparability.*

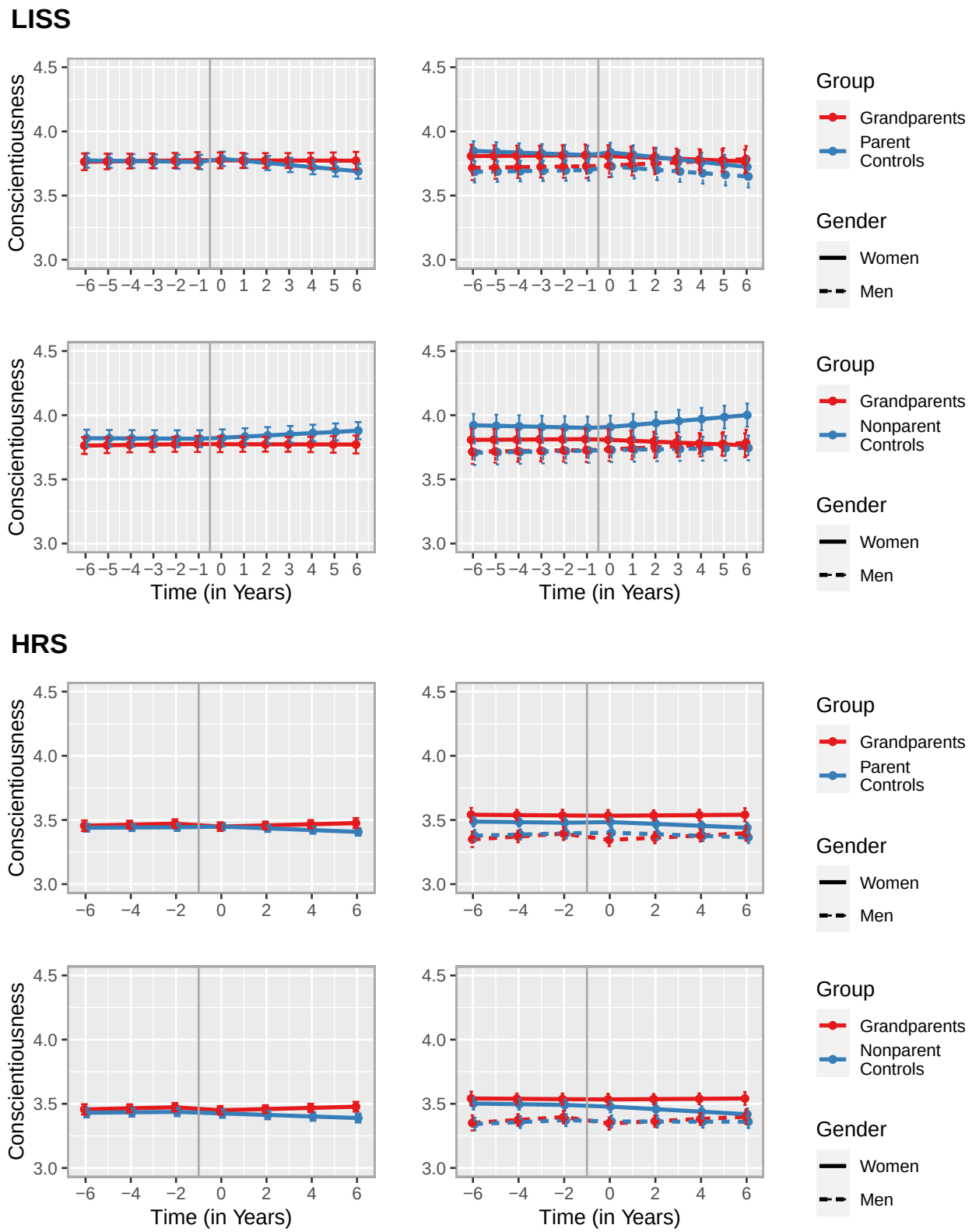


**Figure S12**

*Change trajectories of conscientiousness based on the basic models (left column) and the models including the gender interaction (right column). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The vertical line indicates the approximate time of the transition to grandparenthood.*

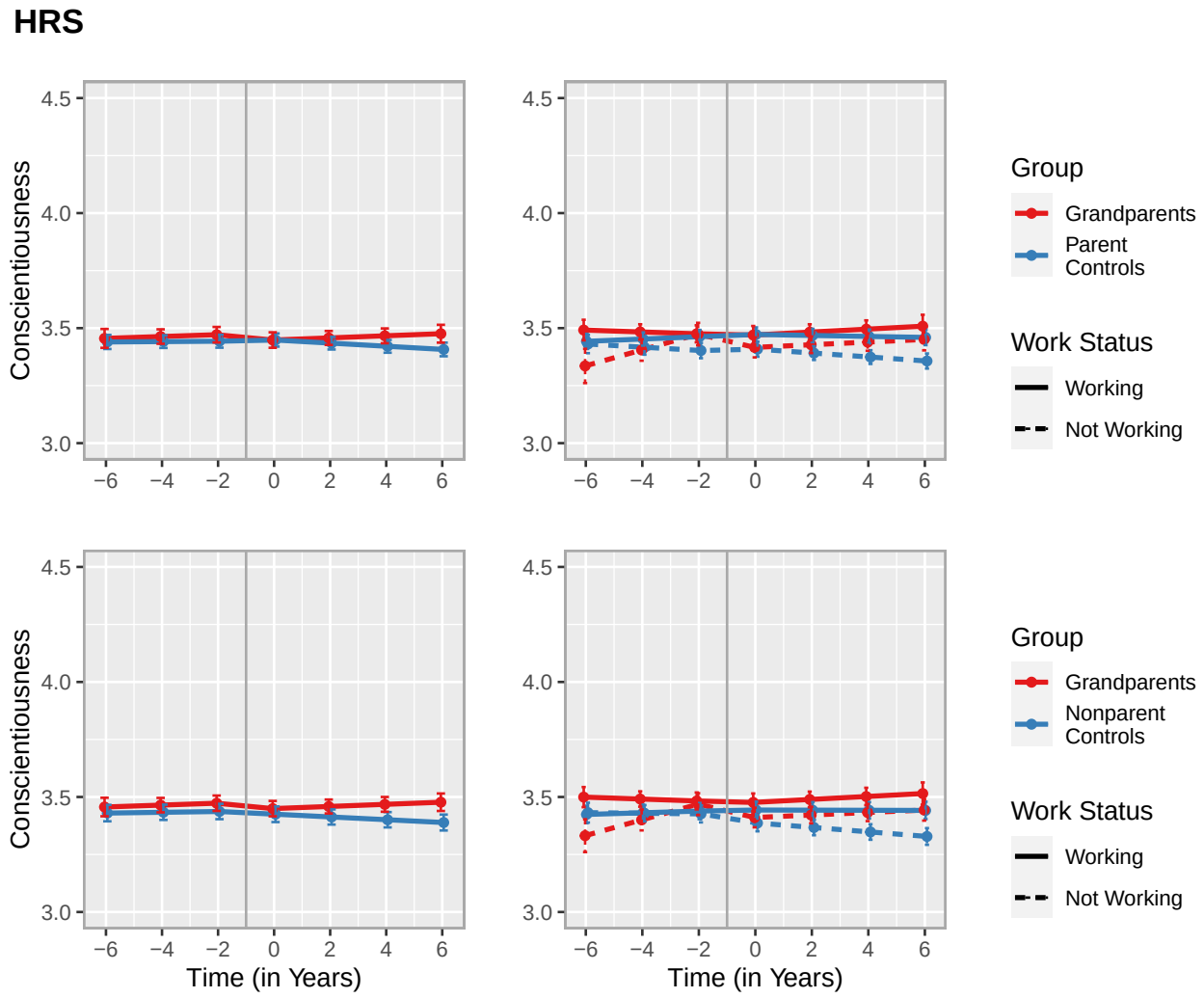


**Figure S13**

*Change trajectories of conscientiousness based on the models of moderation by paid work (see Table S19). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The vertical line indicates the approximate time of the transition to grandparenthood. The plots in the left column are the same as in Figure S12 (basic models) and added here for better comparability.*

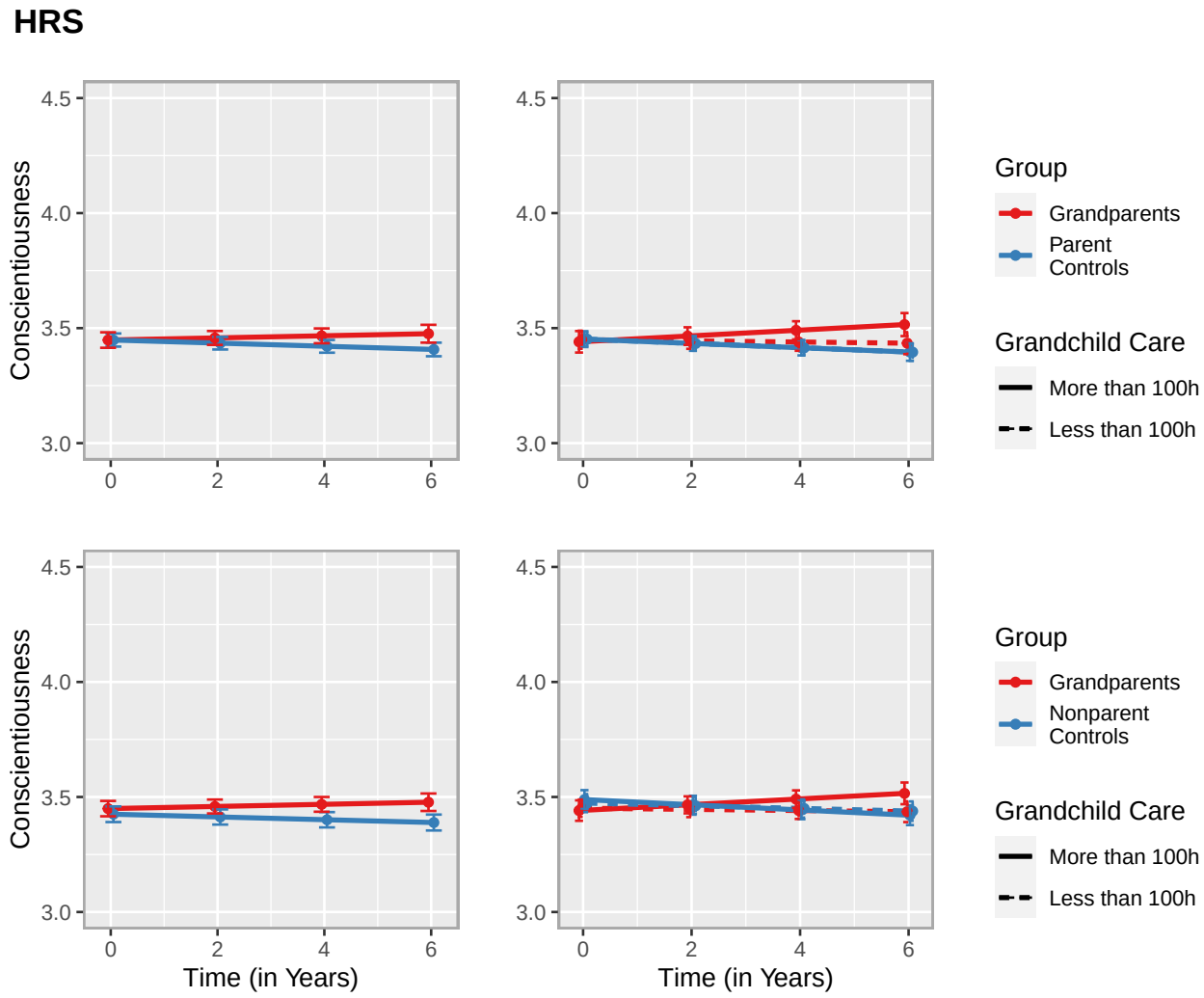


**Figure S14**

*Change trajectories of conscientiousness based on the models of moderation by grandchild care (see Table S21). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The plots in the left column are the same as in Figure S12 (basic models) but restricted to the post-transition period for better comparability.*

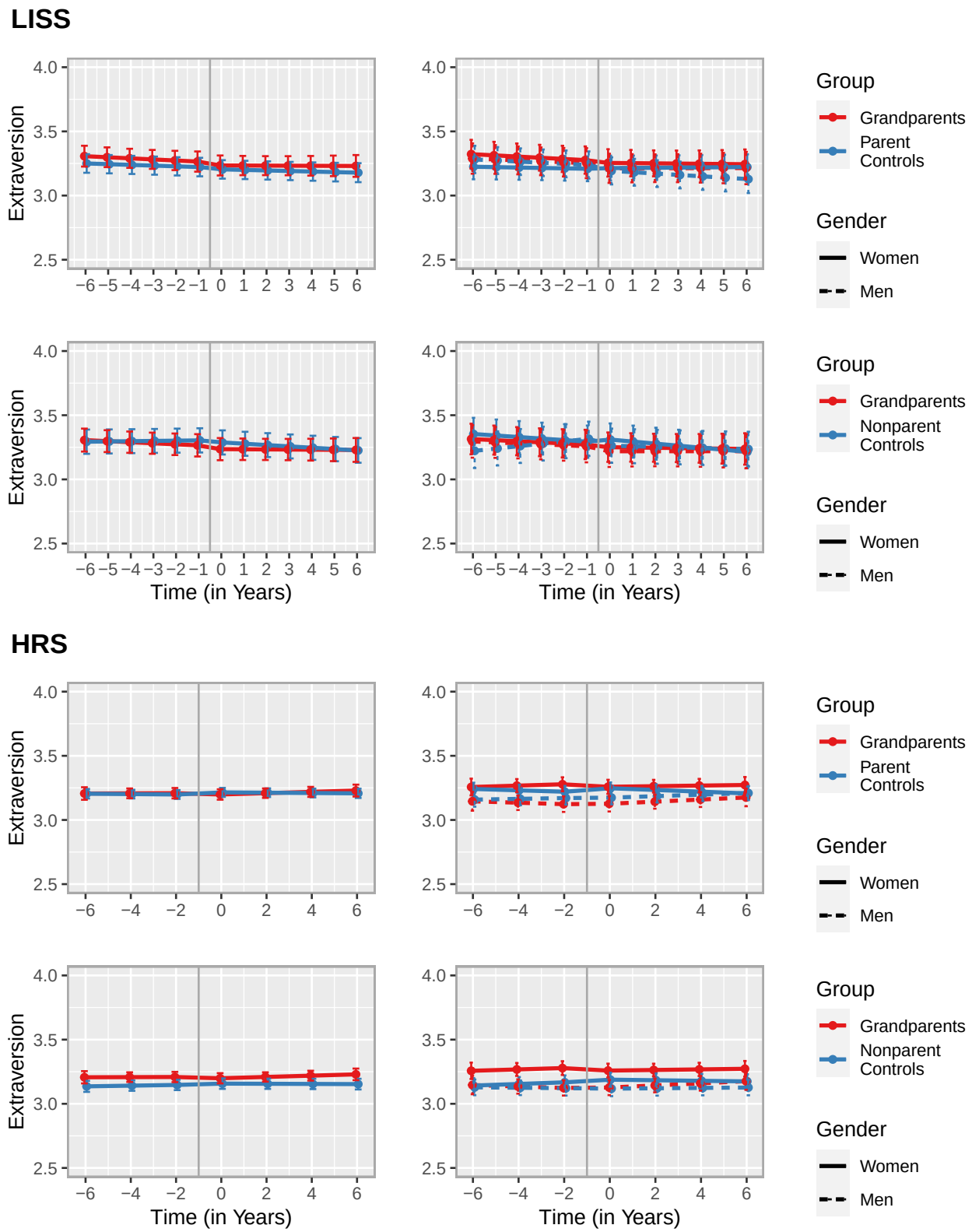


**Figure S15**

*Change trajectories of extraversion based on the basic models (left column) and the models including the gender interaction (right column). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The vertical line indicates the approximate time of the transition to grandparenthood.*

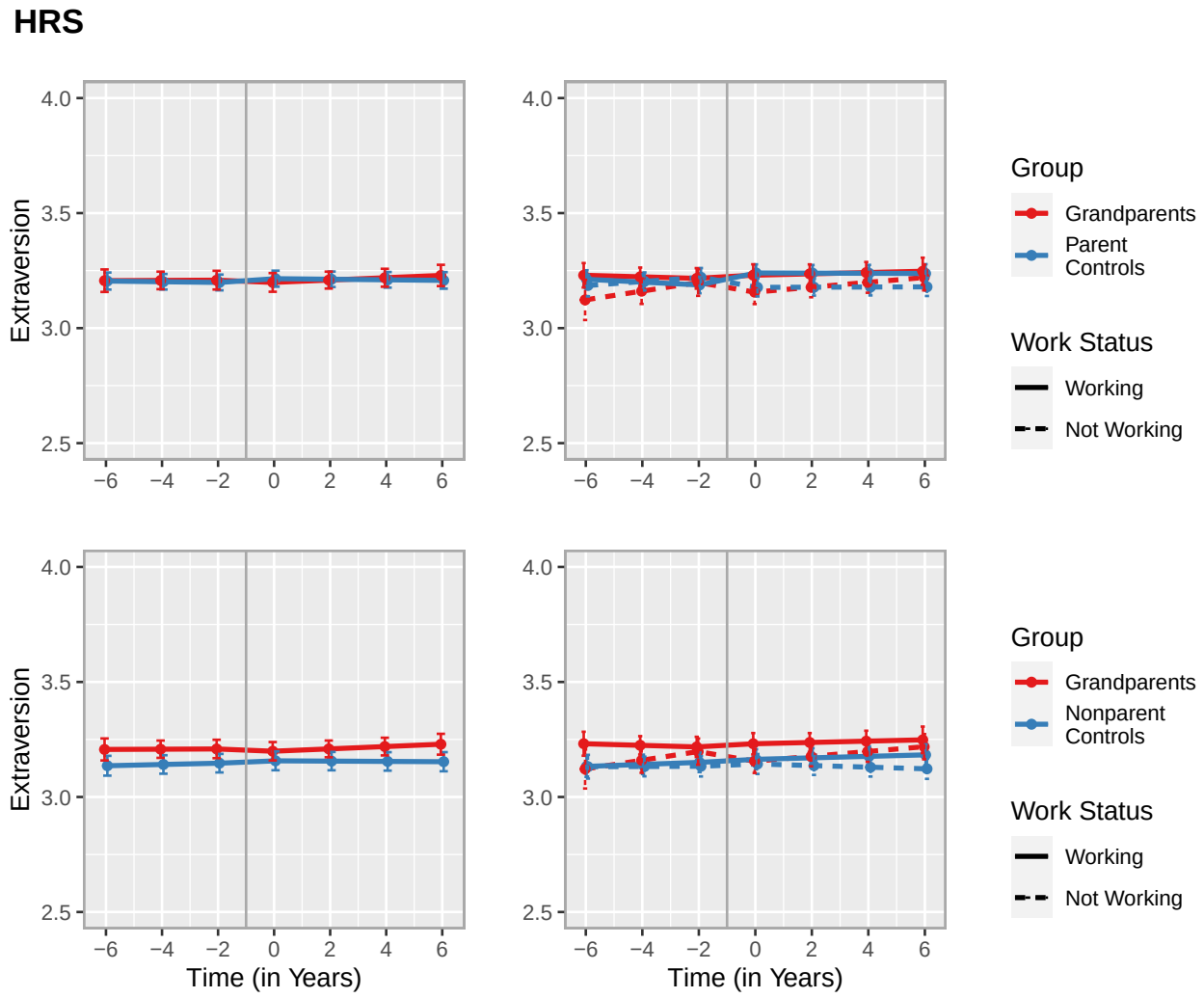


**Figure S16**

*Change trajectories of extraversion based on the models of moderation by paid work (see Table S27). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The vertical line indicates the approximate time of the transition to grandparenthood. The plots in the left column are the same as in Figure S15 (basic models) and added here for better comparability.*

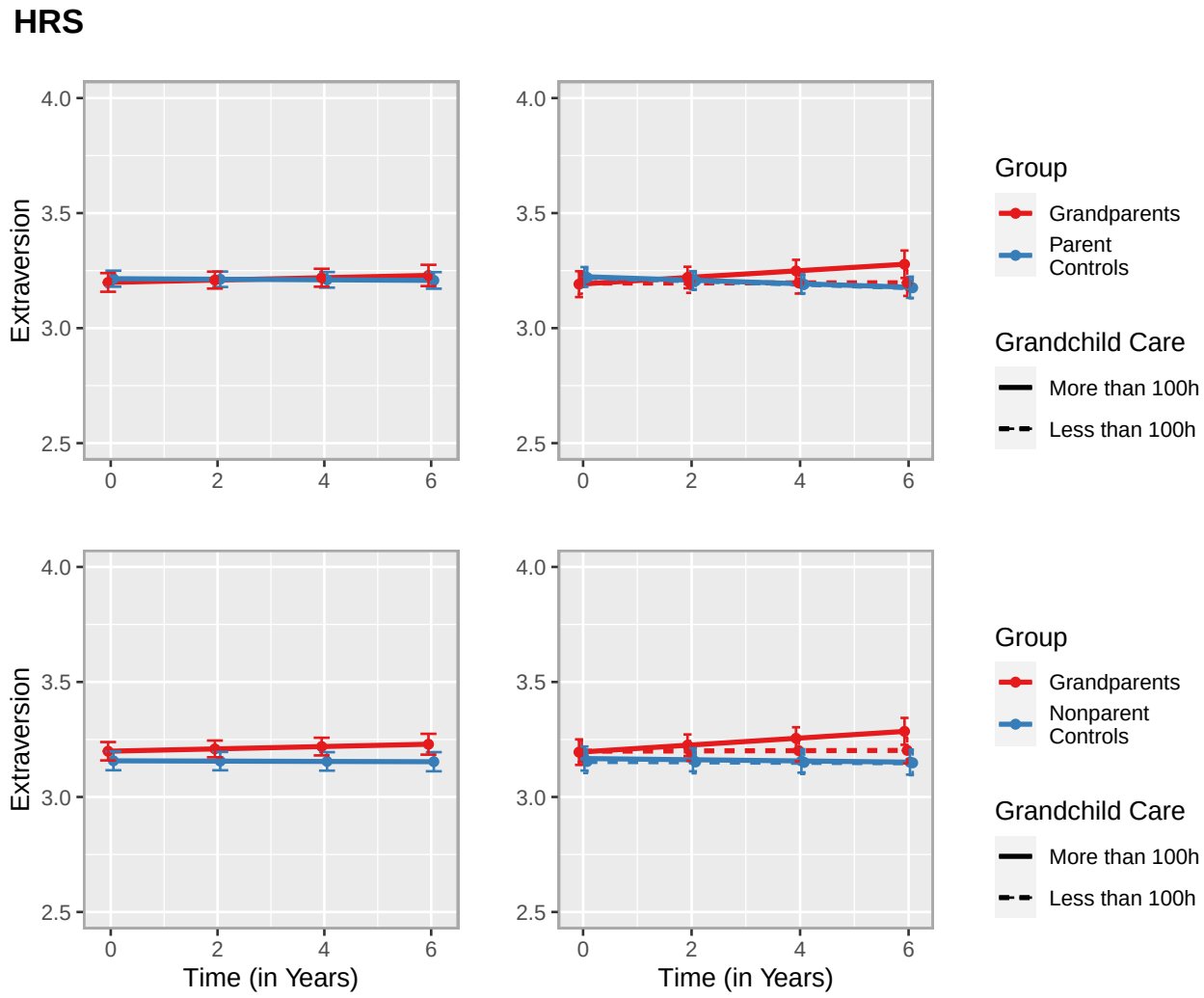


**Figure S17**

*Change trajectories of extraversion based on the models of moderation by grandchild care (see Table S29). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The plots in the left column are the same as in Figure S15 (basic models) but restricted to the post-transition period for better comparability.*

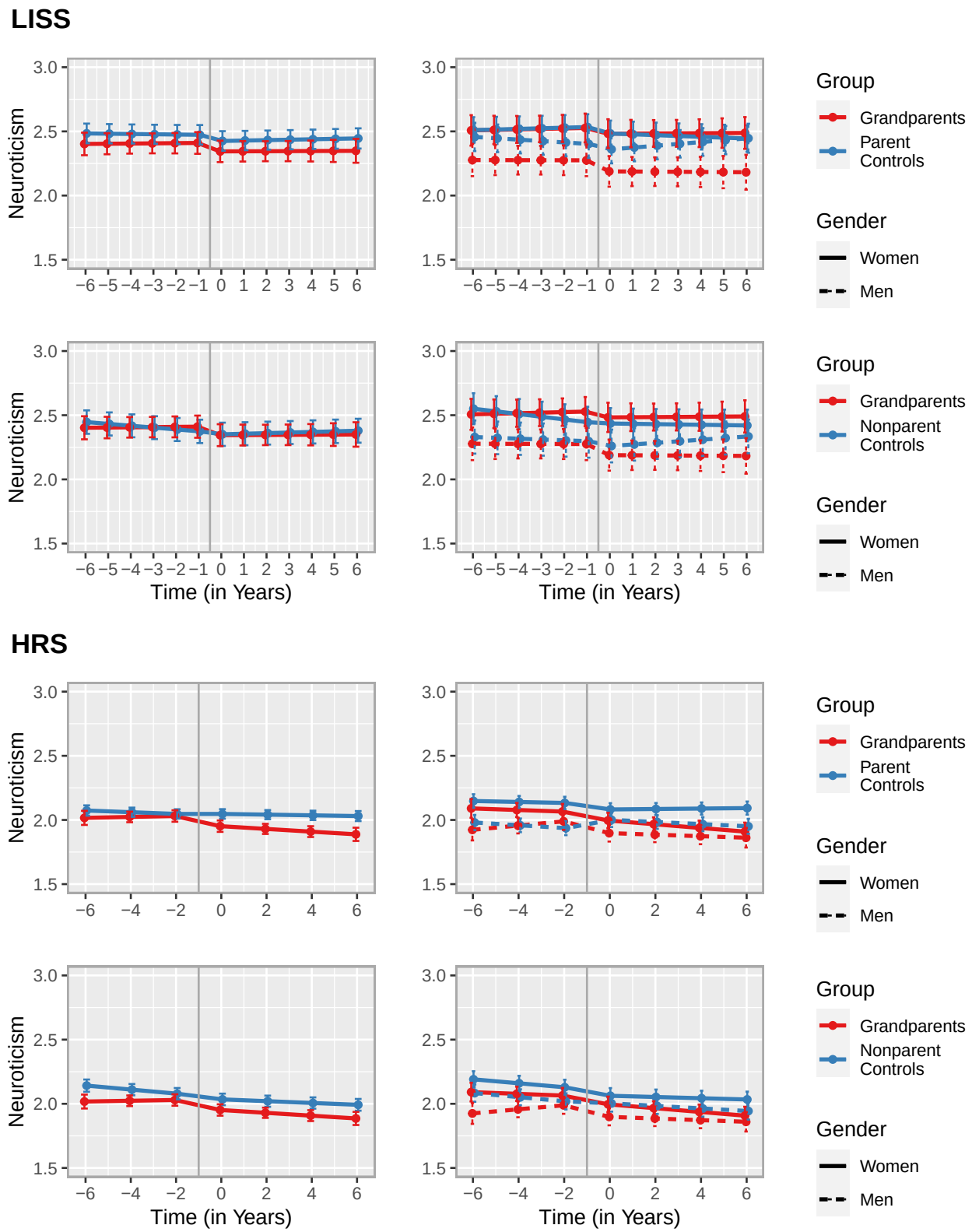


**Figure S18**

*Change trajectories of neuroticism based on the basic models (left column) and the models including the gender interaction (right column). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The vertical line indicates the approximate time of the transition to grandparenthood.*

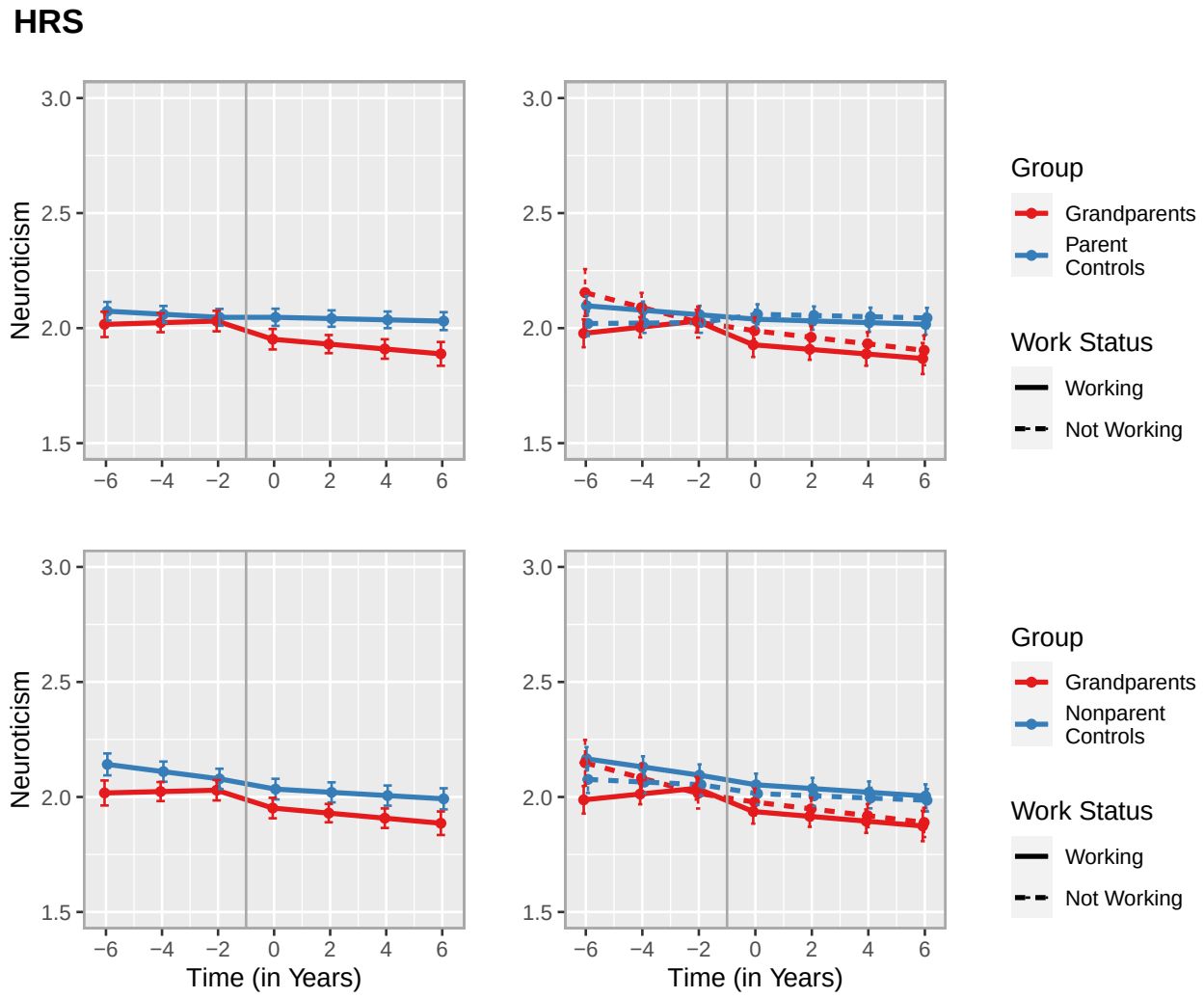


**Figure S19**

*Change trajectories of neuroticism based on the models of moderation by paid work (see Table S35). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The vertical line indicates the approximate time of the transition to grandparenthood. The plots in the left column are the same as in Figure S18 (basic models) and added here for better comparability.*

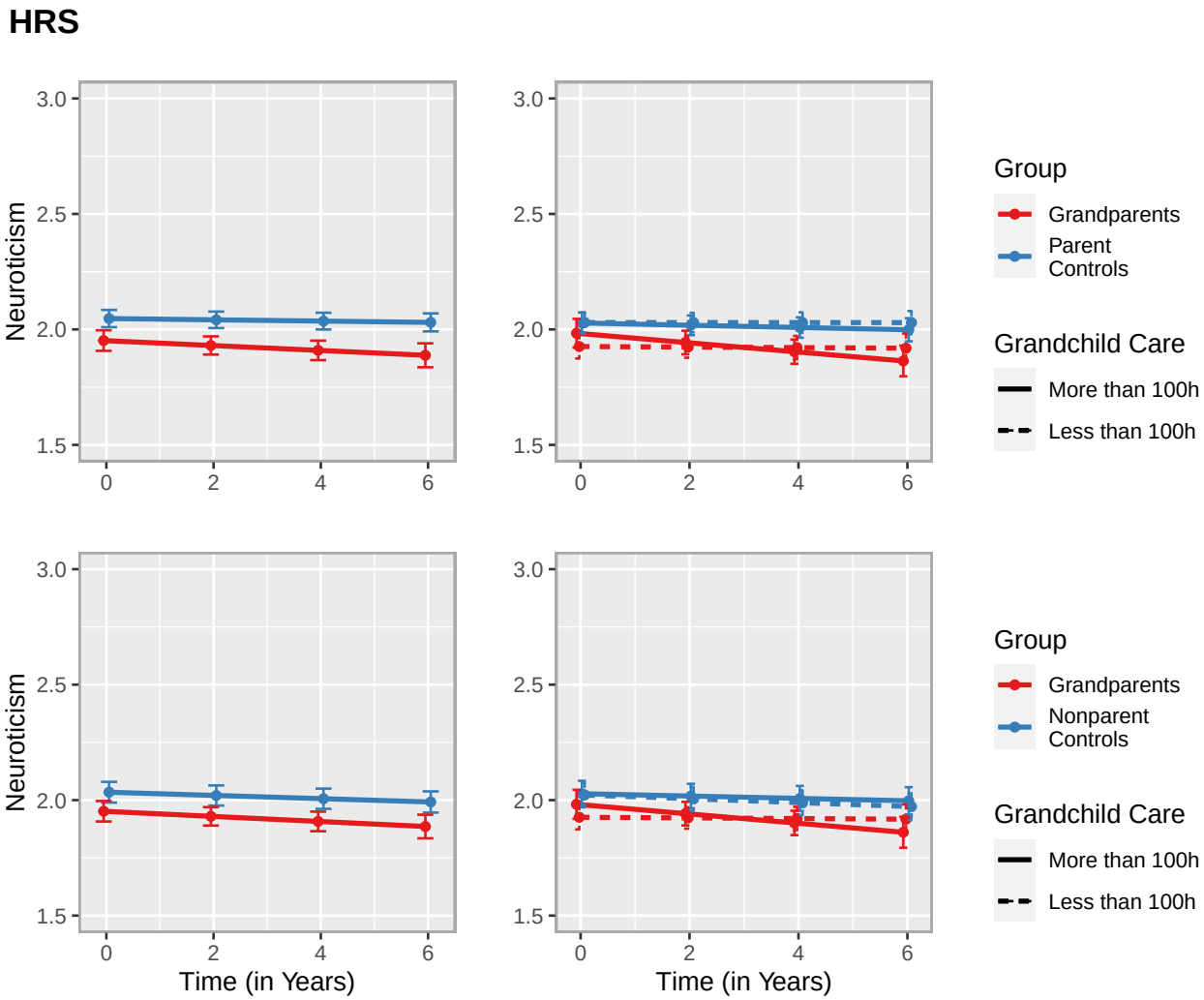


**Figure S20**

*Change trajectories of neuroticism based on the models of moderation by grandchild care (see Table S37). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The plots in the left column are the same as in Figure S18 (basic models) but restricted to the post-transition period for better comparability.*

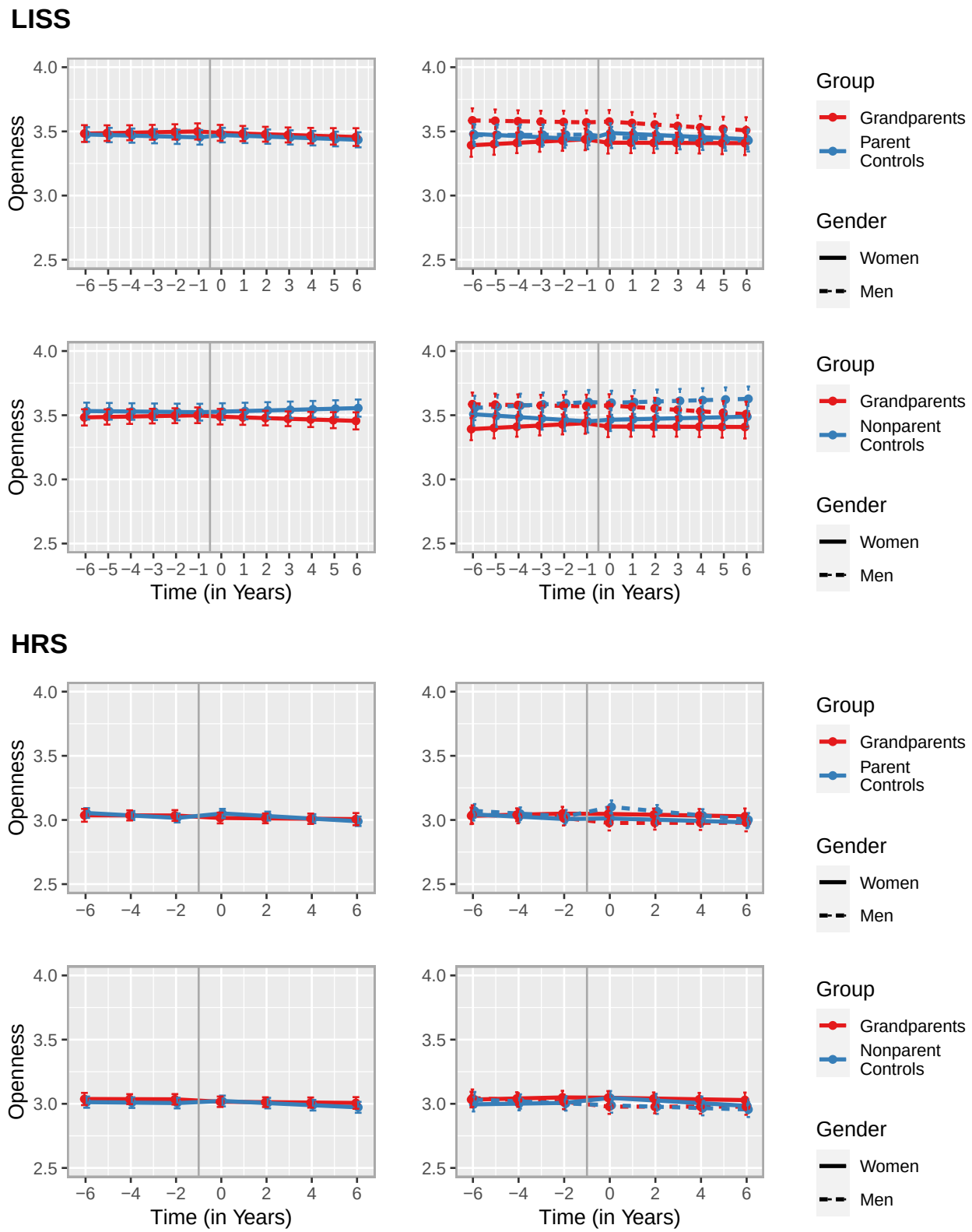


**Figure S21**

*Change trajectories of openness based on the basic models (left column) and the models including the gender interaction (right column). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The vertical line indicates the approximate time of the transition to grandparenthood.*

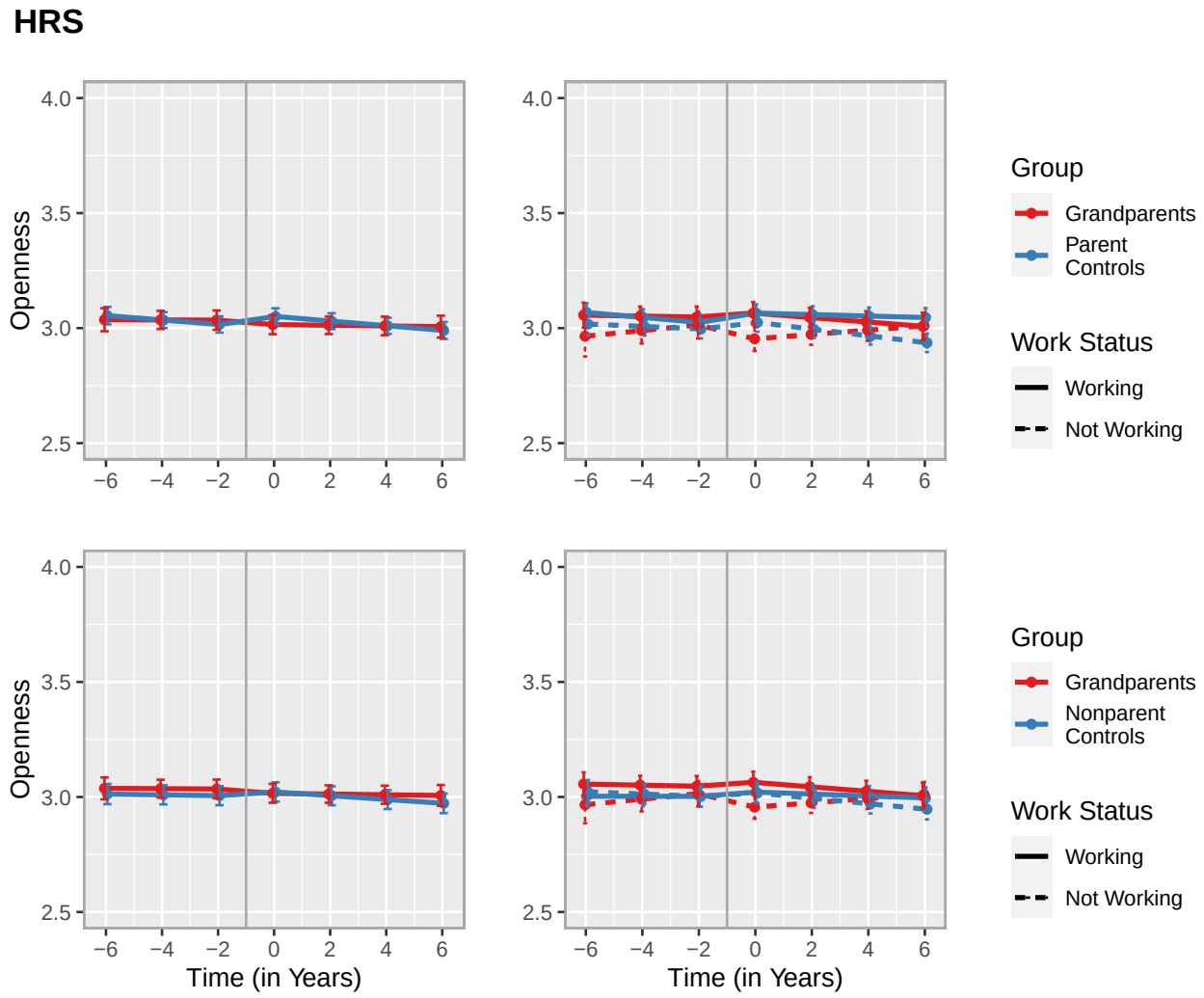


**Figure S22**

*Change trajectories of openness based on the models of moderation by paid work (see Table S43). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The vertical line indicates the approximate time of the transition to grandparenthood. The plots in the left column are the same as in Figure S21 (basic models) and added here for better comparability.*

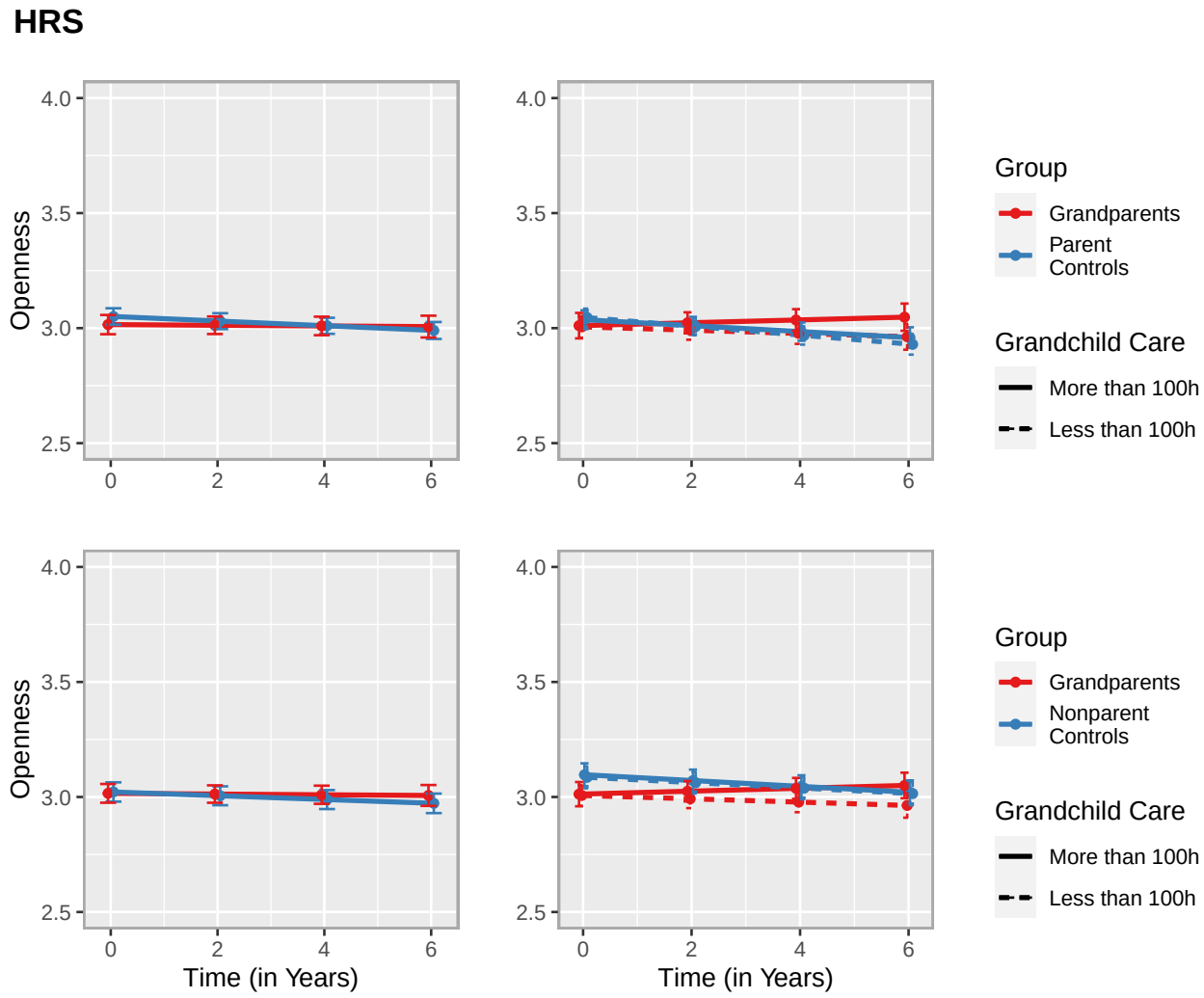


**Figure S23**

*Change trajectories of openness based on the models of moderation by grandchild care (see Table S45). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The plots in the left column are the same as in Figure S21 (basic models) but restricted to the post-transition period for better comparability.*

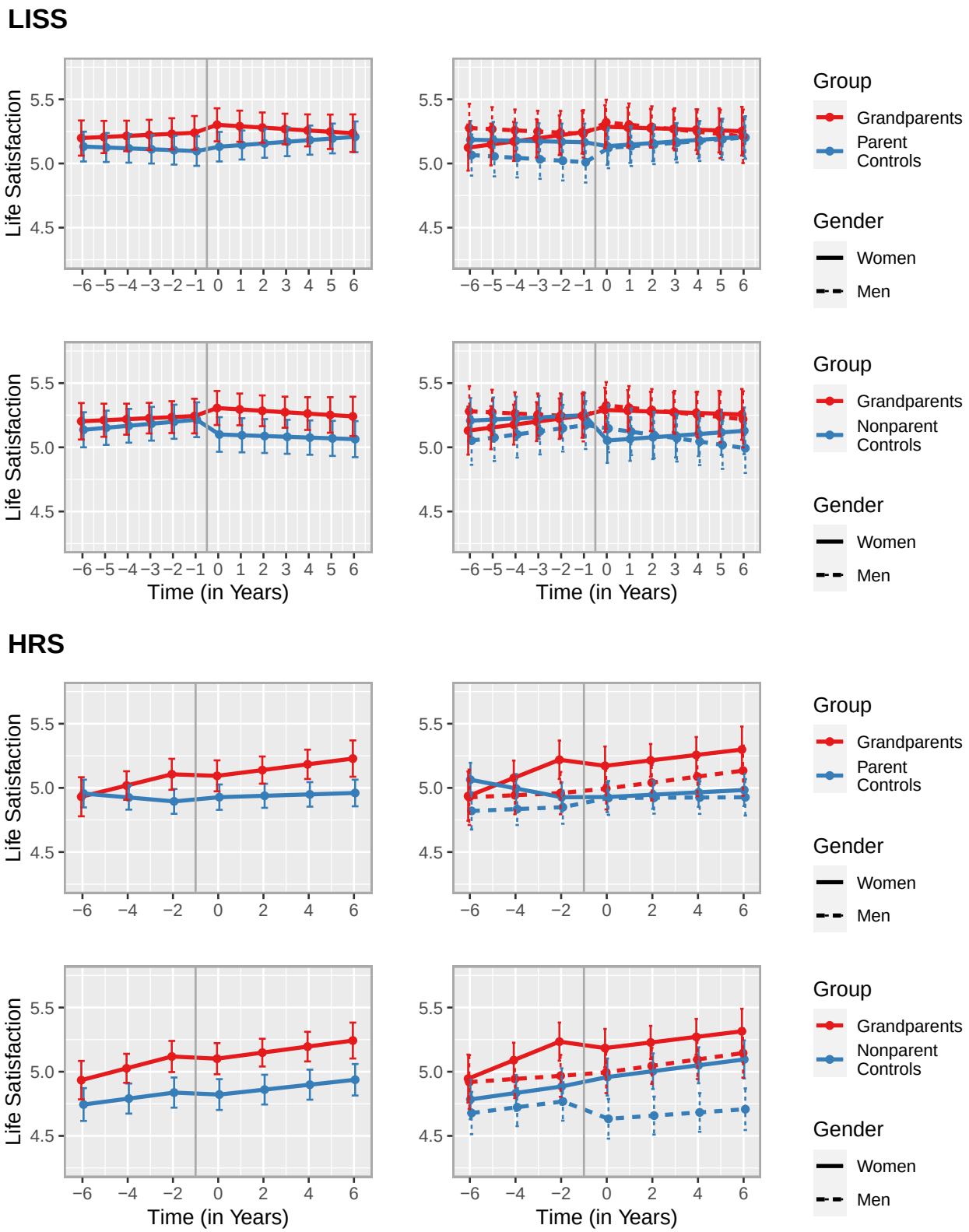


**Figure S24**

*Change trajectories of life satisfaction based on the basic models (left column) and the models including the gender interaction (right column). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The vertical line indicates the approximate time of the transition to grandparenthood.*

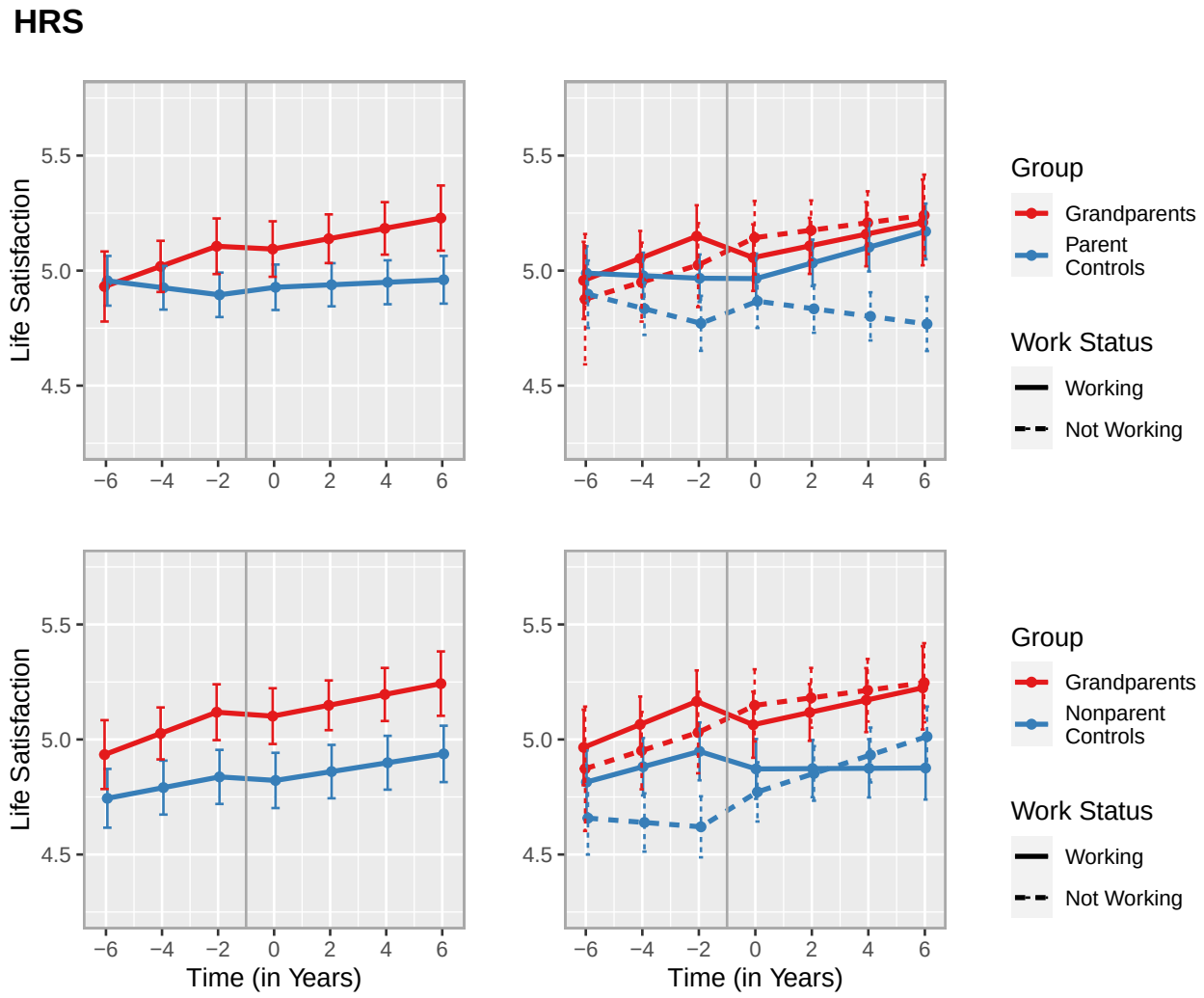


**Figure S25**

*Change trajectories of life satisfaction based on the models of moderation by paid work (see Table S51). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The vertical line indicates the approximate time of the transition to grandparenthood. The plots in the left column are the same as in Figure S24 (basic models) and added here for better comparability.*

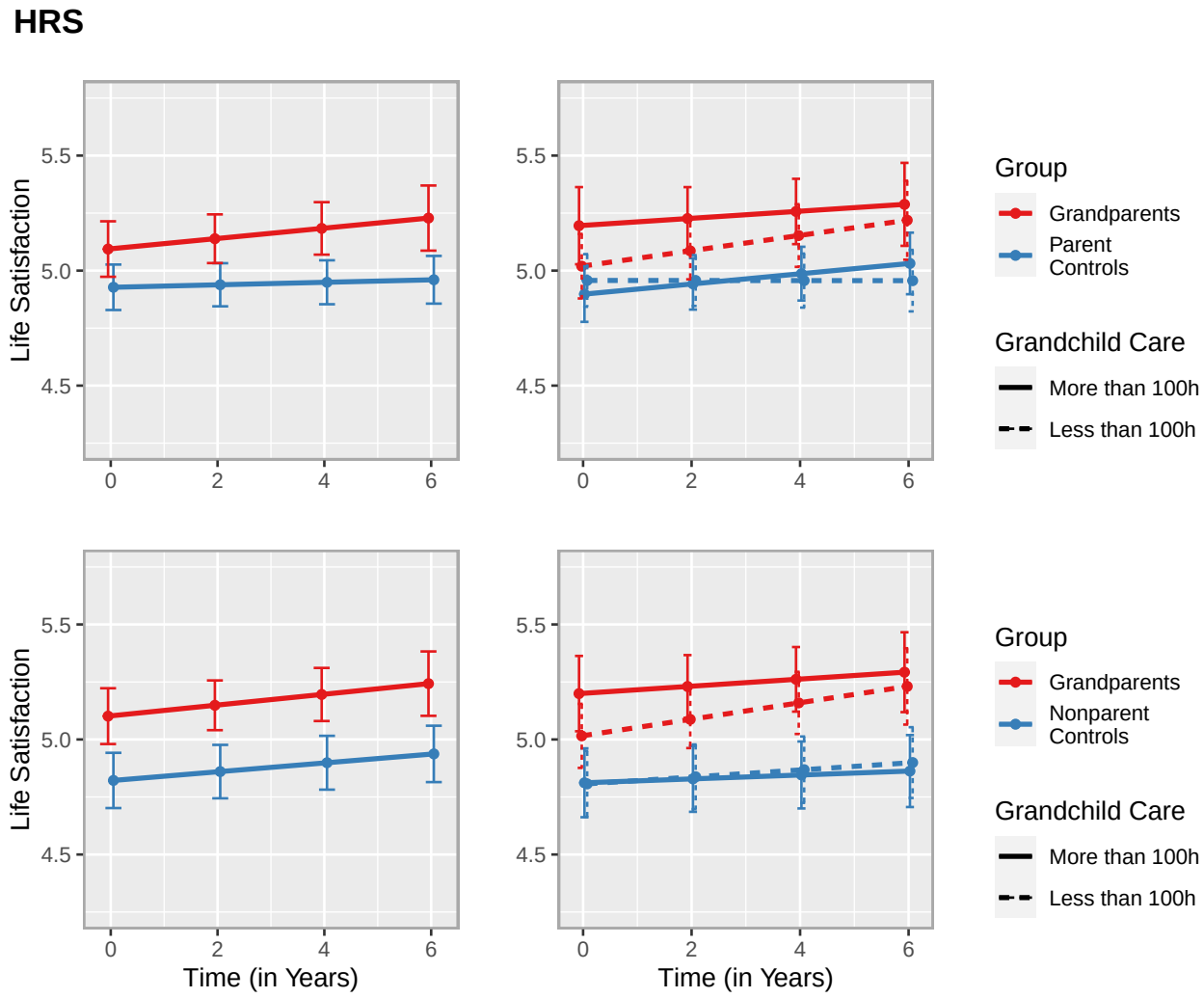


**Figure S26**

*Change trajectories of life satisfaction based on the models of moderation by grandchild care (see Table S53). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The plots in the left column are the same as in Figure S24 (basic models) but restricted to the post-transition period for better comparability.*

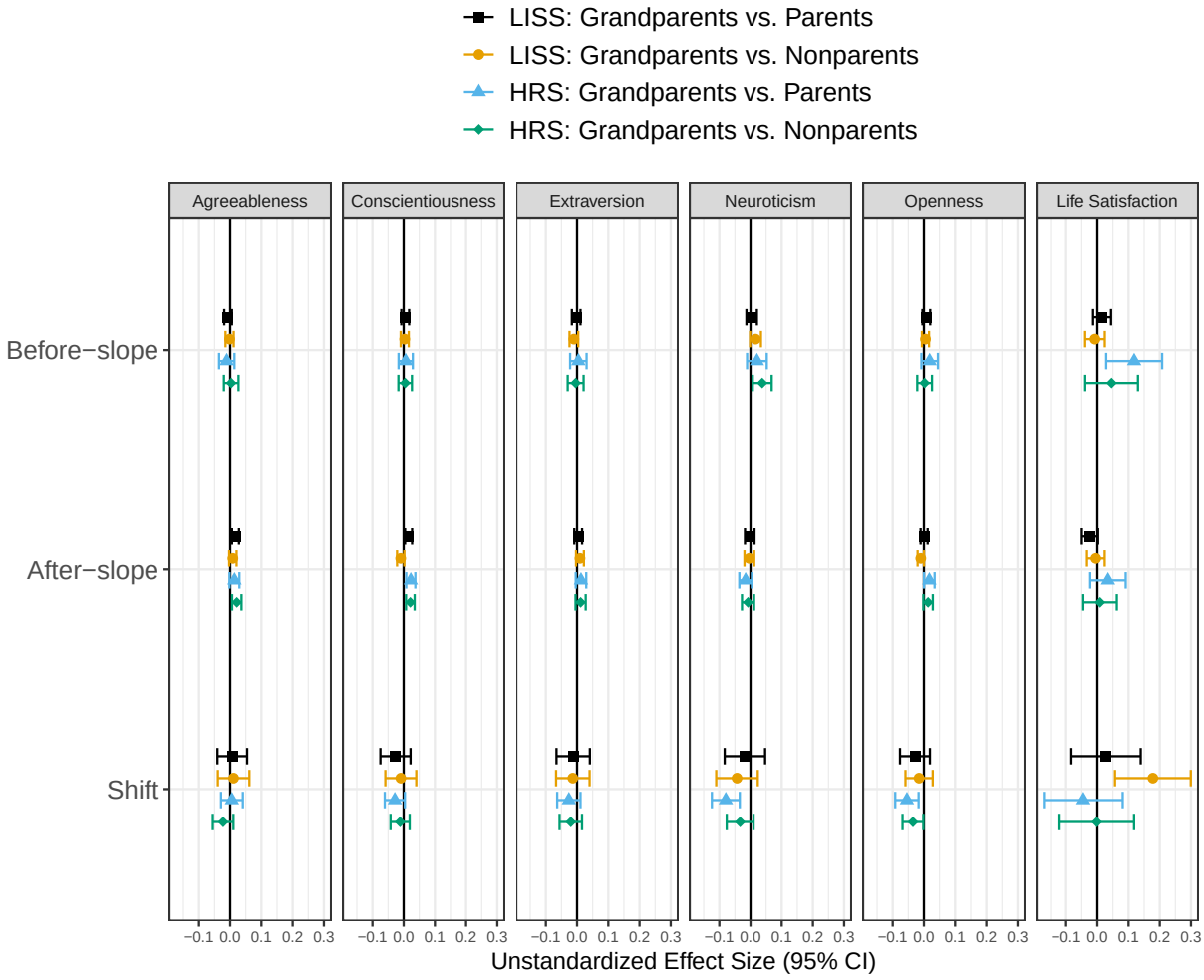


**Figure S27**

*Unstandardized Effect Sizes of the Basic Models Across Analysis Samples (Regression Coefficients $\hat{\gamma}$ or Linear Contrasts $\hat{\gamma}_c$ From Multilevel Models, see Tables S7, S8, S15, S16, S23, S24, S31, S32, S39, S40, S47, S48). Error Bars Represent 95% Confidence Intervals.*

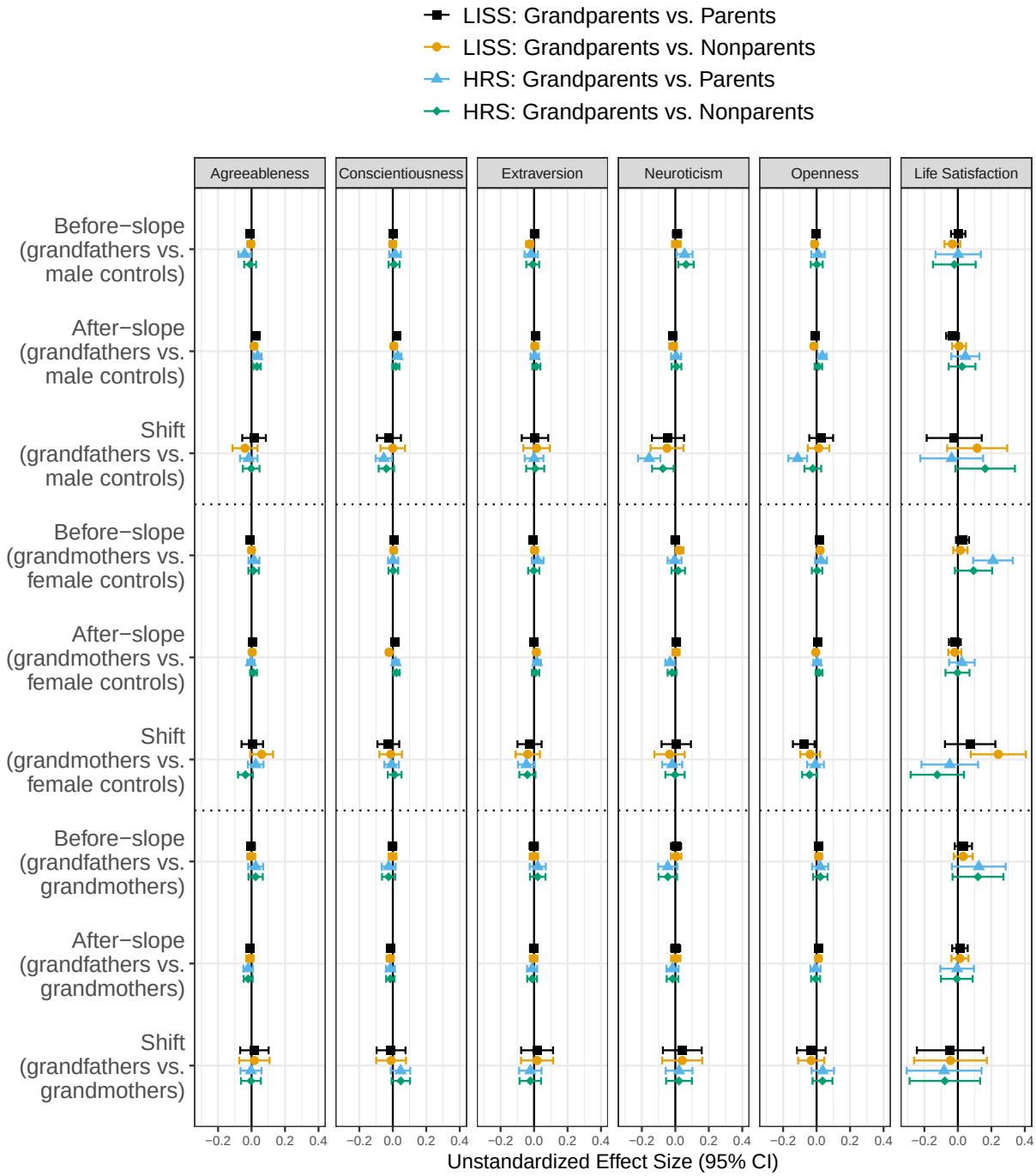


**Figure S28**

*Unstandardized Effect Sizes of the Models Including the Gender Interaction Across Analysis Samples (Regression Coefficients $\hat{\gamma}$ or Linear Contrasts $\hat{\gamma}_c$ From Multilevel Models, see Tables S9, S10, S17, S18, S25, S26, S33, S34, S41, S42, S49, S50). Error Bars Represent 95% Confidence Intervals.*

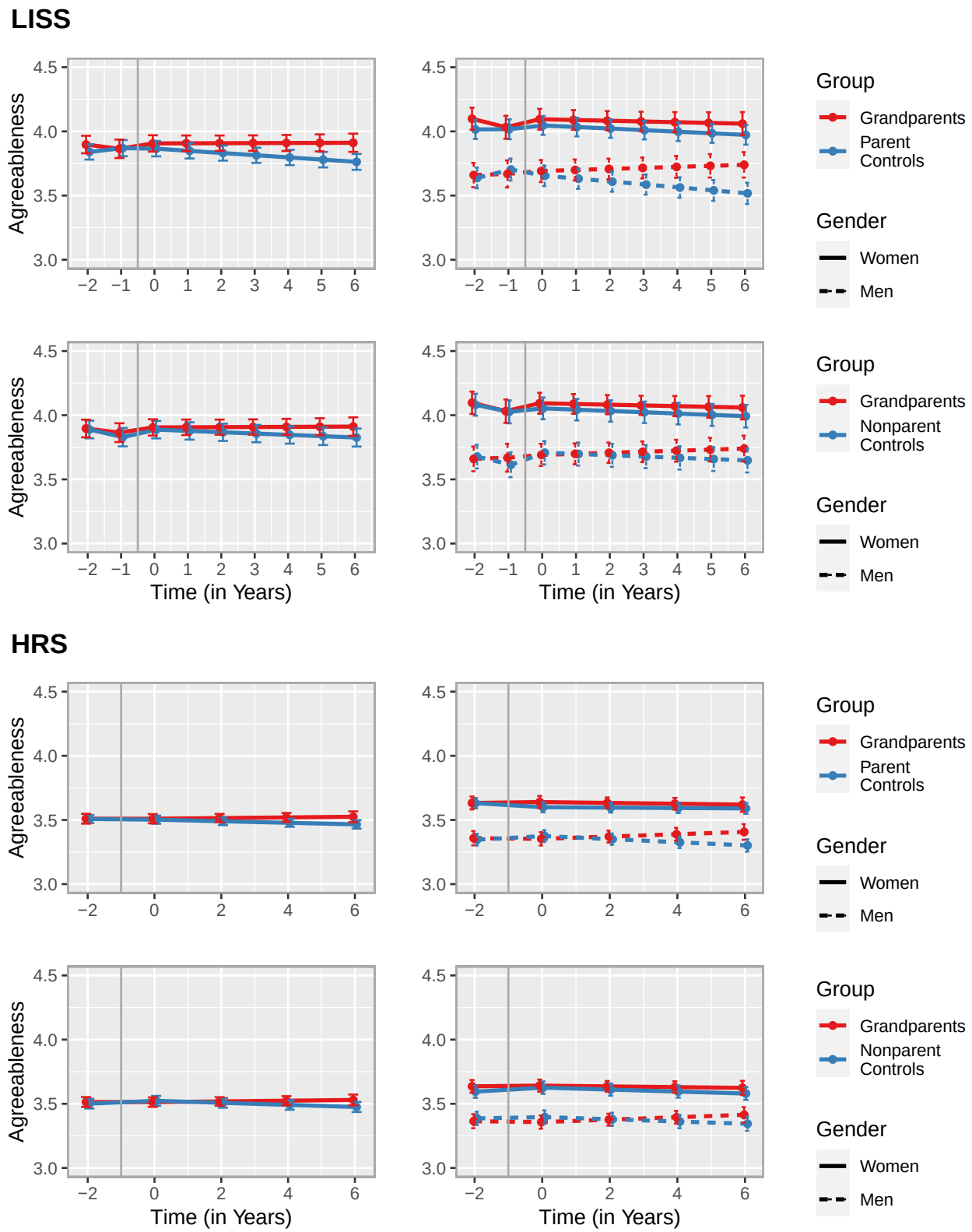


**Figure S29**

*Change trajectories of agreeableness based on the* restricted *(time [-2, 6]) basic models (left column) and the models including the gender interaction (right column). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The vertical line indicates the approximate time of the transition to grandparenthood.*

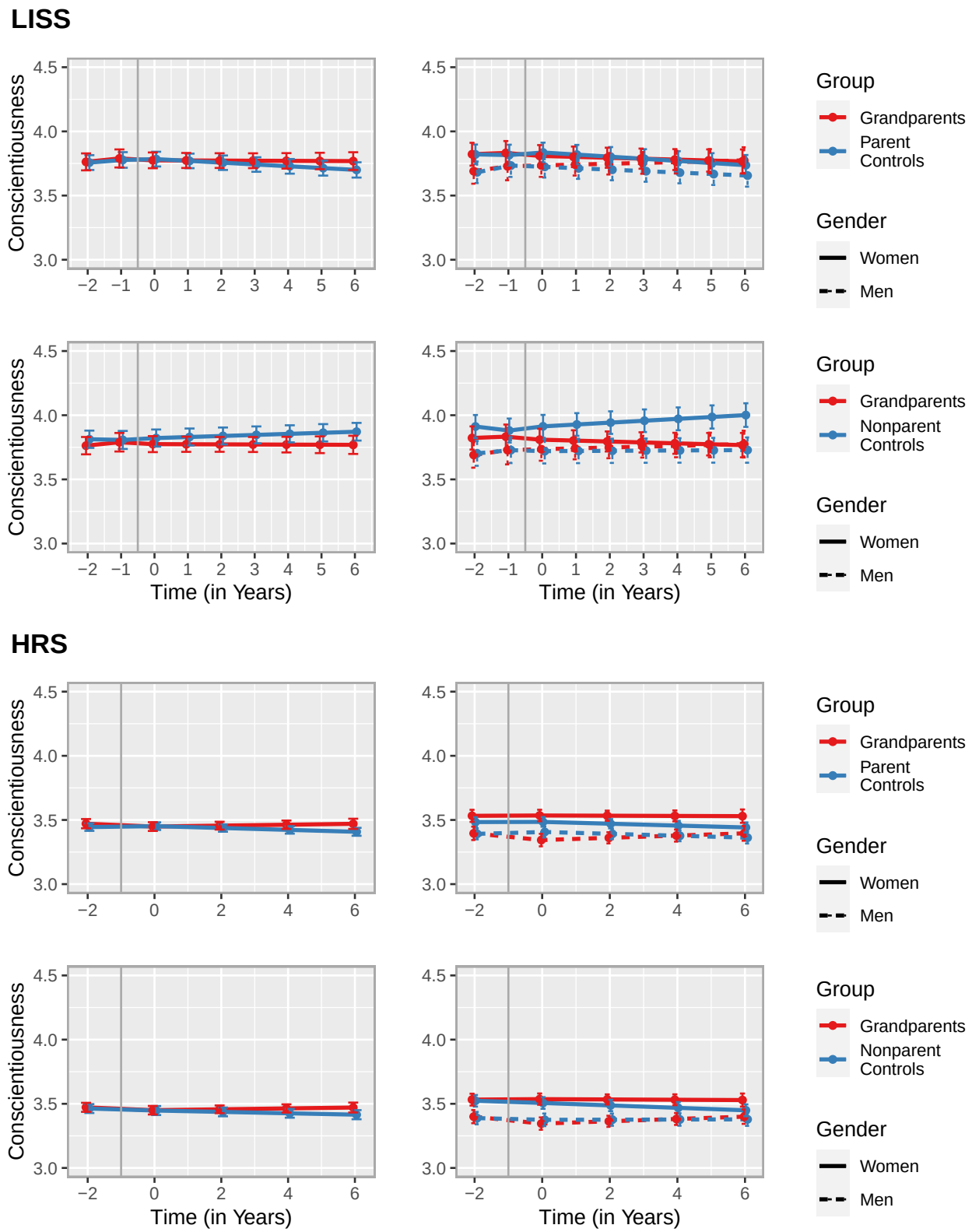


**Figure S30**

*Change trajectories of conscientiousness based on the* restricted *(time [-2, 6]) basic models (left column) and the models including the gender interaction (right column). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The vertical line indicates the approximate time of the transition to grandparenthood.*

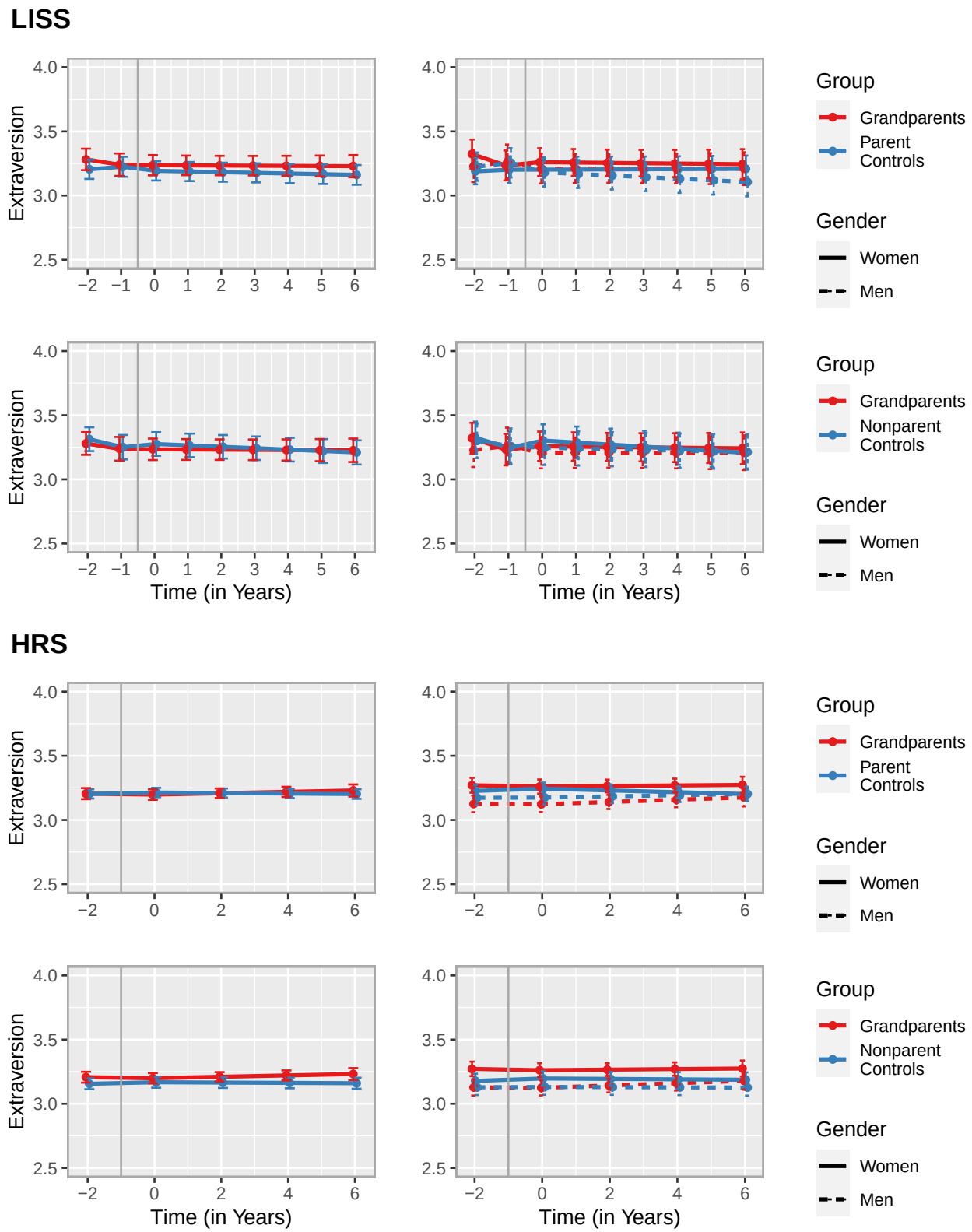


**Figure S31**

*Change trajectories of extraversion based on the* restricted *(time [-2, 6]) basic models (left column) and the models including the gender interaction (right column). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The vertical line indicates the approximate time of the transition to grandparenthood.*

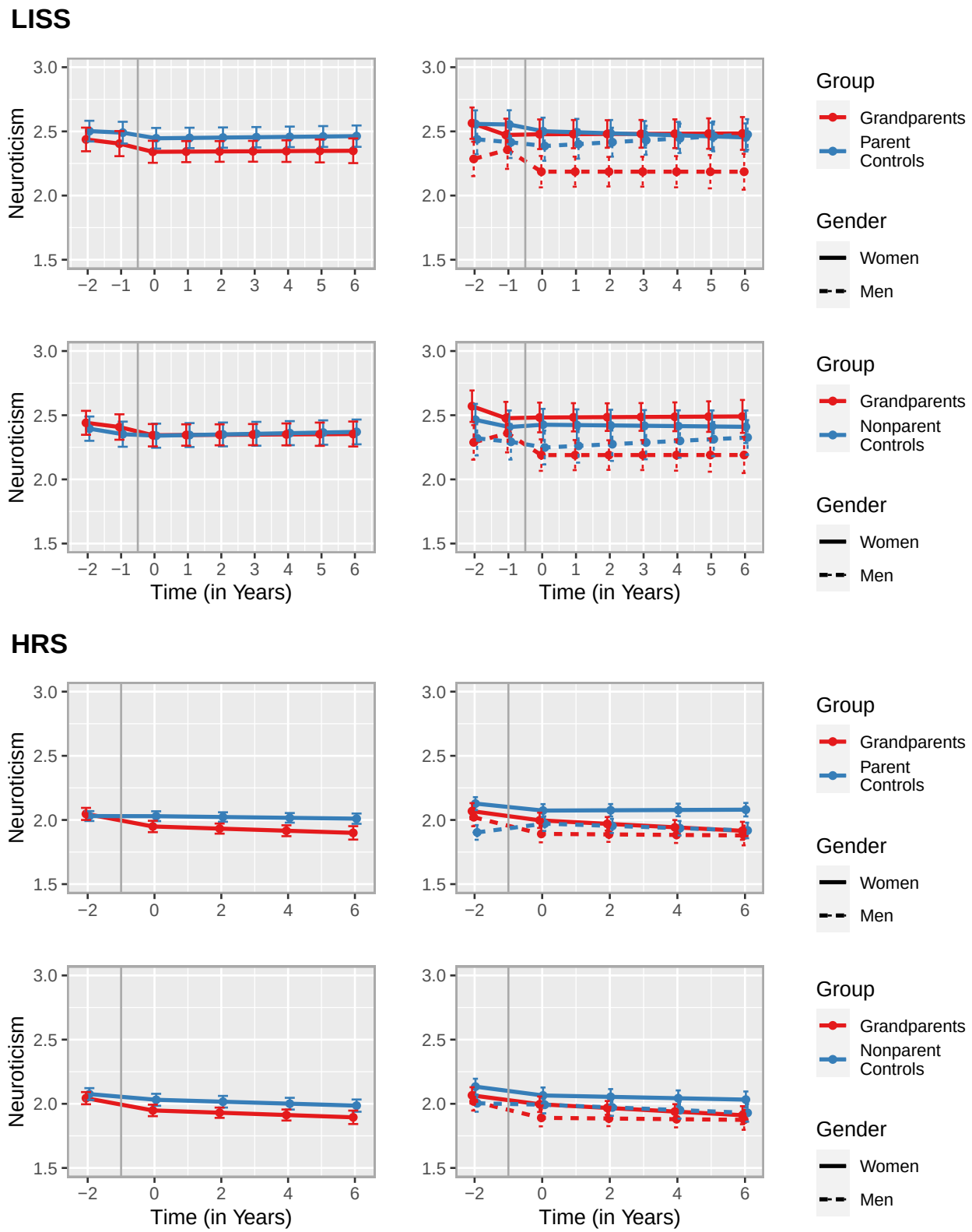


**Figure S32**

*Change trajectories of neuroticism based on the* restricted *(time [-2, 6]) basic models (left column) and the models including the gender interaction (right column). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The vertical line indicates the approximate time of the transition to grandparenthood.*

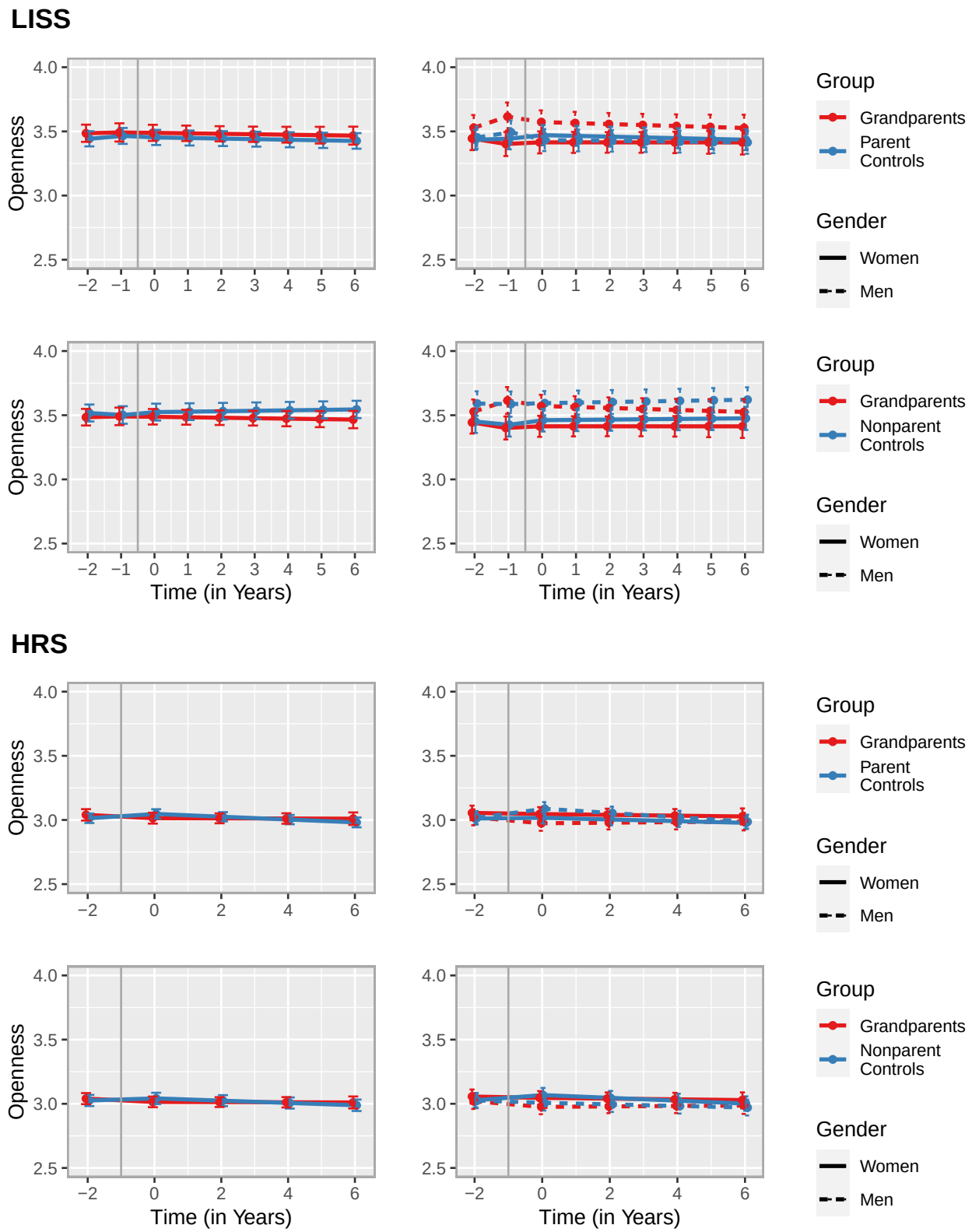


**Figure S33**

*Change trajectories of openness based on the* restricted *(time [-2, 6]) basic models (left column) and the models including the gender interaction (right column). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The vertical line indicates the approximate time of the transition to grandparenthood.*

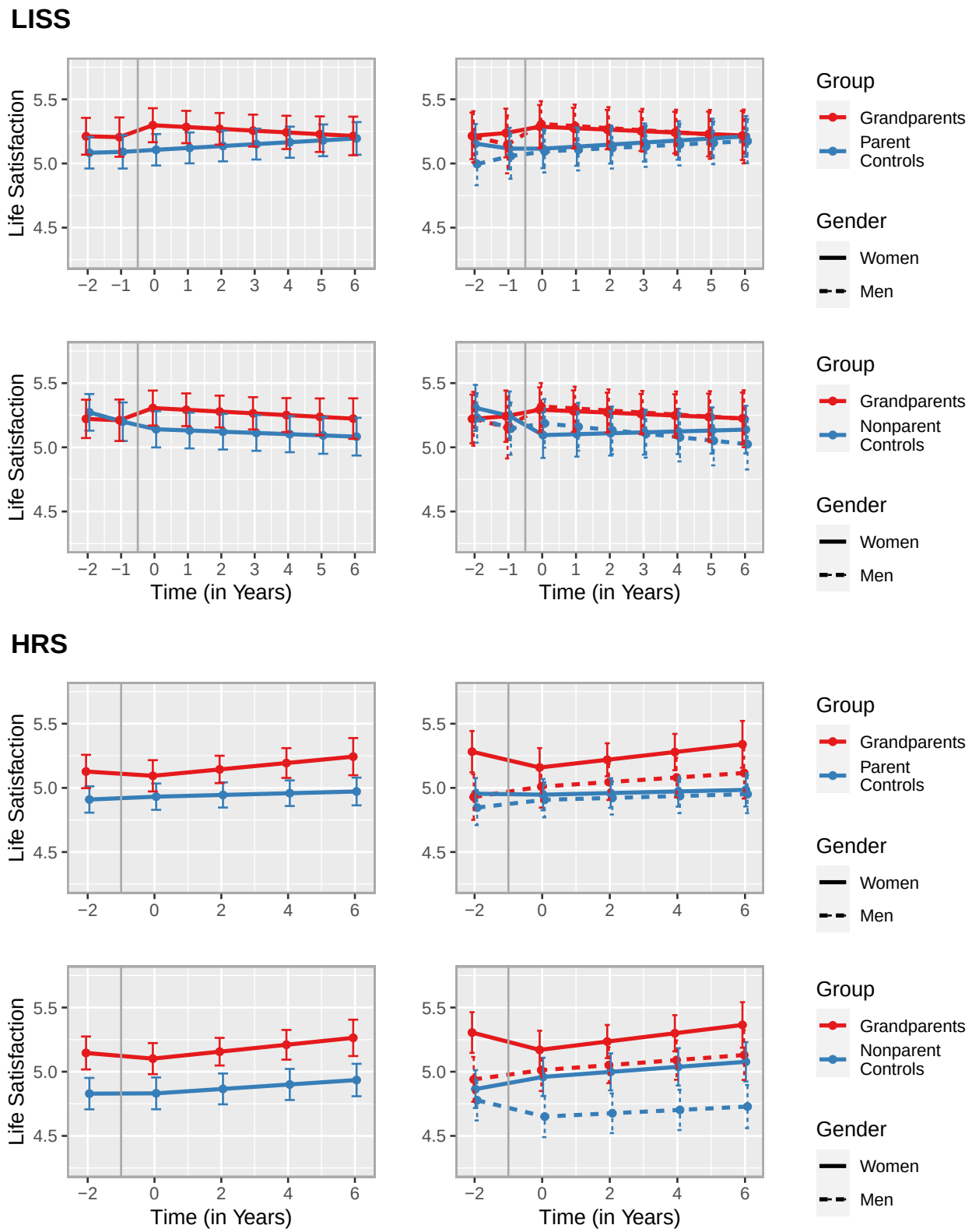


**Figure S34**

*Change trajectories of life satisfaction based on the* restricted *(time [-2, 6]) basic models (left column) and the models including the gender interaction (right column). The error bars are 95% confidence intervals of the predicted values which only account for the fixed-effects portion of the model. The vertical line indicates the approximate time of the transition to grandparenthood.*

## Complete Software and Session Information

We used R (Version 4.0.4; R Core Team, 2021) and the R-packages *car* (Version 3.0.10; Fox et al., 2020a, 2020b; Yentes & Wilhelm, 2018), *carData* (Version 3.0.4; Fox et al., 2020b), *careless* (Version 1.1.3; Yentes & Wilhelm, 2018), *citr* (Version 0.3.2; Aust, 2019), *corrplot2017* (Wei & Simko, 2017), *cowplot* (Version 1.1.0; Wilke, 2020), *dplyr* (Version 1.0.2; Wickham, François, et al., 2020), *effects* (Version 4.2.0; Fox & Weisberg, 2018; Fox, 2003; Fox & Hong, 2009), *forcats* (Version 0.5.0; Wickham, 2020a), *foreign* (Version 0.8.81; R Core Team, 2020), *Formula* (Version 1.2.4; Zeileis & Croissant, 2010), *ggplot2* (Version 3.3.5; Wickham, 2016), *ggplotify* (Version 0.0.7; Yu, 2021), *GPArotation* (Version 2014.11.1; Bernaards & I.Jennrich, 2005), *Hmisc* (Version 4.4.2; Harrell Jr et al., 2020), *interactions* (Version 1.1.3; Long, 2019), *jtools* (Version 2.1.1; Long, 2020), *knitr* (Version 1.30; Xie, 2015), *lattice* (Version 0.20.41; Sarkar, 2008), *lme4* (Version 1.1.26; Bates et al., 2015), *lmerTest* (Version 3.1.3; Kuznetsova et al., 2017), *magick* (Version 2.6.0; Ooms, 2021), *MASS* (Version 7.3.53; Venables & Ripley, 2002), *MatchIt* (Version 4.1.0; Ho et al., 2020), *Matrix* (Version 1.3.2; Bates & Maechler, 2021), *multcomp* (Version 1.4.17; Hothorn et al., 2008), *mvtnorm* (Version 1.1.1; Genz & Bretz, 2009), *papaja* (Version 0.1.0.9997; Aust & Barth, 2020), *patchwork* (Version 1.1.0.9000; Pedersen, 2020), *png* (Version 0.1.7; Urbanek, 2013), *psych* (Version 2.0.9; Revelle, 2020), *purrr* (Version 0.3.4; Henry & Wickham, 2020), *readr* (Version 1.4.0; Wickham & Hester, 2020), *readxl* (Version 1.3.1; Wickham & Bryan, 2019), *robustlmm* (Version 2.3; Koller, 2016), *scales* (Version 1.1.1; Wickham & Seidel, 2020), *shiny* (Version 1.5.0; Chang et al., 2020), *stringr* (Version 1.4.0; Wickham, 2019), *survival* (Version 3.2.7; Terry M. Therneau & Patricia M. Grambsch, 2000), *TH.data* (Version 1.0.10; Hothorn, 2019), *tibble* (Version 3.1.2; Müller & Wickham, 2020), *tidyr* (Version 1.1.2; Wickham, 2020b), *tidyverse* (Version 1.3.0; Wickham, Averick, et al., 2019), and *tinylabels* (Version 0.1.0; Barth, 2020) for data wrangling, analyses, and plots.

The following is the output of R's *sessionInfo()* command, which shows information

to aid analytic reproducibility of the analyses.

R version 4.0.4 (2021-02-15) Platform: x86_64-apple-darwin17.0 (64-bit) Running under: macOS Big Sur 10.16

Matrix products: default BLAS: /Library/Frameworks/R.framework/Versions/4.0/Resources/lib/libRblas.dylib LAPACK: /Library/Frameworks/R.framework/Versions/4.0/Resources/lib/libRlapack.dylib

locale: [1] en_US.UTF-8/en_US.UTF-8/en_US.UTF-8/C/en_US.UTF-8/en_US.UTF-8

attached base packages: [1] grid stats graphics grDevices utils datasets methods [8] base

other attached packages: [1] png_0.1-7 car_3.0-10 carData_3.0-4
[4] scales_1.1.1 cowplot_1.1.0 lmerTest_3.1-3
[7] lme4_1.1-26 Matrix_1.3-2 GPArotation_2014.11-1 [10] psych_2.0.9 forcats_0.5.0 stringr_1.4.0
[13] dplyr_1.0.2 purrr_0.3.4 readr_1.4.0
[16] tidyr_1.1.2 tibble_3.1.2 tidyverse_1.3.0
[19] Hmisc_4.4-2 ggplot2_3.3.5 Formula_1.2-4
[22] lattice_0.20-41 multcomp_1.4-17 TH.data_1.0-10
[25] MASS_7.3-53 survival_3.2-7 mvtnorm_1.1-1
[28] citr_0.3.2 papaja_0.1.0.9997 tinylabels_0.1.0

loaded via a namespace (and not attached): [1] minqa_1.2.4 colorspace_2.0-1 rio_0.5.16
[4] ellipsis_0.3.2 htmlTable_2.1.0 base64enc_0.1-3
[7] fs_1.5.0 rstudioapi_0.13 fansi_0.5.0
[10] lubridate_1.7.9.2 xml2_1.3.2 codetools_0.2-18
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```
[16] jsonlite_1.7.2 nloptr_1.2.2.2 broom_0.7.6
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