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Getting Under the Skin? Influences of Work–Family Experiences on Personality Trait Adaptation and Reciprocal Relationships

Wen-Dong Li[1], Jiexin Wang[2], Tammy Allen[3], Xin Zhang[4], Kaili Yu[1], Hong Zhang[5], Jason L. Huang[6], Mengqiao Liu[7], and Andrew Li[8]

[1] Department of Management, CUHK Business School, The Chinese University of Hong Kong
[2] Department of Organization Studies and Ethics, Audencia Business School, Shenzhen Audencia Financial Technology Institute, Shenzhen University
[3] Department of Psychology, University of South Florida
[4] Department of Human Resource Management, College of Business, Shanghai University of Finance and Economics
[5] Department of Management, Lingnan University
[6] School of Human Resources and Labor Relations, Michigan State University
[7] Amazon, Bellevue, Washington, United States
[8] Department of Management, Marketing, and General Business, West Texas A&M University

The literature on personality trait development has mainly focused on influences of life experiences in one single life domain (e.g., work or family) separate from one another and has primarily examined personality development in early life stages. Thus, less attention has been devoted to influences from interplays across different life domains and personality development in middle and late adulthood. Synthesizing the literature on personality science and organizational research, we built a theoretical model and investigated what, how, and why the interplay between two central life domains—work and family—may be related to personality trait development of people at their middle and late life stages, and more important, change-related reciprocal relationships between personality traits and work–family experiences. Generally, convergent findings with data from two longitudinal studies (National Survey of Midlife in the United States, maximum N = 3,192, three waves; and Health and Retirement Study, maximum N = 1,133, three waves except anxiety) revealed that work-to-family conflict, family-to-work conflict, work-to-family facilitation, and family-to-work facilitation mostly had lagged effects on changes of Conscientiousness, Extraversion, and Neuroticism, and the influences were generally channeled through changes of anxiety. Personality traits also had lagged influences on changes of work–family experiences, with some influences deteriorating over time. Change-related reciprocal relationships were recorded mainly between Neuroticism and Extraversion with work–family experiences. Some selection effects were larger than socialization effects. Our research contributes to the personality and the work–family literature and represents a useful example of cross-fertilization of research in different areas of psychology to advance personality research.

Keywords: personality, work family interface, anxiety, reciprocal relationship

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Wen-Dong Li https://orcid.org/0000-0002-8357-7539

Tammy Allen, Xin Zhang, and Kaili Yu contributed equally.

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Correspondence concerning this article should be addressed to Wen-Dong Li, Department of Management, CUHK Business School, The Chinese University of Hong Kong, 12 Chak Cheung Street, Shatin, Hong Kong, P.R. China, or Jiexin Wang, Department of Organization Studies and Ethics, Audencia Business School, Shenzhen Audencia Financial Technology Institute, Shenzhen University, No. 3688 Nanhai Road, Nanshan District, Shenzhen 518060, China, or Xin Zhang, Department of Human Resource Management, College of Business, Shanghai University of Finance and Economics, 100 Wudong Road, Shanghai 200433, China. Email: oceanbluepsy@gmail.com or jwang18@szu.edu.cn or xinzhang@link.cuhk.edu.hk

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The past 2 decades or so have been witness to an important paradigm shift in personality science (Bleidorn et al., 2019; Caspi et al., 2005; Donnellan et al., 2015). Once predominantly investigated as "endogenous basic tendencies" with the assumption that the development is mostly "determined by biological maturation, not by life experience" (McCrae & Costa, 2008, p. 165), personality traits have now been increasingly recognized as not only relatively stable and but also prone to influences from life experiences throughout one's entire life span. Scholars have investigated a large number of life experiences that may be conducive to personality trait development, including entering into the first romantic relationship, marriage, parenthood, the first job, and retirement, to name a few (Baumert et al., 2017; Bleidorn et al., 2018; Lucas & Donnellan, 2011; Roberts et al., 2003; Specht et al., 2014; Wagner et al., 2020).

The rapid development of research on personality trait development notwithstanding, the line of inquiry is not without limitations. First, although previous research has probed the influences of life experiences in work, family, or other life domains on personality development, such research has predominantly focused on experiences in a single life domain independent of one another with findings not always replicable across studies (Bleidorn et al., 2018; Wagner et al., 2020). Thus, there has been little understanding of how the interplay between two central life domains—work and family—contributes to personality development. This is an important issue because life experiences that cut cross work and family domains (e.g., positive and negative spillover between work and family) may render ensuing changes of personality-relevant behaviors, thoughts, and feelings that are more likely to generalize across life domains (Allen & Eby, 2016; Greenhaus & Kossek, 2014), a crucial condition for personality trait development (Wrzus & Roberts, 2017). Second, although personality traits are able to develop across one's entire life span (Bleidorn et al., 2019; Caspi et al., 2005; Donnellan et al., 2015), it has been typically assumed and examined that personality trait development is more likely to occur in adolescence and young adulthood (Wrzus et al., 2023; Wrzus & Roberts, 2017). As such, Bleidorn et al. (2021) lamented that "considerably fewer studies have examined samples of middle-aged and older adults" (p. 5), which has rendered our understanding of personality trait development throughout the life span incomplete.

In the present study, we set out to investigate how the interplay between work and family domains contributes to personality traits development in *dynamic change-related reciprocal* relationships incorporating both the socialization effect of work–family experiences and the selection effect of personality traits. We further examine a potential mechanism for personality development through change of state-like anxiety (Stieger et al., 2022; Wrzus & Roberts, 2017) as a proxy of change of strain, affect, and resources (Brooks & Schweitzer, 2011; Cheng & McCarthy, 2018). To assess the replicability of our findings, we tested our hypotheses with data from two longitudinal studies of people in their middle and late life stages (National Survey of Midlife in the United States [MIDUS] and Health and Retirement Study [HRS][1]). Our research contributes to the literature by not only investigating how the interplay between two central life domains (i.e., work and family) relates to personality trait development in middle and late adulthood but also by demonstrating the potential usefulness of cross-fertilization between different subfields of psychology (e.g., personality and organizational psychology) in order to advance the budding stream of research on personality development (Bleidorn et al., 2021).

We included four work–family constructs that have been widely documented as robust predictors of employee job attitudes and well-being (e.g., Allen et al., 2000; Zhang et al., 2018): work-to-family conflict, work-to-family facilitation, family-to-work conflict, and family-to-work facilitation (Allen & French, 2023). *Work–family* (i.e., work-to-family and family-to-work) *conflict* represents "a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect" (Greenhaus & Beutell, 1985, p. 77). *Work–family* (i.e., work-to-family and family-to-work) *facilitation* arises when participation in one role (i.e., work/family) yields gains that contribute to functioning in the other role (i.e., family/work; Grzywacz & Marks, 2000b). Our focus is on chronic or level-based work–family experiences, which reflect consolidated work–family experiences across relatively longer time frames (e.g., months) compared to discrete work–family episodes (Allen & Martin, 2017). We focus on four of the Big Five personality traits that are theoretically and empirically related to work–family experiences: Conscientiousness, Extraversion, Agreeableness, and Neuroticism (Allen et al., 2012; Michel et al., 2011).[2]

Theoretical Perspectives on Personality Trait Development

Selection effects of personality traits on modifying life experiences and *socialization effects* of life experiences on shaping individual development have been featured in two contrasting conventional perspectives of personality development (Caspi et al., 2005; Costa et al., 2019; Specht et al., 2011). The classic dispositional perspective (e.g., the five-factor model of personality, McCrae & Costa, 1999, 2008) accentuates the selection effect of personality traits and influences of biological factors as dominant driving forces for personality development. The contextualist perspective (e.g., Lewis, 2001) places a greater emphasis on the socialization effect of life experiences and thus neglects influences from dispositional factors.

A burgeoning transactional perspective (e.g., Baumert et al., 2017; Bleidorn et al., 2020; Roberts et al., 2008; Wagner et al., 2020; Wrzus & Roberts, 2017) synthesizes the two contrasting views. Such a transactional perspective includes a number of models such as the neosocioanalytic model (Roberts & Wood, 2006), a model emphasizing both genetic and environment influences on personality change (Bleidorn et al., 2014; Briley & Tucker-Drob, 2014), the Triggering situations, Expectancy, States/State expressions, and Reactions framework (Wrzus, 2020; Wrzus & Roberts, 2017), state-process model (Geukes et al., 2018), models of self-regulation (Denissen et al., 2013) and learning (Baumert et al., 2017), and an integrative-source model (Wagner et al., 2020). Such transactional perspectives share a few commonalities. Following the majority of personality theories and research (DeYoung, 2015; J. A. Johnson, 1997; McCrae & Costa, 2008), this perspective adopts the definition that *personality traits* denote relatively enduring patterns of typical

[1] All the variables were measured three times except anxiety, which was assessed twice.

[2] Research (Wayne et al., 2016) suggests insubstantial relationships between Openness and work–family experiences; we presented findings on Openness in supplementary analyses.

behaviors, thoughts, strivings, and feelings that differentiate people from each other (Allport, 1961). It also reckons that such patterns of behaviors, thoughts, strivings, and feelings are stable enough to represent dispositions and are also able to change as a function of various work and life experiences over years.

A fundamental principle of personality development under the transactional perspective is that life experiences shape personality development through multiple stages via multiple mechanisms (e.g., Baumert et al., 2017; Bleidorn et al., 2020; Roberts et al., 2008; Wagner et al., 2020; Wrzus & Roberts, 2017). In the early stages, life experiences alter personality-congruent behaviors, thoughts, and feelings in the short term (e.g., days and weeks). As such, specific behaviors, thoughts, and feelings endure over time (e.g., years), their patterns may consolidate, and get habituated and generalized across different life domains through, for example, learning and reflection. This is where personality trait change occurs because, by definition, changes in patterns of behaviors, thoughts, and feelings essentially reflect changes in personality traits (Allport, 1961). Moreover, the transactional perspective integrates the selection effect and socialization effect in a reciprocal fashion, such as with the *corresponsive principle*: "the effect of life experience on personality development is to deepen the characteristics that lead people to those experiences in the first place" (Roberts & Nickel, 2017, p. 172).

Previous Research on Life Experiences and Personality Trait Development

Under this transactional perspective, scholars have investigated a number of sources of life experiences that may be responsible for personality trait development. For example, key relationship events such as one's first romantic relationship, getting married, and getting divorced have been associated with personality changes. Specifically, the first romantic relationship has been associated with decreases in Neuroticism and increases in Extraversion (Neyer & Asendorpf, 2001), while getting married has been related to decreases in Extraversion and Openness (Specht et al., 2011). In addition, divorce has been associated with decreases in Extraversion (Allemand et al., 2015). Parenthood (e.g., having the first baby) has also been associated with personality change (e.g., decreases in Conscientiousness, Specht et al., 2011). Recent research has also started to investigate the mechanisms of personality development related to changes of momentary state-like behaviors, thoughts, and feelings. For instance, Quintus et al. (2021) found that changes of trait-relevant behaviors at the daily level were related to subsequent changes in personality traits. Stieger et al. (2021) observed personality trait changes after an online digital intervention (e.g., setting goals for personality change, making specific change plans, and offering resources and rewards for changes). Moreover, reciprocal relationships between personality and life experiences have also been observed. For instance, it was reported that Neuroticism and Extraversion were related to one's entering into a partner relationship later on and forming a partner relationship in turn moderated maturation of personality (Neyer & Lehnart, 2007).

Compared to research on experiences in other life domains associated with personality development, there has been relatively less research attention devoted to work events and experiences (Wagner et al., 2020). Among such endeavors, while graduation from high school has been associated with increases in Openness, Conscientiousness, and Agreeableness (Bleidorn, 2012), transitioning into the first job has been associated with increases in Conscientiousness (Specht et al., 2011). It was reported that transitioning into leadership positions was related to increases in Conscientiousness (Li, Li, et al., 2021), while retirement was associated with decreases in Conscientiousness in some studies (e.g., Lucas & Donnellan, 2011). Becoming an entrepreneur increased one's Neuroticism and reduced one's Agreeableness (Li, Feng, & Yu, 2021). Unemployment has been related to changes in Agreeableness, Conscientious, and Openness, and the influences were moderated by gender (Boyce et al., 2015), while men experienced linear decreases in Conscientiousness after unemployment, women first experienced increases, then decreases, and last increases in Conscientiousness.

In addition to work-related events, scholars have also probed influences of other work experiences on personality development. With respect to job attitudes, job satisfaction has been associated with increases in Extraversion (Scollon & Diener, 2006), job strain has been related to decreases in Agreeableness (Deventer et al., 2019), and job insecurity has been associated with increases in Neuroticism and decreases in Agreeableness and Conscientiousness (Wu et al., 2020). Work achievement and investment may also contribute to personality development. Specifically, occupational attainment has been related to increases in positive and negative emotionality (Roberts et al., 2003), two constructs very similar to Extraversion and Neuroticism, respectively (Watson, Clark, & Carey, 1988; Watson, Clark, & Tellegen, 1988). Roberts et al. (2003) also found that positive and negative emotionality predicted future occupational attainment, in support of a reciprocal relationship between personality and work experiences. Other research has shown that work investment is associated with increases in Conscientiousness (Hudson et al., 2012). Hudson et al. (2012) also observed that Conscientiousness was related to changes of work investment, leading to a reciprocal relationship between Conscientiousness and work investment. More recently, job characteristics (as a composite index) have been related to increases in Conscientiousness, Openness, and Extraversion in a recent study (Zheng et al., in press).

As pointed out previously (Bleidorn et al., 2018; Wagner et al., 2020), research on influences of work experiences on personality change has generated mixed findings. For instance, although retirement was related to decreases in Conscientiousness in one study (Lucas & Donnellan, 2011), this finding was not replicated in more recent research (Dugan et al., 2023; Schwaba & Bleidorn, 2019). In addition, while job autonomy was associated with increases in positive emotionality (Le et al., 2014), this relationship was not significant in another study (Roberts et al., 2003). While two studies did not find significant linkages between job autonomy and the Big Five personality traits (Stahlhofen et al., 2022; Sutin & Costa, 2010), another found job autonomy related to increases of Agreeableness, Conscientiousness, and Openness (Wu, 2016). Furthermore, the proposition for a reciprocal relationship between personality traits and life experience has received only moderate support (Roberts & Nickel, 2017). The mixed findings suggest the need for future research on sources of personality development to replicate findings across studies (Bleidorn et al., 2018; Wagner et al., 2020).

In summary, prior research has provided valuable insights into what life experiences contribute to personality trait development. Yet, this line of research has mainly investigated influences from a single

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life domain separately (e.g., either work or family) with a heavy focus on personality development in adolescence and early adulthood (Bleidorn et al., 2018; Wagner et al., 2020), has only started to examine mechanisms of personality development (Quintus et al., 2021; Roberts & Nickel, 2017), and has generated somewhat mixed findings (Wagner et al., 2020). We address these issues in the current research by investigating interplays between two central life domains—work and family—on personality development with two studies using samples of participants in their middle and late life stages to replicate the findings. We also examine a proxy mechanism for personality change through change of state-like anxiety. We last examine reciprocal relationships between personality and work–family experiences to further extend the corresponsive principle to life experiences related to the work–family interface.

Change-Related Reciprocal Relationships Between Personality and Work–Family Experiences

Synthesizing the two literatures on personality development (Bleidorn et al., 2019; Caspi et al., 2005; Donnellan et al., 2015) and on the work–family interface (Allen & Eby, 2016; Greenhaus & Kossek, 2014), we investigate first the selection effect of the four Big Five personality traits (i.e., Conscientiousness, Extraversion, Agreeableness, and Neuroticism) on changes of work–family experiences. We then examine the socialization effect of work–family experiences on personality trait development. Taken in tandem, we propose change-related reciprocal relationships between personality traits and work–family experiences. We last probe whether changes of state-like anxiety may be a possible mechanism explaining the relationship between work–family experiences and personality trait development.

Reciprocal Relationships Between Conscientiousness and Work–Family Experiences

The transactional perspective (e.g., Baumert et al., 2017; Bleidorn et al., 2020; Roberts et al., 2008; Wagner et al., 2020; Wrzus & Roberts, 2017) suggests that personality traits may prompt employees to modify their work–family experiences via selecting/crafting, or being selected into, work environments consistent with personality traits. Characterized as being achievement-oriented, reliable, and persistent (Barrick & Mount, 1991), conscientious employees tend to craft their job to garner more contextual resources[3] (e.g., autonomy and support) over time; coworkers and supervisors may also offer them greater resources when they gradually find out conscientious people are reliable and dependable. The resources enable Conscientiousness people to perform their jobs more efficiently in both family and work domains. Moreover, being organized, dependable, and persistent enables conscientious people to craft their work to have more favorable tasks and opportunities over time (Bruck & Allen, 2003). All these may be related to subsequent reduced conflict and enhanced facilitation between work and family over time. Indeed, meta-analyses provided support for this prediction based on cross-sectional research (Allen et al., 2012; Michel et al., 2011).

We further expect that conflict between work and family may be related to subsequent decreases in Conscientiousness, and work–family facilitation may be associated with increases in Conscientiousness over the years. When role pressures from family and work are in conflict, employees tend to experience strain, negative affect, loss of resources (e.g., support and energy), and burnout (Greenhaus & Beutell, 1985; Reichl et al., 2014). All these render it less likely for employees to regulate behaviors and remain dependable and reliable in the long run (Baumeister et al., 1998). They may also impede employees' striving persistently to fulfill work and family responsibilities (Amstad et al., 2011; Greenhaus & Beutell, 1985). Over the years, less conscientious behaviors may be repeated, leading to automation and generalization of such behaviors and, thereafter, reduction of the Conscientiousness trait (Wrzus & Roberts, 2017).

When work and family facilitate one another, employees perform well in both roles (Greenhaus & Powell, 2006). Such beneficial relationships boost positive affect, diminish negative affect and strain, and enhance physical, psychological, and social resources (ten Brummelhuis & Bakker, 2012). Such resource gains, as well as superb performance in both roles, pave the way for employees to become more reliable, dependable, and persistent in achieving important life goals. Furthermore, enhanced positive affect, self-efficacy, and reduced strain stemming from positive spillover between work and family may prompt employees to set up more challenging life goals (Latham & Pinder, 2005) and help them develop time management skills through learning (e.g., Greenhaus & Powell, 2006). All these likely prompt employees to be more reliable, dependent, and efficient in the short term. Over the years, increases in trait Conscientiousness may ensue.

Reciprocal Relationships Between Extraversion and Work–Family Experiences

Similarly, Extraversion may negatively relate to subsequent increases in conflict between work and family and positively to increases in facilitation. Extroverts are characterized as being active, upbeat, outgoing, and assertive, and thus have access to a large energy-based resource reservoir (McCrae & Costa, 1999). High levels of positive affect and being outgoing enable extroverts to discover and build over time more social, psychological, and intellectual resources (Fredrickson, 2001). Extraverts also seek and receive greater social support from friends, coworkers, and family members over time (Bruck & Allen, 2003). The increasingly large amount of psychological, social, affective, and intellectual resources enables extraverts to more effectively deal with work and family demands and facilitate the two life roles. As such, it follows that conflict between work and family will decline and facilitation will increase over time (Bruck & Allen, 2003; Wayne et al., 2004).

Incompatible expectations from family and work roles may be conducive to decreases in Extraversion. Conflicting demands and pressures from work and family cause strain and negative affect and drain physical, social, and psychological resources (ten Brummelhuis & Bakker, 2012). It follows that employees may become less active, upbeat, and sociable—characteristics reflecting low Extraversion. Lack of physical and affective resources may not only reduce employees' willingness to interact with others but also render it difficult for others to socialize with such employees (Greenhaus & Beutell, 1985). When behaviors, thoughts, and feelings of being less

[3] We adopt the definition that resources refer to objects, personal characteristics, conditions, or energies that are valued by people (ten Brummelhuis & Bakker, 2012).

active, upbeat, and sociable persist over the years, decreases in Extraversion may occur. Indeed, changes of sociable behaviors were found to be related to later changes of Extraversion trait (van Zalk et al., 2020).

Facilitation between work and family may be related to increases in Extraversion. Positive affect and reduced strain generated from such positive interrole experiences (Greenhaus & Powell, 2006) likely bolster one's tendency to socialize with others and attract others to interact with them more often (Fredrickson, 2001). Successfully meeting expectations from work and family provides ample chances for learning novel skills facilitated by elevated positive affect and gained physical, social, and psychological resources (e.g., Barnett & Hyde, 2001; Greenhaus & Powell, 2006; ten Brummelhuis & Bakker, 2012). Such enjoyable experiences likely foster domain-specific interpersonal skills to be transferred and generalized into general knowledge structures (Edwards & Rothbard, 2000). Over the years, habituation and generalization of all the above changes may be conducive to increases in Extraversion (Wrzus & Roberts, 2017).

Reciprocal Relationships Between Agreeableness and Work–Family Experiences

Agreeable employees are considerate, altruistic, and warm to others; they are likely to adopt cooperative problem-solving strategies in their relationships with others (McCrae & Costa, 1999). All of those tend to enhance the likelihood for them to form and maintain more productive and beneficial interpersonal relationships with coworkers, supervisors, and family partners over time (Bono et al., 2002). Such beneficial relationships provide increasingly more social resources to deal with challenges from work and family. Agreeable employees also care about others' feelings and exert efforts to regulate their own emotions (McCrae & Costa, 1999). As such, their positive affect generated from one life role may gradually more likely spill over and enrich their other role over time (Greenhaus & Powell, 2006). All these selection effects may be associated with less conflict between work and family and more facilitation across time.

Experiencing conflict between work and family roles will, over the years, precipitate declines in Agreeableness. People facing incompatible expectations from family and work tend to experience self-regulatory resource depletion (Courtright et al., 2016), which in turn likely prompts employees to engage in less prosocial behaviors, become less forgiving, and precipitate displaced aggression toward others in the short term (Baumeister et al., 1998). Elevated strain and negative affect derived from conflict between work and family may also induce aggression and coworker undermining (Courtright et al., 2016). Changes in such less-prosocial behaviors and more aggression over time may be related to further decreases in Agreeableness.

There may be a positive relationship between work–family facilitation and increases of Agreeableness. Boosted positive affect and reduced strain and negative affect generated from interrole facilitation may enhance benevolence, empathy, and prosocial behaviors toward others (George & Brief, 1992; Lin et al., 2019). Moreover, gained social and personal resources likely render employees more courteous and generous, and thereby they exhibit more helping and caring behaviors (Greenhaus & Powell, 2006). Over the years, habitualization of such behaviors, thoughts, and feelings may be related to subsequent increases in Agreeableness.

Reciprocal Relationships Between Neuroticism and Work–Family Experiences

Neurotic employees are characterized as being emotionally unstable and exhibiting abundant negative affect (McCrae & Costa, 1999). As such, they tend to encounter more problems from family and work over time and are unable to effectively and proactively deal with taxing pressures (ten Brummelhuis & Bakker, 2012). They also tend to perform ineffectively in a single-life domain (Judge & Ilies, 2004), further increasing difficulties in managing both work and family. All these may be associated with more conflict between work and family. Moreover, lack of success in one life domain prevents neurotic employees from building up more social and personal resources in the other (Greenhaus & Beutell, 1985). Hence, neurotic people are less likely to provide, sustain, and grow affective, social, and efficiency gains, which are conducive to less facilitation between work and family over time (ten Brummelhuis & Bakker, 2012).

The relationship between work–family conflict and increases in Neuroticism appears more straightforward. The collision of family and work tends to breed more strain and negative affect. This notion has been highlighted in the seminal work by Greenhaus and Beutell (1985, p. 78): strain-based work–family conflict arises when "strain produced by one role makes it difficult to fulfill requirements of another role," which also engenders negative affect including "tension, anxiety, fatigue, depression, apathy, and irritability." Loss of social (e.g., support) and personal (e.g., energy) resources may precipitate increases of more neurotic behaviors (Courtright et al., 2016). Over the years, increases in Neuroticism may follow after learning and automation (Wrzus & Roberts, 2017). Indeed, negative affect and interpersonal hassles were reported to be associated with increases in Neuroticism (Borghuis et al., 2020; Wrzus et al., 2021).

Work–family facilitation may be related to declines in Neuroticism. Interrole facilitation occurs when one's engagement in one life role yields gains in the other role (Greenhaus & Powell, 2006). Such gratifying and enriching experiences serve as positive events that breed positive affect and reduce negative affect. Indeed, positive affect spillover (Greenhaus & Powell, 2006) and positive affective gains (Carlson et al., 2006) have been theorized and supported (Judge & Ilies, 2004) as an indispensable form of positive work–family experiences. When repeated over the years, such rewarding and pleasant experiences may enable the development of affective regulation skills (Greenhaus & Powell, 2006), which may be conducive to automation and habitualization of behaviors, thoughts, and feelings of being less neurotic over the years (Wrzus & Roberts, 2017). Decreases in Neuroticism may ensue.

A Potential Mechanism of Personality Development: Changes of State-Like Anxiety

As discussed previously, the burgeoning transactional perspective (e.g., Baumert et al., 2017; Bleidorn et al., 2020; Roberts et al., 2008; Wagner et al., 2020; Wrzus & Roberts, 2017) postulates that life experiences may contribute to personality traits through multiple stages via multiple mechanisms. Given the complexity of theorizing mechanisms of personality development (Wagner et al., 2020), our theoretical model places an emphasis on a potential common mechanism for the development of the four personality traits shaped by work–family experiences—changes of strain, affect, and

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resources—in order to achieve a balance between parsimony and comprehensiveness in our theorizing (Whetten, 1989). Indeed, changes of strain, affect, and resources have been featured prominently in the literature to explicate how work–family experiences shape employees' cognition, affect, and behavior (e.g., Eby et al., 2010; Edwards & Rothbard, 2000; Greenhaus & Powell, 2006). Such changes also play a crucial role in translating short-term changes of personality-related thoughts, behaviors, and feelings into development of personality traits over years (Wrzus & Roberts, 2017).

In this research (i.e., Study 2), although limited with inferring the direction of causality, we adopt a proxy to operationalize changes of strain, affect, and resources—changes of state-like anxiety—that were assessed twice and at the same time frame with change of personality traits tested in our mediation model, because doing so enabled us to be consistent with our analytical approaches across the two studies (please refer to the Method section for greater details). The stress literature has generally portrayed anxiety as a state-like affective and physiological response to stressors as a result of an evaluation that one is unable to effectively deal with stressors (Lazarus & Folkman, 1984; Spielberger, 1983). *Anxiety* inherently represents symptoms of strain and encompasses unpleasant feelings of apprehension, nervousness, and tension because of an anticipation of undesirable future outcomes (Brooks & Schweitzer, 2011). Thus, by definition, increasing levels of anxiety essentially reflect enhanced levels of strain and change of affect (e.g., reduced positive affect and enhanced negative affect). Furthermore, because of affective and cognitive rumination, anxiety consumes attentional and cognitive resources, debilitates work memory capacity, and activates behavioral inhibition system (Cheng & McCarthy, 2018). All of these distract people from focusing on the tasks at hand and prohibit effective problems solving and functioning (Kagan, 1972). Taken in concert, the stress literature suggests that changes of anxiety are able to adequately capture essence of changes of strain, affect, and resource. In fact, the work–family literature has theorized and examined anxiety as an important mechanism that accounts for why work–family experiences shape employee attitude, behavior, and health in the long term (Miller et al., 2022).

Changes of anxiety play a crucial role in our theoretical model of personality trait development prompted by work–family experiences. Increments of state-like anxiety—elevated strain and negative affect, and reduced positive affect and attentional and cognitive resources—caused by high interrole conflict or low interrole facilitation may prompt changes in personality-relevant behaviors, thoughts, and feeling as being less conscientious, extraverted, agreeable, and emotionally stable. Work–family conflict tends to precipitate increases in anxiety because incompatible relationships between family and work engender strain and unpleasant feelings of apprehension, nervousness, and tension, which fit the definition of anxiety (Greenhaus & Powell, 2006). Work–family facilitation tends to be related to reduced anxiety because such gratifying experiences diminish strain, enhance positive affect, and yield resource gains (Allen & Eby, 2016; Edwards & Rothbard, 2000; Greenhaus & Powell, 2006). Over time, through repeated learning and habitualization, changes of anxiety likely contribute to corresponding changes in behaviors, thoughts, and feelings related to Conscientiousness, Extraversion, Agreeableness, and Neuroticism (Wrzus & Roberts, 2017). Indeed, a recent study found that in a clinical sample of substance use patients, changes in clinical states of anxiety significantly mediated the influences of a mindfulness therapy intervention on changes in Agreeableness, Conscientiousness, Extraversion, and Resilience (Stieger et al., 2022). This study offers support to our focus on change of state-like anxiety as a proxy for a potential mechanism of personality development in the general population in the current research.

The Present Study

In this research, we endeavor to integrate the selection effect and the socialization effect in change-related reciprocal relationships. Our theoretical model is derived from integrating the work–family literature (Allen & Eby, 2016; Greenhaus & Kossek, 2014) and theory and research on personality development (e.g., Baumert et al., 2017; Bleidorn et al., 2020; Roberts et al., 2008; Wagner et al., 2020; Wrzus & Roberts, 2017). In our model, we first scrutinize the dispositional view of personality by probing what and how personality traits (i.e., Conscientiousness, Extraversion, Agreeableness, and Neuroticism) are related to changes of work–family experiences (i.e., work-to-family conflict and facilitation and family-to-work conflict and facilitation). Furthermore, we investigate the socialization effect—reverse causality—whether and how work–family experiences are associated with subsequent personality development. We hypothesize that Conscientiousness (Hypothesis 1), Extraversion (Hypothesis 2), Agreeableness (Hypothesis 3), and Neuroticism (Hypothesis 4) will have changed-related reciprocal relationships with the four work–family variables. Such change-related reciprocal relationships will be negative between Conscientiousness, Agreeableness, and Extraversion with the two conflict variables (i.e., work-to-family and family-to-work conflict), but will be positive between the three personality traits and the two facilitation variables (i.e., work-to-family and family-to-work facilitation). Regarding Neuroticism, its change-related reciprocal relationship will be positive with work–family conflict but negative with work–family facilitation. We further examine the potential mechanism of personality development via change of state-like anxiety. We expect that work–family experiences have indirect lagged effects on change of personality traits through changes of state-like anxiety (Hypothesis 5).

Furthermore, we are interested in examining two additional exploratory questions important for personality development: the relative magnitudes of the selection versus the socialization effect (Research Question 1) and whether influences of personality traits and work–family experiences fluctuate over the years (Research Question 2). Regarding the first question, the selection effect of personality traits and the socialization effect of life experiences on personality change have been traditionally portrayed as contrasting perspectives in the personality literature (Caspi et al., 2005). Although attempts have been made to integrate the two forms of effects in a reciprocal manner, it seems informative to examine which effect is stronger compared to the other (Frese et al., 2007; Guthier et al., 2020). Unfortunately, lack of sufficient theoretical development and empirical evidence in personality psychology prevents us from developing a priori hypotheses (e.g., Baumert et al., 2017; Bleidorn et al., 2020; Roberts et al., 2008; Wagner et al., 2020; Wrzus & Roberts, 2017). With respect to the second question, the role of time in shaping how the effects of constructs unfold has been regarded as a crucial issue not only in personality development (Bleidorn et al., 2021; Hopwood et al., 2021; Roberts et al., 2006; Wagner et al., 2020) but also in organizational research (George & Jones, 2000; Mitchell & James, 2001). We believe findings resulting from the examination of

such exploratory questions will help build more refined theoretical models of personality stability and development and also guide future research on personality stability and development.

We examined our hypotheses and research questions with the classic latent change score (LCS) approach (Ferrer & McArdle, 2010; McArdle, 2009) in a progressive manner with two longitudinal studies in this research. In keeping with previous research (Allen et al., 2019; Roberts et al., 2006), the time lags adopted were 10 years in Study 1 and 4 years in Study 2. Such time lags enable us to investigate changes of both work–family experiences (Allen et al., 2019) and changes of personality traits (Roberts et al., 2006). In Study 1, we employed longitudinal data from MIDUS. In Study 2, we extended Study 1's findings with data from HRS in two ways. First, we replicated the findings of Study 1 with a shorter time lag (i.e., 4 years). Examining our hypotheses with two different time lags contributes to building more time-sensitive theories on how life experiences influence personality development. Second, we investigated a likely mechanism for personality development through changes of anxiety, which sheds light on why work–family experiences alter personality traits.

Study 1: Selection, Socialization, and Reciprocal Relationship in MIDUS Study

Method

Participants and Procedure

The two studies have been approved by the Survey and Behavioral Research Ethics Committee of the Chinese University of Hong Kong (reference Nos. SBRE-20-123 and SBRE-21-0240). In Study 1, we utilized the three-wave longitudinal data from the MIDUS project (All analysis code and study materials are available at [https://osf.io/97yn4/]). From 1995 to 1996, MIDUS researchers administered the first wave survey to a U.S. national representative sample of over 7,000 people, which was tracked in the second (from 2004 to 2006) and third (from 2013 to 2014) waves (time lag between each wave was approximately 10 years).

We employed available three-wave data on personality and work–family experiences collected through self-administered questionnaires. Following previous research (Newman, 2014; Ployhart & Vandenberg, 2010), we selected working people who provided complete information on age and gender and used all available data on work–family and personality variables in order to minimize bias (e.g., attribution bias or biased caused by listwise and pairwise deletion and single imputation) and obtain more accurate estimates. The final sample consisted of 3,192 participants with an average age of 42.64 years at Time 1 (SD = 10.15); 55% were male. In terms of the education level at Time 1, 31.7% of participants had finished high school or less, 32.1% had some college education, and 37.2% had graduated from college or higher. At Time 1, 40.6% of the participants reported working in management and professional occupations; 30.5% in sales and office-related occupations; 10.9% in production and transportation-related occupations; 10.4% in construction, extraction, and maintenance occupations; 6.8% in service occupations; and 0.8% in farming, fishing, and forestry-related occupations. Missing values were handled with the maximum likelihood (also called full-information maximum likelihood) approach in Mplus 8.6 (Newman, 2014).

Measures: Work–Family Variables

Four work–family variables were gauged with a 14-item instrument adopted by Grzywacz and Marks (2000a) and formally published after the first wave of MIDUS data collection on a response scale from 1 (*all the time*) to 5 (*never*). This scale has been used in other research and has been shown to have sufficient reliability and validity (e.g., Allen et al., 2023). Work-to-family conflict, family-to-work conflict, work-to-family facilitation, and family-to-work facilitation were captured by four, four, three, and three items, respectively. Internal consistency coefficients (Cronbach's α) for work-to-family conflict were .80, .81, and 83, respectively, for the three measurement occasions. Internal consistency coefficients for the other three work–family variables were also appreciable (for family-to-work conflict, α = .78, .79, and .75; for work-to-family facilitation, α = .74, .71, and .71; for family-to-work facilitation, α = .69, .75, and .65). Please refer to Appendix A in the online supplementary materials for all the items (https://osf.io/97yn4/). Responses were recoded so that higher scores reflect greater levels of the corresponding constructs (the same for other measures).

Personality Traits

MIDUS personality traits were measured with the Midlife Development Inventory (Lachman & Weaver, 1997), which was developed from previous research that have assessed personality traits with adjectives (Goldberg, 1990). The scales for our research have been shown with sufficient reliability and validity in previous research (e.g., Li, Li, et al., 2021; Zimprich et al., 2012). For example, these personality measures used in the present study have sufficient test–retest reliability and convergent validity with the corresponding personality traits measured by the Big Five Inventory (John et al., 2008) and the Big Five personality scale from the International Personality Item Pool (Goldberg et al., 2006). Participants reported how well the adjective items described them on a 4-point response scale (1 = *a lot*, 4 = *not at all*). Consistent with prior research (Li, Li, et al., 2021), Conscientiousness, Extraversion, Agreeableness, Neuroticism, and Openness were captured by four, four, three, three, and six items, respectively. Responses were coded such that higher scores indicate higher levels of personality traits. Internal consistency coefficients were decent (for Conscientiousness, α = .57, .57, and .57 for the three waves, respectively; for Extraversion, α = .76, .73, and .74; for Agreeableness, α = .75, .76, and .72; Neuroticism, α = .75, .74, and .71; for Openness, α = .72, .71, and .71). Appendix A in the online supplementary materials shows all the items and more information on the measure of Openness.

Control Variables

We included participants' gender and age in our analyses as covariates in keeping with previous research (Li, Li, et al., 2021). We also included marital status, number of children, and change of occupation in the analyses to rule out their influences on work–family experiences (Allen & Eby, 2016). We performed analyses without the controls (also in Study 2), which did not significantly change our findings and conclusions (see supplementary analyses).

Analytical Strategy

We employed the classic LCS approach (Ferrer & McArdle, 2010; McArdle, 2009) to test the hypotheses on reciprocal relationships. The

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classic approach enables us to examine change-related reciprocal relationships because of the following characteristics. First, it allows researchers to model a latent change variable from a construct measured at two adjacent time points, which is more flexible than latent growth curve modeling (Bliese & Ployhart, 2002). Second, it enables researchers to examine reciprocal relationships explicitly related to change and does not mandate the form of change to be linear. Because of its advantages, the LCS approach has been increasingly employed in recent research on change-oriented relationships (M. A. Johnson & Leo, 2020; Matusik et al., 2021; Quintus et al., 2021; Taylor et al., 2017; Wrzus et al., 2021).

Figure 1 presents a classic bivariate LCS model. For example, a latent change variable ΔWFI_{1-2} (ΔWFI_{2-3}) captures the change for work–family interface from Time 1 to Time 2 (from Time 2 to Time 3). The latent change approach specifies two other change parameters typically employed in latent growth modeling: an intercept and a slope. For example, the intercept, $Intercept_{WFI}$, is modeled to influence the work–family variable Time 1 (i.e., WFI1). The slope, $Slope_{WFI}$, is modeled to influence the two latent change variables (i.e., ΔWFI_{1-2} and ΔWFI_{2-3}). The selection effects of personality traits on changes of work–family variables were examined with the parameter γ_1; the socialization effects of work–family variables on personality development were examined with the parameter γ_2. A change-related reciprocal relationship will be supported when both γ_1 and γ_2 are significant.

Zyphur et al. (2020) cautioned researchers that "panel data models [e.g., LCS modeling] are not a panacea for unconditional causal inference, just as randomized controlled trials are not" (p. 707). Yet, previous research (Ferrer & McArdle, 2010; McArdle, 2009) suggests that the LCS approach represents a more rigorous approach to examine and disentangle selection and socialization effect to enhance causality inference. First, it focuses on lagged effects of personality on change of work–family experiences and lagged effects of work family experiences on personality development, which satisfy a crucial criterion for causality inference: temporal precedence of the cause (Cook & Campbell, 1979). Second, this approach explicitly defines and models a LCS as "the part of the score of Y[2] [Y measured at Time 2] that is not identical to Y[1] [Y measured at Time 1]" (McArdle, 2009, p. 583). Thus, this approach is relatively free from influences of time-invariant variables (e.g., individual characteristics such as social desirability), because if one time-invariant variable affects personality or work family variable at Time 1, it is assumed to affect the same personality or work–family variable to a similar extent at Time 2 (Frese & Zapf, 1988; Matusik et al., 2021). Third, the LCS approach also models, for example, influence of personality at Time t on change of personality from Time t to Time $t + 1$ (the same for work–family variables), which also helps rule out influences from time-invariant individual characteristics in affecting change of personality or work–family experiences. Fourth, this approach also enables researchers to include time-variant variables (e.g., change of occupation, as we did in the current research). All these help alleviate the concern of alternative explanations in inferring causality (Cook & Campbell, 1979). Consistent with previous research (Newton et al., 2020), the following indices were used to evaluate model fit: comparative fit index, root-mean-square error of approximation, and standardized root-mean-square residual.

Transparency and Openness

The data for Studies 1 and 2 can be obtained via the University of Michigan Interuniversity Consortium of Political and Social Research (ICPSR; https://www.icpsr.umich.edu/web/ICPSR/series/203 and https://hrs.isr.umich.edu/respectively). Redistribution of the data is prohibited by the term of use of ICPSR. All analysis code and study materials are available at https://osf.io/97yn4/. This study's design and its analysis were not preregistered. All analyses were coded with Mplus 8.6.

Results

Confirmatory Factor Analysis and Measurement Invariance

We first conducted confirmatory factor analyses (CFAs) to examine the independence of the study variables for each time point and measurement invariance of the study constructs across the three waves (McArdle, 2009; Ployhart & Vandenberg, 2010; Preacher et al., 2008). CFA results (Table S1 in the online supplementary documents) show that at each wave, an eight-factor model (with four personality variables and four work–family interface variables; positively and negatively worded personality items were allowed to correlate with each other at each wave) fit the data satisfactorily. These results suggest that the study variables sufficiently differed from each other.

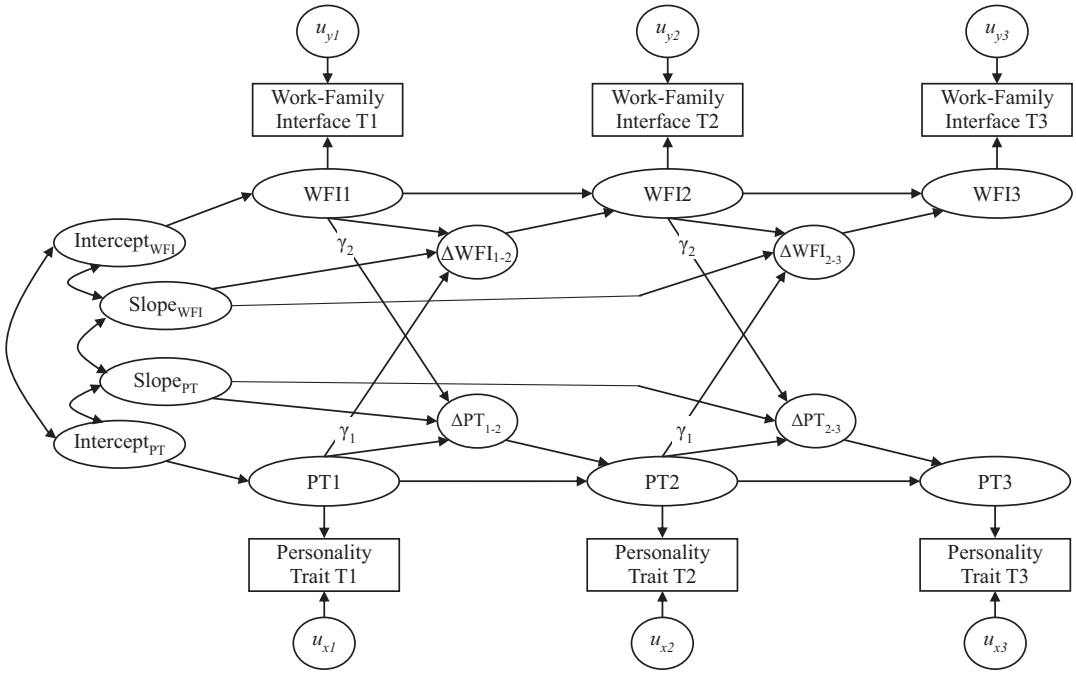
We then proceeded to examine the measurement invariance of the study variables across the three waves. As suggested in previous research (Vandenberg & Lance, 2000), we tested three forms of measurement invariance: configural (i.e., form) invariance, metric (i.e., factor loading) invariance, and scalar invariance. Results show that for each of the eight study variables, there was generally no significant difference in model fit indices between the two models testing configural and metric equivalence and between scalar and metric equivalence (Chen, 2007; Cheung & Rensvold, 2002). Thus, the measures used in this study demonstrated sufficient measurement equivalence across time. We last tested a unified model that examined study variable independence and measurement invariance in tandem, which fit the data well.

Mean Level Changes of Personality Traits

We then examined the mean level change of personality for the whole study sample. Consistent with findings from a recent meta-analyses (see Figure 5 in Bleidorn et al., 2022), we found that in our sample, Conscientiousness increased significantly from Time 1 to Time 2 ($t = 3.04$, $p < .001$; Cohen's $d = .09$), Extraversion reduced significantly from Time 1 to Time 2 ($t = 11.42$, $p < .001$; $d = .23$) and from Time 1 to Time 3 ($t = 10.20$, $p < .001$; $d = .27$), and Agreeableness also decreased slightly from Time 1 to Time 2 ($t = 5.53$, $p < .001$; $d = .11$) and from Time 1 to Time 3 ($t = 3.95$, $p < .001$; $d = .10$), and the same for Neuroticism: it decreased significantly from Time 1 to Time 2 ($t = 15.53$, $p < .001$; $d = .38$) and from Time 1 to Time 3 ($t = 13.62$, $p < .001$; $d = .35$). Openness also demonstrated a significant reduction from Time 1 to Time 2 ($t = 11.69$, $p < .001$; $d = .22$) and from Time 1 to Time 3 ($t = 41.82$, $p < .001$; $d = .30$). Findings on the mean level change of personality for the whole study sample did not influence the examination of our

Figure 1

Bivariate Latent Change Score Model for Personality Trait and Work–Family Interface



Note. WFI = Work–family interface; PT = personality trait; ΔWFI = change in work–family interface; ΔPT = change in personality trait; LCS = latent change score. We followed standard LCS models in model specification (McArdle, 2009; Selig & Preacher, 2009), and this is a simplified figure for ease of presentation. See McArdle (2009) for more details.

hypotheses, which focused primarily on individual differences in change (Roberts et al., 2008).

Selection Effects of Personality Traits on Changes of Work–Family Variables

Table 1 presents the descriptive statistics and zero-order correlations for the study variables. Results of our LCS modeling (Table 2) show that Conscientiousness was significantly and positively related to subsequent changes of work-to-family facilitation (Model 2) and to family-to-work facilitation (Model 4), and negatively to changes of family-to-work conflict (Model 3), but not to changes of work-to-family conflict (Model 1). In other words, more conscientious individuals experienced stronger subsequent increases in work-to-family facilitation, and family-to-work facilitation, and more decreases in family-to-work conflict.

We also found significant positive relationships between Extraversion and changes of work-to-family facilitation (Model 6) and family-to-work facilitation (Model 8), and a negative relationship with changes of work-to-family conflict (Model 5). Thus, more extraverted individuals experienced stronger subsequent increases in work-to-family facilitation and family-to-work facilitation, and more decreases in work-to-family conflict. Agreeableness had significant lagged effects only on changes of family-to-work facilitation (Model 12), suggesting that more agreeable people experienced greater increases in family-to-work facilitation later on. Last, we found significant relationships of Neuroticism with changes of all four work–family variables (Models 13–16), which means that more neurotic individuals experienced stronger decreases in work-to-family facilitation and family-to-work facilitation and more increases in work-to-family conflict and family-to-work conflict later on.

Socialization Effects of Work–Family Variables on Personality Development

With respect to socialization effects, work-to-family conflict was significantly and negatively related to changes in Conscientiousness (Model 1), Extraversion (Model 5), and positively related to changes of Neuroticism (Model 13). The findings suggest that individuals with higher levels of work-to-family conflict experienced more subsequent decreases in Conscientiousness and Extraversion and more increases in Neuroticism later on. Similarly, family-to-work conflict had significant lagged effects on changes of Conscientiousness (Model 3), Extraversion (Model 7), and Neuroticism (Model 15). This finding suggests that individuals with higher levels of family-to-work conflict experienced greater decreases in Conscientiousness and Extraversion and more increases in Neuroticism over time.

In addition, we found that work-to-family facilitation was significantly and positively related to changes of Extraversion (Model 6) and negatively related to changes of Neuroticism (Model 14). This finding suggests that individuals with higher levels of work-to-family facilitation experienced greater increases in Extraversion and more decreases in Neuroticism over time. With respect to family-to-work facilitation, it was positively related to changes of Conscientiousness (Model 4), Extraversion (Model 8),

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Table 1
Means, SDs, and Zero-Order Correlations for the Study 1 Variables

Study variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12
1. Work-to-family conflict T1	2.68	.69	—											
2. Work-to-family facilitation T1	2.58	.81	−.02	—										
3. Family-to-work conflict T1	2.09	.60	.45**	.13**	—									
4. Family-to-work facilitation T1	3.41	.80	−.05**	.29**	−.11**	—								
5. Conscientiousness T1	3.44	.43	−.14**	.13**	−.16**	.17**	—							
6. Extraversion T1	3.09	.61	−.18**	.20**	−.12**	.25**	.23**	—						
7. Agreeableness T1	3.44	.56	−.08**	.08**	−.06**	.15**	.21**	.34**	—					
8. Neuroticism T1	2.30	.74	.34**	−.14**	.28**	−.15**	−.15**	−.11**	.10**	—				
9. Openness T1	3.02	.54	−.06**	.23**	−.05**	.19**	.25**	.52**	.26**	−.10**	—			
10. Work-to-family conflict T2	2.55	.68	.43**	.02	.29**	−.02	−.06**	−.08**	.00	.25**	−.02	—		
11. Work-to-family facilitation T2	2.66	.80	.03	.48**	.09**	.21**	.10**	.15**	.06*	−.06*	.18**	.04	—	
12. Family-to-work conflict T2	2.04	.60	.26**	.04	.43**	−.04	−.09**	−.05*	−.03	.21**	−.01	.50**	.13**	—
13. Family-to-work facilitation T2	3.46	.84	−.06*	.21**	−.09**	.42**	.12**	.19**	.12**	−.08**	.13**	.05*	.34**	−.06*
14. Conscientiousness T2	3.49	.43	−.08**	.07**	−.17**	.10**	.58**	.15**	.12**	−.10**	.18**	−.16**	.06**	−.16**
15. Extraversion T2	2.96	.63	−.14**	.16**	−.15**	.22**	.16**	.70**	.22**	−.10**	.38**	−.17**	.16**	−.14**
16. Agreeableness T2	3.37	.59	−.04*	.06**	−.06*	.13**	.13**	.19**	.61**	.02	.12**	−.05	.07**	−.11**
17. Neuroticism T2	2.06	.69	.25**	−.09**	.24**	−.08**	−.12**	−.09**	.07**	.58**	−.11**	.34**	−.08**	.32**
18. Openness T2	2.89	.56	−.04	.19**	−.09**	.15**	.21**	.37**	.14**	−.13**	.69**	−.10**	.22**	−.12**
19. Work-to-family conflict T3	2.52	.71	.32**	−.02	.30**	−.07	−.08*	−.08*	−.06	.22**	−.06	.48**	−.02	.32**
20. Work-to-family facilitation T3	2.64	.77	.00	.42**	.05	.17**	.00	.15**	.04	−.09**	.18**	−.02	.47**	.01
21. Family-to-work conflict T3	2.07	.57	.18**	.01	.38**	−.11**	−.15**	−.06	−.02	.23**	−.05	.30**	.05	.48**
22. Family-to-work facilitation T3	3.36	.73	−.07*	.17**	−.09**	.40**	.09**	.15**	.08*	−.11**	.09**	−.05	.16**	−.17**
23. Conscientiousness T3	3.49	.44	−.06*	.10**	−.10**	.09**	.54**	.13**	.08**	−.10**	.17**	−.11**	.05	−.10**
24. Extraversion T3	2.94	.63	−.13**	.18**	−.12**	.20**	.13**	.67**	.21**	−.08**	.37**	−.15**	.16**	−.12**
25. Agreeableness T3	3.37	.57	−.03	.04	−.03	.12**	.12**	.20**	.57**	.09**	.13**	−.01	.07*	−.03
26. Neuroticism T3	2.04	.68	.15**	−.08**	.17**	−.09**	−.07**	−.10**	.09**	.53**	−.10**	.21**	−.08**	.23**
27. Openness T3	2.87	.56	−.04	.22**	−.06*	.15**	.18**	.35**	.13**	−.09**	.63**	−.08**	.20**	−.06*

Study variable	13	14	15	16	17	18	19	20	21	22	23	24	25	26
13. Family-to-work facilitation T2	—													
14. Conscientiousness T2	.13**	—												
15. Extraversion T2	.21**	.22**	—											
16. Agreeableness T2	.14**	.17**	.31**	—										
17. Neuroticism T2	−.09**	−.16**	−.16**	.01	—									
18. Openness T2	.17**	.27**	.50**	.23**	−.16**	—								
19. Work-to-family conflict T3	−.05	−.12**	−.11**	−.03	.27**	−.07*	—							
20. Work-to-family facilitation T3	.17**	.00	.19**	.02	−.14**	.22**	.00	—						
21. Family-to-work conflict T3	−.14**	−.20**	−.08*	−.05	.26**	−.10**	.52**	.09*	—					
22. Family-to-work facilitation T3	.50**	.11**	.16**	.10**	−.14**	.16**	−.04	.33**	−.18**	—				
23. Conscientiousness T3	.10**	.62**	.14**	.09**	−.14**	.20**	−.15**	.04	−.18**	.11**	—			
24. Extraversion T3	.17**	.18**	.73**	.20**	−.14**	.41**	−.13**	.23**	−.10**	.20**	.24**	—		
25. Agreeableness T3	.10**	.11**	.24**	.64**	.03	.19**	−.01	.05	−.03	.14**	.19**	.31**	—	
26. Neuroticism T3	−.09**	−.10**	−.13**	.02	.63**	−.12**	.32**	−.11**	.33**	−.13**	−.14**	−.11**	.07*	—
27. Openness T3	.14**	.21**	.36**	.14**	−.17**	.72**	−.08*	.24**	−.13**	.15**	.30**	.51**	.26**	−.13**

Note. $N = 875–3{,}190$, respectively. T = time.
* $p < .05$. ** $p < .01$.

Table 2
Fitness and Parameter Estimates for Classic Latent Change Score Models in Study 1

Bivariate LCS model	Model fit indices				Parameter estimates (*SE*)	
	χ^2 (*df*)	CFI	RMSEA	SRMR	Lagged effect of personality, γ_1	Lagged effect of work family variable, γ_2
Conscientiousness with						
Work-to-family conflict, Model 1	84.76*** (43)	.98	.017	.022	−.06 (.03)	−.04*** (.01)
Work-to-family facilitation, Model 2	74.35*** (43)	.99	.015	.017	.11** (.04)[a]	.02 (.01)[a]
Family-to-work conflict, Model 3	102.55*** (43)	.98	.021	.022	−.10*** (.03)	−.07*** (.01)
Family-to-work facilitation, Model 4	135.17*** (43)	.97	.026	.027	.16*** (.04)[a]	.02** (.01)[a]
Extraversion with						
Work-to-family conflict, Model 5	101.82*** (43)	.98	.021	.022	−.05* (.02)	−.06*** (.02)
Work-to-family facilitation, Model 6	118.80*** (43)	.98	.024	.022	.15*** (.03)[a]	.05*** (.01)[a]
Family-to-work conflict, Model 7	96.88*** (43)	.99	.020	.017	−.02[a] (.02)	−.07*** (.02)[a]
Family-to-work facilitation, Model 8	187.11*** (43)	.96	.032	.031	.17*** (.03)[a]	.04* (.02)[a]
Agreeableness with						
Work-to-family conflict, Model 9	74.96*** (43)	.99	.015	.020	.02 (.02)	−.02 (.01)
Work-to-family facilitation, Model 10	69.75** (43)	.99	.014	.014	.05 (.03)	.02 (.01)
Family-to-work conflict, Model 11	65.93* (43)	.99	.013	.014	.01 (.02)	−.01 (.02)
Family-to-work facilitation, Model 12	153.20*** (43)	.97	.028	.024	.09** (.03)	.03*** (.01)
Neuroticism with						
Work-to-family conflict, Model 13	155.41*** (43)	.96	.029	.026	.10*** (.02)	.09*** (.02)
Work-to-family facilitation, Model 14	69.76* (43)	.99	.014	.017	−.06* (.02)	−.04** (.01)
Family-to-work conflict, Model 15	162.99*** (43)	.96	.030	.022	.08*** (.02)	.11*** (.02)
Family-to-work facilitation, Model 16	109.36*** (43)	.98	.022	.023	−.05* (.02)	−.03 (.01)

Note. N = 3,192. Age, gender, marital status, number of children, and change of job were controlled. Parameters are unstandardized. LCS = latent change score; CFI = comparative fit index; RMSEA = root-mean-square error of approximation; SRMR = standardized root-mean-square residual; *SE* = standard error.
[a] Significant differences between selection effects of personality and socialization effects of work family variables.
* $p < .05$. ** $p < .01$. *** $p < .001$.

and Agreeableness (Model 12). The finding suggests that individuals with higher levels of family-to-work facilitation later on experienced greater increases in Conscientiousness, Extraversion, and Agreeableness.

Change-Related Reciprocal Relationships

Integrating findings on the selection and socialization effect, change-related reciprocal relationships were recorded between Conscientiousness and family-to-work conflict, and family-to-work facilitation. This finding suggests that individuals with higher levels of Conscientiousness experienced more changes of family-to-work conflict (decreases) and family-to-work facilitation (increases); the two changed work–family variables were further associated with greater changes of Conscientiousness later in life. We also observed reciprocal relationships between Extraversion and three work–family variables (work-to-family conflict, work-to-family facilitation, and family-to-work facilitation). Agreeableness also bore a reciprocal relationship with family-to-work facilitation. Neuroticism had reciprocal relationships with work-to-family conflict, work-to-family facilitation, and family-to-work conflict (see Table 3, for a summary). Such significant change-related reciprocal relationships suggest that these personality traits and work–family experiences seem to mutually reinforce each other over time.

Relative Magnitude of Selection Versus Socialization Effects

Regarding the relative magnitudes of the selection effect and socialization effect, our analyses revealed significant differences for five relationships (Table 2): relationships of Conscientiousness with work-to-family facilitation and family-to-work facilitation, and those of Extraversion with work-to-family facilitation, family-to-work conflict, and family-to-work facilitation. Among the five relationships, the selection effect was significantly stronger than the socialization effect for four of them except for the relationship between Extraversion and family-to-work conflict. For that relationship, the socialization effect of family-to-work conflict was more pronounced than the selection effect of Extraversion.

The Role of Time in Shaping Magnitude of Selection and Socialization Effects

We also performed analyses to examine whether effects of personality traits and work–family experiences fluctuate over time. We extended classic LCS models (Grimm et al., 2012) to examine this issue by including two more paths: one from personality at Time 1 (PT1) to change of a work–family variable from Time 2 to Time 3 (ΔWFI_{2-3}) and the other from a work–family variable at Time 1 (WFI1) to change of personality from Time 2 to Time 3 (ΔPT_{2-3}). This enables us to examine whether influences from personality at Time 1 (PT1) on change of a work–family variable from Time 1 to Time 2 (ΔWFI_{1-2}) differ from its influences on change of the work–family variable from Time 2 to Time 3 (ΔWFI_{2-3}). We conducted the same set of analyses for influences of work–family variables.

Results (Table S3) show that lagged effects of Conscientiousness decreased over time on changes of work-to-family facilitation (difference = .12, $p < .05$), family-to-work conflict (difference = .11, $p < .01$), and family-to-work facilitation (difference = .22, $p < .001$). Influences of Extraversion also dropped over time on changes

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Table 3
Summary of Significant Findings in the Two Studies

Hypothesis	Significant findings on variables in Study 1	Significant findings on variables in Study 2
Personality → change of work–family variables		
Conscientiousness	**WFF, FWF,** FWC	**WFF, FWF,** WFC
Extraversion	**WFC, WFF, FWF**	**WFC, WFF, FWF,** FWC
Agreeableness	**FWF**	**FWF,** WFC, WFF
Neuroticism	**WFC, WFF, FWC, FWF**	**WFC, WFF, FWC, FWF**
Work–family variables → personality change		
WFC	**Extraversion, Neuroticism,** Conscientiousness	**Extraversion, Neuroticism**
WFF	**Extraversion, Neuroticism**	**Extraversion, Neuroticism**
FWC	**Conscientiousness, Extraversion, Neuroticism**	**Conscientiousness, Extraversion, Neuroticism**
FWF	**Extraversion**, Conscientiousness, Agreeableness	**Extraversion**, Neuroticism
Reciprocal relationships		
Conscientiousness	FWC, FWF	None
Extraversion	**WFC, WFF, FWF**	**WFC, WFF, FWF**, FWC
Agreeableness	FWF	None
Neuroticism	**WFC, WFF, FWC**	**WFC, WFF, FWC**, FWF
Mediating role of change of anxiety		
	—	WFC → change of Extraversion
	—	WFF → change of Extraversion
	—	FWF → change of Extraversion
	—	WFC → change of Neuroticism
	—	WFF → change of Neuroticism
	—	FWF → change of Neuroticism

Note. WFC = work-to-family conflict; WFF = work-to-family facilitation; FWC = family-to-work conflict; FWF = family-to-work facilitation. Bold variables in the second and third columns indicate variables for which findings replicated across the two studies.

of work-to-family facilitation (difference = .11, $p < .01$), and family-to-work facilitation (difference = .21, $p < .001$). Lagged effects of agreeableness on family-to-work facilitation were also reduced over time (difference = .13, $p < .001$). With respect to changes of influences of work–family experiences on personality development, we found that lagged effects of family-to-work conflict decreased over time on development of Conscientiousness (difference = .06, $p < .001$), Extraversion (difference = .05, $p < .05$), and Neuroticism (difference = .07, $p < .05$). Influences of work-to family conflict on development of Neuroticism also decayed over time (difference = .07, $p < .01$).

Study 2: Replication and Extension of Study 1 on Examining a Potential Mediator of Personality Development: Changes of Anxiety

Method

Participants and Procedure

In Study 2, we capitalized on a three-wave longitudinal dataset from HRS, a national panel study to examine the health and well-being of Americans. All variables except anxiety were measured three times. The data were produced and distributed by the University of Michigan with funding from the National Institute on Aging (Grant NIA U01AG009740), Ann Arbor, MI. Available longitudinal data on personality traits and work–family experiences were collected in 2006, 2010, and 2014. Data on anxiety were collected only in 2006 and 2010, and both waves of data were used in this research. Similar to Study 1, we selected working participants with complete information on age, gender, and used all available data on work–family, anxiety, and personality variables. The final sample was composed of 1,133 participants (average age was 56.57 in 2006, 43.5% were male). At Time 1, 35.0% of participants had finished high school or less, 26.2% had some college education, and 38.8% graduated from college or higher. Regarding their occupations at Time 1, 44.2% of the participants worked in management and professional occupations, 26.1% in sales and office-related occupations, 13.2% in service occupations, 10.1% in production and transportation-related occupations, 5.8% in construction, extraction, and maintenance related occupations, and 0.6% in farming, fishing, and forestry-related occupations.

Measures: Work–Family Variables

Work–family variables were assessed in HRS with a 12-item instrument (MacDermid et al., 2000) with three items for each work–family variable. This instrument has exhibited sufficient reliability and validity and thus has been used in other research (Wadsworth & Owens, 2007). Participants rated the frequency of their work–family experiences on a scale from 1 (*rarely*) to 4 (*most of the time*). Internal consistency coefficients were appreciable (for work-to-family conflict, $\alpha = .71$, .69, and 72, for the three waves, respectively; for family-to-work conflict, $\alpha = .61$, .71, and .66; for work-to-family facilitation, $\alpha = .76$, .75, and .76; for family-to-work facilitation, $\alpha = .79$, .83, and .81). All items are shown in Appendix A of the online supplementary materials (the same for other scales).

Personality Traits

Personality traits were measured with the same scales as used in Study 1. Internal consistency coefficients were appreciable (for

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Conscientiousness, α = .52, .59, and .54 for the three waves, respectively; for Extraversion, α = .72, .73, and .75; for Agreeableness, α = .70, .71, and .73; for Neuroticism, α = .73, .74, and .74; for Openness, α = .70, .71, and .72). Please see the supplementary materials for more information (e.g., for the measure of Openness).

Anxiety

HRS researchers assessed participants' anxiety with five items twice (α = .77 and .79, for two waves) from the widely used Beck Anxiety Inventory (Beck et al., 1988). This instrument has been shown to be a valid and reliable scale of anxiety and distinct from instruments of depression and other related constructs (Wetherell & Areán, 1997). Participants were asked to report how often they felt on the scale items during the past week (1 = *never*, 4 = *most of the time*). We used both waves of data. Change of anxiety was modeled via the LCS approach with data from the two waves.

Control Variables

As in Study 1, we used participants' gender, age, marital status, number of children, and changes of occupation as control variables.

Analytical Strategy

We adopted the classic LCS approach (Ferrer & McArdle, 2010; McArdle, 2001, 2009) in Study 2 as well. Specifically, we first ran bivariate LCS analyses with the three-wave data on personality and work–family experiences to replicate the findings of the first study. Then, we adopted the approach of Selig and Preacher (2009) to test the mediation hypothesis. Because anxiety was assessed only twice (in 2006 and 2010) in HRS and in keeping with our model in Study 1 (e.g., a work–family variable at Time 1 → changes of personality from Time 1 to Time 2), our mediation model was specified as follows: work–family variable at Time 1 → change of anxiety from Time 1 to Time 2 → change of personality from Time 1 to Time 2 (Figure 2). As suggested by Selig and Preacher (2009), we also estimated the direct path from work–family variable at Time 1 to change of personality, as well as the path from anxiety Time 1 to personality change in the mediation model. Covariations among the three variables at Time 1—work–family variable, anxiety, and personality—were also freely estimated.

Results

CFA and Measurement Invariance

As in Study 1, we conducted CFAs to examine measurement independence and tested measurement invariance (McArdle, 2009; Ployhart & Vandenberg, 2010; Preacher et al., 2008). CFA results (Table S2 in the online supplementary documents) demonstrated that our hypothesized models (nine factors [four work–family variables, four personality variables, and anxiety] for the first two waves and eight factors for the last wave [four work–family variables and four personality variables]; positively and negatively worded personality items were allowed to correlate with each other at each wave) fit the data well at each wave. Thus, our study variables were sufficiently independent from each other.[4]

We then conducted further analyses to test the measurement invariance of our study variables across time (Vandenberg & Lance, 2000). We tested three forms of measurement invariance: configural invariance, metric invariance, and scalar invariance. Results of Table S2 show that for the measures used in this study, there generally was no significant difference in model fit indices between the two models testing configural and metric equivalence and between scalar and metric equivalence (Chen, 2007; Cheung & Rensvold, 2002). Thus, we concluded that measures used in this study demonstrated sufficient measurement equivalence across time. A unified model examining variable independence and measurement invariance fits the data well.

Mean Level Changes of Personality Traits

We examined mean level changes of personality traits for the whole sample. We observed similar patterns of change as in Study 1. Conscientiousness enhanced slightly and significantly from Time 1 to Time 2 ($t = 2.67$, $p < .01$; Cohen's $d = .10$), and from Time 1 to Time 3 ($t = 3.27$, $p < .001$; $d = .11$). Neuroticism was significantly reduced from Time 1 to Time 2 ($t = 5.96$, $p < .001$; $d = .20$), and from Time 1 to Time 3 ($t = 7.40$, $p < .001$; $d = .24$). A similar pattern of change for Openness was also observed as it decreased slightly from Time 1 to Time 3 ($t = 4.51$, $p < .001$; $d = .15$), and from Time 2 to Time 3 ($t = 2.50$, $p < .01$; $d = .10$). Mean level changes of Extraversion and Agreeableness were not significant, perhaps due to the shorter time lag in this study and the fact that participants were older and thus less susceptible to influences from environments (Bleidorn et al., 2022). Indeed, such findings were generally consistent with the results from a recent meta-analysis on personality change (Bleidorn et al., 2022), which also revealed considerable heterogeneity in personality change due to participants' age and time lag.

Selection Effects of Personality Traits on Changes of Work–Family Variables

We conducted analyses to replicate the findings in Study 1. Table 4 presents the descriptive statistics and zero-order correlations for the study variables. Our analyses (Table 5) revealed that Conscientiousness had significant positive lagged effects on changes of work-to-family facilitation (Model 2) and family-to-work facilitation (Model 4), and negative lagged effects on work-to-family conflict (Model 1). In other words, more conscientious individuals experienced greater subsequent increases in the two facilitation variables and more decreases in work-to-family conflict later in their lives. Extraversion was found to be significantly related to changes of all four work–family variables (Models 5–8) in the predicted directions. Thus, more extraverted individuals experienced more increases in work-to-family and family-to-work facilitation and more decreases in work-to-family and family-to-work conflict later on. Agreeableness had significant positive lagged influences on changes of work-to-family (Model 10) and family-to-work facilitation (Model 12) and negative lagged influences on changes of work-to-family conflict (Model 9). Put differently, more

[4] We also ran analyses fixing items from both Neuroticism and anxiety to measure the same construct (i.e., an eight-factor models). Results (Table S2 in the online supplementary documents) show that this significantly reduced model fit indices compared to the nine-factor models. Such evidence suggests that in our research, personality trait neuroticism and state-like anxiety are two distinct constructs.

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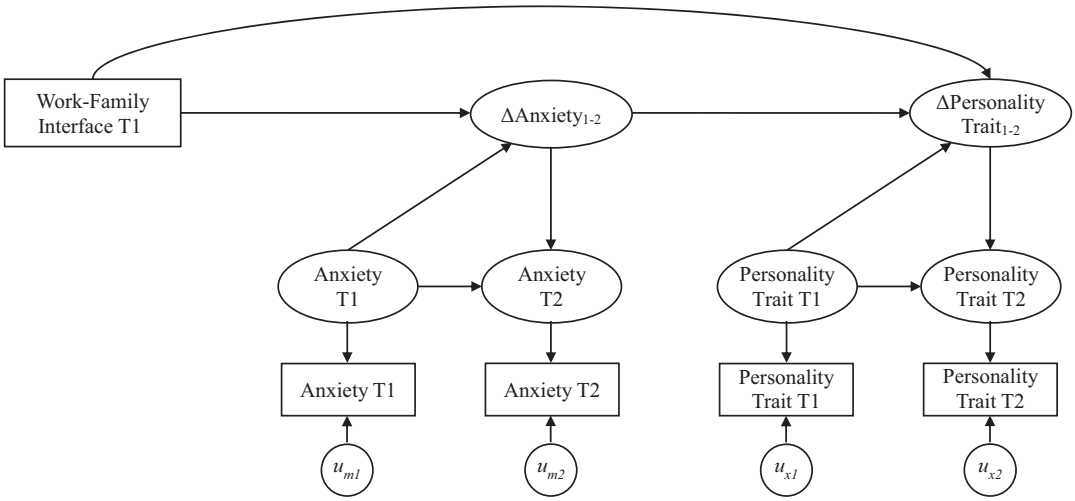
Figure 2

Indirect Effect of Work–Family Interface on Personality Development Through Change of Anxiety



Note. This is a simplified representation of a latent change score model for a standard LCS model. See Selig and Preacher (2009) and McArdle (2009) for more details. In the model, we also included a direct path from anxiety T1 to Δ personality trait and covariations among work–family interface T1, anxiety T1, and personality trait T1. T = time; LCS = latent change score.

agreeable people had greater increases in the two facilitation variables and more decreases in work-to-family conflict. Last, Neuroticism was significantly related to changes of all four work–family variables (Models 13–16), suggesting that more neurotic individuals experienced greater increases in conflict between work and family and greater decreases in facilitation between work and family.

Socialization Effects of Work–Family Variables on Personality Development

With respect the socialization effect, work-to-family conflict was significantly and negatively related to changes of Extraversion (Model 5, Table 5) and positively to changes of Neuroticism (Model 13). Thus, individuals with higher levels of work-to-family conflict experienced more decreases in Extraversion and greater increases in Neuroticism later in their lives. Family-to-work conflict was significantly related to changes of Conscientiousness (Model 3), Extraversion (Model 7), and Neuroticism (Model 15). This finding suggests that individuals with higher levels of family-to-work conflict experienced greater subsequent decreases in Conscientiousness, Extraversion, and more increases in Neuroticism.

With respect to facilitation, both work-to-family facilitation (Model 6) and family-to-work facilitation (Model 8) had significant positive relationships with changes of Extraversion. In addition, both work-to-family facilitation (Model 14) and family-to-work facilitation (Model 16) had significant negative relationships with changes of Neuroticism. As such, individuals with higher levels of work-to-family and family-to-work facilitation experienced greater increases in Extraversion and more decreases in Neuroticism later on.

Change-Related Reciprocal Relationships

Integrating findings on selection and socialization effects, we observed significant reciprocal relationships for two personality variables: Extraversion and Neuroticism. Both had significant reciprocal relationships with all the four work–family variables. Put differently, more extraverted and neurotic individuals in our sample experienced greater changes in the four variables of work–family experiences, and the changed work–family experiences in turn were related to further corresponsive changes in Extraversion and Neuroticism later on. In sum, the findings of Study 2 generally replicated the findings of Study 1, which are summarized in Table 3.

Relative Magnitude of Selection Versus Socialization Effects

We also examined the relative magnitude of the selection and socialization effects. Findings (Table 5) demonstrated significant differences between the two effects for five relationships: the change-related reciprocal relationships of Conscientiousness with the two facilitation variables and between Extraversion and the two facilitation variables. Consistent with Study 1, the selection effects were significantly larger than the corresponding socialization effects. We also found a significantly stronger selection effect for the relationship between agreeableness and work-to-family facilitation.

Potential Mediating Role of Changes of Anxiety

We then tested the potential mediating role of change of anxiety in the nine relationships that revealed significant influences of work–family variables on personality development. Results (Table 6) revealed that with covariates and anxiety at Time 1 controlled, change of anxiety appeared to play a mediating role in most of the relationships: the relationships between three work–family variables —work-to-family conflict (indirect effect = −.011, 95% confidence interval, CI [−.022, −.003]), work-to-family facilitation (indirect effect = .006, 95% CI [.002, .013]), and family-to-work facilitation (indirect effect = .009, 95% CI [.003, .017])—and change of

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Table 4
Means, SDs, and Zero-Order Correlations for the Study 2 Variables

Study variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Work-to-family conflict T1	1.56	.56	—												
2. Work-to-family facilitation T1	2.79	.86	−.56**	—											
3. Family-to-work conflict T1	1.17	.32	.31**	−.24**	—										
4. Family-to-work facilitation T1	3.19	.77	−.38**	.66**	−.37**	—									
5. Anxiety T1	1.47	.50	.29**	−.25**	.34**	−.30**	—								
6. Conscientiousness T1	3.51	.39	−.14**	.21**	−.12**	.23**	−.18**	—							
7. Extraversion T1	3.17	.57	−.16**	.17**	−.08*	.15**	−.14**	.23**	—						
8. Agreeableness T1	3.53	.49	−.03	.08*	−.02	.10**	.00	.22**	.32**	—					
9. Neuroticism T1	2.13	.67	.26**	−.25**	.29**	−.26**	.47**	−.17**	−.08*	.01	—				
10. Openness T1	3.05	.53	−.03	.15**	.01	.14**	−.12**	.25**	.49**	.25**	−.11**	—			
11. Work-to-family conflict T2	1.54	.56	.44**	−.29**	.14**	−.27**	.17**	−.06	−.13**	−.08*	.15**	.02	—		
12. Work-to-family facilitation T2	2.84	.84	−.33**	.42**	−.16**	.35**	−.21**	.16**	.17**	.12**	−.14**	.09**	−.55**	—	
13. Family-to-work conflict T2	1.16	.33	.26**	−.20**	.38**	−.26**	.20**	−.08*	−.10**	−.02	.14**	.02	.24**	−.22**	—
14. Family-to-work facilitation T2	3.24	.79	−.24**	.34**	−.22**	.45**	−.22**	.22**	.15**	.08*	−.18**	.12**	−.31**	.61**	−.38**
15. Anxiety T2	1.42	.50	.25**	−.24**	.20**	−.28**	.53**	−.22**	−.13**	−.01	.41**	−.13**	.29**	−.30**	.27**
16. Conscientiousness T2	3.53	.42	−.13**	.19**	−.12**	.19**	−.16**	.70**	.17**	.19**	−.11**	.17**	−.10**	.18**	−.16**
17. Extraversion T2	3.15	.58	−.14**	.19**	−.05	.15**	−.17**	.24**	.73**	.27**	−.14**	.43**	−.14**	.23**	−.09**
18. Agreeableness T2	3.53	.51	−.07*	.10**	−.02	.10**	.04	.16**	.26**	.66**	−.01	.17**	−.06*	.12**	−.02
19. Neuroticism T2	2.01	.67	.25**	−.21**	.20**	−.26**	.40**	−.14**	−.12**	−.01	.65**	−.10**	.25**	−.24**	.22**
20. Openness T2	3.02	.54	−.01	.14**	.05	.10**	−.11**	.20**	.40**	.18**	−.13**	.74**	−.03	.15**	−.01
21. Work-to-family conflict T3	1.55	.58	.42**	−.24**	.18**	−.18**	.22**	−.05	−.13**	−.07	.16**	−.02	.53**	−.36**	.21**
22. Work-to-family facilitation T3	2.84	.85	−.33**	.43**	−.14**	.35**	−.24**	.12**	.16**	.10**	−.18**	.12**	−.37**	.48**	−.16**
23. Family-to-work conflict T3	1.15	.32	.20**	−.07*	.29**	−.13**	.26**	−.12**	−.09**	−.01	.12**	−.04	.20**	−.14**	.32**
24. Family-to-work facilitation T3	3.20	.78	−.24**	.31**	−.22**	.41**	−.27**	.14**	.18**	.13**	−.18**	.13**	−.25**	.36**	−.23**
25. Conscientiousness T3	3.55	.41	−.13**	.19**	−.11**	.17**	−.20**	.60**	.19**	.22**	−.15**	.20**	−.09**	.13**	−.17**
26. Extraversion T3	3.14	.60	−.18**	.21**	−.06	.18**	−.18**	.20**	.68**	.26**	−.17**	.39**	−.16**	.21**	−.14**
27. Agreeableness T3	3.50	.53	−.03	.08*	−.001	.09*	.03	.15**	.30**	.61**	−.03	.20**	−.06	.09**	−.02
28. Neuroticism T3	1.97	.67	.23**	−.23**	.20**	−.25**	.42**	−.15**	−.14**	−.04	.61**	−.11**	.21**	−.22**	.22**
29. Openness T3	2.98	.56	−.05	.18**	.01	.15**	−.17**	.23**	.43**	.20**	−.18**	.72**	−.03	.17**	−.03

Study variable	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
14. Family-to-work facilitation T2	—														
15. Anxiety T2	−.34**	—													
16. Conscientiousness T2	.26**	−.22**	—												
17. Extraversion T2	.19**	−.18**	.23**	—											
18. Agreeableness T2	.12**	.03	.27**	.34**	—										
19. Neuroticism T2	−.28**	.53**	−.17**	−.17**	.01	—									
20. Openness T2	.14**	−.16**	.23**	.53**	.26**	−.15**	—								
21. Work-to-family conflict T3	−.20**	.23**	−.06	−.12**	−.04	.28**	.01	—							
22. Work-to-family facilitation T3	.35**	−.26**	.09**	.19**	.12**	−.25**	.12**	−.55**	—						
23. Family-to-work conflict T3	−.21**	.24**	−.05	−.11**	−.02	.20**	−.01	.34**	−.22**	—					
24. Family-to-work facilitation T3	.49**	−.28**	.13**	.20**	.16**	−.24**	.12**	−.33**	.63**	−.35**	—				
25. Conscientiousness T3	.20**	−.22**	.65**	.21**	.20**	−.19**	.21**	−.14**	.15**	−.17**	.18**	—			
26. Extraversion T3	.20**	−.20**	.18**	.75**	.28**	−.21**	.42**	−.20**	.26**	−.15**	.26**	.27**	—		
27. Agreeableness T3	.09**	−.01	.18**	.29**	.63**	−.04	.19**	−.09**	.16**	−.06	.21**	.31**	.39**	—	
28. Neuroticism T3	−.29**	.46**	−.14**	−.20**	−.04	.67**	−.15**	.29**	−.28**	.25**	−.29**	−.26**	−.24**	−.05	—
29. Openness T3	.16**	−.18**	.17**	.45**	.19**	−.19**	.74**	−.11**	.22**	−.08*	.21**	.31**	.55**	.31**	−.19**

Note. N = 926–1,133, respectively. T = time.
* $p < .05$. ** $p < .01$.

Table 5
Fitness and Parameter Estimates for Classic Latent Change Score Models in Study 2

Bivariate LCS model	Model fit indices				Parameter estimates (*SE*)	
	$\chi^2(df)$	CFI	RMSEA	SRMR	Lagged effect of personality, γ_1	Lagged effect of work family variable, γ_2
Conscientiousness with						
Work-to-family conflict, Model 1	76.77 (59)	.99	.016	.034	−.06* (.04)	−.02 (.02)
Work-to-family facilitation, Model 2	102.23** (59)	.98	.025	.042	.21*** (.05)[a]	.01 (.02)[a]
Family-to-work conflict, Model 3	86.70* (59)	.98	.020	.032	−.03 (.02)	−.08*** (.03)
Family-to-work facilitation, Model 4	99.56*** (59)	.98	.025	.039	.21*** (.05)[a]	−.01 (.02)[a]
Extraversion with						
Work-to-family conflict, Model 5	88.82*** (59)	.99	.021	.036	−.07* (.03)	−.04* (.02)
Work-to-family facilitation, Model 6	130.86*** (59)	.97	.033	.044	.12** (.04)[a]	.04* (.02)[a]
Family-to-work conflict, Model 7	62.07 (59)	.99	.007	.028	−.04* (.01)	−.07* (.04)
Family-to-work facilitation, Model 8	97.42** (59)	.98	.024	.038	.11*** (.04)[a]	.03* (.02)[a]
Agreeableness with						
Work-to-family conflict, Model 9	71.72 (59)	.99	.014	.031	−.05* (.03)	−.03 (.02)
Work-to-family facilitation, Model 10	90.48** (59)	.98	.022	.036	.15*** (.05)[a]	.02 (.01)[a]
Family-to-work conflict, Model 11	56.43 (59)	.99	.001	.028	−.01 (.02)	−.03 (.04)
Family-to-work facilitation, Model 12	85.31* (59)	.99	.020	.035	.09* (.04)	.02 (.02)
Neuroticism with						
Work-to-family conflict, Model 13	117.31*** (59)	.97	.030	.038	.10*** (.03)	.09* (.03)
Work-to-family facilitation, Model 14	114.29*** (59)	.97	.029	.043	−.10** (.04)	−.05** (.02)
Family-to-work conflict, Model 15	90.97** (59)	.98	.022	.033	.04** (.01)	.12* (.05)
Family-to-work facilitation, Model 16	106.45*** (59)	.97	.027	.037	−.09** (.03)	−.09*** (.02)

Note. N = 1,133. Age, gender, marital status, number of children, and change of job were controlled. Parameters are unstandardized. LCS = latent change score; CFI = comparative fit index; RMSEA = root-mean-square error of approximation; SRMR = standardized root-mean-square residual; *SE* = standard error.
[a] Significant differences between selection effects and socialization effects.
* $p < .05$. ** $p < .01$. *** $p < .001$, one-tailed tests were used due to the replication nature of this study.

Extraversion. Indirect effects through change of anxiety were also significant for the relationships between the three work–family variables—work-to-family conflict (= .046, 95% CI [.019, .076]), work-to-family facilitation (= −.032, 95% CI [−.051, −.017]), and family-to-work facilitation (= −.040, 95% CI [−.063, −.023])—and change of Neuroticism. The nonsignificant mediation relationships were perhaps due to the nonsignificant relationship between family-to-work conflict and change of anxiety.

The Role of Time in Shaping Magnitude of the Selection and Socialization Effects

We performed further analyses to examine whether influences of personality or work–family experiences change over time. Our findings (Table S4 in the online supplementary documents) revealed that influences of Conscientiousness reduced over time on work-to-family facilitation (difference = .22, $p < .01$) and family-to-work facilitation (difference = .28, $p < .001$). Effects of agreeableness on work-to-family facilitation also decreased over time (difference = .17, $p < .01$). Such patterns of reducing influences were similar to those found in Study 1.

General Discussion

Synthesizing the literature on personality development (Bleidorn et al., 2019; Caspi et al., 2005; Donnellan et al., 2015) and on work–family (Allen & Eby, 2016; Greenhaus & Kossek, 2014), we investigated the interplay between work and family on personality trait development. In doing so, we integrated the selection effect of personality traits and the socialization effect of work–family experiences in change-related reciprocal relationships with LCS approaches (Ferrer & McArdle, 2010; McArdle, 2009). Our research further examined a potential mechanism of personality development through changes of state-like anxiety to reflect changes of strain, affect, and resources. Using data from two longitudinal studies with participants in middle and late adulthood, findings were generally replicable across the two studies. Our findings have important implications for theory and research on personality development in both psychological sciences and organizational research.

Implications for Theory and Research on Personality Development in Psychology

Our research makes three important contributions to the literature on personality development in psychology. The first contribution lies in its investigation of influences from the interplay between two central life domains—work and family—on personality development. The paradigm shift in personality science to a focus on not only personality stability but also on personality development has generated a great deal of research on sources of life experiences that are related to personality trait development (Bleidorn et al., 2019; Caspi et al., 2005; Donnellan et al., 2015; Wrzus & Roberts, 2017). The majority of the previous research has, however, focused on influences from a single life domain (Bleidorn et al., 2018; Wagner et al., 2020). Thus, there have been few research endeavors devoted to influences from the interplay between two cardinal life domains—work and family—on personality development. Work–family experiences serve as a unique and crucial catalyst for personality development because they are based on the intersection of

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Table 6

Fitness and Parameter Estimates for Latent Change Score Models Testing Mechanism of Personality Change Through Change in Anxiety in Study 2

	Model fit indices				Coefficient estimates (*SE* or CI)			
Model	χ^2 (*df*)	CFI	RMSEA	SRMR	WFI → change of anxiety	WFI → change of personality	Change of anxiety → change of personality	Indirect effect [95% CI]
FWC → change of Conscientiousness	74.01*** (25)	.96	.042	.039	.05 (.07)	−.06 (.04)	−.06* (.03)	−.003 [−.016, .003]
WFC → change of Extraversion	56.52*** (25)	.97	.034	.034	.11*** (.03)	.03 (.03)	−.10** (.03)	−.011* [−.022, −.003]
WFF → change of Extraversion	80.78*** (25)	.95	.045	.043	−.07*** (.02)	.03 (.02)	−.09** (.03)	.006* [.002, .013]
FWC → change of Extraversion	47.23*** (25)	.98	.028	.032	.05 (.07)	.08 (.05)	−.10** (.03)	−.005 [−.023, .006]
FWF → change of Extraversion	65.38*** (25)	.97	.038	.041	−.09*** (.02)	.01 (.02)	−.09** (.03)	.009* [.003, .017]
WFC → change of Neuroticism	97.87*** (25)	.95	.051	.046	.11*** (.03)	.05 (.03)	.43*** (.04)	.046** [.019, .076]
WFF → change of Neuroticism	118.47*** (25)	.93	.058	.052	−.07*** (.02)	.01 (.02)	.44*** (.04)	−.032*** [−.051, −.017]
FWC → change of Neuroticism	90.01*** (25)	.95	.048	.045	.05 (.07)	.01 (.05)	.44*** (.04)	.023 [−.033, .083]
FWF → change of Neuroticism	102.42*** (25)	.94	.053	.051	−.09*** (.02)	−.03 (.05)	.43*** (.04)	−.040*** [−.063, −.023]

Note. $N = 1{,}133$. Age, gender, marital status, number of children, and change of job were controlled. CFI = comparative fit index; RMSEA = root-mean-square error of approximation; SRMR = standardized root-mean-square residual. *SE* = standard error; CI = confidence interval; WFI = work–family interface; WFC = work-to-family conflict; WFF = work-to-family facilitation; FWC = family-to-work conflict; FWF = family-to-work facilitation; 95% CIs were reported for indirect effects.

* $p < .05$. ** $p < .01$. *** $p < .001$.

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experiences across two major life roles (work and family), reflect different forms of interdependency (e.g., conflict and facilitation), and involve distinctive directions of spillover (i.e., family-to work, work-to-family; Greenhaus & Kossek, 2014). Thus, work–family experiences tend to prompt changes in personality-relevant behaviors, thoughts, and feelings across work and family domains that have the capacity to generalize across different life arenas over years to shape personality development (Wrzus & Roberts, 2017). Indeed, in partial support of our hypotheses on the socialization effect, we found that work–family experiences had significant relationships with personality development, especially for Extraversion and Neuroticism. Specifically, positive work–family experiences tend to be related to positive changes in personality traits. Across the two studies, work-to-family facilitation was positively associated with increases of Extraversion and decreases in Neuroticism; family-to-work facilitation was positively related to increases of Extraversion. In addition, negative work–family experiences were associated with somewhat negative personality development. For instance, family-to-work conflict was related to decreases in Conscientiousness and Extraversion, and increases of Neuroticism; work-to-family conflict was associated with increases in Neuroticism and decreases in Extraversion across the two studies. We observed limited influences of work–family experiences on the development of Conscientiousness and Agreeableness. Our findings suggest that work–family experiences are largely affective and thus mainly had influences on changes of Extraversion and Neuroticism. In one of our two studies, we also found that the influences of family-to-work conflict on changes of Conscientiousness, Extraversion, and Neuroticism decreased over time. This finding challenges the theorization by Mitchell and James (2001), who proposed that an effect may unfold in an inverted-U shape over time: first increases, then reaches a plateau, and then decays. We hope these findings stimulate future researchers to develop finer grained theories of time on personality development.

It is important to note that we modeled both selection and socialization effect in change-related reciprocal relationships, as suggested by many of the transactional models of personality development (e.g., Baumert et al., 2017; Bleidorn et al., 2020; Roberts et al., 2008; Wagner et al., 2020; Wrzus & Roberts, 2017). Notably, in partial support of our hypotheses, we observed that most of change-related reciprocal relationships observed occurred for Extraversion (with work-to-family conflict, work-to-family facilitation, and family-to-work facilitation) and Neuroticism (with work-to-family conflict, work-to-family facilitation, and family-to-work conflict) across the two studies (Table 3). This probably has to do with the fact that Extraversion and Neuroticism mainly represent affective traits, which appear more prone to influences of affect-laden work–family experiences, while Conscientiousness and Agreeableness have more emphasis on behaviors (Bleidorn et al., 2018). The findings underscore the importance of Neuroticism and Extraversion in precipitating a vicious cycle and a virtuous cycle respectively with work–family experiences. In fact, our findings appear to be consistent with those in prior research (Roberts & Nickel, 2017). For example, there was evidence for corresponsive changes between Neuroticism and person–environment fit (Roberts & Robins, 2004). Roberts et al. (2003) found reciprocal relationships of positive emotionality and

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negative emotionality—similar to Extraversion and Neuroticism—with work experiences (e.g., occupational attainment). Corresponsive relations have been found between agentic goals and Extraversion (Bleidorn et al., and between Neuroticism and negative life events; Jeronimus et al., 2013). Lüdtke et al. (2011) found reciprocal relationships between Extraversion and Neuroticism with positive and negative life events. In addition, across the two studies, we found the selection effects of Conscientiousness on changing the two work-to-family and family-to-work facilitation variables were more pronounced than the socialization effects of the two facilitation variables on changing Conscientiousness. The same patterns of findings were also recorded for Extraversion. More theoretical and empirical work is needed on the boundary conditions of reciprocal relationships between personality and work experiences (Roberts & Nickel, 2017).

Second, this research contributes to the personality development literature by examining the personality development of participants in middle and late adulthood and replicating findings with data from two longitudinal studies. At the first wave, the mean age of participants in Study 1 was 42.64 years old and 56.57 in Study 2. Thus, at the third wave of data collection, their mean ages were roughly 60 and 64. Previous research has mainly examined personality development in adolescence and young adulthood (Wrzus et al., 2021; Wrzus & Roberts, 2017), although "there is growing evidence that personality traits continue to develop throughout these life stages" (Bleidorn et al., 2021, p. 5). Furthermore, previous research on personality development has not always produced consistent findings on the influences of life events or experiences (Bleidorn et al., 2018; Wagner et al., 2020). In this vein, convergent results across the two studies with different time lags and participants at different ages in their middle and late life stages (Table 3) point to the robustness of our findings. Our findings also suggest that middle and late life stages are important phases in life for personality development (Wrzus et al., 2023), which further contribute to a more complete understanding of personality development across the lifespan (Bleidorn et al., 2021).

The third key contribution of our research is that it offers a useful example to extend research on personality development through cross-fertilization of research in different areas of psychology: personality psychology and organizational psychology. Work plays an important role in most people's lives. Work experiences have also been conceptualized and examined as an important catalyst that may drive personality development (Bleidorn et al., 2021; Li et al., 2014, 2019; Li, Feng, et al., 2021; Li, Li, et al., 2021; Nye & Roberts, 2019; Roberts et al., 2003; Wagner et al., 2020; Wu & Li, 2016). Yet, compared to the large amount of research endeavors on influences from other life domains, much less attention has been devoted to influences from work experiences (Bleidorn et al., 2018; Wagner et al., 2020). Wagner et al. (2020, p. 439) thus urged future research to probe "the influence of contextual work characteristics." Theory and research in organizational psychology may offer insight into what types of work-related experiences are able to shape people's behaviors, thoughts, and feelings (Rousseau, 1997), which in turn may further lead to personality development. Such cross-fertilization between personality and organizational psychology may help advance theory and research on personality development by shedding light on what, how, and why work experiences may be responsible for personality development (Bleidorn et al., 2021).

Similar to previous research on personality trait development (Bleidorn et al., 2018; Wagner et al., 2020), significant findings were not 100% replicated across the two studies. Yet, in examining the selection effect and socialization effect, we found that most of the significant influences replicated across the two studies, especially for the relationships (i.e., seven out of eight) involving Extraversion and Neuroticism. That said, as summarized in Table 3, some reciprocal relationships related to Conscientiousness and Agreeableness were not replicated. We suspect that the differences might be caused by different time lags. The time lag in Study 1 was 10 years and that in Study 2 was 4 years. A recent meta-analysis found that time lag was related to the magnitude of personality change (Bleidorn et al., 2022). Another factor may be the different sample characteristics across the two studies. The mean age of the sample in Study 1 was 42.64 years old at Time 1, which was significantly younger, $t(3216) = 43.35$, $p < .001$, than that in Study 2, which was 56.57 years old. Moreover, the age span that our research covered was from early 40s to early 60s for Study 1 and late 50s and middle 60s in Study 2. Meta-analytic evidence suggests that personality traits development generally occur in earlier stages of life (e.g., before age 30) or after age 70 (Bleidorn et al., 2019, 2022). Another explanation might have to do with differences in gender composition. Study 1 had more male participants (55%) than Study 2 (44%, $\chi^2 = 44.30$, $df = 1$, $p < .001$). We did not observe significant differences in education and occupations between the two samples.

Consistent with most research in personality psychology (Wagner et al., 2020) and organization research (Bosco et al., 2015) the effect sizes that we observed were relatively small in magnitude (Tables S10 and S11 in the online supplementary documents). The small effect sizes for the selection effect might have to do with our examining influences of personality on changing work–family experiences over ten and 4 years. Regarding the relatively small effect size of socialization effects, it may also have to do with the long-time lags (10 and 4 years) used in this research. Our exploratory analyses in Study 1 showed that the socialization effects of work–family experiences decayed over time. As such, using long time lags might have reduced the chance for us to observe relatively larger effect sizes, which made our research a conservative test of the hypotheses. The small effect sizes might also be due to the fact that personality trait change is often relatively small (e.g., an issue similar to range restriction in meta-analyses). Roberts and Wood (2006) pointed out that one reason as to why personality traits do not change dramatically is that in environments that are extremely different from people's personality, people "will work to avoid or escape prolonged exposure to the experience" (p. 22). Yet, this does not necessarily mean that there is little practical significance of the observed long-term selection effect of personality (Prentice & Miller, 1992). Personality traits influence a large number of important work and life outcomes ranging from job performance, career success, well-being to longevity (Judge et al., 2002; Oh & Berry, 2009; Ones et al., 2007; Roberts et al., 2007). Small selection effects may also accumulate over time (Roberts et al., 2007). Thus, changes of personality traits may translate into a variety of work and life outcomes that produce significant consequences over time.

Implications for Theory and Research on Personality Development in Organizations

Organizational research has been dominated by the dispositional perspective of personality traits (Li, Li, et al., 2021; Sackett et al., 2017; Tasselli et al., 2018), such as the Five Factor model (McCrae

& Costa, 1999, 2008). Under such influences, a predominant assumption underlying organizational research is that personality traits drive work behaviors and well-being, such as work–family experiences, not vice versa (Bruck & Allen, 2003; Eby et al., 2010; Wayne et al., 2016). The recent paradigm shift in personality science has not been well-recognized or fully integrated in organizational research.

In this vein, our research makes important theoretical contributions to the literature in organizational research. First, it sheds light on the causal interpretation of the linkages between personality and work–family experiences. It challenges, and yet enriches, the dispositional perspective of personality (Wayne et al., 2016) by first probing what and how personality traits modify work–family experiences, and then investigating the possibility of reverse causality such that work–family experiences may cultivate personality adaptation. Moreover, by building and testing dynamic change-related reciprocal relations, our research suggests that the selection effect and the socialization effect may not necessarily run counter to each other; in fact, they may coexist in a reciprocal manner. Consistent with the cross-sectional findings from previous research (e.g., Allen et al., 2012; Michel et al., 2011), our rigorous examination of the classic dispositional perspective revealed significant lagged effects of personality traits, especially Extraversion and Neuroticism, on changes of work–family experiences. Yet we also recorded some different findings. For instance, two meta-analyses (e.g., Allen et al., 2012; Michel et al., 2011) reported significant relationships between all the four personality traits with the four work–family variables. Our findings show that the lagged effects of agreeableness on changes of family-to-work conflict were not significant across two studies. Our longitudinal research with a focus on change offers a cautionary note to the interpretation of prior findings based on cross-sectional designs.

Second, this research theoretically and empirically advances the work–family literature by extending the consequences of work–family experiences to personality adaptation, a fundamental type of personal development. In fact, the notion that work–family experiences spur personality development has been alluded to in the early work–family literature that such experiences "may enrich the personality and enhance one's self-conception" (Sieber, 1974, p. 576). Yet, this notion has not been fleshed out theoretically nor substantiated in empirical research (Wayne et al., 2016). Our research serves as one important step forward by unraveling *what*, *how*, and *why* work–family experiences fuel personality adaptation. Work–family researchers have suggested that a theoretical shift is needed that recognizes both stability and change in work–family experiences across time (Allen et al., 2019; Smith et al., 2022). By demonstrating that personality traits also contribute to change in work–family experiences, our dynamic approach provides an important step toward development of theory that challenges and complements existing work–family research.

Third, replicated findings across the two studies regarding the lagged selection effect of Conscientiousness on work-to-family facilitation and family-to-work facilitation reduced over time challenge the dominant dispositional perspective of personality in organization research (Tasselli et al., 2018). Such a perspective has taken a static view on the influences of personality traits, which assumes that such influences do not change over time—because personality traits do not change over time (Wayne et al., 2016). Our exploratory analyses heeded the call for more research on the role of time (George & Jones, 2000; Mitchell & James, 2001) in organizational research (Shipp & Cole, 2015). Our findings might be related to the fact that our participants were generally in middle and late careers (e.g., 40s–60s). In middle and late career stages, people may gradually have less discretion over time in selecting their occupations, organizations, partners, and work and family environments (Edwards, 2008).

Study Limitations and Future Research

Our research has limitations that point to important directions for future research. First, in keeping with previous research (Lucas & Donnellan, 2011; Roberts et al., 2003; Schwaba & Bleidorn, 2019), we capitalized on longitudinal archival data. Although the databases allowed us to examine personality development across time that is difficult to study otherwise, the personality measures captured broad personality traits with somewhat low reliability because they are based on short forms of personality scales with reverse-worded items (Wang et al., 2015). Yet, previous research has shown sufficient reliabilities and validities for the personality measures (Li, Li, et al., 2021). Future research could examine changes of narrow personality traits (e.g., facets of the Big Five). Second, using archival data prevents us from capturing more nuances in work–family experience, including different types of work–family conflicts (e.g., time-based, strain-based, and behavior-based; Greenhaus & Beutell, 1985) and multiple dimensions of positive work–family experiences (Greenhaus & Powell, 2006). For example, the more behavioral aspects of work–family experiences may more strongly connect to the more behavioral aspects of personality. Future research should assess more fine-grained positive and negative work life experiences.

Third, recent theoretical work suggests that multiple pathways of personality development may operate in multiple phases (Roberts, 2018; Wagner et al., 2020; Wrzus & Roberts, 2017). Such processes may include changes of short-term resources, affect, strivings, and behaviors over weeks; such processes may also encapsulate routinization and habitualization of short-term changes over years (Quintus et al., 2021; Stieger et al., 2021) and even involve biological changes (Arvey et al., 2014, 2016; Li et al., 2020; Wagner et al., 2020). Furthermore, in our mediation model, in order to be consistent with other models, we examined the mediating role of changes of anxiety captured at the same time frame as changes of personality traits. As such, our examination of change of state-like anxiety as a proxy of changes of strain, affect, and resources was a potential mechanism of personality development in this research. It is also possible that other more trait-like variables (e.g., trait-like anxiety) may also play a mediating role in such multiple processes of personality development. Such trait-like variables might be better able to capture the processes of habitualization and generalization. As such, we reckon that we were not able to represent all the relevant processes of personality development. We encourage scholars to develop theories of personality development that are finer tuned to influences from work experiences and, if possible, examine multiple mechanisms of personality development.

Fourth, the role of time represents a crucial and thorny issue not only in personality development (Hopwood et al., 2021) but also in work–family research (Allen et al., 2019) and most longitudinal research (Dormann & Griffin, 2015). We adopted time lags consistent with the work–family (Allen et al., 2019) and the personality literatures (Roberts et al., 2006). However, our time

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intervals may not be optimal and using merely three time points prevents us from examining a possible full inverted-U shape for the effects of personality and work–family experiences to unfold over time (Mitchell & James, 2001). Future research should use different time lags and more frequent assessment to extend our findings.

Fifth, in alignment with the majority of research on personality development (Bleidorn et al., 2018; Caspi et al., 2005; Roberts et al., 2006) and work–family experiences (Allen & Eby, 2016; Casper et al., 2018), we assessed work–family experiences and personality traits via self-report instruments. Using self-report measures may raise the concern whether common method variance may drive our findings (Podsakoff et al., 2003). We believe this is not a serious issue with LCS modeling. With this approach, a *change score* is defined and operationalized as "the part of the score of Y[2] that is not identical to Y[1]" (McArdle, 2009, p. 583). As such, if a common method variance variable (e.g., social desirability) affects one variable at Time 1, it is assumed to affect this variable at Time 2 to a similar extent (Matusik et al., 2021; McArdle, 2009; Podsakoff et al., 2003). Therefore, the difference score should be free from method variance. Furthermore, this approach enabled us to control for, for instance, the influences of personality at Time 1 when using work–family experiences at Time 1 to predict personality change from Time 1 to Time 2 (similar to autoregression). This also alleviates the concern that time-invariant individual characteristics may inflate the findings (Frese & Zapf, 1988). Indeed, if common method variance was a major issue inflating our findings, we should have found significant findings for all the hypothesized relationships. Yet, this is not the case for this research. Future research may assess personality traits with both self-report and other-report measures to capture dual processes of personality development (Wrzus et al., 2023).

Practical Implications

Findings of our research offer important practical implications for employees and organizations to better manage work–family issues and employee career development. Many organizations are interested in selecting employees based on their personality traits, which seems natural practical implications from organizational personality research (Sackett et al., 2017). Yet, our findings suggest that they should be mindful that the predictive validity of some personality traits—Conscientiousness and Agreeableness—may deteriorate over time. In other words, when organizations are using personality traits for selection purposes, they should be aware that the utility of personality traits in predicting phenomena such as work–family experiences may be high when the outcome variable is assessed earlier than later. This is an important implication because researchers and practitioners typically assume that the predictive validity of personality traits does not change over time (Sturman, 2007).

Furthermore, we also found that work–family experiences had significant influences on altering our personality traits, and the influences were channeled potentially through change of anxiety. Shipp and Cole (2015, p. 253) cautioned that "as scholars begin using rich longitudinal data to test more comprehensive theories, we may find that previous practical inferences based on cross-sectional research are erroneous." Our findings revealed that practical implication of significant relationships between personality and work–family variables may not always about personal selection. In fact, realizing the importance of socialization effect of work–family experiences on personality development, organizations may take the responsibility and consider various practice and policies to reduce strain and negative affect, and providing more resources in order to reduce the negative effects and enhance the benefits of work–family experiences. For example, research shows that organizations and supervisors who are family-supportive have employees who report less work–family conflict (Allen & French, 2023). Organizations may also strategically consider using such practices to enhance their reputations and to attract, motivate, and retain talents, because work–family experiences may alter personality traits, which in turn may bring about important career benefits for employees.

Conclusion

Synthesizing the literature on personality science and organizational research, we investigated what, how, and why the interplay between two central life domains—work and family—may be related to personality trait development in middle and late adulthood in change-related reciprocal relationships. We examined our hypotheses and research questions with two longitudinal studies and garnered generally replicable findings. We hope this research stimulates more cross-fertilization between personality science and organizational research to advance the budding research on personality development in more areas of psychology.

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