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Moderation of associations between interparental stress and (mal)adaptation by adolescents' personality: Contrasting differential susceptibility and diathesis–stress models

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Abstract

Objective: This study aimed to contrast differential susceptibility and diathesis–stress models in examining adolescents' Big Five personality dimensions as moderators of longitudinal associations between interparental stress and (mal)adaptation in emerging adulthood (i.e., self-efficacy, externalizing and internalizing behavior).

Method: Data from the large longitudinal Flemish Study on Parenting, Personality and Development were used (475 families, adolescents' $M_{age} = 15.82$, $SD_{age} = 1.15$), with both parents reporting on their interparental stress and mothers reporting on the adolescent's personality and in 2009, and emerging adults reporting on their own (mal)adaptive functioning in 2009 and 2015 and their personality in 2015.

Results: Multivariate models showed that extraversion, benevolence, emotional stability and imagination were uniquely related to (mal)adaptation across the 6-year interval. In general, our results exhibited no consistent moderating role for adolescents' personality. Only for girls, high levels of extraversion functioned as a "susceptibility maker" in associations between father's interparental stress and self-efficacy, and, low levels of emotional stability functioned as a "vulnerability marker" in associations between parents' interparental stress and self-efficacy.

Conclusions: The interaction effects as well as their (restricted) generalizability across gender should be replicated before drawing firm conclusions. Adolescents' personality characteristics were important predictors of (mal)adaptation during the transition into emerging adulthood.

KEYWORDS
diathesis–stress model, differential susceptibility hypothesis, emerging adulthood, interparental stress, personality

1 | INTRODUCTION

The theoretical notion that children respond differently to the same environment is quite consistent in the literature, with repeatedly found evidence for the differential susceptibility and diathesis–stress models (Belsky & Pluess, 2016; Zuckerman, 1999). However, attention for these models in the context of the interparental relationship has been scarce

(e.g., Philbrook, Erath, Hinnant, & El-Sheikh, 2018). This is unfortunate because the interparental subsystem is recognized as one of the most influential familial contexts for child development by several theoretical paradigms, such as the social learning theory (Bandura, 1977), family systems models (Cox & Paley, 2003; Minuchin, 1974), emotional-security theory (Davies & Cummings, 1994), and the cognitive-contextual model (Grych & Fincham, 1990). Overall, these models suggest that problems in the interparental relationship affect other individuals and subsystems in the family, such as the developing child, via mechanisms of stress and appraisals or by influencing children's internal working models of social relationships. In support of this notion, a growing number of empirical findings shows direct links between interparental conflicts or stress and several developmental outcomes in children and adolescents, such as externalizing and internalizing problems, academic achievements, or social outcomes (Ghazarian & Buehler, 2010; McCoy, Cummings, & Davies, 2009; Van Eldik et al., 2020).

Importantly, a recent meta-analysis showed that there is also substantial variance in effect sizes linking the interparental relationship and developmental outcomes that cannot be consistently explained by sample or study characteristics (Van Eldik et al., 2020). Integrating these results with individual difference models (Belsky & Pluess, 2016; Zuckerman, 1999) leads to the hypothesis that the (individual) variability in associations between the interparental relationship and developmental outcomes may be explained by interactions with individual characteristics that make children more or less affected by this familial stressor. In that light, this study was designed to break new ground by being the first to contrast differential susceptibility and diathesis–stress models in examining adolescents' Big Five personality dimensions as moderators of longitudinal associations between interparental stress and the (mal)adaptation of emerging adults (i.e., externalizing and internalizing problems, and general self-efficacy). In this study, interparental stress refers to the level of experienced dissatisfaction, lack of support, and disagreements in the relationship of two partners (i.e., in line with the concept of (reversed) relationship quality; Abidin, 1995; Van Eldik et al., 2020).

The differential susceptibility hypothesis argues that individual characteristics that make some children more vulnerable to negative environments *also* make them benefit most from positive environments (Belsky et al., 2007; Belsky & Pluess, 2009, 2016). Differential susceptibility goes beyond the classic diathesis–stress model, which states that certain individuals are *only* more vulnerable to negative environments due to certain individual factors (Zuckerman, 1999). Both these models have received support from studies reporting interactions between several environmental factors and different individual characteristics (for an overview see Belsky & Pluess, 2016).

One of the individual characteristics that can make children differentially susceptible or vulnerable for their environment is their personality (Slagt et al., 2016). The Big Five personality dimensions capture fundamental interindividual differences in how people respond to their environment, in five dimensions: extraversion, benevolence, conscientiousness, emotional stability, and imagination (Caspi & Shiner, 2006; Costa et al., 2019; Denissen & Penke, 2008a). As far as we know, these personality dimensions have not been studied as potential vulnerability or susceptibility markers in associations between the interparental relationship and adjustment in emerging adulthood yet. However, two related lines of research do inform us about potential interactions between environmental and individual characteristics within the familial context. First, based on the clear links between temperament and personality as two traditions to describe individual differences across the life span (De Pauw & Mervielde, 2010), we can learn from the few studies that have examined the moderating role of children's temperament in associations between interparental conflict and developmental outcomes (David & Murphy, 2007; Davies & Windle, 2001; Hentges et al., 2015; Thompson et al., 2020). Overall, these studies generated findings showing that different temperamental attributes (i.e., task orientation, dysrhythimicity, effortful control, negative emotionality) affected the extent to which interparental discord was associated with behavioral problems and peer relations in preschoolers and adolescents. The only study that contrasted between differentially susceptibility and diathesis–stress models provided specific support for the differential susceptibility hypothesis (Hentges et al., 2015). Preschoolers with high negative emotionality exhibited greater increases in problem behavior when exposed to high destructive interparental conflict, and, these same children evidenced greater decreases in problem behavior in the context of constructive interparental conflict. The temperamental trait negative emotionality—or negative affect—is related to the personality dimension emotional stability (De Pauw & Mervielde, 2010).

Second, although the Big Five personality dimensions (i.e., Extraversion, Agreeableness, Conscientiousness, Emotional Stability (vs. Neuroticism), and Openness to Experience; Caspi & Shiner, 2006) have not been studied as potential vulnerability or susceptibility markers in associations between the interparental relationship and children's adjustment, yet, they have been studied as such for other aspects in the family context. Two studies, which used data from the same longitudinal study as the present paper, showed that children's extraversion, agreeableness, conscientiousness, and imagination affect the strength of associations between parental overreactive discipline and externalizing behavior both cross-sectionally and over time (De Haan et al., 2010; Prinzie et al., 2003). Additionally, two other studies showed that children's agreeableness and

extraversion shaped associations between parental psychological control and externalizing and internalizing behavior, respectively (Mabbe et al., 2016), and, adolescents' extraversion, agreeableness, and emotional stability affected associations between parental overprotectiveness and social competence (Lianos, 2015). Although these studies, unfortunately, did not explicitly test whether moderating effects support the differential susceptibility hypothesis or diathesis stress model, these results support the idea that effects of the family context on different child outcomes may depend on children's individual differences captured by the Big Five personality dimensions.

In the present study we focus on the transition into emerging adulthood, to add to the existing knowledge about if and how family dynamics continue to play a role for children during this life phase. Emerging adulthood is recognized as a most unstable developmental stage characterized by identity exploration, transitions in social roles and love relationships, and making career decisions. The instability of this life phase makes emerging adults prone to experiencing psychological problems (Arnett et al., 2014; Roisman et al., 2004). Emerging adulthood is also a developmental period in which individuals feel they are "in-between" adolescence and adulthood, focused on a gradual process of becoming independent, yet, in close contact and relying on their parents and family context (Arnett et al., 2014). One prospective study showed support for long-term negative effects: adolescents whose parents experienced a low quality in their partner relationship had a higher risk for experiencing psychopathology in emerging adulthood (Hayatbakhsh et al., 2013). To allow a broader view on psychological functioning in emerging adulthood, we focus on three important markers of well-being in emerging adulthood: externalizing and internalizing behavior, and general self-efficacy (Arnett et al., 2014). Externalizing (i.e., aggressive behavior and delinquency) and internalizing behavioral problems (i.e., depressive symptoms, anxiety, and somatic complaints) are two important indicators of maladaptation throughout development and similarly in emerging adulthood. General self-efficacy, defined as confident self-beliefs to cope with a variety of demands in life, are shown to be an important predictor of life satisfaction and (absence of) loneliness in this life phase, and therefore, a valuable indicator of adaptation (Schwarzer & Jerusalem, 1995; Thompson, 2017).

Moreover, an additional aim of this paper was to obtain more knowledge about the generalizability of associations between the interparental relationship and emerging adults' (mal)adaption, by considering the gender composition of parent-adolescent dyads. The gendered family process model highlights gender as an important organizer of family processes (Endendijk et al., 2018). A recent meta-analysis obtaining a fine-grained approach regarding specific interparental relationship characteristics and domains of child functioning, showed that girls experienced higher emotional reactivity and more internalizing problems in reaction to hostile interparental conflict than boys (Van Eldik et al., 2020). Also, prior research has shown evidence, albeit mixed, for differences between mother and fathers regarding spill-over processes of interparental difficulties onto parenting behavior (e.g., Elam et al., 2017) and triadic family functioning (e.g., De Mendonça et al., 2019). These differences in spill-over processes might explain profound effects on children specifically of interparental stress experienced by mothers or fathers. Therefore, we differentiated between gender-compositions of the parent-adolescent dyads to explore gendered family processes in associations between interparental stress and the (mal) adaptation of emerging adults.

To summarize, the overall aim of this multi-informant study was to contrast differential susceptibility and diathesis–stress models in examining adolescents' Big Five personality dimensions as moderators of associations between interparental stress and (mal)adaptation in emerging adulthood across 6 years. Thereby, we add to existing knowledge by providing new insights in the applicability and generalizability of these two theoretical models in the context of the interparental relationship and (mal)adaptation in emerging adulthood. We will examine the robustness of these moderation effects by analyzing both (1) a *prospective* model, with predictor variables assessed at 16 years old and outcomes at 22 years old, and (2) a *longitudinal* model, in which we additionally controlled for initial levels of externalizing and internalizing behavior (unfortunately, no assessment of general self-efficacy was available at T1). In addition, this study will add to knowledge about the importance of the interparental relationship in this developmental period in general. Finally, we will explore whether gender-composition of the parent-adolescent dyads moderates these associations.

Although we can expect adolescents' personality dimensions to moderate associations between interparental stress and (mal) adaptation in emerging adulthood based on theory and previous research focusing on temperament (Hentges et al., 2015) or the parenting context (De Haan et al., 2010; Lianos, 2015; Mabbe et al., 2016), the lack of empirical research that examined personality dimensions as susceptibility markers for interparental stress specifically prevented us from formulating any specific hypotheses. Identifying what factors make adolescents affected by interparental stress during this developmental transition to a smaller or greater extent, has the potential to help target intervention and prevention programs in a more informed way by identifying a potentially vulnerable or susceptible group.

2 | METHODS

2.1 | Participants and procedure

Participants were part of a total sample of 674 families, who participated in the large longitudinal Flemish Study on Parenting, Personality and Development. This study started in 1999 and consists of nine waves of data collection. This study was approved by the board of the Katholieke Universiteit Leuven. A proportional stratified sample of elementary-school-aged children and their families was randomly selected (see Prinzie et al., 2003). In this study, data of the sixth (T1: 2009) and eighth wave (T2: 2015) were used as these contained the measures of interest and included the transition into emerging adulthood. In 2009, both parents and adolescents received paper questionnaires by mail and in 2015 emerging adult participants completed online questionnaires.

In total, 475 families participated in 2009 and 2015 (445 mothers and 396 fathers participated at T1 and 386 emerging adults participated at T2). At T1, mothers were on average 45.04 years ($SD = 3.55$), fathers were on average 46.97 years ($SD = 4.28$), and children were on average 15.82 years old ($SD = 1.15$). Of the 475 families, 78.3% of parents were together at T1, all families were native Belgians and parents were of mixed educational backgrounds representative of the Flemish population. At T2, children were on average 21.82 ($SD = 1.15$) years old, 56% followed some form of education and 36.3% had a job. Regarding living situation, 48.8% lived with their parents, whereas 18.5% lived in a student home, 7.2% lived with a friend or romantic partner, and 0.8% lived alone, 4.0% reported "other" as living situation, and for 20.6% living situation was unknown. Little's MCAR showed that missing data points were not completely at random ($\chi^2(194) = 245.08$, $p = .008$). A group of 85 (of the 475) families participated only at T1. Mothers in this group reported higher levels of interparental stress ($t(430) = 6.24$, $p = .021$) and lower levels of adolescents' benevolence ($t(443) = 15.30$, $p = .001$), Conscientiousness ($t(443) = .36$, $p = .002$), and imagination ($t(443) = .60$, $p = .001$) compared to the sample that participated at both waves ($N = 364$) or only at T2 ($N = 26$). No differences were found in father-reported interparental stress, extraversion, emotional stability, problem behavior or age, gender and educational level of the parents.

2.2 | Measures

2.2.1 | Interparental stress

Mothers and fathers reported on their own experienced support, disagreements and intimacy in their partner relationship at T1, using the seven-item *marital relationship* subscale of the Dutch translation of the Parental Stress Index (Abidin, 1995; De Brock et al., 1992). Items (e.g. "Having a child has caused more problems than I expected in my relationship with my spouse") were answered on a six-point Likert scale (1 = *totally disagree* to 6 = *totally agree*). Average scale scores were calculated (mothers: $\alpha = .80$, $N = 432$, fathers: $\alpha = .81$, $N = 396$).

2.2.2 | Adolescents' Big Five personality dimensions

At T1, mothers reported on their adolescents' Big Five personality characteristics, using the Hierarchical Personality Inventory for Children (H*i*PIC; Mervielde & De Fruyt, 2002). At T2, emerging adults reported on their own Big Five personality characteristics using the H*i*PIC (Mervielde & De Fruyt, 2002). The HiPIC consists of 144 items that are answered on a five-point Likert scale (1 = *almost not characteristic* to 5 = *very characteristic*). Number of items, lower order facets, and Cronbach's alphas for the five dimensions of the H*i*PIC are: Extraversion (32 items; energy, expressiveness, optimism, and reversed shyness; $\alpha_{\text{mothersT1}} = .93$, $\alpha_{\text{self-reportT2}} = .92$), Benevolence (40 items; altruism, compliance, and reversed dominance, egocentrism, and irritability; $\alpha_{\text{mothersT1}} = .93$, $\alpha_{\text{self-reportT2}} = .89$), Conscientiousness (32 items; achievement striving, concentration, orderliness, and perseverance; $\alpha_{\text{mothersT1}} = .96$, $\alpha_{\text{self-reportT2}} = .93$), Emotional stability (16 items; reversed anxiety, and self-confidence; $\alpha_{\text{mothersT1}} = .90$, $\alpha_{\text{self-reportT2}} = .92$) and Imagination (24 items; curiosity, creativity, and intelligence; similar to adult Openness to Experience; $\alpha_{\text{mothersT1}} = .93$, $\alpha_{\text{self-reportT2}} = .86$).

2.2.3 | Externalizing and internalizing problems

At T1, adolescents reported on their externalizing and internalizing behaviors using the Youth Self-Report (Achenbach, 1991; Ivanova et al., 2007; Verhulst, Van der Ende, & Koot, 1997). The externalizing syndrome scale consists of 32 items assessing aggressive (e.g., "I fight a lot") and rule-breaking behaviors (e.g., "I lie or cheat"). The internalizing syndrome scale consists of 31 items assessing anxious (e.g., "I am nervous or tense"), withdrawn (e.g., "I am too shy"), and somatic symptoms (e.g., "I am overly tired without a clear cause"). At T2, emerging adults reported on their externalizing and internalizing behavior using the Adult Self-Report (Achenbach, 1991, 2007; Achenbach & Rescorla, 2003). The externalizing syndrome scale consists of 35 items and assesses aggressive (e.g., "I argue a lot"), rule-breaking (e.g., "I lie or cheat"), and intrusive behaviors (e.g., "I show off or

clown"). The internalizing syndrome scale consists of 39 items that assess anxious (e.g., "I am nervous or tense"), withdrawn (e.g., "I would rather be alone than with others"), and somatic symptoms (e.g., "I feel dizzy or light-headed"). All items of the YSR and ASR were answered on a three-point Likert scale (0 = *not true,* 1 = *somewhat or sometimes true*, 2 = *very true or often*) and total scores were computed by summing all items scores for the externalizing (α_{YSR} = .85, α_{ASR} = .86) and internalizing scale (α_{YSR} = .88, α_{ASR} = .91).

2.2.4 | Self-efficacy

At T2, emerging adults filled-in the ten-item Dutch translation of the General Self-Efficacy scale (e.g., "Thanks to my resourcefulness, I can handle unforeseen situations") (Schwarzer & Jerusalem, 1995; Teeuw, Schwarzer, & Jerusalem, 1994). The items were answered on a four-point Likert scale (1 = *not at all true* to 4 = *exactly true*) and average scores were calculated (α = .85).

2.3 | Statistical analyses

First, descriptive statistics for and bivariate correlations between the variables were calculated in SPSS 24. Then, to answer our research questions, a multivariate path model was estimated in Mplus 8.0 (Muthén & Muthén, 2017). Analyzing our three outcomes variables in one model enabled us to control for comorbidity in the outcomes as well as examine unique variance explained by a predictor. We used a robust maximum likelihood estimator (MLR) to take into account any non-normality in our data and full information likelihood (FIML) to take into account missing data. Dependency of mother and father ratings was accounted for by adjusting standard errors using a sandwich estimator by specifying the *complex* option in Mplus (Muthén & Satorra, 1995). To reduce multicollinearity as well as facilitate the interpretation of interaction effects, predictor and moderator variables were centered before interaction terms were computed in SPSS 24 and saved for use in Mplus.

Two sets of path analyses were conducted, i.e., (1) prospective analyses, with predictor variables (interparental stress, adolescent personality) at 16 years old and outcome variables (externalizing, internalizing, self-efficacy) at 22 years old, and (2) longitudinal analyses, with predictor variables at 16 years old and outcome variables at 22 years old, and additionally controlling for externalizing and internalizing problems at 16 years old (unfortunately, no prior assessment of general self-efficacy was available). For both sets of analyses, main effects of interparental stress and adolescents' personality dimensions were included in Model 1, and the interaction terms of interparental stress with each of the personality dimensions were added in Model 2. In all models, we included the personality dimensions at 22 years old (T2) (i.e., controlling for the stability paths for personality from T1 to T2 and covariances of personality at T2 with the outcomes; Durbin et al., 2016) (see Figure 1 for the overall statistical model).

Moreover, all models were run using multi-group models, in order to examine differences in pathways across the four parent-child gender dyads (mother reported interparental stress of sons and daughters (N = 225), and father reported stress of sons and daughters (N = 250). Model fit statistics of models in which stability paths and main effects (Model 1a) and interaction effects (Model 2a) were estimated freely across the four gender dyads, were compared to model fit statistics of models in which these effects were constrained to be equal across the four groups (Model 1b and 2b, respectively).

To examine whether significant interaction effects supported the differential susceptibility hypothesis or the diathesis–stress model, we conducted four post hoc analyses according to statistical recommendation outlined by Del Giudice (2017a, 2017b) and Roisman and colleagues (2012). First, simple slope testing was performed. Scores on the moderator (i.e., personality dimension) at 2SD below and above the sample mean were used to derive simple regression lines for the effects of interparental stress on the outcome variable at scores of 2SD below and above the sample mean. Next, the "regions of significance" on interparental stress (RoS on X) were generated using the Johnson-Neyman technique, which identifies the range of values of interparental stress at which of the moderator (i.e., personality dimension) is related to the outcome variable. Results support the differential susceptibility hypothesis when the moderator is related to the outcome variable at *both* high and low levels of interparental stress. Results support the diathesis–stress if the moderator is related to the outcome variable *only* at high levels of interparental stress. Then, because RoS testing is dependent on sample size, we further quantified the interaction to confirm support for one or the other model by calculating the "proportion affected" (PA) and the "proportion of interaction (PoI) index" (Del Giudice, 2017a, 2017b; Roisman et al., 2012). The PA identifies the proportion of participants who benefit from the positive environment (i.e., low interparental stress). Evidence for the differential susceptibility hypothesis would come from a PA index around .50 and support for the diathesis–stress model from a PA index of .00 (Roisman et al., 2012, pp. 395–396). This PoI index is the proportion of the total area between the two lines in the simple slopes plot that lies on the positive side of the cross-over point (i.e., low interparental stress). In other words, it calculates the proportion of individuals affected "for better." Combined with the RoS on X test, values of
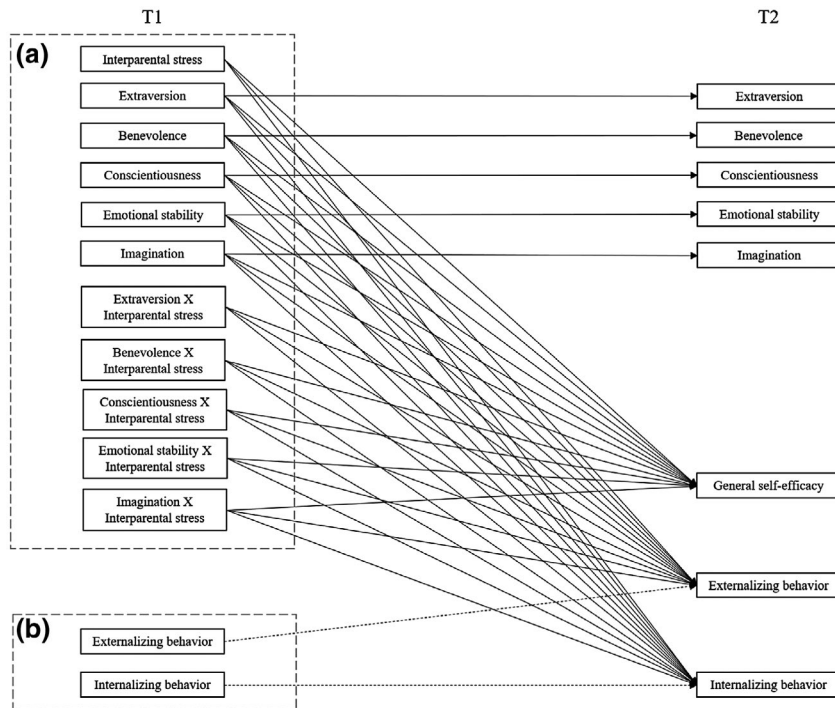
FIGURE 1 The overall statistical model for the prospective (A) and longitudinal (A and B) set of analyses. *Note.* Covariances among the measures within each time point were included in the analyses, but are omitted from this figure for reasons of clarity. The dashed lines represent regression paths from problem behavior at T1 to problem behavior at T2 (B), which were *only* included in the longitudinal set of analyses (i.e., not in the prospective analyses). In both the prospective and longitudinal sets of analyses, main effects of interparental stress and adolescents' personality dimensions were included in Model 1, and interaction terms of interparental stress with each of the personality dimensions were added in Model 2

the PoI index between .20 and .80 could be interpreted as supportive of the differential susceptibility hypothesis and values at .00 as evidence for the diathesis–stress model (Del Giudice, 2017a, 2017b).

3 | RESULTS

3.1 | Descriptive statistics

Descriptive statistics and bivariate correlations are displayed in Table 1. All correlations were in the expected direction.

3.2 | Direct and moderation effects: Prospective and longitudinal analyses

Model 1 of both the prospective and longitudinal analyses with all paths freely estimated across the four parent-child gender dyads provided a good fit to the data (prospective: $\chi^2(20) = 34.24$, $p = .03$, $CFI = .99$, RMSEA = .06 [.02–.09]; longitudinal: $\chi^2(76) = 184.91$, $p < .001$, $CFI = .97$, RMSEA = .08 [.06–.09]). Based on modification indices, we added one pathway in the prospective model and two pathways in the longitudinal model that improved our statistical model (i.e., in both prospective and longitudinal analyses: interparental stress at T1 was negatively related to imagination at T2, in the longitudinal analyses: internalizing problems at T1 was negatively related to emotional stability at T2 years; model fit prospective model: $\chi^2(16) = 16.72$, $p = .404$, $CFI = 1.00$, RMSEA = .01 [.00–.06]; model fit longitudinal

model: $\chi^2(68) = 127.00$, $p < .001$, $CFI = .98$, RMSEA = .06 [.04–.08]).

Next, in both the prospective and longitudinal analyses, all direct effects and stability paths could be constrained to be similar across parent-child gender dyads (Satorra-Bentler scaled $\Delta\chi^2$ for prospective analyses = 159.27, $\Delta df = 132$, $p = .053$; model fit constrained model prospective analyses: $\chi^2(148) = 175.11$, $p = .06$, $CFI = .99$, RMSEA = .03 [.00–.04]; Satorra-Bentler scaled $\Delta\chi^2$ for longitudinal analyses = 167.28, $\Delta df = 141$, $p = .065$; model fit constrained model longitudinal analyses: $\chi^2(209) = 307.01$, $p < .001$, $CFI = .97$, RMSEA = .04 [.03–.06]). See Tables 2 and 3 for the final results of Model 1 of respectively the prospective and longitudinal analyses.

Model 2 of both the prospective and longitudinal analyses with all interactions effects freely estimated across the four parent-child gender dyads provided a good fit to the data (prospective: $\chi^2(248) = 301.87$, $p = .01$, $CFI = .98$, RMSEA = .03 [.02–.04]; longitudinal: $\chi^2(309) = 426.62$, $p < .001$, $CFI = .96$, RMSEA = .04 [.03–.05]). Then, our model comparisons showed that not all interaction effects could be constrained to be equal across the four gender groups (Satorra-Bentler scaled $\Delta\chi^2$ for prospective analyses = 106.64, $\Delta df = 45$, $p < .001$; Satorra-Bentler scaled $\Delta\chi^2$ for longitudinal analyses = 103.80, $\Delta df = 45$, $p < .001$). Based on the modification indices, we released constraints across the groups until the constrained model fitted the data not significantly worse. Partly constrained models, in which four (out of fifteen) interaction effects were freely estimated across the four groups did not fit the data significantly worse than the model with freely

TABLE 1 Correlations between and descriptive statistics for study variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.
T1 (2009)																	
1. M:Interparental stress																	
2. F:Interparental stress	.50***																
3. Extraversion	−.21***	−.17***															
4. Benevolence	−.24***	−.18***	.18***														
5. Conscientiousness	−.16*	−.05	.18***	.50***													
6. Emotional stability	−.26***	−.17**	.45***	.19***	.06												
7. Imagination	−.21***	−.16**	.48***	.31***	.53***	.34***											
8. Externalizing YSR	.16**	.14**	.05	−.43***	−.29***	.02	−.13**										
9. Internalizing YSR	.18***	.16**	−.25***	−.06	.05	−.39***	−.05	.33**									
T2 (2015)																	
10. Externalizing ASR	.08	.01	.05	−.26***	−.14**	.01	−.05	.44***	.15*								
11. Internalizing ASR	.14**	.06	−.26***	−.13*	.01	−.28***	−.04	.15*	.41***	.53***							
12. Self-efficacy	−.06	−.01	.25***	−.01	.04	.37***	.23***	−.01	−.25***	−.15**	−.39***						
13. Extraversion	−.10	−.03	.46***	−.01	.04	.16**	.11*	.06	−.23***	<.01	−.50***	.34***					
14. Benevolence	−.07	−.05	−.05	.30***	.10	.01	−.01	−.30***	−.06	−.57***	−.24***	.08	.04				
15. Conscientiousness	−.09	−.06	.11*	.16**	.48***	−.02	.19***	−.23***	−.07	−.32***	−.17*	.17**	.25***	.26***			
16. Emotional stability	−.09	−.01	.18***	.01	−.16*	.34***	.06	.01	−.41***	−.20***	−.68***	.52***	.42***	.09	.06		
17. Imagination	−.12*	−.12*	.20***	.01	.11*	.16**	.36***	−.02	−.09	−.06	−.16**	.42***	.42***	.05	.40***	.28***	
N	432	396	445	445	445	445	445	444	445	385	385	372	390	390	390	390	390
M	2.07	1.94	3.37	3.49	3.21	3.51	3.53	10.16	10.57	10.36	14.64	2.89	3.39	3.66	3.51	3.23	3.66
SD	.92	.81	.55	.47	.67	.61	.59	6.47	7.96	7.12	10.42	.40	.54	.39	.55	.74	.47

Abbreviations: ASR, adult self-report; F, father-report; M, mother-report; YSR, youth self-report.

*p < .05; **p < .01; ***p < .001.

TABLE 2 Model results for prospective analysis with predictor at 16 years and outcomes at 22 years

	Externalizing				Internalizing				General self-efficacy			
	B	SE	β	95% CI for B	B	SE	β	95% CI for B	B	SE	β	95% CI for B
Direct effects (model 1)												
Interparental stress	−.27	.28	−.04	−.82 to .27	.09	.37	.01	−.62 to .81	.02	.02	.06	−.02 to .06
Extraversion	**1.74**	**.69**	**.15***	**.38 to 3.09**	**−3.67**	**1.15**	**−.20****	**−5.93 to −1.42**	.07	.04	.11	−.01 to .15
Benevolence	**−4.39**	**.96**	**−.33****	**−6.26 to −2.52**	−2.20	1.35	−.10	−4.85 to .44	**−.12**	**.05**	**−.15***	**−.22 to −.01**
Conscientiousness	−.28	.71	−.03	−1.67 to 1.11	.38	1.07	.03	−1.72 to 2.48	<.01	.04	<.01	−.07 to .08
Emotional stability	−.28	.68	−.03	−1.62 to 1.06	**−3.62**	**1.10**	**−.21****	**−5.77 to −1.47**	**.18**	**.04**	**.29*****	**.11 to .25**
Imagination	.15	.84	.01	−1.50 to 1.79	2.55	1.31	.15	−.01 to 5.11	**.11**	**.05**	**.19***	**.02 to .21**
Interaction effects (model 2)												
Interparental stress	−.11	.28	−.02	−.66 to .44	.13	.38	.01	−.61 to .87	.03	.02	.07	−.01 to .06
Extraversion	**1.73**	**.69**	**.15***	**.38 to 3.08**	**−3.68**	**1.15**	**−.20****	**−5.94 to −1.43**	.05	.04	.08	−.03 to .13
Benevolence	**−4.38**	**.94**	**−.33****	**−6.22 to −2.54**	−2.32	1.34	−.11	−4.94 to .30	**−.11**	**.05**	**−.14***	**−.21 to −.01**
Conscientiousness	−.30	.70	−.03	−1.68 to 1.08	.64	1.06	.04	−1.44 to 2.71	.01	.04	.01	−.07 to .08
Emotional stability	−.32	.68	−.03	−1.66 to 1.01	**−3.53**	**1.08**	**−.21****	**−5.65 to −1.42**	**.20**	**.04**	**.32*****	**.12 to .27**
Imagination	.12	.83	.01	−1.51 to 1.76	2.47	1.29	.15	−.07 to 5.00	**.12**	**.05**	**.21****	**.03 to .22**
Extraversion × Interparental stress	.33	.51	.03	−.68 to 1.34	−.34	.71	−.02	−1.74 to 1.05	.06[a]	.04[a]	.11[a]	−.02 to .15[a]
									−.02[b]	.07[b]	−.02[b]	−.16 to .12[b]
									.05[c]	.05[c]	.08[c]	−.05 to .16[c]
									−.21[d]	**.06[d]**	**−.22*[d]**	**−.34 to −.09[d]**
Benevolence × Interparental stress	−.82	.73	−.07	−2.24 to .61	−1.09	.93	−.06	−2.91 to .72	.06	.04	.09	−.03 to .14
Conscientiousness × Interparental stress	.27	.53	.03	−.76 to 1.30	**1.65**	**.83**	**.11***	**.03 to 3.27**	−.02	.03	−.04	−.08 to .03
Emotional stability × Interparental stress	.36	.49	.04	−.61 to 1.32	.81	.75	.06	−.67 to 2.28	−.05[a]	.03[a]	−.10[a]	−.11 to .02[a]
									.13[b]	**.06[b]**	**.16*[b]**	**.01 to .25[b]**
									−.07[c]	.04[c]	.10[c]	−.15 to .02[c]
									.17[d]	**.07[d]**	**.19**[d]**	**.02 to .32[d]**
Imagination × Interparental stress	.53[a]	.62[a]	.05[a]	−.69 to 1.74[a]	−1.18	.93	−.07	−3.00 to .64	**−.11[a]**	**.05[a]**	**−.19*[a]**	**−.20 to −.02[a]**
	−1.58[b]	1.09[b]	−.10[b]	−3.72 to .56[b]					.08[b]	.09[b]	.09[b]	−.10 to .25[b]
	.07[c]	.63[c]	.01[c]	−1.17 to 1.31[c]					−.08[c]	.06[c]	−.10[c]	−.19 to .04[c]
	−2.31[d]	**1.04[d]**	**−.13*[d]**	**−4.35 to −.26[d]**					.04[d]	.08[d]	.04[d]	−.14 to .21[d]

*p < .05; **p < .01; ***p < .001;

[a]Mother–son group.

[b]Mother–daughter group.

[c]Father–son group.

[d]Father–daughter group.

Bold font indicates a significant pathway.

TABLE 3 Model results for longitudinal analysis with predictor at 16 years and outcomes at 22 years, controlling for outcomes at 16 years

	Externalizing				Internalizing				General self-efficacy			
	B	SE	β	95% CI for B	B	SE	β	95% CI for B	B	SE	β	95% CI for B
Direct effects (model 1)												
Interparental stress	−.42	.28	−.06	−.97 to .14	−.01	.36	<−.01	−.72 to .70	.02	.02	.04	−.02 to .05
Extraversion	**1.37**	**.66**	**.12***	**.08 to 2.65**	**−2.97**	**1.12**	**−.16****	**−5.16 to −.77**	.07	.04	.11	−.01 to .15
Benevolence	**−3.00**	**.89**	**−.23****	**−4.74 to −1.27**	−2.34	1.32	−.11	−4.92 to .25	**−.12**	**.05**	**−.15***	**−.22 to −.01**
Conscientiousness	<.01	.67	<.01	−1.32 to 1.32	.47	1.03	.03	−1.54 to 2.49	<−.01	.04	<−.01	−.08 to .07
Emotional stability	−.38	.64	−.04	−1.63 to .88	**−2.47**	**1.14**	**−.15***	**−4.70 to −.24**	**.18**	**.04**	**.29*****	**.10 to .25**
Imagination	.13	.80	.01	−1.43 to 1.70	1.99	1.24	.12	−.45 to 4.43	**.11**	**.05**	**.19***	**.01 to .21**
Outcome at 16 years	**.28**	**.04**	**.30*****	**.20 to .35**	**.26**	**.04**	**.18*****	**.18 to .35**				
Interaction effects (model 2)												
Interparental stress	−.28	.29	−.04	−.85 to .29	.02	.38	<.01	−.72 to .76	.02	.02	.06	−.02 to .06
Extraversion	**1.33**	**.66**	**.12***	**.04 to 2.62**	**−3.01**	**1.12**	**−.17****	**−5.20 to −.81**	.05	.04	.08	−.03 to .13
Benevolence	**−2.99**	**.88**	**−.23****	**−4.71 to −1.28**	−2.44	1.31	−.12	−5.01 to .12	**−.11**	**.05**	**−.14***	**−.21 to −.01**
Conscientiousness	−.05	.66	<−.01	−1.35 to 1.26	.70	1.02	.05	−1.29 to 2.69	<.01	.04	.01	−.07 to .07
Emotional stability	−.42	.64	−.04	−2.06 to .83	**−2.40**	**1.12**	**−.14***	**−4.59 to −.20**	**.19**	**.04**	**.32*****	**.12 to .27**
Imagination	.14	.79	.01	−1.91 to 1.70	1.95	1.23	.12	−.46 to 4.35	**.12**	**.05**	**.21***	**.03 to .22**
Outcome at 16 years	**.27**	**.04**	**.29*****	**.20 to .35**	**.26**	**.04**	**.18*****	**.18 to .35**				
Extraversion × Interparental stress	.37	.51	.04	−.64 to 1.38	−.14	.72	−.01	−1.54 to 1.26	.07[a] −.01[b] .06[c] **−.20[d]**	.04[a] .07[b] .05[c] **.06[d]**	.12[a] −.01[b] .09[c] **−.21**[d]**	−.02 to .15[a] −.15 to .13[b] −.05 to .16[c] **−.32 to −.08[d]**
Benevolence × Interparental stress	−.37	.68	−.03	−1.70 to .96	−.93	.91	−.05	−2.72 to .85	.06	.04	.09	−.02 to .14
Conscientiousness × Interparental stress	.11	.52	.01	−.91 to 1.13	1.49	.84	.10	−.16 to 3.15	−.03	.03	−.05	−.08 to .03
Emotional stability × Interparental stress	.28	.49	.03	−.67 to 1.23	.65	.75	.05	−.82 to 2.12	−.05[a] .12[b] −.07[c] **.16[d]**	.03[a] .06[b] .04[c] **.07[d]**	−.10[a] .15[b] −.10[c] **.18*[d]**	−.11 to .02[a] −.001 to .24[b] .15 to .02[c] **.02 to .30[d]**
Imagination × Interparental stress	.33[a] −1.70[b] −.16[c] **−2.41[d]**	.61[a] 1.04[b] .61[c] **1.04[d]**	.03[a] −.11[b] −.01[c] **−.14*[d]**	−.87 to 1.53[a] −3.75 to .35[b] −1.35 to 1.04[c] **−4.44 to −.38[d]**	−1.20	.90	−.08	−2.96 to .57	**−.11[a]** .08[b] −.08[c] .05[d]	**.05[a]** .09[b] .06[c] .09[d]	**−.19*[a]** .10[b] −.11[c] .05[d]	**−.20 to −.02[a]** −.08 to .25[b] −.19 to .04[c] −.13 to .22[d]

*p < .05; **p < .01; ***p < .001;

[a] Mother–son group.
[b] Mother–daughter group.
[c] Father–son group.
[d] Father–daughter group.
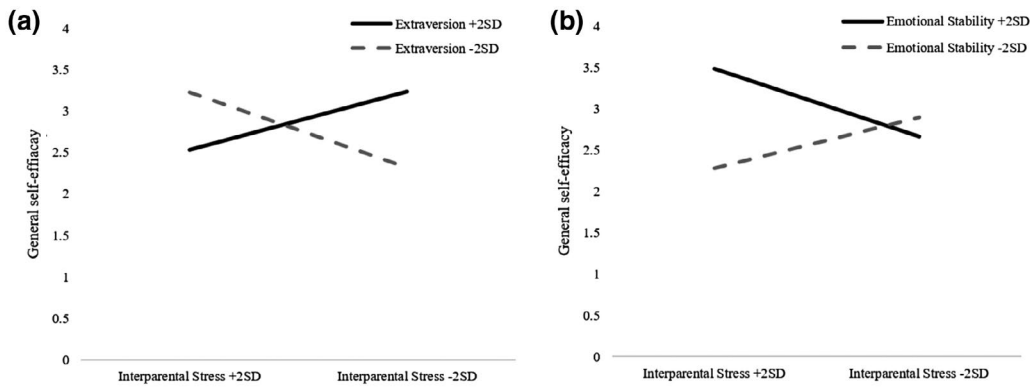Bold font indicates a significant pathway.

FIGURE 2 (a) Interparental stress by extraversion interaction and (b) interparental stress by emotional stability interaction predicting general self-efficacy for adolescent girls

estimated interaction effects (Satorra-Bentler scaled $\Delta\chi^2$ for prospective analyses = 44.20, Δdf = 33, p = .092; model fit constrained model prospective analyses: $\chi^2(281)$ = 345.77, p = .005, CFI = .98, RMSEA = .03 [.02–.04]; Satorra-Bentler scaled $\Delta\chi^2$ for longitudinal analyses = 41.07, Δdf = 33, p = .158; model fit constrained model longitudinal analyses: $\chi^2(342)$ = 468.17, p < .001, CFI = .96, RMSEA = .04 [.03–.05]). See Tables 2 and 3 for the model statistics of the final models.

3.2.1 | Externalizing problems

Results of the prospective analyses showed that extraversion was related to more, and benevolence was related to less externalizing problems 6 years later (Table 2). Interparental stress had no significant main effects on externalizing problems, however, in the father–daughter group one interaction effect was found between interparental stress and imagination. Plotted results and simple slope analyses indicated that within this group, the effect of interparental stress on externalizing problems did not reach significance at low (at −2SD: b = 2.35, p = .208, 95% CI [−1.31–6.00]) or high levels of imagination (at +2SD: b = −2.42, p = .150, 95% CI [−5.72–.88]). Regions-of-significant testing indicated that the effect of imagination on externalizing behavior did not reach significance within the range of values of interparental stress present in the sample. The PA index was .59 and the PoI index was .53, showing that statistically the form of the interaction effect fits the differential susceptibility hypothesis. Thus, although our statistical approach revealed an interaction effect which form is in line with the differential susceptibility, the values at which this interaction effect is significant are not present in our sample.

In the longitudinal analyses, controlling for behavioral problems at 16 years, the main effects of extraversion and benevolence as well as the interaction effect between

interparental stress and imagination were replicated (Table 3).

3.2.2 | Internalizing problems

Results of the prospective analyses (Table 2) showed that extraversion and emotional stability were related to less internalizing problems 6 years later. Interparental stress had no significant main effect on internalizing problems, however, one interaction effect was found between interparental stress and Conscientiousness that was equal across all four groups. The simple slopes plot (Figure 1) showed that the effect of interparental stress on internalizing problems was significant at low levels (at −2.0SD: b = −2.19, p = .048, 95% CI [−4.36 to −.02]) and high levels of Conscientiousness (higher bound at +3.0SD: b = 3.48, p = .048, 95% CI [.03–6.93]). In our sample, none of the adolescents scored lower than −2SD or than higher 3SD on Conscientiousness. Regions-of-significant test indicated that the effect of Conscientiousness on internalizing problems was not significant at low levels of interparental stress (at −3SD: b = −3.66, p = .117, 95% CI[−8.24–.92], but reached significant at a higher bound of +3SD (b = 4.93, p = .045, 95% CI[.10–9.76]). About 2.7% of the mothers and 2.4% of the fathers scored higher than +3SD on interparental stress. The PA index was .41 for mother-reported and .43 for father-reported interparental stress, and the PoI index was .31. Thus, our statistical approach revealed an interaction effect which form is in line with the differential susceptibility. However, the values at which this interaction effect is significant are scarce in our sample.

In the longitudinal analyses, controlling for behavioral problems at 16 years, the main effects of the personality dimensions were replicated, however, the interaction effect between interparental stress and Conscientiousness was no longer significant (p = .077) (Table 3).

3.2.3 | Self-efficacy

Results of the prospective analyses (Table 2) showed that benevolence was related to a lowers level of, and emotional stability and imagination were related to higher levels of general self-efficacy across 6 years. These main effects were replicated in the longitudinal analyses (Table 3). Interparental stress had no significant main effect on self-efficacy, however, three interactions effects were found. First, only for the father–daughter group, an interaction was found between interparental stress and extraversion. For this interaction, plotted results and simple slope analyses showed that the effect of interparental stress was significant at both high (lower bound at $+1SD$: $b = −.07$, 95% CI = [−.14 to −.001], $p = .045$, 17.5% of the adolescent girls) and low levels of extraversion (higher bound at $−.03SD$: $b = .06$, 95% CI = [<.001–.13], $p = .048$, 41.5% of the adolescent girls), and with the strength of the effect increasing at relatively higher and lower levels of extraversion (at $+2SD$: $b = −.20$, $p = .003$; at $−2SD$: $b = .30$, $p = .001$) (Figure 2). For adolescent girls scoring relatively high on extraversion, fathers' interparental stress was negatively related to general self-efficacy, whereas for adolescent girls scoring relatively low on extraversion, fathers' interparental stress was positively related to general self-efficacy. Regions-of-significance testing indicated that the effect of extraversion on general self-efficacy was significant at both low levels of interparental stress (higher bound at $−.57SD$: $b = .16$, 95% CI [.02–.30], $p = .030$, 41.1% of the fathers) and high levels of interparental stress (lower bound at $+1.15SD$: $b = −.18$, 95% CI [−.35 to −.01], $p = .38$, 14.4% of the fathers), with the strength of the effect increasing at relatively lower and higher levels of interparental stress (at $−2SD$: $b = .44$, $p = .001$; at $+2SD$: $b = −.35$, $p = .006$) (see Figure A1 in the Appendix). The PA index was .68 and the PoI index was .62. Thus, this interaction supported the differential susceptibility hypothesis. In the longitudinal analyses, controlling for externalizing and internalizing problems at T1, this interaction effect was replicated for the father–daughter group.

Second, for the mother–daughter and father–daughter groups, an interaction was found between interparental stress and emotional stability. For this interaction, plotted results and simple slope analyses showed that the effect of interparental stress was significant at both low (higher bound at $−1.8SD$: $b = −.11$, 95% CI [−.23 to <.001], $p = .049$, 4.7% of the adolescent girls) and high levels of emotional stability (lower bound at $+.16SD$: $b = .06$, 95% CI [.01–.012.], $p = .033$, 45.7% of the adolescent girls) and the strength of these effects increased when levels of emotional stability relatively decreased or increased (at $−2SD$: $b = −.13$, $p = .041$; at $+2SD$: $b = .23$, $p = .006$) (Figure 2). For girls scoring relatively low on emotional stability, mothers' and fathers' interparental stress was related to lower levels of general self-efficacy whereas for girls scoring relatively high on emotional stability, interparental stress was related to higher levels of general self-efficacy. Regions-of-significance testing indicated that emotional stability was positively related to general self-efficacy only at moderate and higher levels of interparental stress, with a lower bound of $−.44SD$ ($b = .19$, 95% CI [.07–.30], $p = .001$, 36.9% of the mothers, 41.6% of the fathers), increasing in strength when the level of interparental stress increased (at $+2SD$: $b = .44$, $p < .001$) (see Figure A2 in the Appendix). The PA index was .00 for both mothers and fathers and the PoI index was .02 for mothers and .07 for fathers. Thus, this interaction shows strong support for the diathesis–stress model. In the longitudinal analyses, controlling for externalizing and internalizing problems at T1, this interaction effect was replicated for the father–daughter group but was no longer significant for the mother–daughter group (see Table 3).

Third, only for the mother–son group, an interaction effect was found between interparental stress and imagination. Plotted results and simple slope analyses that within this group, the effect of interparental stress on general self-efficacy did not reach significance at low (at $−2SD$: $b = −1.82$, $p = .400$) or high levels (at $+2SD$: $b = 2.09$, $p = .184$) of imagination. Regions-of-significant testing indicated that imagination was positively related to general self-efficacy at moderate levels of interparental stress, with a lower bound of $−.34SD$ ($b = .15$, $p = .037$) and a higher bound of $+.46SD$ ($b = .20$, $p = .046$; in total 25.8% of the mothers). The PA index was .82 and the PoI was .93. This, the form of the interaction is in line with neither the diathesis–stress model nor differential susceptibility hypothesis. In the longitudinal analyses this interaction effect was replicated for the mother–son group.

4 | DISCUSSION

The aim of this multi-wave, multi-informant study was to extend our understanding of whether Big Five personality dimensions indicate vulnerability or susceptibility for interparental stress during the transition into emerging adulthood. This is the first study to contrast between differential susceptibility and diathesis–stress in explaining individual differences in adolescents' sensitivity in the context of the interparental relationship. This novel research question was examined using a comprehensive model of Big Five personality dimensions, focusing on maladaptive and adaptive developmental outcomes, and in both prospective and longitudinal models focusing on the developmental transition into emerging adulthood. Overall, we found no strong support for enduring (main) effects of interparental stress into emerging adulthood, whereas we found certain personality characteristics to be uniquely related to markers of (mal)adaptation

in this life phase. Results from our investigation of moderation effects exhibited no consistent support for adolescents' personality characteristics as vulnerability or susceptibility markers. Specifically, only for girls, two meaningful interactions between interparental stress and adolescent personality characteristics in the prediction of general self-efficacy were found. As this is the first study to examine moderating effects of personality in the context of the interparental relationship, the interaction as well as the generalizability regarding gender should be interpreted with caution and need replication before drawing strong conclusions.

First, we found that highly extraverted adolescent girls were both more sensitive to an adverse family environment, with high father-reported interparental stress being associated with a lower general self-efficacy for these girls only, *and* to a more adaptive family environment, with low father-reported interparental stress being associated with a higher general self-efficacy for these girls only. On the other side of the continuum, adolescent girls with low levels of extraversion (i.e., introverted girls) showed to be protected from the negative effects of interparental stress, as for this group high father-reported interparental stress was associated with a higher general self-efficacy. This interaction effect, which supports the differential susceptibility model, could be replicated in both the prospective and longitudinal models. Extraverted individuals are more expressive and assertive in social environments (Denissen & Penke, 2008a), and it might be that because of these predispositions highly extraverted adolescents have a greater tendency to get actively involved in interparental interactions and disagreements instead using avoidance strategies (Rhoades, 2008). Similarly, extraverted adolescents showed to use more active problem solving strategies and less passive and withdrawal-oriented strategies in the context of mother–adolescent conflict (Missotten, Luyckx, Van Leeuwen, Klimstra, & Branje, 2016). Consequently, the highly extraverted girls might be more exposed to and involved in interparental difficulties, which are two factors known to be associated with more adjustment problems across childhood and adolescence (Rhoades, 2008; Van Eldik et al., 2020). Following the same line of reasoning, introverted adolescent girls might be protected from the negative effects of interparental stress because they use more avoidance strategies, which are shown to be related to less adjustment problems (Rhoades, 2008). However, adolescent girls with high levels of extraversion *also* benefitted most from a context with low father-experienced interparental stress. When fathers were more satisfied and happier with their partner relationship, highly extraverted adolescent girls showed relatively higher levels of general self-efficacy than other adolescent girls.

Second, adolescent girls with relatively low levels of emotional stability were more sensitive to an adverse family environment, with high mother- and father-reported interparental stress being associated with a lower general self-efficacy for

these only, whereas high emotionally stable adolescent girls were protected from the negative effects of high interparental stress, with high interparental stress being associated with a higher general self-efficacy for these girls only. This interaction effect, in line with the diathesis–stress model, was replicated across prospective and longitudinal models. Emotional stability is linked to individual differences in affect regulation and intensity, with individuals with a lower emotional stability (i.e., Neuroticism) being more sensitive and reactive to environmental threats and negative stressors (Denissen & Penke, 2008a; Hughes et al., 2020). Specifically, some conceptualizations treat Neuroticism as a trait that is particularly activated when social relationships are threatened (Denissen & Penke, 2008b). Interparental difficulties can be seen as a threat to children's and the families' well-being (Davies et al., 2016; Grych & Fincham, 1990; Van Eldik et al., 2020), and therefore, especially low emotionally stable adolescent girls might experience more intense levels of stress and negative affect in reaction to this stressor in the family, resulting in a lower general self-efficacy over time. On the other side of the continuum, highly emotionally stable girls might both experience less intense affect and be better able to regulate their affect in response to interparental stress.

The gender differences we found in our study add to knowledge about gendered family processes (Endendijk et al., 2018) and the way adolescent boys and girls cope with interparental difficulties (Van Eldik et al., 2020). During the transition into emerging adulthood, girls in particular seem vulnerable for, and susceptible to the level of stress in the interparental relationship, and more particularly, this sensitivity holds for interparental stress experienced by fathers, but not mothers. Previous research has shown that girls are more inclined to get emotionally or behaviorally involved in interparental interactions than boys (Davies et al., 2016), and our results indicate that this may hold particularly for adolescent girls who are more extraverted. Similarly, in general girls have shown to respond to interparental difficulties more profoundly through channels of distress and fear than boys (Davies et al., 2016; Van Eldik et al., 2020), and our results indicate that this may hold particularly true for adolescent girls who are less emotionally stable. Girls heightened sensitivity to fathers' experiences and expressions of interparental stress, might be because these paternal experiences spill-over into daughter–father interactions and triadic family functioning to a greater extent than maternal experiences of interparental stress. A few recent studies have similarly found the gender composition of parent-child dyads to matter (De Mendonça et al., 2019; Endendijk et al., 2018), with one example indeed showing increased spill-over processes for father–daughter interactions in particular (Elam et al., 2017).

Importantly, future research should replicate these findings before drawing firm conclusions and investigate mechanisms (e.g., child involvement and emotion regulation strategies)

underlying the potential vulnerability of these adolescent girls. Moreover, as we were unable to control for levels of self-efficacy at 16 years old in our study, future research should show whether these effects hold in full longitudinal models. In addition, although our statistical approach revealed three additional interaction effects which forms were in line with the differential susceptibility model, the regions of significance testing showed that these interaction processes take place at values that were not or barely present in our sample. Therefore, any substantive interpretation is not at place and these interaction effect should be merely considered as potential directions for future research. It might be that in samples with more extreme levels of interparental stress or conflict, or personality traits, these interaction effect find stronger support.

4.1 | Enduring effects of the interparental relationship into emerging adulthood

Apart from these effects of interparental stress on self-efficacy for the highly extraverted and low emotionally stable adolescent girls on, no general effects of interparental stress on emerging adults' (mal)adaptation were found. As far as we know, this is the second study to prospectively examine the effects of interparental relationship problems on children's development in the developmental period of emerging adulthood. Considering the instability and changes in this developmental period that are related with the well-being (i.e., regarding social environments and relations, work, or identity formation), it may be that direct influences of the interparental relationship on emerging adult's well-being are less prominent during this transition. Hayatbakhsh and colleagues (2013) did find associations between interparental relationship adjustment with internalizing and externalizing problems in emerging adulthood across a 7-year interval, for an Australian community sample. Importantly, the associations they found were confounded by family structure, showing that especially children from reconstructed families indicated higher levels of psychopathology. Other empirical studies highlight these long-term effects of family disruptions as well (e.g., Wickrama et al., 2013). As most studies zooming in on late adolescence and emerging adulthood focus on retrospective reports about interparental conflict (e.g., Johnson et al., 2001), there is a significant gap of knowledge about how more recent and current indicators of interparental relationship quality affect children during emerging adulthood.

In addition, the interparental relationship is a multi-dimensional construct, and although a recent meta-analysis showed a similar impact for relationship quality as for aspects of interparental conflict (Van Eldik et al., 2020), our results might not be generalizable to other dimensions of the interparental relationship. It is possible that other specific groups of adolescents are for example, specifically vulnerable or susceptible for hostile or disengaged conflict behavior. Future research should explore these processes.

4.2 | Predictive role of personality traits for (mal)adaptation in emerging adulthood

Although not the primary focus of this study, adolescents' personality characteristics showed to be related to our indicators of (mal)adaptation across the 6-year interval, adding to the literature about the predictive power of personality (Roberts et al., 2007). Enhancing the meaningfulness of these effects, they hold while we control for within-wave correlations between personality and (mal)adaptation outcomes (Durbin et al., 2016). In line with previous studies, extraversion was related to less internalizing problems (Becht et al., 2016; Prinzie et al., 2014) and more externalizing behaviors, which may be explained by high levels of the underlying facets energy and expressiveness (Becht et al., 2016; De Pauw & Mervielde, 2010). However, extraversion was not uniquely associated with general self-efficacy. Further, and in line with previous research, benevolence was related to less externalizing behavior (Jones et al., 2011), but not with internalizing behavior. Somewhat more unexpected, benevolence was associated with a lower self-efficacy, which might have to do with the altruistic and compliant nature of highly benevolent individuals (Denissen & Penke, 2008a). Emotional stability was associated with less internalizing problems and a higher self-efficacy, but not with externalizing problems (Becht et al., 2016; Ebstrup et al., 2011; Prinzie et al., 2014; Van den Akker et al., 2013). Last, imagination was uniquely related to a higher self-efficacy across the 6-year interval. Although Conscientiousness is often identified as an important correlate of developmental outcomes, this personality dimension was in our study not uniquely related to any of the indices of (mal)adaptation in emerging adulthood.

5 | CONCLUSION

We examined whether adolescents' Big Five personality dimensions shaped associations between interparental stress and (mal) adaptation in emerging adulthood and, in general, our results exhibited no consistent moderating role for adolescents' personality. Only for girls, high levels of extraversion functioned as a "susceptibility maker" in associations between interparental stress and self-efficacy, and, low levels of emotional stability functioned as a "vulnerability marker" in associations between interparental stress and self-efficacy. Thereby, some support for both the diathesis–stress and differential susceptibility models

is found. However, these interaction effects as well as their (restricted) generalizability across gender should be replicated before drawing firm conclusions. Our results did show enduring effects of personality during the transition into emerging adulthood: extraversion, benevolence, emotional stability and imagination were related to (mal)adaptation across a 6-year interval.

CONFLICT OF INTEREST

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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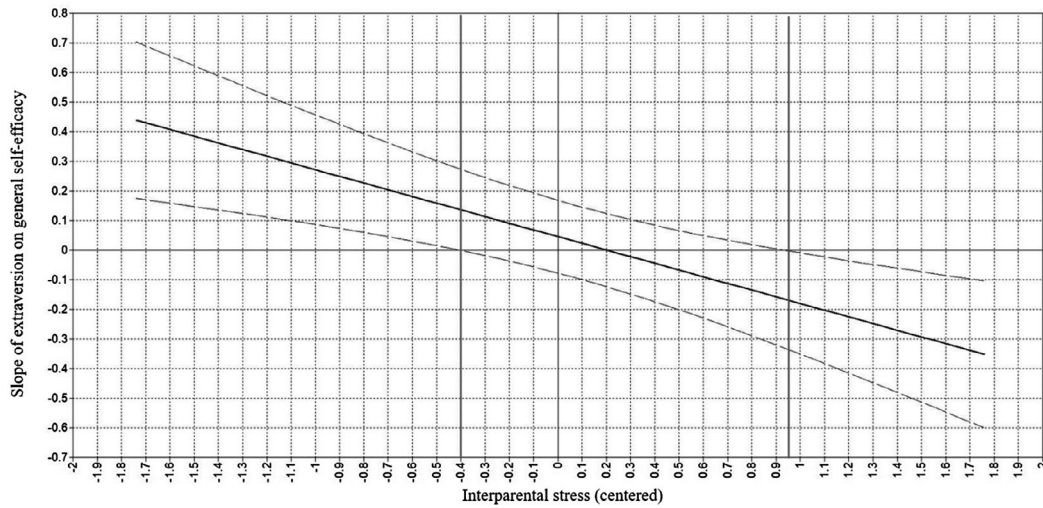
APPENDIX

FIGURE A1 Johnson-Newman plot showing the regions of significant of interparental stress (RoS on X) for the association betweenextraversion and general self-efficacy.*Note*.De vertical grey lines indicate the lower bound at −0.04 (−0.57*SD*) and upper bound at approximately 1.0 (+1.15*SD*); at values of interparental stress lower than −0.4 and higher than 1.0,extraversion is associated with self-efficacy
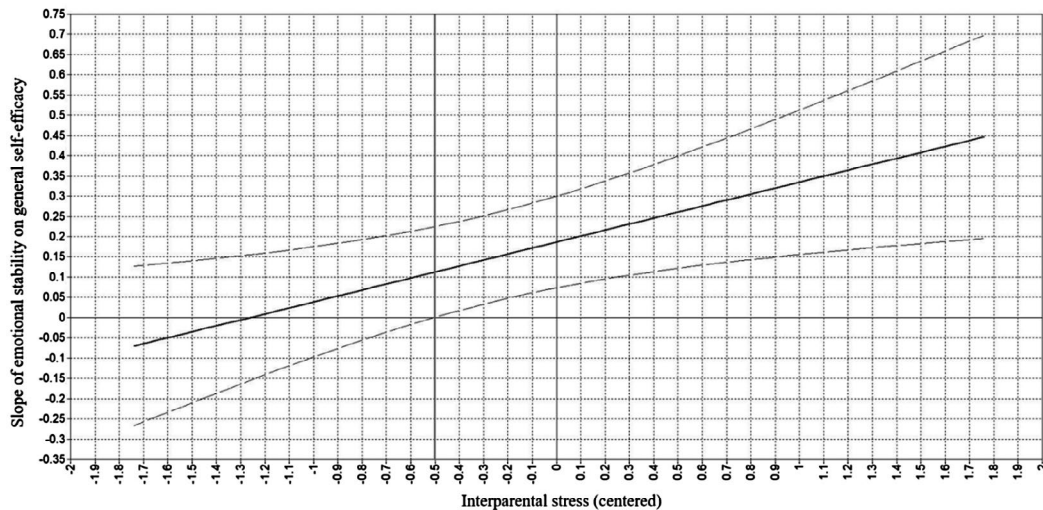

FIGURE A2 Johnson-Newman plot showing the regions of significant of interparental stress (RoS on X) for the association between emotional stability and general self-efficacy.*Note*.De vertical grey line indicates the lower bound at −0.5 (−0.44*SD*); at values of interparental stress higher than −0.5, emotional stability is associated with self-efficacy