Parent-Child Personality Similarity and Differential Autonomy Support Towards Siblings

Paula Vrolijk^{*a}, Caspar J. Van Lissa^b, Susan Branje^c, Wim H.J. Meeus^c, Renske Keizer^a^{*}Corresponding author,Email: vrolijk@essb.eur.nl^a Erasmus University Rotterdam, Department of Public Administration and Sociology^b Utrecht University, Department of Methodology and Statistics^c Utrecht University, Department of Youth and Family

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Abstract

Since parental differential treatment is related to more adjustment difficulties over and above main effects of parental treatment, it is important to understand under what conditions differential parenting is likely to occur. Using a within-family design, this study focused on between-sibling differences in parent-child personality similarity as a potential predictor of differential autonomy support from fathers and mothers. Longitudinal data (6 annual waves) of 497 target adolescents (56.9% boys, M_{age} at $T_1 = 13.03$), one of their siblings ($N = 416$, M_{age} at $T_1 = 14.92$), their fathers ($N = 446$, M_{age} at $T_1 = 46.74$), and their mothers ($N = 495$, M_{age} at $T_1 = 44.41$) were used. Parent-child personality similarity was determined based on distinctive profile correlations using the Big Five personality inventory. Structural Equation Modeling showed that the association between sibling differences in mother-child similarity and maternal autonomy support was positive and significant at the between-family level, and not at the within-family level. This means that, in families where one sibling was relatively more similar to the mother, the sibling with closer resemblance to the mother received relatively more autonomy support. No significant effects were found for fathers' differential autonomy support. The present study highlights the importance of considering parent-child similarity in personality for understanding differences between siblings in maternal autonomy support.

Keywords: Parental differential treatment, parent-child similarity, personality, autonomy support, siblings

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Parental differential treatment refers to the degree to which parents treat their children differently (Dunn & Plomin, 1990; McGuire, 2003), and has been related to child adjustment over and above main effects of parental treatment towards a child. For instance, researchers found associations with more internalizing and externalizing problems, differential academic achievement, and lower quality of the sibling relationship (e.g., Buist et al., 2013; Meunier et al., 2013; Sun et al., 2019). In Western countries, the social norm is that parents treat their children equally (Kowal et al., 2006) by balancing their support and interest. Nonetheless, research showed parental differential treatment is common across different parenting domains, such as privileges, time involvement, and support (Tucker et al., 2003). Especially children who receive the lesser treatment have more adjustment difficulties (e.g., Jensen et al., 2013). Understanding the conditions under which differential treatment is likely to occur is therefore relevant to parents and professionals.

Several theories suggest a relationship between parent-child personality similarity and parenting. For example, similarity between individuals has been found to breed connection (McPherson et al., 2001). Similarly, the *goodness-of-fit perspective* (Thomas & Chess, 1977) suggests that the parent-child relationship will function more optimally when characteristics of the child match parents' expectations. For instance, when both parent and child are very shy, it may be easier for the parent to acknowledge the child's perspective, compared to when the child is very outgoing but the parent is very shy. The present study investigates whether between-sibling differences in parent-child personality similarity are related to parents' differential treatment. In addition, we explore whether there are differences between fathers and mothers in this association, since fathering may be more context-dependent compared to mothering (Cummings et al., 2010). Therefore, fathers' differential treatment may be more

easily influenced by a contextual factor, in this case parent-child personality similarity, compared to mothers' differential treatment.

Differential Autonomy Support

In investigating parental differential treatment, the current research focuses on differential autonomy support. According to *self-determination theory*, parental autonomy support involves acknowledging the child's perspective, accepting the child's feelings, and facilitating the child's self-initiated actions (Ryan & Deci, 2017). Autonomy support is crucial for children's development because it plays a key role in children's psychological need satisfaction, and consequently in adolescents' psychosocial adjustment (for a review, see e.g., Soenens et al., 2019). Although the need for autonomy is equally important across all ages, adolescence is a key developmental period for identity formation, which is a developmental manifestation of volitional functioning (Assor, 2018). Parental autonomy support is particularly relevant in adolescence, as parental authority is renegotiated in this life stage (McCurdy et al., 2020).

Previous research showed that siblings may differ in the autonomy support they receive from the same parent, and that autonomy support is uniquely related to siblings' own psychological need satisfaction (Van der Kaap-Deeder et al., 2015). Whereas other types of parental differential treatment, such as differences in behavioral control, may reflect responsive parenting, meaning that parents adapt their parenting to the needs and characteristics of each specific child (Kowal et al., 2006), this explanation may not hold for differential autonomy support. Higher levels of autonomy support are more beneficial for each and every child, which implies that the child who receives less autonomy support is, by definition, disadvantaged compared to his or her sibling. Therefore, and because siblings tend to compare the parenting they receive to that of their siblings (e.g., Jensen & McHale, 2017), differential autonomy support may have detrimental effects on the sibling that receives less

autonomy support. For these reasons, it is interesting to focus on differences between siblings in autonomy support as a form of parental differential treatment.

Prior studies have addressed potential predictors of parental autonomy support. Some of these studies have found that child characteristics, such as age, play a role in eliciting autonomy support (Grolnick, 2009). For instance, older children increasingly experience more psychological freedom and personal choice in parent-child relationships (e.g., van Petegem et al., 2013). Other research has examined parental characteristics as predictors of autonomy support. This research showed that autonomy-supportive parents are emotionally and cognitively available to their child (Van der Kaap-Deeder et al., 2019), and that it is more difficult to be autonomy supportive towards children when emotional resources are lacking. For example, greater parental need satisfaction was found to be associated with increased autonomy support (Van der Kaap-Deeder et al., 2015). One under-emphasized area of research is the interplay between child and parental characteristics. An important aspect of autonomy support is parents' sensitivity to children's personality traits (Assor et al., 2020). This part of perspective taking may be easier for parents when their children are similar in terms of personality. By using a within-family design, the present study examines whether parent-child similarity in personality predicts autonomy support.

Sibling Differences in Parent-Child Similarity and Parental Differential Treatment

According to various theories, children who are more similar to their parent will receive more positive parenting. Social network research showed that contact between similar people occurs at a higher rate than among dissimilar people (McPherson et al., 2001). For example, people who are similar in personality also are comparable in other areas (e.g., personal values; Fischer & Boer, 2015), which leads to mutual understanding. Parents and children commonly live in the same family, which provides a high baseline level of contact. Nonetheless, relative between-sibling differences in personality similarity may cause parents

to be more autonomy supportive towards the child who is more similar in terms of personality. In line with this, the *goodness-of-fit perspective* proposes that when individual's characteristics match environmental expectations and demands, relations will develop and function more optimally (Lerner, 1984; Thomas & Chess, 1977). When characteristics of the parent and child are more similar, this may increase the chance that parents' expectations and demands fit better with the behaviors of their children. So, the quiet child will fit the expectations of a timid parent to a higher extent than the outgoing sibling. In line with this, we hypothesize that when one sibling is relatively more similar to their parent in terms of personality compared to the other sibling, the former sibling will receive more autonomy support from this parent relative to the latter sibling.

Studies of *between-family* differences offer some preliminary support for the association between parent-child similarity and parenting, albeit in other parenting domains. On average, higher levels of parent-child personality similarity were associated with greater emotional closeness between parents and children (Heijkoop et al., 2009; Loehlin et al., 2010) and less child-perceived restrictive control (Van Tuijl et al., 2005). The similarity hypothesis has not yet been examined using a within-family design, in which *within-family* differences between siblings are investigated. In addition, the construct of parental differential treatment represents *within-family* differences between siblings. Within-family designs are thus needed to properly evaluate hypotheses regarding parent-child similarity and parental differential treatment. We used a within-family design to investigate whether between-sibling differences in parent-child similarity are predictive of differential autonomy support between siblings.

Differences Between Fathering and Mothering

Although there is likely more variation in parenting within the subgroups of fathers and mothers, there are some theoretical ideas about systematic differences between fathers and mothers in two-parent families which may be worth to explore. Therefore, next to

examining whether interindividual differences in differential treatment within the group of fathers and within the group of mothers can be predicted by parent-child similarity, the present study also examines whether links between parent-child similarity and parenting vary between fathers and mothers. These variations may occur because of differences in social roles. Social roles are shared norms and expectations about how an individual should behave in certain situations (Bonney et al., 1999). Since the role of fathers is thought to be less clearly defined compared to mother's role (Cabrera et al., 2000), fathering might be more vulnerable to contextual factors whereas mothers are somewhat better able to enact a consistent parenting role across different contexts (Cummings et al., 2010). In line with this, research showed that fathering is more context-dependent compared to mothering (e.g., Van Lissa & Keizer, 2020). In addition, fathers' parenting has also been shown to be more contingent on child characteristics and parent-child similarity compared to mothers. For example, fathers' involvement is more dependent on their children's temperament (McBride et al., 2004) and fathers spend more time with same-sex than other-sex children compared to mothers (Tucker et al., 2003). In line with the idea that fathers might be more strongly affected by parent-child personality similarity, previous research showed that parent-child personality similarity was solely related to father-child, and not mother-child, emotional closeness (Loehlin et al., 2010). Other studies found contrasting results, however. For instance, stronger parent-child personality similarity was associated with more parent-reported emotional closeness and less child-perceived restrictive control for mothers only (Heijkoop et al., 2009; Van Tuijl et al., 2005). Given these conflicting findings, we refrained from formulating hypotheses, and we explored whether and to what extent parent-child similarity is differentially associated with fathers' and mothers' differential autonomy support towards their children.

Similarity Scores: Moving Beyond Overall Profile Correlations

Previous studies that focused on the association between parent-child personality

similarity and parenting used overall profile correlations to assess similarity between parent and child (Heijkoop et al., 2009; Loehlin et al., 2010; Van Tuijl et al., 2005). One limitation of overall profile correlations is that profiles are often positively correlated, even between randomly paired individuals, due to the *normative-desirability confound* (Wood & Furr, 2015). Overall similarity scores tend to be highly correlated with the *normative* profile (i.e., average personality profile), which is in turn correlated with having a *desirable* profile (e.g., scoring high on kindness). People who score high on the normative profile are also likely to report more positively on a wide range of desirable outcomes. Consequently, findings showing that profile similarity is related to parenting might reflect that well-adjusted parents and children report high levels of positive parenting, instead of an actual effect of resemblance in personality characteristics on parental behavior. Distinctive profile correlations overcome this limitation (Furr, 2008). Distinctive similarity assesses the degree to which two personality profiles are similar, after controlling for the average personality profile (see for a discussion about overall versus distinctive profile correlations; Wood & Furr, 2015). Distinctive profile correlations are thus more suitable for examining parent-child similarity and its' association with parental differential treatment.

Present Study

The present study focused on linkages between parent-child personality similarity and parents' differential autonomy support in the adolescent period. By using a within-family design, we were able to examine whether within-family differences in parent-child similarity across two siblings were associated with differential autonomy support of those siblings. We used the Big Five Model, a framework often used for the study of personality, to assess personality similarity (agreeableness, consciences, extraversion, emotional stability and openness; e.g., Goldberg, 1992). The Big Five can be used to assess personality in both children and adults (Shiner & Caspi, 2003) which makes it possible to compare the

personality of the parent with the personality of their children. Further, since the association between parenting and the Big Five of parents and children has often been studied (e.g., de Haan et al., 2012; Prinzie et al., 2009), using the Big Five Model for personality allows us to compare and relate our findings more easily with other research that links parenting to personality (similarities). We used distinctive (rather than overall) similarity scores to avoid overestimating parent-child similarity due the normative-desirability confound. Differences between siblings in parent-child similarity and in autonomy support were estimated using latent difference scores between siblings. We hypothesized that sibling differences in parent-child similarity would be positively related to differential autonomy support. Our longitudinally data allow us to disentangle *between-family level associations* from *within-family level associations*. Since personality is theoretically and empirically viewed as a relatively stable characteristic (Shiner & Caspi, 2003), we expect an association between sibling differences in parent-child similarity and differential autonomy support when focusing on averaged differences *between* families. At the between-family level, we hypothesized that in families where one sibling is relatively more similar to the parent compared to the other sibling, the former sibling will receive more autonomy support relative to the latter sibling (H1a). However, both the personality of the child (Borghuis et al., 2017) and autonomy support may change over time (Van der Kaap-Deeder et al., 2019) which may lead to fluctuations within families in differences in parent-child similarity and differential autonomy support. If at any point in time a child exhibits greater similarity to the parent than usual, it may require the parent less effort to be autonomy supportive than usual. At the within-family level, we therefore hypothesized that within-family fluctuations in differential similarity would be positively correlated with within-family fluctuations in differential autonomy support (H1b). Finally, we explored whether, on average, linkages between parent-child similarity and differential autonomy support vary between fathers and mothers.

The dependent variable (autonomy support) at each time point was controlled for several covariates. First, we controlled for birth order, because the *family system* perspective posits that parents learn from experiences with their first child and become more effective in parenting laterborns (Whiteman et al., 2003). Second, we controlled for siblings' age-gap, since research showed that adolescent's age may be positively related to autonomy support (Fousiani et al., 2014; Van der Kaap-Deeder et al., 2019). Finally, we controlled for siblings' sex constellation, because between-family research suggests that girls receive more autonomy support from their parents compared to boys in childhood (Endendijk et al., 2016) and more maternal support in adolescence (Van Lissa et al., 2019).

Method

Participants

We used data from the (ongoing) longitudinal study Research on Adolescent Development And Relationships (RADAR)-young (Branje & Meeus, 2018). This multi-informant study contains information of 497 target children (56.9% boys, M_{age} at $T_1 = 13.03$), one of their siblings ($N = 416$, M_{age} at $T_1 = 14.92$), their fathers ($N = 446$, M_{age} at $T_1 = 46.74$), and their mothers ($N = 495$, M_{age} at $T_1 = 44.41$). We report on how we determined our sample size, all data exclusions, manipulations, and measures in the study. We used data from all available questionnaires that were completed during home visits in the first six measurement waves separated by one-year intervals. Home visits allowed for trained interviewers to provide verbal instructions in addition to the written instructions that accompanied the questionnaires. Participants were recruited from randomly selected elementary schools in the western and central regions of the Netherlands. Data were collected in 230 schools. Families with students in the sixth grade who lived with two parents and at least one sibling were invited to participate. We only used information on family members when the same person (e.g., same sibling) participated each wave, otherwise scores of fathers ($n = 6$), mothers ($n =$

1), and siblings ($n = 24$) were recoded as missing. Of 389 families with information on both siblings' sex, 200 (51%) consisted of same-sex sibling dyads, and half of these same-sex dyads were brother-brother dyads ($n = 104$). The majority of the target adolescents was younger than their sibling (72%), of Dutch origin (97%), lived with both parents (90%), answered questions about their biological father (92%), biological mother (99%), and biological sibling (96%), and families were mainly classified as having a medium or high socioeconomic status (91%). To control for birth order, we rearranged the data to compare older siblings versus younger siblings. At the start of the study, the mean age of the younger siblings was 12.45 ($SD = 1.04$) and the mean age of the older siblings was 15.44 ($SD = 2.27$). The age-gap ranged from 0 to 10 years old ($M = 3.00$, $SD = 1.80$). RADAR was approved by the ethical committee of the University Medical Centre Utrecht.

Families who dropped out (11%) differed from families who were still participating during the last wave. At the first wave, fathers of families that dropped out reported lower levels of autonomy support towards older siblings ($M = 21.64$, $SD = 1.80$) and towards younger siblings ($M = 21.88$, $SD = 2.37$) than fathers of families who were still participating ($M_{\text{older siblings}} = 22.71$, $SD = 2.68$, $t(48) = 3.11$, $p = .003$, $g = 0.41$, and ($M_{\text{younger siblings}} = 22.89$, $SD = 2.52$), $t(359) = 2.68$, $p = .028$, $g = 0.40$). Both differences had small effect sizes. With regard to maternal autonomy support and parent-child similarity, there were no differences between families dropping out and families still participating. Jamshidian and Jalal's non-parametric MCAR test failed to reject the null hypothesis that data were Missing Completely at Random ($p = .158$). Robust Full Information Maximum Likelihood was used. All analyses were conducted in R version 4.0.2 (R Core Team, 2020). All code, output, supplementary materials, and preregistration are available on the Open Science Framework at <https://osf.io/wnxy3/> (Vrolijk et al., 2021). Data used during the current study are available upon request in the DANS repository under the title Research on Adolescent Development

and Relationships (RADAR; young cohort); <https://doi.org/10.17026/dans-zrb-v5wp>. More information on study design, sampling procedure, and codebooks can be also found in this repository (see Van Lier et al. 2008).

Measurements

Autonomy support. To assess parental autonomy support, fathers and mothers reported on the ‘balanced relatedness’ scale which describes the tolerance for different opinions and ideas (Shulman et al., 1997). This seven-item questionnaire taps into the extent to which parents accepted the opinions, wishes, and needs of their child. Parents answered on a four-point scale ranging from (1) *absolutely disagree* to (4) *absolutely agree*. Fathers and mothers filled in the questionnaire separately for both siblings. An example item is “I encourage my child’s suggestions”. The scale had a good reliability for both reporters on each wave, Cronbach’s alpha ranging from $\alpha = .84$ to $\alpha = .93$ (see Supplemental Table 1). The sum score of the seven items was computed to assess autonomy support separately for fathers and mothers. Evidence of construct validity, convergent validity, and test-retest reliability was shown in previous studies (Shulman et al., 1997; Van der Giessen et al., 2013).

Personality of parents and children. During each wave, all respondents (younger sibling, older sibling, father, and mother) reported on their own personality by filling in the short Dutch version of Goldberg’s Big Five Questionnaire (Goldberg, 1992; Vermulst & Gerris, 2005). They were asked to what extent 30 adjectives described their personality. These adjectives refer to five personality dimensions; Agreeableness (e.g., friendly), Openness (e.g., creative), Conscientiousness (e.g., systematic), Extraversion (e.g., talkative), and Emotional Stability (e.g., anxious, reversed). Respondents answered on a seven-point scale ranging from (1) *completely untrue* to (7) *completely true*. The five different scales had a good reliability for all reporters on each wave, Cronbach’s alpha ranging from $\alpha = .71$ to $\alpha = .91$ (see Supplemental Table 1). The item-scores were used to assess profile similarity between parents

and their two children.

Analyses

To assess parent-child personality similarity, we computed distinctive profile correlations for each parent-child pair using the *multicon* R-package (Sherman, 2015). Distinctive correlations reflect whether the parent and child are similar in ways they distinguish from the average profile. These averaged profiles were calculated for each family member separately (fathers, mothers, and children). First, 30 mean item scores were calculated using information across all six waves. Based on these item scores, three ‘normative’ profiles were estimated (father profile, mother profile, and combined children profile). Next, these averaged scores (e.g., mother profile) were used to predict each profile of the corresponding family member, for each wave separately, by linear regression and consequently to retain residuals per item for each set. Distinctive profile correlations are computed by calculating the correlation between two residualized sets. The profile similarity scores can range between -1 (perfect dissimilarity) and 1 (perfect similarity), with scores of 0 indicating no association (neither similarity nor dissimilarity).

Data were analyzed using multilevel SEM, since time (within-family level) was nested within families (between-family level). Within these multilevel models, differences between siblings in parent-child similarity and autonomy support were represented by two latent variables on both levels: One representing the difference, and one representing the mean of the two siblings’ observed scores (see Cheung, 2009). To estimate differential autonomy support, the factor loading of support towards the older sibling was fixed at 0.5, and the loading of support towards the younger sibling was fixed at -0.5. A second latent variable with both factor loadings fixed at 1 was used to estimate average parental autonomy support towards both siblings. These latent variables were allowed to covary, and residuals of the observed variables were fixed to 0 such that their variance is entirely re-expressed as a latent

mean and difference. The latent mean and difference of parent-child similarity serve as antecedents and the latent mean and difference of autonomy support serve as outcomes in the multilevel models. When differential parent-child similarity has a positive effect on differential autonomy support, we can conclude that the sibling who is more similar to the parent receives relatively more autonomy support compared to the less similar sibling; more positive levels of differential parent-child similarity (older sibling is relatively more similar) result in more positive levels of differential autonomy support (older sibling receives relatively more support), whereas more negative levels of differential parent-child similarity (younger sibling is relatively more similar) result in more negative levels of differential autonomy support (younger siblings receive relatively more support). We checked for associations between differential parent-child similarity and differential autonomy support on the between-family level to test whether in families when one sibling is relatively more similar to the parent compared to the other sibling, this sibling will receive more autonomy support from that parent relative to the other sibling compared to other families (H1a). We also investigated this association on the within-family level to test whether within a wave, when one sibling is relatively more similar to the parent compared to the other sibling than usual, this sibling will concurrently receive more autonomy support from that parent relative to the other sibling, than usual (H1b). Fathers and mothers were analyzed within the same model so we could test whether associations between differential parent-child similarity and differential autonomy support differed in strength between fathers and mothers. The latent variables for mothers and fathers were allowed to covary.

Model fit was assessed by checking for RMSEA (below 0.05 indicates good model fit), and CFI and TLI (above 0.90 indicates adequate model fit, above 0.95 indicates good model fit). To include independent variables stepwise, we estimated three multilevel models. Model 1 only included the linear effect of centered time as a within-level predictor on latent

mean and differential autonomy support from fathers and mothers. Time was centered around Wave 3. The Intraclass Correlation Coefficient (ICC) of this model showed that 16% of the variance in mothers' differential autonomy support was due to differences at the between-family level, and 84% of the variance was due to within-family level fluctuations and unexplained residual variance. For fathers' differential autonomy support, only 9% of the variance was due to differences between families and 91% of the variance was explained by over time fluctuations within families, or residual variance. In Model 2, we added latent mean and differential parent-child similarity as within- and between-level predictors to examine how much variance these predictors explain in differential autonomy support. A simplified visualization of the relations between all latent variables in Model 2 is presented in Figure 1. In Model 3, we added the effects of four control variables on mean and differential autonomy support: siblings' sex constellation (1 = mixed sex), sex of the younger sibling (1 = girl), siblings' ag-gap (centered) and age of younger sibling (centered). These control variables were added on the between-family level. For all models, intercepts and variances of latent mean and differential autonomy support were freely estimated on the between-family level. All models had good model fit (see Table 1 for fit indices and latent intercepts and variances). Main results of Model 3 are visualized in Figure 2a (between-family level) and Figure 2b (within-family level), and an overview of all estimates (e.g., effects of control variables) are represented in Supplemental Table 2.

In general, children with higher scores on Big Five personality (resilient personality) elicit more positive parenting (e.g., Branje et al., 2004; de Haan et al., 2013). Therefore, we tested robustness of the results by computing the mean score of these traits for children as an indication of overall adjustment and we used these scores for the older and younger sibling in sensitivity analyses as control variables.

Results

Descriptive statistics

Observed variables. Descriptive statistics of observed variables across the six waves are presented in Supplemental Table 3. On average, observed parent-child profile similarity was quite low across the waves ($\bar{q} = 0.04$ to $\bar{q} = 0.11$), but individual scores ranged from -0.74 to 0.83. Both observed parent-child similarity and observed autonomy support were relatively stable over time; correlations between two successive waves were significant and large for parent-child similarity ($r = .37$ to $r = .58$, $p < .001$) and autonomy support ($r = .50$ to $r = .69$, $p < .001$). A graphical representation of mean levels of parent-child similarity and autonomy support across age is presented in Supplemental Figure 1.

All concurrent associations between observed parent-child similarity and autonomy support are presented in Supplemental Table 4. Correlations between autonomy support that the parents reported to give to the younger and the older siblings were large and significant across all waves for father autonomy support ($r = .65$ to $r = .77$, $p < .001$), and mother autonomy support ($r = .61$ to $r = .71$, $p < .001$). So, when parents reported to provide high levels of autonomy support towards their older child, they also reported to provide relatively high levels of autonomy support towards their younger child. Concurrent correlations between younger and older siblings in parent-child similarity were not significant.

Latent variables. Over-time correlations of latent differential autonomy support and latent differential parent-child similarity showed that differential autonomy support ($r = .09$ to $r = .30$, $p < .05$) was less stable than differential parent-child similarity ($r = .34$ to $r = .54$, $p < .001$). To check for the associations between fathers and mothers in differences across siblings regarding autonomy support and parent-child similarity, we turn to Model 3 (see Figure 2a and 2b). First, there was no relation between differential autonomy support of mothers and fathers. Second, sibling differences in father-child similarity and mother-child similarity were negatively associated with each other on the between-family level. This negative association implies that in families where fathers were more similar to one sibling, mothers tended to be

more similar to the other sibling.

Sibling Differences in Parent-Child Similarity and Differential Autonomy Support

To answer our research questions, we first turn to the association between sibling differences in parent-child similarity and differential autonomy support on the between-family level to test H1a (see Figure 2a). Model 3 showed that the association between sibling differences in parent-child similarity and differential autonomy support was not significant for fathers, yet it was positive and significant for mothers. The latter result indicates that, compared with other families, in families where one sibling was relatively more similar to the mother compared to his or her sibling, the former sibling received more autonomy support from the mother, relative to the other sibling. Overall, parent-child similarity explained 5.6% of between-family differences between mothers in differential autonomy support (see Table 1; between-family level variance reduction from Model 1 to Model 2).

To test H1b, we examined the within-family association between sibling differences in parent-child similarity and differential autonomy support (see Figure 2b). Results of Model 3 showed that over time fluctuations in differential parent-child similarity within families were not associated with concurrent variations in paternal or maternal differential autonomy support.

Our second research question concerned exploring the differences between fathers and mothers in the association between parent-child similarity and differential autonomy support. We tested whether the between-family level estimates we found for fathers (negative and not significant) and mothers (positive and significant) were significantly different from each other. Results showed that this difference was indeed significant ($\Delta\beta = 0.37, p = .008$), indicating that the association was significantly more positive for mothers. In conclusion, we found evidence for significant associations between differential parent-child similarity and differential autonomy support, but only on the between-family level, and only for mothers.

Control Variables

Model 3 further showed a positive association between the age-gap between siblings and differential autonomy support from fathers ($\beta = 0.22, p = .035$) and mothers ($\beta = 0.16, p = .046$) (see Supplemental Table 2 for all estimates of the final model). This positive association shows that in families with a larger age-gap between siblings, the older sibling received relatively more autonomy support compared to their sibling. In addition, there was a positive association between the age of the younger sibling and differential autonomy support of mothers ($\beta = 0.20, p = .003$). Given that we controlled for age-gap, this estimate can be interpreted as the effect of age of both children. This means that, in addition to the effect of the larger age-gap, mothers of children who were on average older gave more autonomy support to the older sibling relative to the younger sibling compared to mothers of children who were on average younger.

Sensitivity Analyses

We conducted sensitivity analyses to examine whether results were robust (see online repository). First, we checked whether substantive conclusions about our findings were the same when fathers and mothers were analyzed separately. Second, we controlled our analyses for children's mean score on the five personality traits. Resilient personality was positively associated with both differential and mean autonomy support (see Supplemental Table 5 for more information about these associations). None of these analyses, however, led to different conclusions; in all models, sibling differences in parent-child similarity were significantly related to differential autonomy support for mothers, and not for fathers.

Discussion

Since parental differential treatment is related to child adjustment, over and above absolute levels of parenting (e.g., Buist et al., 2013), it is important to understand under which conditions differential parenting is likely to occur. This study examined whether between-

sibling differences in parent-child personality similarity were associated with parents' differential autonomy support. Our findings show that, only for mothers, there was a between-family association between sibling differences in parent-child similarity and differential autonomy support. Results demonstrate that, after taking into account children's birth-order, age and sex, mothers give more autonomy support to the sibling who is more similar to them in terms of personality, relative to the sibling who is less similar to them. We did not find associations for fathers.

Sibling Differences in Parent-Child Similarity and Differential Autonomy Support

Part of the variation between families in mothers' differential autonomy support was explained by differences between siblings in parent-child similarity in personality. In families where one sibling was relatively more similar to the mother than the other sibling, the sibling with closer resemblance to the mother received relatively more autonomy support. This result also corroborates some previous empirical findings that mothers who are more similar to their children show more positive parenting (Heijkoop et al., 2009; Van Tuijl et al., 2005). Our findings are therefore in line with the similarity hypothesis, but only for mothers and only on the between-family level. There was no evidence for associations between sibling differences in parent-child similarity and differential autonomy support on the within-family level; over-time fluctuations in sibling differences in parent-child similarity were not concurrently related to fluctuations in differential autonomy support within families. Since our model left much variance unexplained on the within-family level, future studies on antecedents of (differential) autonomy support are encouraged to check for other factors that fluctuate dynamically on a year-to-year basis (e.g., child problem behavior), or from day-to-day (e.g., van der Kaap-Deeder et al., 2019). Alternatively, it might be the case that there is a lot of irreducible error variance, for example, due to measurement error. Future research should further validate

whether a latent difference score based on self-reported parenting is an accurate representation of differential treatment.

Findings for maternal differential treatment are in line with previous social network research (McPherson et al., 2001) and the *goodness-of-fit perspective* (Lerner, 1984; Thomas & Chess, 1977). Future studies may further examine *why* mothers provide more autonomy support towards children who are more similar to them in terms of personality. Potential mechanisms worth exploring include mutual understanding and trust in children's pace of development. Higher similarity in personality may lead to increased mutual understanding, which makes it easier to be autonomy supportive. Next, it may be more emotionally rewarding to give autonomy support to children who conform to their mothers' expectations because they do not feel the need to intervene and change the course of the child's development. In line with this, mothers who have more trust in children's pace of development were found to be more autonomy supportive (Joussemet et al., 2008). Alternatively, when children experience a safe, positive, autonomy-supportive environment from a parent, they may identify with this parent more and become more similar to that parent over time.

Whereas the association between parent-child similarity and parental differential treatment was positive and significant for mothers (on the between-family level), we found no significant association for fathers. This is in contrast to some previous research from which we derived the expectation that fathering would be more vulnerable to contextual factors (Cummings et al., 2010). There was significantly less variance in parental differential treatment within the group of fathers than within the group of mothers, which may have left little variance to explain in fathers' differential treatment. Mothers may be more easily influenced by parent-child personality similarity compared to fathers, because the former spend on average more time with their children (see Parke & Cookston, 2019). Subsequently,

they might be better in picking up subtle differences between their children, and they might be more responsive to differences in their children.

An alternative explanation for this difference between fathers and mothers is that autonomy support may be a type of parenting in which fathers, on average, display less differential treatment than mothers. For example, the *father-activation relationship theory* holds that fathers have an important role in children's development with respect to children's exploration of the outside world by being autonomy supportive (Paquette, 2004). It may therefore be easier for fathers to be equally autonomy supportive towards both siblings, irrespectively of parent-child similarity. Alternatively, paternal differential treatment is more strongly influenced by other types of similarity. First, according to research on paternal investment, fathers tend to invest more in children who are physically similar to them (Ene et al., 2020; Gallup et al., 2016). Perhaps paternal differential treatment, too, is more strongly influenced by physical than personality similarity (Heijkoop et al., 2009). Second, research showed that fathers show more interest in adult children who are similar in educational attainment (Ory et al., 2017). Future research might thus examine the effect of different types of similarity on paternal differential treatment, such as physical or educational similarity.

Our results are broadly consistent with previous studies using overall profile correlations (Heijkoop et al., 2009; Van Tuijl et al., 2005) which also found associations between parent-child similarity and mothering, and contributes to this research by showing that the relation was also found by using a within-family design and a more precise measurement of parent-child similarity, namely distinctive profile correlations. It is, however, possible that we underestimated the relation between parent-child similarity and autonomy support. Whereas we did not find relations for fathers, other studies focusing on *perceived* similarity in interests, mannerisms, and attitudes found an association with fathers' investment (Ene et al., 2020; Gallup et al., 2016). This may indicate that our operationalization of

similarity in terms of distinctive profile similarity is somewhat different from self-reported perceived similarity. For example, parents and children may perceive themselves as similar when having a normative profile (Wortman et al., 2014), which could, in turn, be more strongly related to parenting compared to our measurement of parent-child similarity. Future studies may investigate whether it is the actual match in parent-child personality, or the perception of the match in personality, that is related to parenting, and what factors influence parents' perceptions of parent-child similarity.

As expected from previous research (Fousiani et al., 2014), part of the variation between families in differential treatment could be explained by siblings' age. Also, parents' mean levels of autonomy support towards both siblings increased over time. Parents may assume that older children need more autonomy support, or it may be less challenging to be autonomy supportive towards older children when the parent-child relationship is more horizontal and reciprocal. Nevertheless, after controlling for these age effects, our findings show that differences between siblings in mother-child personality similarity are associated with decreased autonomy support for the child that is less similar to their mother relative to the child that is more similar to their mother. Based on prior research this suggests that the child receiving the lesser treatment may be at risk of several adverse outcomes associated with decreased autonomy support and differential treatment. Our findings suggest that parenting programs fostering optimal parenting by promoting autonomy support should take into account the specific parent-child context when assessing parents' behaviors. Specifically, more tailored interventions targeting parents how to be responsive, in particular towards children who are less similar to them in terms of personality, may be needed. These interventions may learn parents to understand children's unique personalities, how their children's personalities interact with their own personality in predicting their response patterns, and how they can adequately respond to their children's perspectives, feelings, and

behaviors in line with their children's needs.

Limitations and Future Directions

This study has some noteworthy limitations. The first limitation pertains to the selectivity of our sample, which limits the generalizability of the current findings. Specifically, our sample consisted primarily of middle-to-high SES two-parent families. Parents with lower SES may be more likely to report higher levels of parental differential treatment and to differentiate between their children based on their temperament (see Jenkins et al., 2003), probably because these parents have limited amount of resources that they must divide between their children (Henderson et al., 1996). Other contextual factors, such as living in a single parent household, may also be associated with increased differential treatment (Atzaba-Poria & Pike, 2008). Given our selective sample, we may thus have underestimated the association between parent-child personality similarity and parental differential treatment. Future studies are encouraged to focus on more diverse and heterogenous samples.

Second, autonomy support was self-reported which may have resulted in an underrepresentation of parental differential treatment due to social desirability. To get a clear view on parental differential treatment we made the decision to use the same perspective twice and therefore holding reporter characteristics constant between autonomy support towards the younger and older sibling. Using child reports would run the risk of getting a less accurate measurement of differential treatment, because children may perceive and interpret the same behavior differently (Soenens et al., 2015). In addition, our use of a difference score probably resulted in less desirable answers than directly asking parents about differential treatment. Nevertheless, previous research showed that parents report less differential treatment compared to children, also when using difference scores (e.g., Atzaba-Poria & Pike, 2008), which could have resulted in less variation between parents in differential autonomy support, and subsequently an underestimation of associations. Therefore, studies are

recommended to use more objective measurements, such as observations. Although self-reported personality may also be susceptible to socially desirable responding, the use of differential profile similarity should account for this to some extent.

Finally, our study did not differentiate between parent-child personality similarity on specific personality traits, whereas resemblance on negative traits might have opposite effects on parenting (Franken et al., 2017). However, previous studies found modest support for the similarity hypothesis with respect to Attention Deficit/Hyperactivity Disorder (ADHD) and positive parenting (e.g., Johnston et al., 2018; Psychogiou et al., 2008). Since children with ADHD symptoms are often viewed as having a ‘difficult’ temperament, these studies provide some evidence for the notion that parents are more efficient in parenting children who are similar to themselves, irrespectively of characteristic type. Nevertheless, future studies are needed to examine whether associations between parent-child similarity in personality and differential autonomy support are moderated by the nature of parent-child similarity.

Conclusion

The present study adds to literature on the association between parent-child similarity in personality and parenting by using a within-family design and an innovative operationalization of parent-child similarity. Moreover, this study examined whether these associations differed between mothers and fathers. Our findings demonstrated that differences in parent-child similarity between siblings are associated with differential autonomy support from mothers, but not from fathers. In families where one sibling was more similar to the mother, relative to the other sibling, this sibling receives more maternal autonomy support, relative to the other sibling. So, our within-family design provides convincing evidence for the positive association between parent-child similarity and maternal autonomy support. The present study highlights the importance of considering parent-child similarity in personality for understanding differences between siblings in maternal autonomy support.

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Table 1

Intercept and Variance Estimates of Latent Mean and Differential Autonomy Support on the Between-Family Level and Fit Indices

	Model 1 (saturated model including time)		Model 2 (Model 1 + mean and differential similarity)		Model 3 (Model 2 + control variables)	
	Intercept	Variance	Intercept	Variance	Intercept	Variance
Autonomy support						
Mean father	22.88**	3.68**	22.85**	3.65**	23.08**	3.58**
Mean mother	23.49**	4.08**	23.43**	4.07**	24.22**	3.97**
Diff. father	0.04	0.30*	0.07	0.31**	-0.10	0.28*
Diff. mother	0.19*	0.89**	0.14	0.84**	0.36	0.76**
Fit Indices						
χ^2	-		19.21		34.36	
Df	-		20		36	
$\chi^2 p$	-		.508		.547	
CFI	-		1.00		1.00	
TLI	-		1.00		1.00	
RMSEA	-		0.00		0.00	

Note. * $p < .05$; ** $p < .001$.

Figure 1

Simplified Visualization of Relations Between the Observed and Latent Variables in Model 2
(Modeled on the Between-Family and Within-Family Level)

Note. Exogenous variables (latent variables related to similarity) were allowed to covary. M =

Mother, F = Father, O = Older sibling, Y = Younger sibling

Figure 2a*Standardized Between-Family Level Estimates of the Final Model (Model 3)*

Note. Control variables were included, but are not visualized. M = Mother, F = Father

Figure 2b*Standardized Within-Family Level Estimates of the Final Model (Model 3)*

Note. M = Mother, F = Father