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SIBLING RELATIONSHIP AND PERSONALITY IN EARLY/MIDDLE CHILDHOOD FROM PARENT'S PERCEPTION

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Abstract

Sibling relationship and personality characteristics of 87 pre-school sibling dyads were measured twice one year apart. Using the *Inventory of Child Individual Differences* (Halverson et al., 2003), mothers and fathers rated their children's personality traits. Parent-perceived warmth, agonism, and rivalry/competition in sibling relationship were assessed by *Parental Expectations and Perceptions of Children's Sibling Relationships Questionnaire* (Kramer, 2001). The results suggest that (a) parental ratings of both siblings' personality, and (b) match in their personalities are contemporaneously and longitudinally associated with parent-perceived sibling relationship dimensions. The relations were more consistent for negative than positive aspects of sibling relationship. Older siblings' personality contributed somewhat more to the relationship than individual characteristics of younger ones. Across the cross-rater analyses and measurement occasions, disagreeableness was most consistently linked to sibling relationship. The role of siblings' (dis)similarity in high or low end of particular personality traits in their relationship quality is also highlighted.

Key words: sibling relationship, childhood, personality, parental ratings

INTRODUCTION

Sibling relationships create an important social context for child development because they have a significant role in several aspects of children's lives, including emotion regulation, attachment, friendships, social cognition, learning negotiation

and conflict management (e.g., Kitzmann, Cohen & Lockwood, 2002). Even though characteristics of sibling relationships change over time it appears that they vary along continuous dimensions of warmth (affection), conflict (agonism, hostility), and rivalry from childhood through adulthood (e.g., Furman & Buhrmester, 1985; Stocker, Lanthier & Furman, 1997). Variation in the expression of the three dimensions among sibling dyads is immense (Dunn, 1993) with some dyads expressing predominantly affection and positive emotions, some predominantly hostility and negative emotions, while others are characterized by frequent expressions of both negativity and affection. As sibling relationships are associated with different developmental outcomes (e.g., Dunn, Slomkowski, Beardsall & Rende, 1994) it is important to study the factors that may contribute to the quality of sibling relationships. Past research yielded few consistent findings on the effects of siblings' sex, birth order or the age gap between the siblings on the quality of their relationship (e.g., Stocker, Dunn & Plomin, 1989). More recent studies attempt to explain the differences in sibling relationships in terms of family risk factors (e.g., McHale & Pawletko, 1992), quality of children's other family relationships (e.g., Richmond, Stocker & Rienks, 2005), and siblings' temperament (Brody, Stoneman & Burke, 1987; Brody et al., 1994a, b; Munn & Dunn, 1989; Stocker et al., 1989). Links between personality traits and sibling relationship in childhood have been, to our knowledge, documented only in a study of school-aged children (Furman & Lanthier, 1996). Given that the investigations on early child personality have a short history, a lack of documentation on its role in sibling relationships is perhaps not too surprising. Therefore, the focus of this paper is to explore what child personality characteristics bring into the sibling relationship in early/middle childhood.

Child personality

It is generally agreed that both the situation and the person contribute to behaviour (see e.g., Burger, 2008). Children's responses during sibling interactions are typically shaped by particular situations, e.g. the presence or absence of parents (Brody et al., 1987; Corter, Abramovitch & Pepler, 1983), but it is also apparent that all children do not behave identically in the same situation. Relatively stable individual differences in children's tendencies to feel, think and act in a relatively consistent way (traits) have been found to predict a wide range of social behaviour and relationships (see Shiner, 2006).

While temperament is considered a biological substrate of personality, the latter is seen as a broader concept comprising additional domains (e.g., intellective aspects of individual differences, social cognition, self-concept). Therefore, personality was not thought to develop until middle childhood (e.g., Caspi & Silva, 1995; Digman, 1990; Rutter, 1987; for discussion on the conceptual distinction between temperament and personality, see Caspi, Roberts & Shiner, 2005). Yet, recent

investigations have provided compelling evidence that children of different ages and cultures are described by adults in terms of personality characteristics which resemble the five robust traits in adults, i.e. extraversion, agreeableness, conscientiousness, neuroticism, and openness (e.g., Digman, 1990; Knyazev, Zupančič & Slobodskaya, 2008; Kohnstamm, Halverson, Mervielde & Havill, 1998; Mervielde & De Fruyt, 2002; Shiner, 2006; Slobodskaya, 2007). However, assessments of preschool children often yield a smaller number of robust personality traits (Mervielde, Buyst & De Fruyt, 1995; Zupančič, Podlesek & Kavčič, 2006; Zupančič, Sočan & Kavčič, 2009). Parental ratings of children on the Inventory of Child Individual Differences (ICID; Halverson et al., 2003), which was used in this study, tend to load onto four factors, extraversion, conscientiousness, neuroticism and disagreeableness and these four replicate across countries and age groups (Knyazev et al., 2008; Zupančič & Kavčič, 2009).

Children's temperament/personality and characteristics of sibling relationships

In general, difficult temperament (high activity, emotional intensity, low ease of management) is associated with dimensions of conflicted sibling relationships. However, findings on associations between siblings' particular temperamental traits and dimensions of their relationship quality are quite ambiguous as they vary across children's age, variables considered, and methods of assessment (e.g., Brody et al., 1987, 1994b; Munn & Dunn, 1989; Stocker et al., 1989).

According to our literature review, only Furman and Lanthier (1996) reported associations between the five robust personality traits and sibling relationship in childhood: school-aged children's personality was more often linked to sibling conflict than warmth; conscientiousness was the most consistently related to sibling relationship qualities, positively to warmth and negatively to conflict, relative power, and competition for parental attention; low agreeableness was consistently associated with conflict and relative power in the sibling relationship. In extension to this, we aimed at investigating how parent-perceived children's personality traits relate to dimensions of their sibling relationship (a) earlier in the siblings' life, (b) contemporaneously and longitudinally, over a one year time span, and (c) across informant ratings (maternal and paternal). Our hypotheses were based on previously documented roles of early child temperament (e.g., Brody et al., 1994b) and school-age child personality (Furman & Lanthier, 1996) in sibling relationship, and links between early child personality and social behaviour (e.g., Shiner, 2006; Zupančič et al., 2006). We expected to find disagreeableness predictive of sibling negativity (conflict, rivalry/competition), while extraversion and conscientiousness were presumed to be associated with sibling positivity, i.e. relationship warmth.

Match in siblings' individual differences and their relationship

In addition to each of the siblings' personal attributes, the match in their temperamental characteristics was found to be related to their relationship in childhood. Munn and Dunn (1989) observed interactions within sibling pairs and used absolute difference scores as measures of sibling similarity or difference in maternal ratings of each sibling's temperament dimensions. These scores correlated with conflict in sibling interaction when the younger siblings were three years old, though not one year earlier. The authors argued that the "lack of temperamental fit" between siblings put them at risk for conflict. On the contrary, Stoneman and Brody (1993) tested the "buffering" hypothesis, i.e. positive temperamental characteristics in one sibling may protect their relationship from detrimental effects of difficult temperament in the other one. School-aged siblings' relationship negativity/conflict and positivity/warmth were not related to parental ratings of children's adaptability but were associated with perceived activity. The least conflict was observed when both siblings were low in activity and the most when the older sibling or both siblings were high in activity. With respect to sibling positivity, Stoneman and Brody's results were consistent with the "similarity" hypothesis proposed by Munn and Dunn (1989). The most positive interactions occurred in siblings rated similar in activity (both either high or low).

Thus, the second aim of our study was to examine whether the nature of sibling relationships is shaped by the similarity in siblings' personality traits (e.g., siblings similar in extraversion) or by similarity in high or low expressions of specific traits (e.g., siblings similar in low extraversion). Consistent with our first hypothesis, the match in high disagreeableness was expected to relate to sibling conflict and rivalry/competition, while the match in high conscientiousness and extraversion was proposed to contribute to relationship warmth.

METHOD

Participants

Mothers and fathers of 87 sibling pairs participated. Maternal and paternal education ranged from 8 to 20 years (M = 12.9 years) and from 8 to 18 years of schooling (M = 12.8 years), respectively. All children came from intact families with 80% having only one sibling which is similar to population data in the country (Statistical Office of the Republic of Slovenia, 2002). At the beginning of the study (T1) younger siblings (46 girls, 41 boys) were from 2 years and 4 months to 4 years and 9 months old (M = 38.3, SD = 4.9 months) and older ones (44 girls, 43 boys) ranged from 3 years and 11 months to 7 years and 2 months (M = 63.9; SD = 9.1 months).

The age difference between siblings ranged from 11 to 47 months (M = 25.6; SD = 8.7 months). At T1 they attended one of 26 pre-schools in different regions of Slovenia. One year later, 50 older siblings started elementary school (26 schools) and parents provided data for 68 sibling pairs. Participating and non-participating children at T2 did not differ on age, age gap, parental education or parent reported child personality traits and sibling relationship assessed at T1.

Instruments

Sibling relationship. Parental Expectations and Perceptions of Children's Sibling Relationships Questionnaire (PEPC-SRQ; Kramer, 2001) was employed. Parents rated characteristics of the perceived sibling relationship on a five-point frequency scale. The PEPC-SRQ items form three summary scales – warmth (13 items; e.g. "Comforting one another."), agonism (eight items, e.g. "Arguments."), and rivalry/competition (three items; e.g. "Jealousy."). With the Slovene sample of siblings in early/middle childhood (Kavčič & Zupančič, 2005) alphas ranged from 0.71 to 0.89 and from 0.62 to 0.87 for maternal and paternal ratings, respectively, while mother–father agreement on the three scale-scores was moderate (Pearson rs from 0.38 to 0.52). Coefficients of temporal stability over a period of one year ranged from 0.62 to 0.70 and from 0.46 to 0.70 for maternal and paternal ratings, respectively.

Child personality. The Inventory of Child Individual Differences (ICID; Halverson et al., 2003; Slovene version, Zupančič & Kavčič, 2009) was used in order to capture children's characteristics that are salient for their parents. It includes 108 items, rated on a seven-point scale (1 – the characteristic is present in a child much less than in the average same-age child or not at all; 7 – … much more than in the average same-age child). The items combine into 15 mid-level scales, showing good internal reliability and validity in both the original and the translated version, high mother–father agreement, and high one month test–retest stabilities (Halverson et al., 2003; Zupančič & Kavčič, 2009). In children aged three through five, the scales form four internally consistent personality components (over children's age and across parents αs ranged from 0.79 to 0.92) which are congruent over time and across the spouses' ratings: extraversion (Positive Emotion, Considerate, Sociable, Activity Level, Open to Experience, Compliant, and Intelligent mid-level scales), conscientiousness (Organized, Distractible-reversed, and Achievement Oriented), neuroticism (Fearful/Insecure and Shy) and disagreeableness (Strong Willed, Negative Affect, and Antagonistic). The four robust traits demonstrate a moderate to high temporal stability (mean one- and two-year rs above .56), a high cross-informant consistency (mean rs across children's age exceed 0.65; Zupančič et al., 2009) and are predictive of a wide range of child interpersonal behaviours (e.g.,

Halverson et al., 2003; Slobodskaya, 2007; Zupančič & Kavčič, 2009; Zupančič et al., 2006).

Procedure

At the beginning of the study, pre-school teachers were asked to contact parents of three year old children with older siblings attending the same pre-schools. Parents who provided an informed consent to take part in the study were given envelopes containing four copies of the ICID (mother- and father- version for the younger and the older child), a separate version of the PEPC-SRQ for each parent, and written instructions on administration of the questionnaires. The spouses were asked to fill-in the material independently. They returned the questionnaires in sealed envelopes to pre-schools within two weeks. A similar procedure was repeated one year later.

RESULTS

Ratings of children's personality and sibling relationship collected separately from mothers and fathers enabled us to conduct cross-rater analyses. Thus, the links between siblings' personality and their interpersonal relationship were investigated across two sets of data to control for same-rater bias and to investigate the replicability of findings over two data sets. Set A included maternal ratings of children's personality traits and paternal reports on sibling relationship, and set B accounted for paternal assessments of children's personality and maternal ratings of sibling relationship. Attention was focused on significant relations obtained in both data sets and on the effect sizes rather than statistical significance to increase the confidence in the results. Within each data set, we examined whether (a) the four parent-perceived personality traits of individual siblings and (b) the match in their personalities contemporaneously and longitudinally predict parental reports on siblings' relationship quality.

Sibling relationship and both children's personality

Cross-rater correlations (Pearson coefficients) at T1, T2, and from T1 to T2 presented in Table 1 show that parental ratings of several children's personality traits were related to parent observed sibling relationship dimensions, with correlation sizes ranging from low to moderate. The associations were somewhat more consistent for older than younger siblings' personality ratings.

In order to explore whether siblings' personality traits contribute unique variance to the prediction of their relationship, we conducted a set of multiple regression analyses with younger and older siblings' personality simultaneously entered as predictors. As displayed in Table 2, sibling warmth and agonism were contem-

Table 1. Correlations between Parental Ratings of Children's Personality and Sibling Relationship

		Child personality traits							
		Younger siblings				Older siblings			
Sibling relationship		E	C	DisA	N	E	C	DisA	N
Contemporaneously – Time 1 ($N = 87$)									
Warmth	A	0.19	0.17	-0.24*	-0.11	0.38**	0.42**	-0.14	-0.29**
	B	0.30**	0.31**	-0.31**	-0.21	0.21*	0.31**	-0.08	-0.10
Agonism	A	-0.14	-0.26*	0.32**	0.16	-0.14	-0.32**	0.43**	0.37**
	B	-0.20	-0.42**	0.32**	0.27*	-0.23*	-0.31**	0.34**	0.28**
Rivalry/Comp.	A	-0.07	-0.17	0.18	0.09	0.02	-0.19	0.31**	0.08
	B	-0.05	-0.24*	0.25*	0.13	-0.07	-0.20	0.27**	0.12
Contemporaneously – Time 2 ($N = 68$)									
Warmth	A	0.19	0.17	-0.34**	-0.21	0.43**	0.41**	-0.16	-0.28*
	B	0.30*	0.27*	-0.20	-0.09	0.43**	0.32**	-0.18	-0.18
Agonism	A	-0.29*	-0.28*	0.23	0.27*	-0.20	-0.36**	0.53**	0.21
	B	-0.18	-0.27*	0.33**	0.13	-0.24	-0.36**	0.58**	0.26*
Rivalry/Comp.	A	-0.08	-0.24*	0.27*	0.21	-0.01	-0.08	0.51**	-0.11
	B	-0.02	-0.22	0.30*	0.14	-0.02	-0.19	0.52**	0.05
Time 1 personality, Time 2 sibling relationship ($N = 66$)									
Warmth	A	0.27*	0.19	-0.14	-0.21	0.45**	0.35**	-0.17	-0.30*
	B	0.24	0.23	-0.13	-0.12	0.30*	0.15	0.08	-0.04
Agonism	A	-0.03	-0.23	0.32**	0.16	-0.11	-0.30*	0.43**	0.18
	B	-0.14	-0.31*	0.30*	0.12	-0.19	-0.24	0.39**	0.22
Rivalry/Comp.	A	-0.04	-0.23	0.41**	0.22	-0.02	-0.20	0.24	0.02
	B	-0.06	-0.26*	0.29*	0.16	-0.08	-0.26*	0.52**	0.15

Note. E = Extraversion, C = Conscientiousness, DisA = Disagreeableness, N = Neuroticism. Rows starting with A refer to correlations between maternal ratings of child personality and paternal ratings of sibling relationship; rows B refer to correlations between paternal ratings of child personality and maternal ratings of sibling relationship.

* $p < 0.05$; ** $p < 0.01$.

poraneously and across the data sets predicted by children's personality at T1 and T2 (13% to 26% of variance explained). According to Cohen's (1988) guidelines to evaluate a magnitude of the effects[1], the adjusted values of R^2 in our study reflect medium effect sizes. Siblings' personality at T1 also contributed to all aspects of their relationship measured one year later (9% to 28% of variance explained). However, the consistency across the data sets could be claimed only if the margin-

1 R^2s lower than 0.13 present a small effect size, those from 0.13 to 0.25 a moderate effect size and R^2s higher than 0.25 indicate a large effect size.

Table 2. Summary of Regression Analyses Predicting Parental Ratings of Sibling Relationship from Siblings' Personality

		Unstandardized coefficients for individual predictors								
		Younger siblings				Older siblings				
		E	C	DisA	N	E	C	DisA	N	Adj.R^2
Contemporaneously – Time 1 (N = 87)										
Warmth	A	-0.20	0.06	-0.13	0.03	0.35*	-0.01	-0.07	-0.10	0.15*
	B	0.24	0.07	-0.27*	0.18	-0.06	0.32*	0.11	0.25*	0.18**
Agonism	A	0.17	-0.12	0.13	-0.04	-0.14	-0.09	0.15	0.14	0.23**
	B	0.37*	-0.46**	0.05	-0.07	-0.09	-0.04	0.13	-0.01	0.18**
Rivalry/C.	A	0.14	-0.24	0.07	0.00	0.07	-0.24	-0.02	-0.12	0.03
	B	0.44	-0.45	0.14	0.04	0.13	-0.25	0.26	-0.17	0.09^{+}
Contemporaneously – Time 2 (*N* = 68)										
Warmth	A	0.04	-0.05	-0.25*	0.04	0.22	0.08	-0.03	-0.02	0.16*
	B	0.05	0.09	-0.15	0.11	0.45*	-0.07	-0.05	0.16	0.14*
Agonism	A	-0.17	-0.03	0.17	0.07	-0.14	0.16	0.23*	-0.17	0.13*
	B	0.16	-0.11	0.10	0.03	-0.08	0.02	0.47**	-0.02	0.26**
Rivalry/C.	A	0.29	-0.34	0.28	0.15	-0.23	0.20	0.10	-0.21	0.05
	B	0.70*	-0.55*	0.10	0.20	-0.15	0.14	0.61**	-0.23	0.32**
Time 1 personality to Time 2 sibling relationship (N = 66)										
Warmth	A	0.04	-0.13	-0.03	-0.07	0.38*	-0.03	-0.09	-0.04	0.13*
	B	0.10	0.20	-0.17	0.24	0.30	-0.06	0.12	0.14	0.11^{+}
Agonism	A	0.13	-0.11	0.11	0.02	-0.09	0.01	0.22*	0.00	0.12*
	B	0.18	0.31	0.10	0.03	-0.16	0.16	0.34*	-0.11	0.10^{+}
Rivalry/C.	A	0.22	-0.17	0.31*	0.13	-0.07	0.04	0.11	-0.11	0.09^{+}
	B	0.28	-0.47	0.16	-0.16	0.06	-0.00	0.72**	-0.29	0.28**

Note. E = Extraversion, C = Conscientiousness, DisA = Disagreeableness, N = Neuroticism. Rows starting with A refer to predictions of paternal ratings of sibling relationship based on maternal assessments of child personality; rows B refer to predictions of maternal ratings of sibling relationship based on child personality reports provided by fathers.

$^{+}$ $0.05 < p < 0.10$; * $p < 0.05$; ** $p < 0.01$.

ally significant results were considered. With regard to single predictors of sibling relationship quality, older children's disagreeableness was consistently related to sibling agonism at T2 both concurrently and prospectively, (from T1 to T2). Other significant predictors were specific to the type (A or B) of cross-rater analysis.

Sibling relationship and match in children's personalities

To establish whether a match in siblings' personalities is predictive of their relationship quality, absolute difference scores between maternal/paternal ratings

of younger and older siblings' personality traits were calculated for each sibling pair in accordance with the Munn and Dunn study (1989). Then, these scores were concurrently (at T1 and T2) and longitudinally correlated with paternal/maternal assessments of the three sibling relationship dimensions. The Pearson correlation coefficients obtained were low and most of them non-significant.

Nevertheless, the quality of sibling relationship may depend on whether siblings are similar in high as opposed to low levels of a particular personality trait (e.g., both rated high or both rated low in conscientiousness). Therefore, the sibling dyads were divided into four groups with regard to (dis)similarity in each of their personality trait ratings: (1) both children were rated high (above median in a group of younger or older siblings) in a trait; (2) both children were rated low (below median); (3) the younger child scored low and the older one high; (4) the older child scored low and the younger one high. The effect of siblings' group membership on parental ratings of sibling relationship dimensions was tested by a series of one-way between-subjects ANOVAs[2] with A and B data sets.

The four groups of sibling dyads (dis)similar in disagreeableness differed in parent-observed relationship agonism at T1 ($F_{3, 83} = 5.05$, $p < .01$, $\eta^2 = 0.15$ and $F_{3, 83} = 3.28$, $p < 0.05$, $\eta^2 = 0.11$, for A and B, respectively), at T2 ($F_{3, 64} = 3.92$, $p < 0.05$, $\eta^2 = 0.16$ and $F_{3, 64} = 4.19$, $p < 0.01$, $\eta^2 = 0.16$, for A and B, respectively), and longitudinally ($F_{3, 62} = 5.78$, $p < 0.01$, $\eta^2 = 0.22$ and $F_{3, 62} = 3.79$, $p < 0.05$, $\eta^2 = 0.16$, for A and B, respectively). According to Cohen's (1988) recommendations converted into values for η^2, our data produced large effect sizes (η^2 of 0.138 or higher represents a large effect), except for one medium effect. Scheffé's posthoc analyses showed that parents (across data sets, both contemporaneously and longitudinally) reported on less agonism in dyads with two children low in disagreeableness than in dyads with both children high in disagreeableness (a vast majority of paired comparisons was statistically significant at 0.05 probability level). Further, some of the comparisons between dyads of low disagreeable siblings and those with younger children low and older ones high in disagreeableness reached significance – less agonism was observed between siblings similar in low disagreeableness. In addition, group membership with regard to (dis)similarity in neuroticism at T1 produced a consistent and moderate effect on parental ratings of siblings' agonism ($F_{3, 83} = 3.90$, $p < 0.05$, $\eta^2 = 0.12$ and $F_{3, 83} = 2.93$, $p < 0.01$, $\eta^2 = 0.10$, for A and B, respectively). Posthoc analyses suggested that dyads with both siblings low in neuroticism tend to engage in less agonism than other groups of dyads but the results were not consistently significant across the data sets.

Across the two data sets, relationship warmth varied among the four groups of siblings (dis)similar in conscientiousness at T1 ($F_{3, 83} = 4.06$, $p < 0.05$, $\eta^2 = 0.13$ and

2 Descriptive statistics or any other details on the analyses are available from authors at request.

$F_{3, 83} = 5.02$, $p < 0.01$, $\eta^2 = 0.15$, for A and B, respectively), and (dis)similar in extraversion ($F_{3, 67} = 4.09$, $p < 0.05$, $\eta^2 = 0.16$ and $F_{3, 67} = 2.84$, $p < 0.05$, $\eta^2 = 0.12$, for A and B, respectively) or disagreeableness ($F_{3, 64} = 3.24$, $p < 0.05$, $\eta^2 = 0.13$ and $F_{3, 64} = 3.83$, $p < 0.05$, $\eta^2 = 0.15$, for A and B, respectively) at T2. The effect sizes were moderate to large. Paired-comparisons indicated that warmth was most frequently observed in dyads matching in high conscientiousness (T1), high extraversion or low disagreeableness (T2). Other significant differences in relationship quality among the four groups of sibling dyads were specific to the set of cross-rater analyses.

DISCUSSION

The present study suggests that the quality of sibling relationship in early/middle childhood as described by siblings' parents is related to parental perceptions of their children's personality characteristics broader than temperament. Sibling personality trait ratings provided by one parent contemporaneously and prospectively predicted dimensions of sibling relationship based on reports of the other parent. Furthermore, the match in the perceived expression of siblings' specific personality traits was associated with their relationship characteristics.

Parent-rated warmth and agonism within sibling dyads were, in general, moderately predicted by children's personality at both times of measurement, one year apart. The size of overall contribution of siblings' personality to their relationship was somewhat lower longitudinally than contemporaneously, which is probably due to less than perfect temporal stability of personality (Zupančič et al., 2009) and to moderate stability of sibling relationship ratings over time (Kavčič & Zupančič, 2005). The links between siblings' personality and warmth in their relationship were somewhat less clear as compared to agonism, a finding consonant with previous research on school-aged siblings (Furman & Lanthier, 1996).

The results also suggest that the match in particular siblings' personality traits contributes to their relationship quality. Replicating the computational procedure used by Munn and Dunn (1989), the data did not support their "similarity" hypothesis, proposing that the relationship quality of siblings similar in personality traits would differ from the relationship of dyads dissimilar in personality. In contrast, our data show that the relationship dimensions differ mostly between dyads rated as similar at the low end (e.g., low disagreeableness) and those matching at the high end of a particular personality trait (e.g., high disagreeableness). Relationship warmth was consistently the most characteristic of dyads with both siblings high in conscientiousness (T1), and high in extraversion or low in disagreeableness (T2). The least agonism was perceived in dyads matching in low disagreeableness (concurrently and over time) or low neuroticism (T1). We thus argue that from the parental perspective, it is the "specific similarity" in sibling personalities (the similarity in specific trait expression) that contributes to the quality of their relationship. In case

of sibling personality dissimilarity, the pattern of our results appears consonant with the "buffering" hypothesis (Brody et al., 1987; Stoneman & Brody, 1993), i.e. desirable individual characteristics in one sibling may protect the relationship against effects of undesirable traits in the other child. Indeed, the relationship of siblings dissimilar in a particular trait tended to be as a rule assessed somewhere in between the relationship characteristics of dyads similar at the high end and those matching at the low end of the respective personality trait.

Across the performed analyses, parental perceptions of their children's disagreeableness emerged as a particularly robust predictor of parent reported sibling agonism. Disagreeableness seems to have a markedly important role in social relationships over childhood (e.g., Furman & Lanthier, 1996; Shiner, 2000, 2006). This is hardly surprising as among the five personality factors (dis)agreeableness most clearly involves interpersonal aspects of personality and foreshadows many outcomes, especially those concerning relationships (Shiner, 2000, 2006). Our results add to the importance of disagreeableness for the interpersonal behaviour between siblings already in early childhood as was previously found with older children (Furman & Lanthier, 1996) and emerging adults (Lanthier, 2007).

On the other hand, child extraversion mainly appears to bolster the quality of social relationships as it is associated with positive peer relations (Shiner, 2000, 2006). Although less consistently to the associations of disagreeableness with sibling agonism, parent observed sibling warmth in our study was related to parental ratings of children's extraversion, conscientiousness, and low disagreeableness. However, we did not find evidence for a particular significance of siblings' conscientiousness in their relationship as suggested by Furman and Lanthier's (1996) study with school-aged children. This may be due to different ages of siblings in the two studies: as conscientiousness generally increases over childhood (e.g., Kohnstamm et. al., 1998; Zupančič et al., 2009) it may gain in importance for children's relationships.

The pattern of overall results suggests that personality traits of older siblings may contribute more to the nature of the sibling relationship than those of younger siblings. This pattern of associations could perhaps reflect a more active and initiatory role of older than younger children during sibling social exchanges (Munn & Dunn, 1989; Stoneman & Brody, 1993), at least over the younger siblings' toddlerhood and early childhood (Dunn, 1993).

In sum, the present study provides valuable evidence on the contribution of child individual differences beyond temperament to sibling relationship quality in early/middle childhood. Advantages of our research include the use of both parents' views on siblings' personality and sibling relationships, and a short-term follow-up design. We highlighted the importance of individual child's personality and the match in siblings' personality traits to their relationship. Nevertheless, the associations revealed do not imply causality. Rather, they could be a consequence of genetic mediation, i.e. children's genetic predispositions influence the expression of their personality and patterns of their behaviour in interactions with siblings (Deat-

er-Deckard, 2000). Anyhow, the predictive relations demonstrated in our study are assumed to be bi-directional. Each sibling's personality may set a chain of transactions within the dyad which contributes to the quality of sibling relationship and the experiences within this relationship may, in turn, influence the siblings' trait expression. Unfortunately, we could not test the cross-lagged model of personality – sibling relationship and sibling relationship – personality effects due to the insufficient sample size. However, personality dimensions are regarded as endogenous and stable basic tendencies with stable and cumulative effects on developmental outcomes (e.g., McCrae et al., 2000). Therefore, it is reasonable to assume that personality is more likely to influence individuals' social relations (e.g., with his/her sibling) than vice versa.

Several limitations of our research should be noted. The data on child personality and sibling relationship were obtained from parents and therefore reflect the parental perceptions. Having this in mind, the associations between siblings' personality and their relationship should be considered to exist "in the eyes" of the parents. However, most studies with parental reports rely solely on maternal assessments while we gathered data from both mothers and fathers. The results based on two data sets of cross-ratings revealed several inconsistencies concerning the significance of single predictors and the criteria variance explained. This highlights the importance of using a multiple informant design as it enabled us to reveal associations that are robust enough to appear across different data. Future research would certainly benefit by including observational measures. Nonetheless, studies from parental perspective are important as parents respond to what they perceive in their children and may thus influence the development of children's interpersonal relationships within the family (e.g., Goodnow & Collins, 1990).

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ODNOSI IZMEĐU BRAĆE I SESTARA I LIČNOST U RANOM/ SREDNJEM DJETINJSTVU S RODITELJSKOG STAJALIŠTA

Sažetak

Odnos između braće i sestara te obilježja ličnosti 87 dijada predškolske dobi mjereni su dva puta u razmaku od godine dana. Pomoću Inventara pojedinačnih razlika kod djece (Halverson i sur., 2003), majke i očevi ocijenili su obilježja ličnosti svoje djece. Roditeljska procjena topline, sukoba i suparništva/natjecanja u bratskim i sestrinskim odnosima ocijenjena je pomoću Upitnika roditeljskih očekivanja i percepcija bratskih i sestrinskih odnosa djece (Kramer, 2001). Rezultati su pokazali da su (a) roditeljska procjena obilježja ličnosti braće i sestara i (b) podudarnost njihovih ličnosti i u trenutku ispitivanja i longitudinalno povezani s roditeljskom percepcijom odnosa između braće i sestara. Povezanost je bila više dosljedna za negativne nego pozitivne aspekte odnosa braće i sestara. Ličnost starijeg brata ili sestre više je pridonosila odnosu od individualnih obilježja mlađeg brata ili sestre. Preko analiza i uvjeta mjerenja osobina neugodnosti bila je najviše dosljedno povezana sa odnosima braće i sestara. Također je naglašena vrijednost (ne)sličnosti braće i sestara na određenim obilježjima ličnosti za njihov odnos.

Ključne riječi: odnosi između braće i sestara, djetinjstvo, ličnost, roditeljska procjena

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