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Associations between Personality Traits and the Quality of Sibling Relationships*

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Abstract

Sibling relationship is one of the longest relationships in human life and play a major role since some skills such as nurturance, caretaking, and meeting their own needs and those of other people around them (e.g. spouse, children, and parents) are fostered through sibling interaction. Several studies have been conducted among adults to identify the factors associated with sibling relationships. Despite its seeming importance, only a few researchers have focused on the role of personality type in sibling relationships. The current study examined whether Big-Five personality traits were associated with the quality of sibling relationships among young adults. Participants included 552 university students living in the United States of America (54% female and 46% male) aged 18 to 25 years. Participants completed the Lifespan Sibling Relationship Scale and the Big Five Inventory. A series regression analyses revealed that all personality traits were significantly associated with the quality of sibling relationships after controlling participant's gender and gender constellation. Of the personality traits, agreeableness was the strongest predictor of quality of sibling relationships. The current study's strengths and limitations and the implications future research are discussed.

Keywords: Sibling relationships, personality, young adults

1. Introduction

The importance of sibling relationships in human development was insufficiently researched for many years and focus was placed on the influence of parents, family characteristics, teachers and peers (see Howe & Recchia, 2006; Lamb, 1982). In the last thirty years, researchers have shifted their focus to examine the role of sibling relationships in family harmony and child development (Brody, 1998; Howe, Ross, & Recchia, 2011). One reason for this shift is the fact that a person's sibling relationship is likely to be their longest relationship and it may significantly impact social and emotional development (Dunn & Munn, 1986; Jenkins & Dunn, 2009). Numerous factors have been found to be associated with sibling relationships such as birth order (Newman, 1991; Pollet & Nettle, 2009), gender (Spitze & Trent, 2006), gender constellation (Stocker, Lanthier, & Furman, 1997), and number of siblings (Milevsky, Smoot, Leh, & Ruppe, 2005).

Despite its seeming importance, only a few researchers have focused on the association between personality traits and sibling relationships (Furman & Lanthier, 1996; Lanthier, 2007; Neale,

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2003; Riggio, 2000). The findings of these studies are inconsistent. Some studies revealed that personality traits are associated with more conflicts between siblings whereas others found fewer conflicts. For that reason, more studies are needed to identify the associations between personality traits and sibling relationships. The current study aimed to address this gap in the literature.

1.1. Literature Review on Personality and Sibling Relationships

There is a lack of information about the role of personality in adult sibling relationships (Furman & Lanthier, 1996). By contrast, a considerable number of studies have shown that temperament or personality has an important influence on the quality of sibling relationships in childhood and adolescence (Brody, Stoneman, & Burke, 1987; McCoy, Brody, & Stoneman, 2002).

Brody and his colleagues (1987) observed the behavior of elementary school aged children in the presence and absence of mothers and collected maternal ratings regarding the children's temperament. The researchers revealed two important findings. First, temperament influenced the way siblings interacted in the absence of mothers but it was not associated with sibling behavior in the presence of mothers. Second, the interactions between female and male dyads were somewhat differently affected by the children's temperaments. High activity level and low persistence were associated with increased negativity for both girls and boys, whereas high emotional intensity was associated with negative relationships only for girls. Another study (McCoy et al., 2002) showed that individual temperament characteristics continue to have important roles in sibling relations through adolescence. Their study revealed that female adolescents with difficult temperaments experienced less positive relationships with their siblings. However, a few researchers investigated the association between sibling relationships and childhood (Furman & Lanthier, 1996) and adulthood personality traits (Lanthier, 2007; Neale, 2003; Riggio, 2000).

1.1.1. Agreeableness

Agreeableness is associated with compassion, cooperativeness, trust, kindness, and altruism (John, Naumann, & Soto, 2008). Agreeable individuals tend to be cooperative and please others. Lanthier (2007) and Neale (2003) suggest that agreeableness is the most important personality dimension predicting sibling relationships. Neale found that agreeableness predicted more positive feelings towards siblings and high compatibility among college students. Lanthier reported similar results for adult younger siblings whose were college students. Those adults who perceived themselves to be highly agreeable, were more likely to develop much warmer relations, less rivalrous feelings towards their older siblings, and experience less conflicts in their relation. There is a similar pattern for adult older siblings. Highly agreeable adult older siblings tended to develop more warmth and to have fewer conflicts. Agreeableness was associated with less conflict and more warmth in school-aged children (Furman & Lanthier, 1996). There is a consensus on the pattern between agreeableness and the quality of interpersonal relationships; agreeable individuals are more likely to have a higher quality of relations.

1.1.2. Conscientiousness

Conscientiousness represents responsibility, goal-oriented behavior and thoughtfulness (John, 1989). The study conducted by Lanthier (2007) showed that adult older siblings, who rated themselves highly responsible and thoughtful, were more likely to perceive their sibling relations as warmer and marked by less rivalry. On the other hand, it was found that this trait did not predict the sibling relation as reported by adult younger siblings in the same study. Furman and Lanthier (1996) revealed that conscientiousness was related to the quality of sibling relations reported by younger siblings. In their study, younger siblings high on dutifulness, orderliness, and achievement orientation tended to develop much warmer, less conflicted, and

less rivalrous feelings towards their older siblings. In summary, studies have shown mixed results regarding the association between conscientiousness and sibling relationships. Whether highly conscientious people have much warmer relations or perceive more conflicted relations with others needs to be investigated.

1.1.3. Extraversion

Extraversion refers to characteristics such as assertiveness, sociability and emotional expressiveness (John et al., 2008). Neale (2003) revealed that adult siblings who rated themselves as highly extraverted were more likely to develop more positive and highly compatible relationships with their siblings. Extraversion was also found to be associated with negative aspects of adult sibling relationships. In another study on emerging adults, Lanthier (2007) reported that adult younger and older siblings, who perceived themselves highly extraverted, were more likely to experience more conflict with their siblings.

These previous studies have shown mixed results for the role of extraversion on the quality of relations; while some studies suggest this personality trait is associated with less conflicts and a higher quality of relations, one study points out that it is associated with more conflicts. For that reason, whether this personality trait is related to warmer or poorer sibling relationships needs to be investigated.

1.1.4. Neuroticism/Emotional stability

This dimension describes an individual's emotions and vulnerability (John et al, 2008). Individuals who score high in neuroticism are particularly vulnerable to stress and are quick to react emotionally. Riggio (2000) revealed that undergraduate students who were emotionally unstable, anxious, moody, and depressed, and the ones who were lonely, insensitive, lacking in feeling and empathy, report fewer positive feelings and more negative beliefs about adult sibling relationships. In a recent study, Lanthier (2007) found that adult older siblings who were high on neuroticism, were more likely consider their relations with siblings less warm yet experience less conflicts at the same time. A reciprocal pattern of conflicts was found for adult younger siblings, as well. They tended to report less conflicted feelings towards adult older siblings. However, neuroticism only predicted rivalry among older siblings for school-aged children (Furman & Lanthier, 1996). In the same study, it was found that older children, who described themselves as more anxious, moody, and depressed, tended to develop more rivalrous feelings towards younger siblings. In short, these studies showed that individuals, who are emotionally unstable, are likely to have poor sibling relationships. The results of these previous studies are consistent in that individuals high on neuroticism are more likely to have poor relationships with their siblings.

1.1.5. Openness

This dimension is related to being imaginative, original, and curious about novelties (Goldberg, 1992). Furman and Lanthier (1996) examined the relation between personality and the quality of sibling relationships among school-aged children. They found that school-aged, older siblings, who rated themselves highly open to new experiences, were more likely to experience more conflicts and less warm feelings towards younger siblings. For younger siblings, this trait was only associated with experiencing more conflicts.

Lanthier (2007) found that adult older siblings, who rated themselves highly open to new experiences, were more likely to feel more rivalry towards their younger siblings but experience less behavioral conflicts, whereas there was no significant association between personality and sibling relationships as reported by adult younger siblings. The studies above have shown that the role of openness in interpersonal relationships is not clear; whether individuals high on openness are more or less likely to experience conflicts has not been established. More studies

are needed to clarify in which direction openness is associated with the quality of sibling relations.

1.2. The Current Study

In summary, research has revealed that personality traits are associated with sibling relationships. Agreeableness is positively related to sibling compatibility while neuroticism is negatively related. However, the associations between personality traits of openness, conscientiousness, and extraversion and the quality of sibling relationships are inconsistent. Moreover, the direction of the relations varies by developmental stage and individuals' ordinal position in the family. More studies are needed to understand the links between personality traits and sibling compatibility. In line with this need, the current study investigated the associations between personality traits (agreeableness, conscientiousness, extraversion, neuroticism, and openness) and the quality of sibling relationships.

2. Methods

2.1. Sample

Participants consists of 552 undergraduate students living in the United States of America (54% female and 46% male) aged 18 to 25 years, $M = 20.66$, $SD = 1.70$. Most of the participants were Caucasian (70%), and a minority was from other ethnicities; African-American (8%), Asian-American (6%), Hispanic-American (7%), and other (9%). Of the participants, 38% were first-born, 27% were middle/other born, and 35% were last-born in the family. The number of siblings in the family ranged between 2 and 9 counting the participant.

Participants were instructed to nominate a "target sibling", who was closest in age to themselves and 1-4 years older or younger. The target siblings (50% female and 50% male) were aged 14 to 29 years, $M = 20.79$, $SD = 3.06$. With respect to the target siblings' birth order, 36% of the siblings were first-born, 30% of the siblings were middle/other born, and 34% of the siblings were last-born in the family. The relatedness of the participant to the target sibling was as follows; full-sibling (90%), half-sibling (7%), step-sibling (2%), and adopted sibling (1%).

2.2. Measures

2.2.1. The Lifespan Sibling Relationship Scale (LSRS)

The Lifespan Sibling Relationship Scale (LSRS; Riggio, 2000) measures childhood and adulthood sibling relationships with three subscales; Affection, Cognition, and Behavior. For the purpose of this study, only the section concerning adulthood sibling relationships consisting of 24 items was used in the current study. Participants were asked to rate each statement based on a 5-point Likert scale ranging from *Strongly Disagree* to *Strongly Agree*. Higher scores on the LSRS reflect more positivity in the sibling relationship. Validation research has indicated good reliability and validity of the LSRS (Riggio, 2000). The current study also demonstrated high internal consistency of the scale; Cronbach's Alpha was .96.

2.2.2. The Big Five Inventory (BFI)

The participant's personality was measured with the Big Five Inventory (BFI; John, Donahue, & Kentle, 1991). It consists of 44 self-report items with five dimensions: Agreeableness, Conscientiousness, Extraversion, Neuroticism, and Openness. Participants were asked to rate each BFI item on a 5-point scale ranging from *Strongly Disagree* to *Strongly Agree*. Higher scores on the dimensions reflect "cooperativeness and altruism" for Agreeableness "responsibility and thoughtfulness" for Conscientiousness, "sociability and emotional expressiveness" for Extraversion, "vulnerability to stress and emotional reaction" for Neuroticism, and "curiosity to novelties" for Openness (John et al., 2008).

It has been proven that all dimensions of BFI have adequate reliability and validity (John et al., 2008; John & Srivastava, 1999). The current study also demonstrated high internal consistency values of each scale (Cronbach's alpha values were .81 for Agreeableness, .77 for Conscientiousness, .88 for Extraversion, .83 for Neuroticism, .77 for Openness).

3. Results

3.1. Preliminary Analyses

The preliminary analyses were run to test whether participant's gender, gender constellation, relative position in the family (being older or younger sibling), and number of siblings in the family were covariates. The result of Independent t test showed that the quality of sibling relationships significantly differed in terms of participant's gender [$t(550) = -2.60, p < .01$]. Female participants reported higher quality of sibling relationships than male students by 4.24 points. Moreover, Independent t test showed that the quality of sibling relationships significantly differed in terms of gender constellation [$t(550) = -4.68, p < .001$]. Siblings of same gender reported higher quality of sibling relationships than siblings of opposite gender by 7.51 points (see Table 1). To control these variables, we created two sets of dummy variables (0 = male, 1 = female for gender; 0 = same-gender 1 = opposite-gender for gender constellation).

On the other hand, the quality of sibling relationships did not differ in terms of participant's relative position in the family [$t(550) = -.46, p > .05$]. Similarly, number of siblings in the family was not associated with the quality of sibling relationships ($r = .03, p > .05$) (see Table 2). For that reason, participant's relative position and number of siblings were not included in the analyses.

Table 1: Descriptive Statistics of the Quality of Sibling Relationships for Participant's Gender, Gender Constellation, and Relative Position (N=552)

	M	SD
Female	92.02	19.90
Male	87.78	18.01
Same gender siblings	93.65	18.68
Opposite gender siblings	86.14	18.92
Being older sibling	89.67	18.20
Being Younger sibling	90.43	20.00

Correlations between the variables are displayed in Table 2. The results of the correlation analyses revealed that number of siblings in the family was not associated with any of the study variables (either the personality traits or the quality of sibling relationships). Agreeableness, conscientiousness, extraversion, and openness were positively associated with the quality of sibling relationships whereas neuroticism was negatively associated with the sibling relationships. Moreover, neuroticism was negatively associated with other personality traits whereas other personality traits (agreeableness, conscientiousness, extraversion, and openness) were positively associated with each other (see Table 2).

Table 2: Correlations between Number of Siblings, Personality Traits, and the Quality of Sibling Relationships (N=552)

	1	2	3	4	5	6	7	M	SD
1.Number of siblings		.03	.04	.05	.03	.02	.03	2.90	1.80
2.Agreeableness			.35***	.14**	-.38***	.14**	.24***	34.56	5.27
3.Conscientiousness				.26***	-.31***	.10*	.14**	33.80	5.05
4.Extraversion					-.30***	.18***	.10*	28.21	5.75
5.Neuroticism						-.13**	-.09*	22.04	5.78
6.Openness							.10*	34.49	6.09
7.QSR								90.06	19.15

*p<.05, ** p<.01, *** p<.001

QSR = Quality of Sibling Relationships,

Score ranges between 8 and 40 for Extraversion and Neuroticism; 9 and 45 for Agreeableness and Conscientiousness; 10 and 50 for Openness; 24 and 120 for the Quality of Sibling Relationships.

3.2. The Association of Personality Traits and the Quality of Sibling Relationships

A series of regression analysis were performed to test whether personality traits were associated with the quality of sibling relationships after controlling participant's gender and gender constellation. The results showed that all personality traits were significantly correlated with the quality of sibling relationships. Agreeableness ($\beta = .21$, $SE = .15$, $p < .001$), conscientiousness ($\beta = .12$, $SE = .16$, $p < .01$), extraversion ($\beta = .11$, $SE = .14$, $p < .05$), and openness ($\beta = .10$, $SE = .13$, $p < .05$), positively predicted the quality of sibling relationships whereas neuroticism negatively predicted the quality of sibling relationships ($\beta = -.13$, $SE = .14$, $p < .01$). As seen in Table 3, among the associations between personality traits and the quality of sibling relationships, the strongest association was the one between agreeableness and sibling relationships ($R^2 = .10$). This finding suggests that agreeableness is the most important personality trait explaining the variance in the sibling relationships.

Table 3: Summary of Regression Analyses for Personality Traits Predicting the Quality of Sibling Relationships (N=552)

	B	SE	β	R ²
Agreeableness	.78	.15	.21***	.10
Conscientiousness	.46	.16	.12**	.07
Extraversion	.35	.14	.11*	.06
Neuroticism	-.43	.14	-.13**	.07
Openness	.32	.13	.10*	.06

*p<.05, ** p<.01, *** p<.001

4. Discussion

Personality characteristics are associated with the way individuals interact with others, and how they perceive, appraise and explain aspects of their relationships (see John et al., 2008). Some personality traits such as agreeableness, conscientiousness, and extraversion have been found to be associated with good relationships among romantic partners (Ahmetoğlu, Swami, & Chamorro-Premuzic, 2010; Engel, Olson & Patrick, 2002) whereas neuroticism has been found

to be associated with poor interpersonal relationships (Fisher & McNulty, 2008). The current study qualifies earlier findings about the associations of personality and the quality of sibling relationships among emerging adults, by showing which personality characteristics were related to sibling relationships and which were not.

Agreeableness was found to be a strong predictor of the quality of sibling relationships in this study. This finding supports previous studies on sibling relationships for different age groups; children (Furman & Lanthier, 1996; Meunier et al., 2011) and emerging adults (Lanthier, 2007; Neale, 2003) as well as other interpersonal relationships (Ahmetoğlu et al., 2010). Agreeableness has been associated with compassion, cooperativeness, trust, kindness, and altruism (John et al., 2008). Being cooperative and altruistic might help highly agreeable individuals respond to potential conflicts (such as those with their sibling) with less negative affect and apply more constructive tactics.

Conscientiousness was also found to be positively associated with the quality of sibling relationships. Since conscientiousness refers to being orderly, responsible, and dependable, and willing to achieve, maintain task interest, control impulses, and follow norms and rules (John & Srivastava, 1999), highly conscientiousness individuals see themselves as responsible for keeping contact with their parents and siblings (Asendorpf & Wilpers, 1998). As a result, they are likely to have maintained intimacy with their sibling. Moreover, the ability to control impulses might help these individuals to avoid conflicts and keep calm during conflicts; desire to achieve might encourage them to retain positive relationships with their siblings. This finding supports the finding of prior studies regarding sibling relationships (Furman & Lanthier, 1996; Lanthier, 2007) as well as romantic partners (Ahmetoğlu et al., 2010; Engel et al., 2002).

Extraversion was positively related to the quality of sibling relationships in the current study. Extraversion is associated with gregariousness, positive emotions, and warmth (John & Srivastava, 1999). Thus showing positive emotions and warmth might help highly extraverted individuals to maintain positive interactions with their siblings. This finding is consistent with findings of previous studies revealing significant association between this personality trait and adult sibling (Lanthier, 2007; Neale, 2003) or other interpersonal relationships (Bono, Boles, Judge, & Lauver, 2002) whereas it is inconsistent with findings of studies by Furman and Lanthier (1996) as well as Riggio (2000). The inconsistency might derive from methodological variations such as different age groups and measures of personality in the different studies.

In the current study, there was a negative relationship between neuroticism and the quality of sibling relationships. Individuals low on neuroticism (and were thus more emotionally stable) reported having better relationships with their siblings. The negative role of this personality trait on the sibling relationships supports the findings of previous studies regarding sibling (Lanthier, 2007; Riggio, 2000) and other interpersonal relationships (Bono et al., 2002; Fisher & McNulty, 2008). According to John and colleagues (2008), neuroticism is associated with being nervous, short-tempered, not satisfied, shy, moody, and insecure. In addition, it is related to anger and hostility (Costa & McCrae, 1992). Being short-tempered, not satisfied, moody and showing anger and hostility towards a sibling/partner in any conflict is likely to decrease the quality of the relationship.

In line with agreeableness, conscientiousness, and extraversion, individuals who were highly open to new experiences had predilections to maintain positive relationships with their siblings. DeYoung (2014) suggests that individuals high on openness are likely to be better at conflict resolution and to have better relationships with others since this personality trait is related to being expressive, fluent, entertaining, and aware of their own and others' feelings. However, this finding is inconsistent with previous studies regarding sibling relationships (Furman & Lanthier, 1996) and other interpersonal relationships (Bono et al., 2002). The inconsistency

between the study of Furman and Lanthier and the current study might be related to characteristics of the participants (e.g. different age groups and whether or not they were living in the same place).

4.1. Limitations of the Study and Future Research Directions

The current study revealed links between personality traits and the quality of sibling relationships among a large sample of college students. Nevertheless, it has several noteworthy limitations. First of all, this study is a correlational study; for that reason it cannot be used to draw conclusions regarding the causality of personality traits on the sibling relationships. Variables that have not been controlled in the study may have an impact. For example, parental differential treatment has been found to influence sibling relationships (Brody, 1998). Future research should use longitudinal designs to clarify the direction of causality between the relevant variables.

Another limitation of the current study was its focus on only one sibling's point of view. It is unknown how the non-respondent siblings' personality traits are associated with the quality of sibling relationships. Since it is a reciprocal relationship, examining both siblings' personality characteristics would give much richer information about the role of this variable on the sibling relationship. A final limitation of this study is generalizability of findings. This study recruited college aged-participants; for that reason, these findings might not be generalized to other age groups. Investigating the associations between personality and sibling relationships among other age groups such as middle-aged adult siblings would be informative.

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