Intergenerational transmission of parent-child relationship quality in Germany

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Abstract: There is a long-standing tradition in social science research assessing intergenerational transmission processes. However, barely any attention has yet been devoted to the transmission of relationship quality between multiple generations of family members. Exploiting data from the German Family Panel (*pairfam*), we estimate multilevel models to investigate whether the quality of the relationship between parents (G2) and the (grand-)parent generation (G1) predicts the relationship quality of parents (G2) and their children (G3). Our findings provide clear evidence for an intergenerational transmission of positive (emotional closeness) and negative (conflict) relationship qualities as well as ambivalence. A hypothesis proposing an effect of different socio-cultural contexts in East and West Germany found no support, though. We neither found differences between grandmother and grandfather ties, nor between cohorts. The main results also remained robust against an alternative specification of our outcome variables. The paper concludes with a discussion of limitations and perspectives for future research.

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Introduction

There is a long-standing tradition of social science research focusing on the intergenerational transmission of parents' socio-economic status (e.g., Kalmijn, 2015 Martin, 2012), pro-social behaviors (e.g., Janoski & Wilson, 1995; Mustillo et al., 2004), cultural capital and orientations (e.g., Silverstein & Conroy, 2009; Vollebergh et al., 2001), as well as values, including religiosity (e.g., Kalmijn, 2015; Min et al., 2012). Moreover, family sociologists and demographers have collected ample evidence indicating an intergenerational transmission of demographic behaviors (e.g., Fasang & Raab, 2014; Liefbroer & Elzinga, 2012), especially childbearing and divorce (e.g., Murphy, 2013; Wolfinger, 2011), as well as of parenting styles (e.g., Chen & Kaplan, 2001) and kinship norms (e.g., De Vries et al., 2009).

Although studies suggest that parent-child relationship quality is related to, for example, individuals' well-being (e.g., Birditt et al., 2015; Merz et al., 2009) or the exchange of support (e.g., Fingerman et al., 2011; Silverstein et al. 1995), empirical research on the transmission of relationship quality between three generations of family members is scarce (but see Birditt et al., 2012). Exploiting data from the German Family Panel (*pairfam*), our study contributes to this literature, extending previous research in several ways. *First*, comparing East and West Germans allows us to investigate, whether individuals' socio-cultural context matters for intergenerational transmission (see Trommsdorff, 2009). Despite German unification in 1990, both parts of the country continue to offer in many respects distinctly different societal contexts, and one might therefore still expect to find East-West differences with regard to a variety of family-related processes (e.g., Cassens et al., 2009), including intergenerational transmission (see below for a detailed discussion). Cross-national studies often suffer from limitations in data comparability, whereas *pairfam* data collection procedures (sampling design, questionnaire content, survey administration, etc.) are identical in East and West Germany, thus guaranteeing full comparability of the data. *Second*, whereas Birditt et al.

(2012) merely distinguish positive and negative relationship quality, our assessment of three parent-child relationship dimensions includes – next to emotional closeness and frequency of conflicts – ambivalence as a by now well-established, important extension to Bengtson's initial model of intergenerational solidarity in families (cf. Bengtson et al., 2002; Connidis, 2015).

We estimate multilevel models to investigate whether the quality of the relationship between parents (G2) and the (grand-)parent generation (G1) predicts the relationship quality of parents (G2) and their children (G3). Such a correlation between G2's reports of upward and downward relationship quality would indicate intergenerational transmission. The remainder of this article is structured as follows: The next two sections provide an overview of potential transmission mechanisms and the German context. We then describe our data and methods, followed by a presentation of results. The final section concludes.

Proposed intergenerational transmission mechanisms

Next to biological mechanisms, which have received particular attention in research on fertility transmission and its genetic hypotheses (cf. Murphy, 2013), several – complementary – social mechanisms potentially driving intergenerational transmission have been proposed:

(a) The *social capital hypothesis* is often referred to in stratification research analyzing the transmission of education (e.g., Kalmijn, 2015; Martin, 2012). This hypothesis is based on the assumption that especially parents' cultural resources – such as knowledge, reading, or language skills – are passed on to their children. The transmission of such resources occurs through interaction, that is, they will be transmitted more strongly, if there is greater involvement of parents' in children's lives.

(b) The *value socialization hypothesis* also implies an interaction effect, but is more often referred to in child development research analyzing the transmission of cultural

orientations, values, and norms (e.g., Min et al., 2012; Tromsdorff, 2009). In this line of research, the quality of the parent-child tie (degree of attachment, warmth of relationship, etc.) has been proposed to be crucial for the success of children's socialization. The underlying assumption here is that children take over the behavior of their parents and that the latter directly teach children the importance of specific values and norms.

(c) Finally, hypotheses derived from *family systems theory* (e.g., Fingerman & Bermann, 2000) suggest that there should be similarities among generations in a family[1], because "thoughts, feelings, and behaviors are family-level phenomena in which all family members share a similar experience or reality and these experiences are passed down from older to younger generations" (Birditt et al., 2012: 628). Whereas most research in this tradition has focused on the intergenerational transmission of parenting behaviors (e.g., Chen & Kaplan, 2001), the family systems perspective has recently been extended to examine whether positive and negative relationship quality is transmitted as well (see Birditt et al., 2012). In a multigenerational family system, individuals are proposed to replicate the relationship they have (or had) with their parents with their own children, or other significant family relations (Fingerman & Bermann, 2000).

Except for a number of – mainly psychological – studies investigating the intergenerational transmission of attachment (e.g., Benoit & Parker, 1994; Kretchmar & Jacobvitz, 2002; see Sette et al., 2015, for a recent review), we are not aware of any research other than Birditt et al. (2012) assessing the continuation of parent-child relationship quality across generations. Although the evidence presented by Birditt and colleagues suggests greater within-family variability than similarities in how family members feel about one

[1] The existence of such *similarities* does not stand in contrast to *differences* in parents' and children's perception of their relationship quality, as proposed by the intergenerational stake hypothesis (e.g., Birditt et al., 2015; Steinbach et al., 2015). The *correlation* between parents' and children's reports might still be high, even if there are differences in the reported *levels* of intergenerational solidarity.

another (thus providing only partial support for the intergenerational transmission hypothesis), it seems worthwhile to replicate (and extend) their study from the Philadelphia Metropolitan Area in another socio-cultural context, because "contextual factors […] presumably affect the cultural beliefs and competence of the persons involved in the transmission process, their culture-specific relationship, and the cultural meaning of the topics to be transmitted. […] Also […] socio-economic and cultural change (and crises) or continuity, may foster or constrain the intergenerational transmission" (Trommsdorff, 2009: 128). A comparison of East and West Germany seems well-suited to assess this issue empirically.

The German context

Germany is characterized by a pattern of intergenerational relationships in-between the 'extremes' of the (Western) European continuum marked by relatively 'weak' family ties in the Nordic countries and relatively 'strong' family ties in the Mediterranean ones (e.g., Hank, 2009; also see Steinbach, 2008). Within Germany, family relations among East Germans have been suggested to be closer than among their West German counterparts. This finding holds for parents and adult children (e.g., Szydlik, 1996) as well as for grandparents and grandchildren (e.g., Arránz Becker & Steinbach, 2012).

Several explanations have been put forward to explain this difference (see Szydlik, 1996): *First*, generations in East Germany were less separated from each other, because spatial and social mobility was lower than in the West. *Second*, and probably more importantly, given the socialist state's dominance in all public life domains, the family constituted one of the few private spheres for Eastern Germans, allowing them retreat from 'the system', thereby enhancing the importance of family relations. Even though these societal conditions have changed in the transformation process following unification, Szydlik

(1996: 81) argues that East and West German family relations are unlikely to converge quickly, because even if the young generation of East Germans adapts to the new circumstances of a united Germany, "they will still have to deal with parents [and grandparents] whose socialization and family experiences are characterized by the conditions in the German Democratic Republic." More recent evidence provided by Arránz Becker & Steinbach (2012) indeed suggests that closer intergenerational ties observed in East Germany shortly after the fall of the wall continue to exist.

Assuming a tighter multigenerational family system in East Germany, one might also expect intergenerational transmission of relationship quality to be stronger than in West Germany. Our argument here is similar to the one made by Trommsdorff (2009: 149) with reference to cultural transmission: "values that are not shared by the society are rather transmitted within the family, whereas widely shared values are transmitted by various socialization agents, thereby reducing the impact of families on value transmission."

Empirical strategy

Data & method

Our analysis is based on the German Family Panel (*pairfam*; see Brüderl et al., 2015; Huinink et al., 2011), whose data collection is supported by the German Research Foundation as a long-term project. The main sample is nationally representative for three cohorts, born in 1971-73, 1981-83, and 1991-93. While these 'anchor' respondents were first interviewed in 2008/09, the baseline interview with anchors' parents – which is our primary source of information – was conducted one year later as part of *pairfam's* second wave, when the survey's multi-actor design fully unfolded. Parents' participation is to some extent selective, because having a younger child (anchors born 1991-93) as well as having a closer relationship to the child (that is, the anchor respondent) has been shown to be positively associated with

the propensity to complete the questionnaire (Schröder et al., 2012; also see Kalmijn & Liefbroer, 2011).

Our analytic sample consists of 4,058 biological parents (G2), reporting on their relationship to 6,656 (grand-)parents (G1) and 3,127 children (G3). We estimate random-intercept multilevel linear models, because parent-child dyads are nested in families and observations are thus not independent from each other. Moreover, we examined grandmother and grandfather ties separately, because one might expect gender differences in grandparents' influence on the next generation's relationship quality (see Birditt et al., 2012).

Measures

Parent-child relationship quality – whose outcome in the relationship between G2→G3 is our *dependent variable*, whereas its outcome in the G2→G1 relationship is our main *explanatory variable* – was assessed by three core dimensions of the solidarity-conflict model of intergenerational family relations, namely emotional closeness, conflict, and ambivalence (e.g., Bengtson et al., 2002; Connidis, 2015):

(a) Respondents were asked to indicate how *emotionally close* they currently feel to their biological mother/father/child (1 = "not at all close", 2 = "somewhat less close than average", 3 = "about average", 4 = "somewhat more close than average", and 5 = "very close").

(b) *Conflict* was measured by two items derived from the Network of Relationships Inventory (Furman & Buhrmester, 1985): "How often do you and your biological mother/father/child argue and fight with each other?" and "How often are you and your biological mother/father/child annoyed or angry at each other?" (1 = "never", 2 = "seldom", 3 = "sometimes", 4 = "often", and 5 = "always"). Cronbach's alpha was identical for mothers and fathers (α=.99) and for children, reported by parents (α=.80).

(c) Ambivalence – that is, the simultaneous occurrence of positive and negative feelings – was measured by a combination of emotional closeness (positive feelings) and conflict (negative feelings). These two indicators of relationship quality were combined to represent indirect ambivalence using the Griffin formula, where *Ambivalence* = [(Positive + Negative)/2 − |Positive − Negative|] + 1.5 (see Lendon et al., 2014).

As argued above, we consider it important to distinguish West (0) from East (1) Germans, including both a main effect and interactions with our indicators of G2→G1 relationship quality in the multivariate models. In addition, we controlled for a standard set of parents' (G2) socio-demographic characteristics, which have often been shown to affect upward and downward intergenerational relations (see Kalmijn, 2014, for an overview): age, sex (0 = female, 1 = male), marital status (0 = not married, 1 = married), years of education, self-rated health (1 = poor through 5 = excellent), migration status (0 = native German, 1 = first or second generation migrant), and frequency of contact (visits, letters, phone calls, etc.) with one's child (that is, G3; 1 = "never", 2 = "less often than several times per year", 3 = "several times per year", 4 = "one to three times per month", 5 = "once per week", 6 = "several times per week", and 7 = "daily"). – See *Table 1* for descriptive sample characteristics.

[Table 1]

Results

We observe a consistent picture across all three outcome variables suggesting a positive association between individuals' upward and downward intergenerational relationship quality (see *Table 2*). Greater emotional closeness, frequency of conflict, or ambivalence in the G2→G1 relationship is paralleled by greater emotional closeness, frequency of conflict, or ambivalence in G2→G3 relationships, indicating intergenerational transmission. This pattern

is identical for both the grandmother and the grandfather ties. Moreover, we find no evidence for the hypothesized differences between East and West Germans, that is, neither the main nor the interaction effects in any of our models turned out to be statistically significant.

Frequency of contact between G2 and G3 is the only control variable bearing a significant (positive) association with all outcome variables. Health only matters for the G2→G3 relationship quality if the grandmother tie is considered, whereas age is shown to be negatively associated with frequency of conflict and ambivalence, but is unrelated to emotional closeness. There are no statistically significant correlations between our outcome variables and parents' sex, marital status, years of education, or migration background.

[Table 2]

In addition, we performed a number of supplementary analyses. We, *first*, estimated separate models for the two older cohorts of anchor respondents (born in 1971-73 and 1981-83, respectively) on the one hand, and the younger anchors (born in 1991-93) on the other hand. This was motivated by the assumption that East-West differences in parent-child relationship quality (and its intergenerational transmission) might have disappeared if younger cohorts of children are considered, but still be visible in older cohorts who were socialized before the fall of the wall. Our analysis revealed no significant cohort differences, though (details not shown).

Second, following the example of Birditt et al. (2012), we ran all regressions with an alternative specification of the outcome variables, namely parent-child relationship quality as reported by the child (G3; that is *pairfam's* anchor respondent). This is an important robustness check, because the correlations observed in our main models might be partially driven by unobserved parental (G2) characteristics, such as their reporting style: individuals may perceive (report, respectively) all their family relations as high or low quality ones, independent of the 'actual' relationship quality. Taking into account the children's (G3)

perspective helps to avoid measuring such spurious correlations. Although the observed associations between G1→G2 and G2→G3 relationship quality (see *Table 3*) are somewhat weaker than those observed in the main models, they still point in the same direction, thereby supporting our hypothesis of intergenerational transmission.

[Table 3]

Discussion

This study set out to investigate the transmission of parent-child relationship quality across three generations of family members. Our findings based on data derived from the German Family Panel (*pairfam*) indeed provide clear evidence for an intergenerational transmission of positive (emotional closeness) and negative (conflicts) relationship qualities as well as ambivalence, extending previous research for the US by Birditt et al. (2012).

These results have been shown to be robust in several regards: *First*, intergenerational transmission generally appears to be independent of the specific dimension of relationship quality considered in the analysis. *Second*, the strength of intergenerational transmission does not differ between grandmother and grandfather ties. *Third*, different from our hypothesis, intergenerational transmission of relationship quality appears to be unaffected by the different socio-cultural contexts in East and West Germany. *Fourth*, we observe no cohort (G3) differences. And *fifth*, our finding of a significant correlation between G2's and G1's relationship quality on the one hand, and the quality of G2's and G3's relationship is fairly independent of who (parent or child) reports on the G2→G3 tie.

Our study still suffers from several limitations: *First*, even though the mechanisms proposed to be underlying the intergenerational transmission of relationship quality are complementary rather than exclusive, it seems desirable to identify more clearly the relative importance of each of these mechanisms. This, however, was beyond the scope of our

analysis. *Second*, the participation of parents (G2) in the survey is biased towards those with younger children (G3; born in 1991-93) and those with better relationships to their offspring. If Birditt et al. (2012: 635) were right in their presumption that "[t]here may be more transmission in families with lower positive quality ties", our results should thus reflect a lower bound level of intergenerational transmission. This would not challenge any of our conclusions.

Third, and finally, there are constraints to *pairfam's* potential for analyses of conceptually relevant but numerically small subpopulations (such as non-biological parents; see Kalmijn, 2015) as well as for longitudinal investigations of intergenerational transmission in parent-child relations. Although *pairfam's* multi-actor design includes non-biological parents, we decided to exclude stepparents from our analysis, because their participation in the survey is very low. Particularly unfortunate, however, is our limited ability to observe family members longitudinally over a longer period of time. Currently, six waves of *pairfam* data are available, but detailed information on intergenerational relations is only collected every other year (starting from Wave 2). Clearly, it would be important to gain a better understanding of stability and change in the intergenerational transmission of relationship quality across the life course. Moreover, whereas we proposed that the G2→G1 relation affects the G2→G3 relationship, recent research suggests that children are not passive receivers of socialization, but that they are active transmission agents in a lifelong bidirectional socialization process (e.g., Min et al., 2012; also see Trommsdorff, 2009). It is essential that large-scale and long-run longitudinal data sets covering multiple generations in a family become available to analyze such processes.

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Tables

Table 1: Descriptive sample characteristics

Variable		Children (G3) *(N* = 3,127)	Parents (G2) *(N* = 4,058)	Grandparents (G1) *(N* = 6,656)
	Range	Means and standard deviations/ percentages		
Downward closeness	0 - 5	-	4.6 (0.01)	-
Upward closeness	0 - 5	4.2 (0.01)	3.7 (0.02)	-
Downward conflicts	0 - 5	-	2.5 (0.01)	-
Upward conflicts	0 - 5	2.5 (0.01)	2.2 (0.01)	-
Downward ambivalence	0.5 – 6.5	-	2.9 (0.02)	-
Upward ambivalence	0.5 – 6.5	2.9 (0.02)	2.6 (0.02)	-
East	0 - 1	20 %	21 %	-
Age	15 - 104	19 (0.11)	47 (0.12)	75 (0.17)
Sex (male)	0 - 1	48 %	36 %	38 %
Marital status (married)	0 - 1	1 %	82 %	27 %
Years of education	0 - 20	11 (0.03)	7 (0.09)	-
Self-rated health	1 - 5	3.9 (0.01)	3.5 (0.01)	-
Migrant	0 - 1	14 %	14 %	
Downward contact	1 - 7	-	6.7 (0.01)	-
Upward contact	1 - 7	6.6 (0.01)	5.3 (0.03)	-

Source: *pairfam* (Wave 2), Release 6.0.0, own calculations.

Table 2: Multilevel models examining parents' (G2) reports of relationship quality with offspring (G3) as a function of relationship quality with (grand-)parents (G1)

	Grandmother tie			*Grandfather tie*		
	B		SE	B		SE
(a) Emotional closeness (G2→G3)						
Emotional closeness (G2→G1)	0.107	***	0.012	0.112	***	0.016
East	0.074		0.117	0.023		0.139
East*closeness (G2→G1)	-0.011		0.028	0.002		0.035
Age	-0.001		0.002	-0.003		0.003
Sex (male)	-0.027		0.024	-0.054		0.032
Marital status (married)	-0.021		0.033	-0.002		0.042
Years of education	0.003		0.006	0.002		0.008
Health	0.044	***	0.012	0.028		0.016
Migrant	0.002		0.038	-0.009		0.049
Contact	0.181	***	0.019	0.251	***	0.027
Intercept	2.868	***	0.221	2.536	***	0.300
Between family variance	0.293	***	0.027	0.288	***	0.047
Within family variance	0.540	***	0.015	0.530	***	0.025
ICC	0.227			0.228		
Number of obs.	2,523			1,522		
Number of groups	1,968			1,279		
(b) Freq. of conflicts (G2→G3)						
Freq. of conflicts (G2→G1)	0.104	***	0.017	0.094	***	0.023
East	0.085		0.092	-0.118		0.117
East*conflicts (G2→G1)	-0.060		0.037	0.049		0.050
Age	-0.017	***	0.002	-0.016	***	0.003
Sex (male)	0.027		0.025	-0.009		0.033
Marital status (married)	0.013		0.036	0.023		0.046
Years of education	0.007		0.006	0.002		0.008
Health	-0.045	***	0.013	-0.022		0.017
Migrant	-0.045		0.042	0.006		0.055
Contact	0.228	***	0.021	0.224	***	0.030
Intercept	1.701	***	0.239	1.652	***	0.334
Between family variance	0.414	***	0.021	0.446	***	0.027
Within family variance	0.523	***	0.015	0.506	***	0.021
ICC	0.385			0.437		
Number of obs.	2,529			1,529		
Number of groups	1,970			1,285		

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Table 2 (cont'd.): Multilevel models examining parents' (G2) reports of relationship quality with offspring (G3) as a function of relationship quality with (grand-)parents (G1)

	Grandmother tie			*Grandfather tie*		
	B		SE	B		SE
(c) Ambivalence (G2→G3)						
Ambivalence (G2→G1)	0.110	***	0.019	0.125	***	0.025
East	0.058		0.121	0.038		0.157
East*ambivalence (G2→G1)	-0.058		0.041	-0.021		0.055
Age	-0.024	***	0.003	-0.022	***	0.005
Sex (male)	0.028		0.039	-0.024		0.051
Marital status (married)	0.046		0.056	0.048		0.072
Years of education	0.006		0.010	0.010		0.013
Health	-0.068	***	0.020	-0.040		0.027
Migrant	-0.078		0.065	-0.002		0.086
Contact	0.259	***	0.033	0.271	***	0.047
Intercept	2.244	***	0.369	1.894	***	0.512
Between family variance	0.613	***	0.035	0.690	***	0.042
Within family variance	0.834	***	0.024	0.778	***	0.033
ICC	0.350			0.440		
Number of obs.	2,516			1,524		
Number of groups	1,962			1,281		

Source: *pairfam* (Wave 2), Release 6.0.0, own calculations. Significance: * p<.05. ** p<.01. *** p<.001.

Table 3: Multilevel models examining children's (G3) reports of relationship quality with parents (G2) as a function of relationship quality between parents (G2) and (grand-)parents (G1)

	Grandmother tie			*Grandfather tie*		
	B		SE	B		SE
(a) Emotional closeness (G3→G2)						
Emotional closeness (G2→G1)	0.061	***	0.014	0.075	***	0.018
East	0.103		0.136	-0.226		0.166
East*closeness (G2→G1)	-0.025		0.033	0.058		0.041
Age	0.000		0.004	0.008		0.007
Sex (male)	-0.172	***	0.033	-0.159	***	0.040
Marital status (married)	-0.049		0.048	-0.087		0.061
Years of education	0.113		0.076	0.024		0.119
Health	0.007		0.003	0.002		0.004
Migrant	0.069	***	0.016	0.079	***	0.020
Contact	0.294	***	0.024	0.293	***	0.031
Intercept	1.784	***	0.214	1.589	***	0.290
Between family variance	0.552	***	0.019	0.562	***	0.025
Within family variance	0.547	***	0.015	0.529	***	0.021
ICC	0.504			0.530		
Number of obs.	2,696			1,641		
Number of groups	2,081			1,367		
(b) Freq. of conflicts (G3→G2)						
Freq. of conflicts (G2→G1)	0.032		0.018	0.078	**	0.026
East	0.101		0.102	0.078		0.136
East*conflicts (G2→G1)	-0.012		0.041	0.006		0.057
Age	-0.026	***	0.004	-0.025	***	0.007
Sex (male)	-0.137	***	0.032	-0.157	***	0.041
Marital status (married)	-0.020		0.047	-0.005		0.062
Years of education	-0.060		0.075	0.072		0.121
Health	-0.005		0.003	-0.009		0.005
Migrant	-0.070	***	0.016	-0.053	**	0.020
Contact	0.071	***	0.024	0.080	*	0.033
Intercept	2.828	***	0.211	2.608	***	0.301
Between family variance	0.492	***	0.021	0.514	***	0.031
Within family variance	0.593	***	0.015	0.600	***	0.023
ICC	0.407			0.423		
Number of obs.	2,695			1,640		
Number of groups	2,080			1,367		

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Table 3 (cont'd.): Multilevel models examining children's (G3) reports of relationship quality with parents (G2) as a function of relationship quality between parents (G2) and (grand-)parents (G1)

	Grandmother tie			*Grandfather tie*		
	B		SE	B		SE
(c) Ambivalence (G3→G2)						
Ambivalence (G2→G1)	0.017		0.020	0.061	*	0.027
East	0.186		0.128	0.076		0.167
East*ambivalence (G2→G1)	-0.025		0.043	0.045		0.058
Age	-0.032	***	0.006	-0.032	**	0.010
Sex (male)	-0.126	**	0.048	-0.175	**	0.067
Marital status (married)	-0.075		0.071	-0.057		0.091
Years of education	-0.088		0.112	0.088		0.179
Health	-0.004		0.005	-0.011		0.007
Migrant	-0.091	***	0.024	-0.054		0.030
Contact	0.082	*	0.036	0.096	*	0.048
Intercept	3.457	***	0.316	3.117	***	0.442
Between family variance	0.726	***	0.033	0.779	***	0.046
Within family variance	0.897	***	0.024	0.863	***	0.036
ICC	0.395			0.449		
Number of obs.	2,687			1,638		
Number of groups	2,076			1,366		

Source: *pairfam* (Wave 2), Release 6.0.0, own calculations. Significance: * p<.05. ** p<.01. *** p<.001.