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## Forgivingness, Forgivability, and Relationship-Specific Effects in Responses to Transgressions in Indian Families

*To advance understanding of conflict in families, responses to interpersonal transgressions were obtained from the perspective of the victim (transgression-related interpersonal motivations [TRIMs]) and transgressor (perceived transgression-related interpersonal motivations [PTRIMs]) in a sample of Indian families (N = 101). Mother, father, and a 12- to 14-year-old daughter indicated how he or she typically responds to transgressions by each of the other two family members, and how the two other family members perceived motivations toward the respondent following interpersonal transgressions. Social relations modeling showed strong actor effects for TRIMs and PTRIMs for all family members. Partner effects and relationship effects were appreciable for children but largely absent for mothers and fathers. Agreeableness and neuroticism*

*correlated with motivations of forgivingness and forgivability, providing evidence for the dispositional nature of transgression-related motivations. Analyses demonstrate the necessity of modeling forgiveness within a family context. The application of these findings is discussed.*

Family conflict has a deleterious influence on the physical and psychological health of parents and offspring (see Amato, 2010; Beach & Whisman, 2012; Kiecolt-Glaser et al., 2005; McNeal & Amato, 1998; Rhoades, 2008). Conflicts often arise as a result of interpersonal transgressions and the motivations to respond to these transgressions are referred to as “transgression-related interpersonal motivations” (TRIMs). TRIMs have been posited to vary along three dimensions: avoidance, revenge, and benevolence (McCullough, Bellah, Kilpatrick, & Johnson, 2001; McCullough et al., 1998). That is, individuals may respond to transgressions with an increased motivation to avoid the transgressor, to retaliate against the transgressor, and to express decreased benevolence or good will toward the transgressor. With forgiveness, individuals become less avoidant, less vengeful, and more benevolent toward their transgressor (Fincham & Beach, 2002; McCullough, 2001). Forgiveness then can

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be operationalized as the restoration of these three TRIMs to their pretransgression levels. Willingness to forgive has been identified as effectively attenuating adverse outcomes following interpersonal conflict (e.g., Fincham, Beach, & Davila, 2007; for a review, see Fincham, Hall, & Beach, 2006).

Because family relationships play an integral role in the health of family members, as well as in the economic well-being of the family (Beach & Whisman, 2012; Fincham & Beach, 2010), understanding how family members perceive and respond to conflict with forgiveness could greatly enhance family research and inform more effective family interventions. This is particularly important given the emergence of forgiveness interventions specifically targeted at couples and families (see Worthington & Jennings, 2010). But few researchers have appropriately analyzed forgiveness within a family structure, thus limiting the empirical foundation on which to build interventions. Moreover, research into relationship conflict has stressed the need for a more nuanced understanding of forgiveness. For example, McNulty (2010) emphasized the importance of contextual factors in understanding forgiveness by identifying conditions under which it has positive as well as adverse effects (see McNulty & Fincham, 2012, for discussion). In an initial study, McNulty (2008) showed that in the first 2 years of marriage forgiveness helped maintain marital satisfaction among spouses married to partners who rarely engaged in hostile behaviors, but was associated with steeper declines in satisfaction among spouses married to partners who more frequently engaged in hostile behaviors. In a similar vein, McFarland, Smith, Toussaint, and Thomas (2012) found that the relationship between forgiveness and health was negative for people who lived in more dilapidated or run-down conditions and positive for those who lived in more affluent conditions.

Integral to this more nuanced understanding of forgiveness is the need to understand the interpersonal factors that contribute to people's willingness to forgive. Consistent with this emphasis, interpersonal theory (Leary, 1957; Markey, Funder, & Ozer, 2003), as well as interdependence theory (Rusbult & Van Lange, 2003), support the need to account for the situational and relational factors that influence responses to transgressions, over and above individual differences in the willingness to

forgive (forgiveness). These theories contend that individuals in dyadic interactions evaluate their interpersonal relations through interactional behaviors and their contextual environment (which in this study is their familial relationship), thus highlighting the need to evaluate the interplay between intrapersonal and interpersonal processes. This led us to hypothesize that, in addition to dispositional forgiveness, individual differences in forgivability and relationship specific motives would account for significant variance in a person's own TRIMs and partner TRIMs.

Social exchange theory has also informed the study of family relationships (Thibault & Kelley, 1959). Central to this perspective is the reciprocity norm or the expectation that people will respond to each other in similar ways. This norm would lead to the prediction that perceptions of the partner's typical TRIMs in response to one's own transgressions will likely be an important determinant of reactions to future transgressions by the partner. Coinciding with TRIMs and reflective of the reciprocal nature of interpersonal relationships, it is also important to understand the motivations and responses to interpersonal transgressions from the "perspective" of the transgressor themselves (PTRIMs). However, the parenting role mitigates against such reciprocity in that parents are expected to nurture their offspring and model socially appropriate behavior; thus reciprocating in kind to a child transgression is antithetic to the parent role. Such considerations give rise to the hypothesis that reciprocity will be found only in relationships between parents (equals), so that when one parent is uniquely forgiving (or unforgiving) of the other, this tendency will be reciprocated (dyadic reciprocity).

#### *Social Relations Model*

To understand forgiveness within a family structure, transgression-related responses need to be examined in a manner that takes into account nonindependent data. The social relations model (SRM; Kenny, 1994) provides an approach to modeling dyadic perceptions and behaviors and is used to differentiate variance components within a group. SRM analysis allows for the partitioning of actor, partner, and relationship variances as well as reciprocity estimation at the individual (generalized reciprocity) and dyadic (dyadic reciprocity) levels. Actor and partner

effects are individual-level variables that are consistent across relationship partners whereas the relationship effect is unique to the dyad. An actor effect describes a person's general level of response across partners and is computed for each role a person plays in the group (e.g., father, spouse). Therefore, in a three-person family analysis there is an actor effect for mother, an actor effect for father, and an actor effect for daughter. The partner effect reflects the partner's tendency to elicit similar responses from all other members of the family. Similar to actor effects, partner effects are computed for each role; therefore, in a three-person family model there is a partner effect for mother, for father, and for daughter. Lastly, the relationship effect describes the unique relationship of an actor to a partner after actor and partner effects have been removed.

As an illustration, a wife's forgiveness of her husband following a transgression is a function of four components: the wife's actor effect (i.e., how forgiving the wife typically is toward others, her forgivingness), the husband's partner effect (i.e., the extent to which others typically seek to forgive him after his transgressions or his forgivability), the couple's relationship effect (i.e., the unique propensity of the wife to forgive her husband over and above her actor effect and his partner effect), and error. Additionally, the SRM yields estimates of generalized reciprocity and dyadic reciprocity. *Generalized reciprocity* describes the extent to which individuals who are generally forgiving toward others are also generally forgiven by others, and is estimated by the covariance between actor and partner effects. *Dyadic reciprocity* describes the extent to which persons who uniquely forgive a particular other family member is also uniquely forgiven by that person, and it is estimated by the covariance between their relationship effects.

Consistent with this relational approach, Hoyt, Fincham, McCullough, Maio, and Davila (2005) in two separate samples examined the relative importance of forgivingness (i.e., the disposition to forgive others; an actor effect), forgivability (i.e., the tendency to obtain forgiveness from others; a partner effect), and relationship effects in determining family members' TRIMs and their perceptions of others' TRIMs toward them (PTRIMs). They demonstrated that actor, partner, and relationship factors within the family differentially predict TRIMs: individual (actor and partner

effects) and dyadic levels of analysis accounted for substantial variance in self-reported and perceived forgiveness. The responses to transgressions were shown to be partly dispositional in that individuals demonstrated consistent patterns of forgivingness across relationship partners, but also partly a function of the partner's forgivability and of the nature of the relationship. Thus, the importance of the three determinants of the SRM model (i.e., actor, partner, relationship effects) differed by family role (i.e., parent, child) and relationship type (i.e., father, mother, child). Specifically, dispositional tendencies accounted for the most variance in father and child forgiveness, whereas mothers' TRIMs and PTRIMs were more strongly determined by relationship and partner effects. Additionally, their White samples came from Western industrialized countries raising questions about the generalizability of their findings to other cultures.

### Study Overview

The goal of this study was to evaluate the utility of using a SRM approach to model responses to conflict within a non-Western family context. Building on Hoyt et al.'s (2005) work, this study investigated responses to interpersonal transgressions from the perspective of the victim (TRIMs) and from the perspective of the transgressor (PTRIMs) in a non-Western sample of Indian families. Specifically, this study examined forgivingness and forgivability within a father, mother, and child family using the SRM of distinguishable roles (Kenny, Kashy, & Cook, 2006).

Although some studies have investigated forgiveness in non-Western samples, this research has yet to use an SRM approach to model responses to conflict within families (Sandage & Williamson, 2005). The few studies that have investigated forgiveness in Eastern cultures have predominately used Chinese samples. Key findings include demonstrating that the Transgression-Related Interpersonal Motivations Inventory (McCullough et al., 1998) provides a valid and reliable scale for assessing forgiveness in marriage (Wong, Chu, & Chan, 2014) and that few forgiveness differences exist between the genders (albeit using an undergraduate sample; Mellor, Fung, & Muhammad, 2012). Scholars suggest that because collectivist cultures place a higher

value on interdependence than Western culture, stronger prorelational forgiveness effects may occur (Hook, Worthington, & Utsey, 2009; Hui & Chau, 2009; Kadima Kadiangandu, Gauché, Vinsonneau, & Mullet, 2007; von Feigenblatt, 2010). However, this remains to be empirically examined. In fact, given the strong patriarchal structure of Indian families (Mullatti, 1995), it is quite possible that the phenomena investigated may manifest themselves quite differently than in Western samples. For example, a power differential between husband and wife may mitigate against the previously articulated hypothesis that dyadic reciprocity would emerge in the marital relationship.

As we believe that a person's own TRIMs, and perhaps PTRIMs, are somewhat dispositional even in less individualistically oriented cultures, we also examined correlations between self- and other-rated forgivingness and forgivability within the family with self-ratings on five personality traits (Big Five; Saucier, 1994). Previous forgiveness research has utilized the five-factor structure of personality to investigate individual differences and narrow down the vast array of potential dispositional tendencies related to forgiveness (for a discussion, see McCullough & Hoyt, 2002). McCullough and Hoyt (2002) demonstrated that between 22% and 44% of variance in respondents' willingness to forgive a specific transgression was attributable to stable individual differences in forgivingness, with agreeableness (positively) and neuroticism (positively) being the most stable personality predictors of forgivingness. Indeed, more comprehensively utilizing SRM analysis, Hoyt et al. (2005) demonstrated self-rated neuroticism (negatively) and agreeableness (positively) were associated with TRIMs and PTRIMs. Ratings of extraversion, conscientiousness, and openness to experience demonstrated inconsistent findings in McCullough and Hoyt and Hoyt et al. Therefore, to understand dispositional tendencies related to forgiveness within this Indian sample, based on the work of McCullough and Hoyt as well as Hoyt et al., we hypothesized that agreeableness and neuroticism would be most strongly and consistently related to forgivingness and forgivability. Specifically, self-ratings of forgivingness and forgivability (i.e., actor effects) were expected to be associated positively with self-ratings of agreeableness and inversely related to neuroticism.

In sum, we investigated dispositional (actor and partner TRIM and PTRIM effects for mother, father, and child personality ratings) and relational (TRIM and PTRIM relationship variance estimations) determinants of forgivingness and forgivability as well as the applicability of the reciprocity hypothesis (generalized and dyadic reciprocity) to transgression-related responses with a novel, non-Western sample. Specifically, we examined the following hypotheses:

Hypothesis 1: In addition to dispositional forgivingness, individual differences in forgivability and relationship specific motives will account for significant variance in own TRIMs and partner TRIMs.

Hypothesis 2: Reciprocity will be found only in the relationship between parents (dyadic reciprocity) and not within parent-child relationships.

Hypothesis 3: Self-ratings of forgivingness and forgivability (i.e., actor effects) will be associated positively with self-ratings of agreeableness and inversely related to neuroticism.

## METHOD

### *Participants*

Two-parent Indian families with a daughter in the eighth grade ( $N=101$ ) living in Hubli-Dharwad city, the second largest city in the state of Karnataka, India, were recruited to participate in a family survey through visits to schools. Both parents had been living together for at least 15 years and the daughter's age ranged from 12 to 14 years. Sampling was guided by the demographics in Hoyt et al. (2005) to provide parallel parameter estimates for family interactions between this and the Hoyt et al. samples.

### *Materials*

*TRIMs: Dyadic Ratings.* Each family member rated how he or she typically responded to transgressions by each of the other two family members. The TRIM items used were exactly the same as those used by Hoyt et al. (2005). The TRIM ratings assessed the respondent's typical reactions in a conflict situation. All items began with the stem, "When X angers me or

hurts my feelings, I \_\_\_\_” and described one possible reaction. Respondents rated how well each description characterized their typical reaction on a 7-point scale (with responses ranging from 1 [*strongly disagree*] to 7 [*strongly agree*]). Items reflected one of three hypothesized TRIM dimensions: Benevolence (three items; e.g., “Generally don’t stay upset with her [him] for long”), Avoidance (four items; e.g., “Don’t want to have anything to do with her [him]”), and Revenge (four items; e.g., “Find little ways to get back at her [him] for what she [he] did”). Avoidance and Revenge items were reverse scored on these indicators so that higher scores reflect more positive (i.e., forgiving) TRIMs.

Factor analysis of the TRIM ratings was conducted prior to the SRM analyses. Results indicated no evidence of multifactorial structure as a single factor emerged accounting for more than 95% of common factor variance. Because reliable estimation of the variance in SRM relationship effects requires two indicators (i.e., parallel measures of the same construct), we followed Hoyt et al. (2005) and used the factor loadings from this analysis to split items into two indicators (e.g., FM1 & FM2) with comparable loadings that reflected a single common factor. Coefficient alpha for the two TRIM indicators in the six possible dyads ranged from .79 to .89.

*PTRIMs: Dyadic Ratings.* Respondents also rated the two other family members on their perceived motivations toward the respondent following interpersonal transgressions. These ratings used the same 11 items just described, with a modified question stem, “When I anger X or hurt her [his] feelings, she [he] \_\_\_\_.” Preliminary factor analysis of the PTRIM ratings also indicated that a single factor accounted for the majority (>95%) of the common factor variance; therefore, the previously described procedure was conducted to construct two PTRIM indicators for use in the SRM analyses. Coefficient alpha for the two PTRIM indicators in the six possible dyads ranged from .75 to .87. Correlations between individual indicators for both TRIM and PTRIM ratings are displayed in Table 1.

*Big Five: Self-Ratings.* Participants rated themselves on the 40 adjectives from Saucier’s (1994) Big Five minimarkers. This measure consists of a factor analytic reduction of 100 adjective markers of the Big Five factor structure found in

the phenotypic personality description provided by Goldberg (1992). Eight items load onto each of five subscales measuring extraversion, neuroticism, agreeableness, conscientiousness, and openness to experience. In this sample, internal reliabilities of the subscales were  $\alpha = .71, .73, .81, .77, .80$ , respectively.

### Procedure

A visit was made to the schools and the eighth-grade daughters were briefed about participating in a family survey of teen and adult relationships and/or by sending a letter inviting participation in the study to families with a daughter in the eighth grade at local schools in Hubli-Dharwad city. Interested families were contacted by telephone and invited to visit the laboratory at a time that was convenient to them. Family members arrived at the lab together but completed the questionnaires in separate rooms. Kannada is the commonly spoken language in Hubli, but we collected data from English medium school students whose parents were also fluent in the English language. The measures were given in English, and there was a statement that asked them about how fluent they were in English. The scales were not translated into Kannada. After completing these questionnaires, participants were fully debriefed and thanked for their participation. No additional incentives were employed for participation. Institutional review board approval was granted prior to any data collection.

### RESULTS

The SRM analysis was conducted as specified in the three-person family with distinguishable roles design (Kenny et al., 2006) using EQS Version 6.1 (Bentler, 2001) with maximum likelihood estimation. Specifications for this SRM included setting factor loadings to 1 to allow variance estimation of model components and allowing errors for a given indicator to correlate across all six dyads due to shared-item content. Figure 1 depicts the SRM analysis; omitted for clarity are individual indicator measurements, error terms (for each measured variable), and paths from the indicators to the corresponding actor and partner effects.

Table 1 presents the correlation matrix, means, and standard deviations for the TRIMs and PTRIMs, respectively. No TRIM or

Table 1. Correlations among Measures of TRIM and PTRIM for 101 Three-Person Families

TRIM	1	2	3	4	5	6	7	8	9	10	11	12
MF1	1											
MF2	.33*	1										
MC1	.56*	.37*	1									
MC2	.31*	.49*	.43*	1								
FM1	.29*	.23*	.33*	.08	1							
FM2	.09	.42*	-.05	.14	.45*	1						
FC1	.27*	.07	.27*	.15	.49*	.23*	1					
FC2	.23*	.48*	.17	.45*	.34*	.58*	.49*	1				
CF1	.46*	.20*	.34*	.43*	.21*	-.01	.25*	.26*	1			
CF2	.15	.31*	.16	.45*	.07	.20*	.05	.25*	.41*	1		
CM1	.27*	.16	.19	.15	.20*	.17	.16	.18	.50*	.10	1	
CM2	.06	.32*	.04	.37*	-.06	.20*	.10	.31*	.30*	.62*	.38*	1
<i>M</i>	4.38	4.64	4.38	4.77	4.29	4.61	4.37	4.72	4.55	4.90	4.49	4.81
<i>SD</i>	0.89	1.03	1.10	1.12	0.95	1.07	1.10	1.06	1.08	1.04	1.11	1.01

PTRIM	1	2	3	4	5	6	7	8	9	10	11	12
MF1	1											
MF2	.39*	1										
MC1	.65*	.32*	1									
MC2	.23*	.64*	.41*	1								
FM1	.03	.01	.18	.14	1							
FM2	.15	.36*	.19	.40*	.32*	1						
FC1	.13	.21*	.35*	.39*	.58*	.32*	1					
FC2	.11	.48*	.22*	.59*	.40*	.73*	.54*	1				
CM1	.20*	.35*	.24*	.27*	.34*	.21*	.44*	.37*	1			
CM2	.05	.34*	-.01	.23*	.26*	.38*	.20*	.43*	.59*	1		
CF1	.11	.18	.13	.17	.32*	.17	.32*	.16	.60*	.40*	1	
CF2	-.02	.38*	-.14	.23*	.18	.42*	.05	.31*	.42*	.67*	.36*	1
<i>M</i>	4.33	4.60	4.51	4.64	4.46	4.66	4.66	4.77	4.55	4.80	4.58	4.72
<i>SD</i>	0.82	1.02	1.04	1.04	0.91	1.01	1.09	1.20	1.09	1.14	0.90	1.06

Note. TRIM = transgression-related interpersonal motivation; PTRIM = perceived TRIM; FM = father's ratings of mother; FC = father's ratings of child; MF = mother's ratings of father; MC = mother's ratings of child; CF = child's ratings of father; CM = child's ratings of mother.

*N* = 101. Significance tests are two-tailed for correlations.

\**p* < .05.

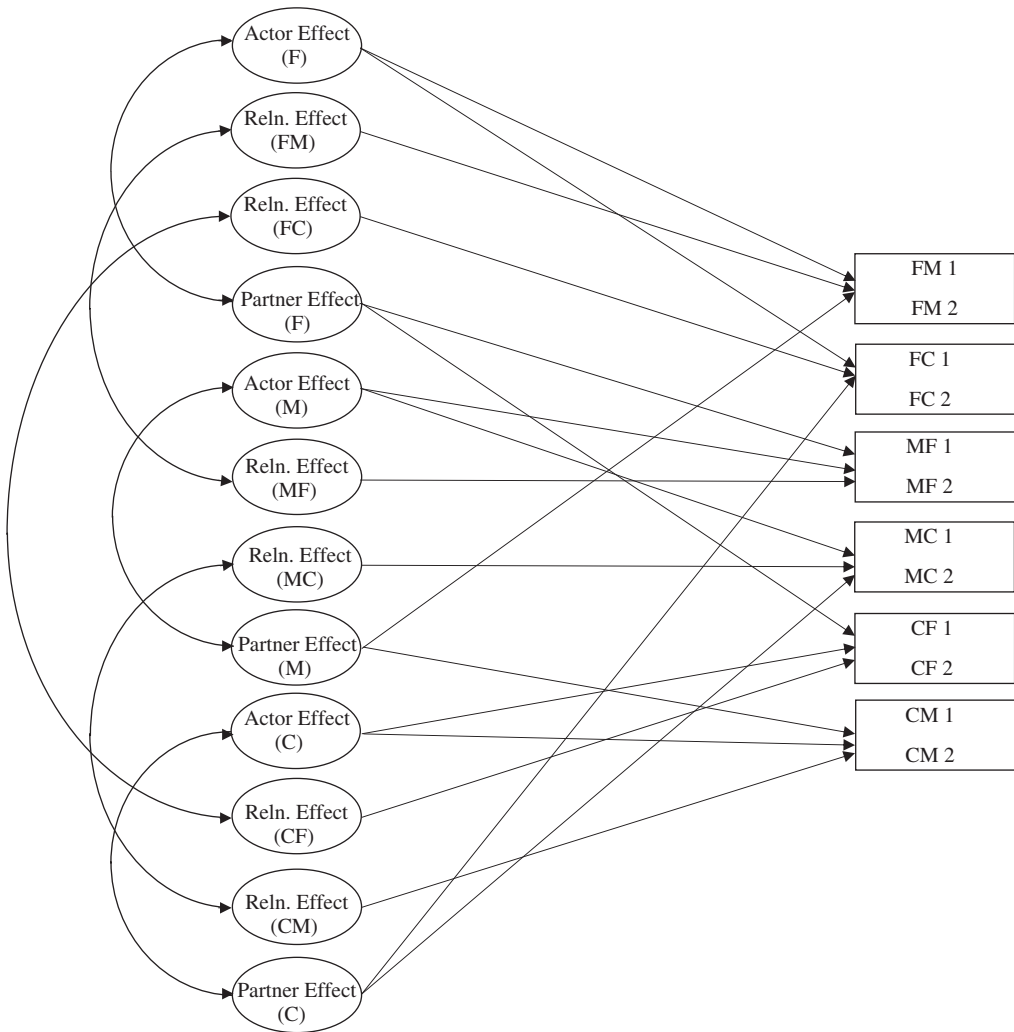
PTRIM data was missing. Model specification indices indicated that the TRIMs model fit marginally well and the PTRIM model fit adequately (fit is not ideal in relation to standard fit guidelines):  $\chi^2(18) = 38.80$  (*p* = .003), Comparative Fit Index (CFI) = .950, root mean square error of approximation (RMSEA) = .110 for TRIM ratings (*N* = 303); Satorra-Bentler scaled  $\chi^2(18) = 49.92$  (*p* < .001), CFI = .935, RMSEA = .130, for the multivariate normality adjusted PTRIM ratings (*N* = 303);  $\chi^2(18) = 47.41$  (*p* < .001),

CFI = .947, RMSEA = .128, for the standard normal PTRIM ratings (*N* = 303).

*Individual Level*

*Forgiveness.* As seen in Table 2, TRIM actor and PTRIM partner effects index individual differences in self-rated and other-rated forgiveness, respectively. Table 3 shows raw variance estimates for the individual-level components (i.e., actor and partner variance for each family member) of the SRM. Table 3 shows that

FIGURE 1. LATENT VARIABLE MODEL FOR ESTIMATING INDIVIDUAL (ACTOR AND PARTNER) AND DYADIC (I.E., RELATIONSHIP) VARIANCES FROM DYADIC RATINGS DATA.



F = father; FM = father's ratings of mother; FC = father's ratings of child; M = mother; MF = mother's ratings of father; MC = mother's ratings of child; C = child; CF = child's ratings of father; CM = child's ratings of mother; Reln. = relationship effect. Omitted from the diagram, for clarity, are paths between indicator variables and individual-level factors (e.g., there are paths between F Actor and FM1 and between M Partner and FM1), error terms for each indicator variable, as well as individual indicator variables. Error terms for a given indicator were allowed to correlate across dyads (FM1 is correlated with FC1, MF1, etc.). Correlations between actor and partner effects reflect generalized reciprocity; correlations between relationship effects reflect dyadic reciprocity.

TRIM actor variance was significant for all three family roles, indicating significant variability between families in fathers', mothers', and children's self-reported willingness to forgive. However, PTRIM partner variance was only significant for children, not for mothers or

fathers. Negligible PTRIM partner variance for fathers and mothers reflect a lack of consensus among raters (Kenny, 1994), indicating that there is little agreement among family members about the forgivingness of fathers and mothers.

Table 2. Interpretation of Actor and Partner Variance for TRIM and PTRIM Ratings

Role	TRIM	PTRIM
Actor	Forgiveness (self-rated)	Forgivability (self-rated)
Partner	Forgivability (other rated)	Forgiveness (other rated)

Note: TRIM = transgression-related interpersonal motivations; PTRIM = perceptions of others' TRIMs.

**Forgivability.** The forgivability of the transgressor is another possible determinant of people's willingness to forgive a specific transgression. As seen in Table 2, PTRIM actor variance and TRIM partner variance index individual differences in self-reported and other-reported forgiveness, respectively. In Table 3, PTRIM actor variance was significant for all three family roles, indicating significant variance in fathers', mothers', and children's self-reported forgiveness. However, TRIM partner variance was significant only for children, not for fathers or mothers. Thus, fathers and mothers agreed about whether children were forgivable or unforgivable, but there was no consensus among other family members about the forgiveness of fathers or mothers. Thus, Hypothesis 1 was supported fully for TRIM and PTRIM actor effects but only partially supported for corresponding partner effects.

**Individual-Level Reciprocity.** Reciprocity at the individual level reflects covariation between actor effects and partner effects for a given set of ratings (TRIM or PTRIM). If either actor or partner variance is negligible, the generalized reciprocity covariance will be negligible as well. As shown in Table 3, for TRIMs, generalized reciprocity was not evident for fathers,

mothers, or children. This indicates that there is no relationship between those who rated themselves as more forgiving actually being forgiven more by other family members. The same pattern of results emerged for PTRIMs, with no relationship evidenced between those who reported receiving forgiveness from family members and those being more likely to be perceived by those family members as forgiving. It is expected that generalized reciprocity was nonsignificant for fathers and mothers as their partner variance for TRIM and PTRIM ratings were also nonsignificant and negligible.

*Relationship Level*

**Forgiving and Being Forgiven.** Table 4 shows relationship variance and dyadic reciprocity covariances for TRIM and PTRIM ratings. Relationship effects reflect a unique propensity to forgive the other person (or to perceive them as forgiving), beyond what would be expected given the rater's actor effect and the other's partner effect for that particular variable. For the TRIMs and PTRIMs, only the child's ratings of fathers (CF) showed significant evidence of relationship variance. There was no evidence in the remaining dyads of significant stable variance not accounted for by the relevant actor and partner effects. With the exception of child ratings of father TRIMs, there was no support for Hypothesis 1 in regard to relationship effects.

**Dyadic Reciprocity.** Reciprocity at the relationship (dyadic) level is indexed by the covariance between relationship effects and, as shown in Table 4, there was evidence of dyadic reciprocity between mother's ratings of fathers (MF) and father's ratings of mothers (FM) for PTRIMs. However, the reciprocity to emerge

Table 3. Individual-Level Variance Estimates and Reciprocity Covariances

Component	TRIM			PTRIM		
	Actor Variance	Partner Variance	Reciprocity Correlation	Actor Variance	Partner Variance	Reciprocity Correlation
Mother	0.24*	0.09	0.06	0.24*	0.00	0.09
Father	0.39*	0.00	0.10	0.25*	0.03	0.06
Child	0.23*	0.20*	0.14	0.33*	0.20*	0.01

Note. TRIM = transgression-related interpersonal motivation; PTRIM = perceived TRIM.

N = 101 for TRIM and PTRIM. Significance tests are one-tailed for variance estimates and two-tailed for correlations.

\*p < .05.



Table 4. Relationship-Level Variance Estimates and Dyadic Reciprocity Covariances

Dyad	TRIM		PTRIM	
	Relationship Variance	Dyadic Reciprocity	Relationship Variance	Dyadic Reciprocity
MF	0.00	0.00	0.02	-0.14*
MC	0.04	0.08	0.00	-0.07
FM	0.00	0.00	0.00	-0.14*
FC	0.03	-0.05	0.00	-0.12
CM	0.09	0.08	0.18	-0.07
CF	0.30*	-0.05	0.00	-0.12

Note: TRIM = transgression-related interpersonal motivation; PTRIM = perceived TRIM; FM = father's ratings of mother; FC = father's ratings of child; MF = mother's ratings of father; MC = mother's ratings of child; CF = child's ratings of father; CM = child's ratings of mother.

$N = 101$  for TRIM and PTRIM. Significance tests are one-tailed for variance estimates.

\* $p < .05$ .

was compensatory rather than direct. That is, it indicated that mothers who were uniquely unwilling to forgive their spouses were uniquely forgiven by their spouses and vice versa (i.e., an illustration of compensatory behavior). There was no evidence of dyadic reciprocity between any other TRIM or PTRIM ratings. Although compensatory rather than direct, the findings are consistent with our second hypothesis in that reciprocity was evident only at the dyadic level between equals, namely parents.

*Percentage of Variance (by Dyad).* In SRM analyses of family data, actor and partner variance estimates vary for different roles and relationship variance estimates vary for different dyads. However, this reveals little about the relative importance of each SRM component in each of the six dyads. Therefore, to more clearly illustrate the relative importance of each SRM component (actor, partner, relationship) the percentage of construct variance accounted for by each component of the social relations model was calculated by dyad. Table 5 shows the percentage of construct variance attributable to actor, partner, and relationship for TRIM and PTRIM ratings. In regards to the TRIM ratings, results illustrate that the importance of each component varies depending on the makeup of the dyad. For all but the MF and CF dyad, actor variance represents greater than 50% of stable TRIM variance. For the MF and CF dyads, the proportion of partner variance is substantial (62% & 42%, respectively), indicating that motivations in these relationships are partly a function of the perceived forgiveness of the father. In contrast to the importance of actor and partner effects, aside from the CF

Table 5. Percent of Variance in TRIM and PTRIM Explained by the Components of the Social Relations Model

Dyad	SRM		Components Relationship
	Actor	Partner	
TRIM			
MF	38	62	0
MC	50	42	8
FM	81	19	0
FC	63	32	5
CM	56	22	22
CF	25	42	33
PTRIM			
MF	83	10	7
MC	55	45	0
FM	100	0	0
FC	56	44	0
CM	65	0	35
CF	92	8	0

Note: TRIM = transgression-related interpersonal motivation; PTRIM = perceived TRIM; FM = father's ratings of mother; FC = father's ratings of child; MF = mother's ratings of father; MC = mother's ratings of child; CF = child's ratings of father; CM = child's ratings of mother.

and CM dyads, relationship variance was only a minor determinant of TRIMs. This suggests that reactions to transgressions are minimally determined by relationship-specific factors and more determined by individual tendencies (stable across different relationships) toward forgiveness and forgivability.

In comparison to the TRIM ratings, PTRIM ratings contain more actor variance and less relationship variance. For all the dyads, actor variance represents 55% or more of the stable PTRIM variance. This indicates that family members' perceptions of each other's

forgiveness are relatively consistent as there is a stable tendency to perceive others as forgiving. Partner variance (around 45%) was only substantial for the parent-child dyads (MC and FC), indicating that parental perceptions of their child's motivations are partly a function of the perceived forgiveness of the child. Aside from the CM dyad, relationship variance was not a significant component of PTRIMs. This indicates that feeling forgiven is primarily a function of self-rated forgivability, to a lesser extent other-rated forgiveness, and not of relationship-level factors.

#### *Self-Other Agreement*

Multivariate correlations were used to examine self-other agreement for forgiveness, forgivability, and dyadic reciprocity. Effect estimates for each family member were computed using formulas derived by Warner, Kenny, and Stoto (1979). For self-other agreement on forgiveness, the correlations between TRIM actor effects and PTRIM partner effects were  $r = .09$  ( $p > .05$ ) for fathers,  $r = .12$  ( $p > .05$ ) for mothers, and  $r = .32$  ( $p < .05$ ) for children, indicating agreement only between children's self-ratings of forgiveness and child ratings from their parents. For self-other agreement on forgivability, the correlations between PTRIM actor and TRIM partner effects were  $r = .13$  ( $p > .05$ ) for fathers,  $r = .12$  ( $p > .05$ ) for mothers, and  $r = .31$  ( $p < .05$ ) for children, indicating that only children who experienced receiving high levels of forgiveness from others were also rated as forgivable by their parents. At the dyadic (reciprocity) level, self-other agreement was non-significant for all dyads with  $r$  ranging from .03 to .16 (all  $ps > .05$ ), indicating that there was no relationship between when persons felt uniquely forgiving toward a particular family member and that family member also perceiving them as uniquely forgiving toward them. It should be noted that because father and mother partner variance was nonsignificant for TRIMs and PTRIMs, self-other agreement correlations for fathers and mothers on both forgiveness and forgivability should be interpreted with caution.

#### *Personality Correlates of Forgiveness and Forgivability*

The extent to which self and other rated forgiveness and forgivability were associated

with self-rated personality traits was examined by correlating SRM actor and partner effect estimates with self-ratings on the Big Five mini-markers for each family role (father, mother, and daughter). To help with interpretation, the actor effect reflects the extent to which the rater sees himself as generally forgiving (TRIM) or forgiven/forgivable (PTRIM) relative to other family members. The partner effect reflects the extent to which others perceive the target person as forgivable (TRIM) or forgiving (PTRIM). Table 6 reports multiple correlations and statistically significant standardized regression weights from the regression of TRIM and PTRIM components on self-rated personality traits. Generally, though self-ratings of actor effects of forgiveness and forgivability were significantly associated with self-ratings of personality, other ratings of forgivability and forgiveness were not associated with personality ratings. The regression coefficients in Table 6 indicate the specific personality dimensions that uniquely predict TRIM and PTRIM effects. As predicted by our third hypothesis, neuroticism was negatively related to forgiveness and forgivability for all family members. Agreeableness was positively related to forgiveness and forgivability for fathers and daughters, but not for mothers. Thus, Hypothesis 3 was largely but not fully supported in regard to agreeableness. Finally, conscientiousness significantly predicted forgiveness (TRIM effects) but not forgivability (PTRIM effects). Extraversion and openness to experience were not predictive of either forgiveness or forgivability.

#### DISCUSSION

The results of the social relations analysis advance our understanding of conflict in families by documenting the contributions of victim forgiveness, transgressor forgivability, and relationship effects to forgiveness in Indian family relationships. Our analysis of dyadic ratings of responses to interpersonal transgressions from the perspective of the victim and the transgressor highlighted the strong presence of actor effects, a weaker presence of partner effects, and largely nonexistent relationship effects. Consistent with our first hypothesis, significant individual differences in both forgiveness and forgivability based on self-ratings were evidenced by significant TRIM and PTRIM actor effects for all family members.

Table 6. Standardized Regression Coefficients Predicting Forgiveness and Forgivability from Big Five Self-Ratings

Factor	Forgivingness		Forgivability	
	Self-Rated (TRIM actor)	Other Rated (PTRIM partner)	Self-Rated (PTRIM actor)	Other Rated (TRIM partner)
Father				
Extraversion	—	—	—	—
Neuroticism	-.28	—	-.23	—
Agreeableness	.33	—	.22	—
Conscientiousness	.25	—	—	—
Openness	—	—	—	—
Multiple <i>R</i>	.41	—	.30	—
Mother				
Extraversion	—	—	—	—
Neuroticism	-.31	—	-.24	—
Agreeableness	—	—	—	—
Conscientiousness	.22	—	—	—
Openness	—	—	—	—
Multiple <i>R</i>	.37	—	.31	—
Daughter				
Extraversion	—	—	—	—
Neuroticism	-.35	—	-.27	—
Agreeableness	.27	—	.29	—
Conscientiousness	.21	—	—	—
Openness	—	—	—	—
Multiple <i>R</i>	.42	—	.33	—

*Note.* TRIM = transgression-related interpersonal motivation (self forgives other); PTRIM = perceived TRIM (other forgives self). All predictors were entered simultaneously in 12 separate multiple regression analyses. *N*s = 303 for both TRIMs and PTRIMs. All coefficients shown are significant at  $p < .05$ , two-tailed. Dashes indicate nonsignificant coefficients ( $p > .05$ ).

Evidence of forgiveness and forgivability based on other ratings (i.e., TRIM and PTRIM partner variance) was appreciable for children but largely absent for mothers and fathers. Why this might be the case becomes more apparent when one recalls that forgiveness in families most likely serves a purpose that is linked to the nature and functioning of the family relationship involved. Thus, for example, the operation of forgiveness should depend greatly on whether it occurs between two spouses, a parent and a child, two similarly aged siblings, parent and adult offspring, and so on because each involves different roles and serves different psychological needs. For instance, an evolutionary perspective suggests that avoidance following a transgression by a child should lead to less parental care in the parent-child relationship, causing unforgiving parents to have a decreased chance of gene replication (Trivers, 1985). This reproductive disadvantage alone suggests

that forgiveness is different in the parent-child relationship from forgiveness in relationships between parents. In light of this observation, it is not surprising that fathers and mothers agreed about whether children were forgivable even when there was no consensus among family members about the forgivability of fathers or mothers.

The findings for relationship effects in this Indian sample stand in marked contrast to those found in American and British samples. Hoyt et al. (2005) found significant relationship effects in the spousal dyad (mother-father and father-mother responses) whereas in this sample only children demonstrated a unique propensity to forgive their fathers (or to perceive them as forgiving) beyond their given actor effect and father's partner effects. This finding is consistent with that of Hoyt et al., who found child-father TRIM relationship effects in both their samples and a PTRIM relationship effect in their British

sample. There is clearly something different regarding forgiveness of fathers versus mothers: across the two Hoyt et al. samples and this sample, only one of the six child-mother relationship effects emerged (PTRIMs in the British sample) whereas, as noted, all but one of six child-father relationship effects emerged. Thus, it appears that child forgiveness of fathers is more closely tied to their relationship than it is for mothers. One reason for this may be that mothers have historically been the caregiver and forgiveness may be mentally represented as part of the relationship thereby short circuiting any disruption of the relationship that might be caused by lack of forgiveness.

Examining the percentage of variance attributable to actor, partner, and relationship effects for the TRIM and PTRIM ratings is probably the most intuitive way to understand the influence of each SRM component in each of the six dyads. In the breakdown of the relative importance of each SRM component for each dyad, actor variance clearly represents the predominate percentage of stable TRIM variance, except in the two cases concerning forgiveness of the father. For children and wives, partner effects are larger than actor effects, suggesting one of two possibilities. First, characteristics of the transgressor (father/husband) and/or his behavior play a part in forgiveness that is different from that when the wife/mother or child is the transgressor. Second, it could be that females make more differentiated judgments regarding forgiveness than males and, as this may reflect their views of transgressions as more nuanced, it might account for why females are consistently found to be more forgiving than males (for meta-analysis of 70 studies, see Miller, Worthington, & McDaniel, 2008). These findings do not support a choice between these two options. A study that included sons and daughters would be helpful in this regard.

Although partner effects do play a significant part in representing stable variances, this is far more apparent for TRIM variance than PTRIM variance. It is striking that in two PTRIM cases, father-mother and child-mother, partner effects were entirely absent. Also, as previously noted, relationship variance played almost no part in representing stable TRIM or PTRIM variance for the dyads. Indeed, relationship effects were entirely absent in 6 of the 12 relationship components examined. These results stand in contrast

to findings obtained in Western, industrialized countries, where relationship effects accounted for substantial variance in three-person family studies (for two variables studied overall means were 26% and 32%) across seven different samples examined in the United States and Europe (Eichelsheim, Dekovic, Buist, & Cook, 2009). The relative absence of relationship effects in this Indian sample might reflect stronger norms for family relationships in India, or it might reflect stricter adherence to universal family norms. Again, our findings do not indicate which of these two alternatives is more likely.

Turning to reciprocity effects, differences also emerged between findings obtained from Western samples and our findings. Reciprocity at the individual level has been demonstrated in Western samples, but was almost entirely absent in our study. Regarding dyadic reciprocity, Western samples infrequently report evidence of such reciprocity. When they do, however, it is limited to dyadic reciprocity in the marital relationship, a finding also obtained in this study. However, this similarity is more apparent than real in that the nature of the reciprocity differs. In Western samples dyadic reciprocity is direct, reflecting a clear reciprocity norm where people respond to each other in similar ways. In contrast, the findings for our Indian sample reflect reciprocity that is compensatory in that spouses who were uniquely unwilling to forgive their partner were uniquely forgiven by their partner. This could reflect cultural differences in the importance of maintaining marital relationships. It appears that Indian spouses are not only willing to forego "tit for tat" but are willing to take the extra step of being forgiving toward a partner who is not forgiving toward them.

These results clearly reveal the importance of using SRM to account for actor and partner effects in understanding family forgiveness motivations. However, they may lead to questions regarding the utility of modeling relationship and reciprocity effects for an Indian sample. These questions are best addressed through empirical replications with other non-Western samples as these SRM results, derived from an Indian sample, stand alone, given that SRM analyses are used infrequently and have, until now, never before been applied using a sample from a non-Western country (see Eichelsheim et al., 2009). We view this as a limitation and as a call for future research to

utilize appropriate SRM designs to further study family processes within cross-cultural contexts. Noting additional limitations, it is important to remember that these results may not generalize to other family contexts such as a single-parent home or a multiple sibling family (this study contains two parents and one daughter) and may not generalize to specific transgressions (this study examined recollections of general forgiveness). Additionally, aside from selective children ratings, analysis of self-other agreement for forgiveness, forgivability, and dyadic reciprocity revealed poor self-rating to other rating concurrence.

Based on our conceptualization that TRIMs, and perhaps PTRIMs, are dispositional our third hypothesis had stated that actor effects for these variables would be associated positively with self-ratings of agreeableness and inversely related to neuroticism. We found evidence for the dispositional nature of forgivingness and forgivability as the postulated relationships were found to be significant. Further supporting their dispositional nature, a significant relationship was found between conscientiousness and self-reported forgivingness (TRIMs).

#### *Implications for Applied Research and Intervention*

Because the SRM provides information on factors at multiple levels of analysis that may account for family functioning, it is especially appropriate for examining the complex issues addressed in applied research. For example, many attempts to understand problems in families and family subsystems are limited by a priori assumptions about the best level of analysis, whereas the SRM allows simultaneous examination of family dysfunction at multiple levels of analysis. In doing so, it has the potential to identify whether a problem is best addressed at the individual, dyadic, or family level. Finally, the ability to examine within generation and across generation processes simultaneously may prove to be particularly useful in cultures with strong generational boundaries.

The importance of the present study is also emphasized by a growing literature on forgiveness interventions. Wade, Hoyt, Kidwell, and Worthington (2014) in a meta-analysis of 54 intervention studies ( $N = 2,323$ ) found that not only do forgiveness interventions increase forgiveness, but also decrease depression and

anxiety. But, as these authors note, little is known about who benefits most from forgiveness interventions. This study suggests that those who score highly on neuroticism may benefit the most. Because this implication is consistent with that which can be drawn from Hoyt et al.'s (2005) data, it appears that neuroticism may be an important factor to consider across cultures when dealing with family conflicts that arise from interpersonal transgressions.

Given the relationship between forgiveness and health, the lack of consensus among family members with regard to forgiveness may be worth exploring in family education as it could give rise to problems. It may also underlie family problems brought to therapists and might profitably be explored in counseling. Similarly, dyadic reciprocity in parent-child forgiveness might arise in a family and might require education of parents to a greater level of maturity to appropriately carry out the parental role.

#### CONCLUSION

In sum, this study contributes to advancing the understanding of how individuals within a family structure perceive and respond to conflict by examining a sample of families from India. Several similarities, and some important differences, were noted in our findings as compared to results typically obtained using Western samples. This highlights the need for future cross-cultural research on families using the SRM. Because the SRM provides information on factors at multiple levels of analysis that may account for family functioning, it has the potential to not only identify the appropriate level of analysis for pursuing research on a given topic but also can aid future family researchers to construct more culturally sensitive and effective family therapy interventions.

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