

# Family and Individual Difference Predictors of Trait Aspects of Negative Interpersonal Behaviors During Emerging Adulthood

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A latent trait-state-occasion (TSO) model (D. A. Cole, N. C. Martin, & J. H. Steiger, 2005) was used to isolate the trait and state components of negative interpersonal behaviors toward a friend or romantic partner during emerging adulthood. Results indicate that variance in negative interpersonal behaviors was due to nearly equal portions of Trait and Occasion factors. Variability in the trait aspects of negative interpersonal behaviors was then predicted by theoretically relevant constructs. In particular, mothers' negative behaviors during adolescence, adolescent core self-evaluations, negative emotionality, and feelings of security in close relationships had independent effects in predicting the enduring aspects of negative interpersonal behaviors. All told, these results indicate that TSO models can be helpful tools for understanding the developmental antecedents of the trait-like aspects of interpersonal processes.

*Keywords:* core self-evaluations, personality, parenting, negative behaviors, latent trait-state-occasion model

Interpersonal behaviors in close relationships have both trait-like and occasion-specific qualities. For example, interpersonal behaviors may be trait-like to the extent that they are similar in quality across different relationship partners over time, whereas interpersonal behaviors may also be occasion-specific to the extent that there are fluctuations in behavioral characteristics across time and partners. Despite the intuitive appeal and conceptual simplicity of this idea, models for studying both the occasion-specific and enduring

aspects of behavior have only recently been refined and described for behavioral scientists (e.g., Cole, Martin, & Steiger, 2005; Kenny & Zautra, 1995, 2001; Steyer, Schmitt, & Eid, 1999). Accordingly, the major goal of this article is to illustrate how researchers can use one such model, the latent trait-state-occasion (TSO) model (Cole et al., 2005), to address substantively important questions about the nature of interpersonal interactions during emerging adulthood—a time in the life span when issues related to the development of intimacy are particularly salient (e.g., Arnett, 2000).

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## Trait and State Aspects of Interpersonal Interactions

As noted by Eysenck (1983), the distinction between traits and states has a long intellectual history dating back at least to Cicero (see also Hertzog & Nesselrode, 1987). Most generally, traits are those aspects of thoughts, feelings, or behavior that are stable across time, whereas states are those relatively dynamic and fluctuating aspects of thoughts, feelings, or behavior that do not demonstrate consistency across time. Although trait and state distinctions are often applied to personality, affect, and mood constructs, we believe that observed interactional behaviors in close relationships can also be understood in these terms. That is, we propose that interpersonal behaviors reflect a combination of an enduring tendency to interact with partners in a characteristic fashion as well as a tendency to modulate behavior in response to both different interactional partners and transitory features of the moment.

A particular kind of interpersonal interaction that has

captured the attention of clinicians and family psychologists involves patterns of negative and hostile exchanges that may occur during times of conflict and disagreement (e.g., Gottman, 1998; Karney & Bradbury, 1995). These negative behaviors appear to influence the stability and quality of relationships as well as the personal development of both partners (Canary, Cupach, & Messman, 1995). Given the importance of these negative interactions for close relationships, there is interest in both their stability and their developmental antecedents. The latter question is particularly important in light of recent arguments that both experiences in the family of origin and personality characteristics affect how individuals behave in their romantic relationships (e.g., Donnellan, Larsen-Rife, & Conger, 2005; Karney & Bradbury, 1995). Indeed, most of the theoretical perspectives on the origins of behaviors relevant for successful functioning in close relationships are concerned with the antecedents of the trait-like aspects of an individual's characteristic way of interacting with others.

#### Individual Predictors of a Negative Interactional Style

A long tradition in personality psychology suggests that the enduring qualities of interpersonal interactions are rooted in relatively stable individual differences. One of the most robust findings from this literature is that neuroticism or trait negative affect is negatively associated with relationship quality (e.g., Donnellan, Conger, & Bryant, 2004; Heller, Watson, & Ilies, 2004; Karney & Bradbury, 1995; Robins, Caspi, & Moffit, 2000). Individuals higher in this personality trait have a relatively low threshold for the experience of emotions—such as anger, fear, and irritation—and also seem to treat their partners in more hostile ways as assessed by observers (e.g., Donnellan et al., 2005). As such, we propose that negative emotionality will predict the trait-like aspects of negative interpersonal interactions with close others (friends or romantic partners) during emerging adulthood.

A perhaps related personality trait known as *core self-evaluations* (e.g., Judge, Locke, & Durham, 1997) may also predict the enduring aspects of behavioral interactions. Judge et al. (1997) conceptualized core self-evaluations as a broad construct composed of indicators, such as self-esteem, self-efficacy, locus of control, and emotional stability. Someone with a positive core self-evaluation sees himself or herself as successful, worthy, capable, and in control of his/her life. We predict that such a person will more effectively express his/her point of view and better handle conflict. Moreover, experimental work has demonstrated that individuals with low self-esteem tend to derogate and distance themselves from partners in times of stress (e.g., Murray, Bellavia, Rose, & Griffin, 2003; Murray, Rose, Bellavia, Holmes, & Kusche, 2002). As such, core self-evaluations may predict relationship interactions. However, one of the more pressing issues in the literature (e.g., Judge, Erez, Bono, & Thoresen, 2002) involves the distinction between negative emotionality and core self-

evaluations. In this article, we adopt the strategy of including both as predictors of interpersonal behavior.

#### Family of Origin Predictors of a Negative Interactional Style

In addition to the personality perspective, another influential tradition posits that experiences in the family of origin have a major influence on how individuals consistently behave in romantic relationships (Amato & Booth, 2001; Conger, Cui, Bryant, & Elder, 2000; Donnellan et al., 2005; Feldman, Gowen, & Fisher, 1998; Mikulincer & Shaver, 2003). The socialization perspective argues that general social competence stems from warm and structured parent-child relationships (e.g., Maccoby & Martin, 1983), and this general social competence appears to extend to romantic relationships in early adulthood (Conger et al., 2000; Donnellan et al., 2005). That is, this perspective proposes that individuals learn specific and apparently lasting ways of interacting with relationship partners from their interactions with parents (e.g., Conger et al., 2000). As such, features of parent-child interactions may be associated with the trait-like aspects of an individual's interactional style outside the family of origin.

Whereas the socialization perspective of Conger et al.'s (2000) study emphasizes social learning processes, experiences in the family of origin may influence subsequent behavior in close relationships through relationship schemas, including generalized expectations and beliefs about close others. Most notably, Bowlby's (1969, 1982) attachment theory (see also Mikulincer & Shaver, 2003) provides a compelling theoretical account of how internal working models about the dependability and trustworthiness of relationship partners influence behavior in close relationships across the life span (see also Sroufe, Egeland, Carlson, & Collins, 2005). According to this theory, early interactions with caregivers give rise to psychological models of relationships, which then influence how individuals think, feel, and behave in their subsequent close relationships (Collins & Read, 1994; see Fury, Carlson, & Sroufe, 1997). In particular, attachment styles have been linked to coping behaviors and emotional responses in situations that are distressing for relationships, such as separations or disagreements (Fraley & Shaver, 1997; Mikulincer, Florian, & Weller, 1993; Simpson, Rholes, Orina, & Grich, 2002; Simpson, Rholes, & Phillips, 1996). As such, we predict that a cognitive representation of close relationships in terms of their dependability and trustworthiness will also predict the enduring aspects of interpersonal interactions. An important strength of the current analyses is that we also include an assessment of negative emotionality, given recent evidence that measures of attachment and measures of trait negative affect overlap and that this overlap is genetic in origin (Donnellan, Burt, Levendosky, & Klump, in press). Thus, we can evaluate whether attachment security has an independent association with the trait aspects of negative interactions controlling for the disposition to experience negative emotions.

## Overview and Aims of the Study

In summary, we propose that negative interpersonal behaviors toward a close other (friend or romantic partner) during emerging adulthood involve both trait-like and occasion-specific aspects. We examine negative behaviors exhibited in relationships with either a close friend or a romantic partner. We believe that it is appropriate to include both friendships and romantic unions because both involve intimacy and serve as major contexts for the expression of interpersonal behaviors during the early adult years (Arnett, 2000). Indeed, close friendships are an emerging and developmentally relevant context for expression of interpersonally important behaviors in emerging adulthood. To evaluate the proposed developmental processes, we use the TSO model (Cole et al., 2005), which allows us to decompose variability in repeated measures of negative interpersonal behaviors into trait and occasion-specific components. These components can then be predicted by other variables. Given our theoretically informed predictions, we focus on how negative emotionality, core self-evaluations, parent-child interactions in the family of origin, and cognitive representations of close relationships are independently associated with the trait-like aspects of negative interpersonal interactions. This study is novel because no other study has used the TSO model to isolate state and trait variance in interpersonal interactions, and no other investigation (to our knowledge) has integrated these multiple influences on negative interpersonal behaviors in a single analysis.

## Method

### *Participants*

The present investigation was built upon a study examining the transition from adolescence to early adulthood: the Family Transitions Project (e.g., Conger & Conger, 2002). The Family Transitions Project began in 1994 and followed a community sample of over 500 adolescent cohort members as they transitioned from adolescence to emerging adulthood. For more details concerning the sample characteristics, refer to Conger et al. (2000). The ethnic background of the participants was predominately European American, which largely reflects the demographics of rural Iowa where the study began. During early adulthood, the focus of the present inquiry is the behavior of the cohort members toward their friends or romantic partners who also participated in the research. The present investigation included a total of 528 adolescents who were examined during emerging adulthood. Approximately 20% of these adolescents were in single-parent (mother-headed) families, and the remainder lived with their two biological parents during adolescence. The proportion of focal individuals who participated with a romantic partner increased over the course of the study (38.1% in 1995, 50.6% in 1997, 68.1% in 1999, and 100% in 2001).

### *Procedures*

In 1994, when the focal adolescents were in their senior year of high school (mean age = 17.7 years), interviewers

visited each family's home and collected questionnaire and observational data. During this year, two visits were conducted within 2 weeks of each other, with each visit lasting approximately 2 hr. During the first visit, each of the family members completed a set of questionnaires, and during the second visit, the family was videotaped during a series of interaction tasks. Further details pertaining to the interaction tasks can be found in Melby and Conger (2001). For the present article, we used ratings of mothers' negative behaviors to the focal adolescent during a conflict resolution task.

From 1995 to 2001, focal participants were interviewed and observed interacting with a close friend or a romantic partner every other year. These assessments were conducted in the homes of the participants. They participated in two videotaped discussions pertaining to their relationship, with topics of discussion consisting of the enjoyable events that they shared together, areas of disagreement in their relationship, and plans for the future. For purposes of the present article, only observable behaviors of the focal participant during a conflict resolution task were used in the analyses.

Trained observers rated all of the videotaped interactions using the Iowa Family Interaction Family Scales (Melby & Conger, 2001). Observers received a total of 200 hr of training (20 hr per week for 10 weeks) and passed extensive reliability tests before coding taped interactions. Most important, the same coder did not code the same participant at multiple waves. To assess interobserver reliability, a second observer rated approximately 25% of all the videotapes at each wave.

### *Measures of Observed Interactions During Emerging Adulthood*

During a 15-min videotaped task, the focal participant and a close friend or romantic partner were asked to discuss and resolve a previously identified area of conflict. Structured problem-solving discussions have previously been found to serve as important contexts for examining the feelings and behaviors exchanged in interpersonal relationships (Gottman, 1994). Because of the interest of the present article, only the focal participant's observations were used in the present analyses. We rated the focal participant's behaviors on three dimensions of hostility/coercion and four dimensions of warmth/support using a 9-point scale. The four observer ratings of warmth/support included positive assertiveness, prosocial behavior, warmth support, and listener responsiveness. These scales were reversed scored and then averaged. The three hostility/coercion scales included antisocial behavior, angry coercion, and hostility directed toward relationship partners.

The interobserver reliabilities were adequate; correlations for the warmth/support measures were .84, .86, .84, and .86 in 1995, 1997, 1999, and 2001, respectively. Correlations for the hostility measures were .87, .88, .83, and .86 in 1995, 1997, 1999, and 2001, respectively. At each time point, the two subscales demonstrated good internal consistency: low-warmth,  $\alpha = .89$  for 1995,  $\alpha = .89$  for 1997,  $\alpha = .90$  for 1999, and  $\alpha = .88$  for 2001; high-hostility,  $\alpha = .90$  for

1995,  $\alpha = .89$  for 1997,  $\alpha = .91$  for 1999, and  $\alpha = .88$  for 2001.

*Late Adolescent Predictors of Observed Interactions*

*Observed maternal behaviors.* Trained observers rated mothers' negative behavior toward the focal adolescent during a 15-min task in which each family member discussed and attempted to resolve an issue that was a source of conflict within each family. Fathers were not included in the present analyses because these data were not available for the single-parent families; thus, the focus on mothers maximized the available sample size. All behavioral codes were assessed on the same 9-point scales described for the young adult interactions. The internal consistency for the mother to target observed behaviors was as follows: low-warmth,  $\alpha = .85$ ; high-hostility,  $\alpha = .83$ . For the interobserver reliability, the average of the intraclass correlation was reported separately for low-warmth and high-hostility, .64 and .76, respectively.

*Negative emotionality.* In 1994, the target adolescent completed the Multidimensional Personality Questionnaire (MPQ; Tellegen, 1982). The MPQ is a 300-item, self-report personality measure that has been used with adolescents and adults (Caspi & Silva, 1995). Negative emotionality is one of the three major personality domains evaluated by the MPQ and is one of the more robust predictors of relationship variables (e.g., Donnellan et al., 2005). Negative emotionality describes individuals who are aggressive; who have a tendency to experience anger, fear, and anxiety; and who tend to engage in antagonistic interpersonal behaviors (Tellegen, 1982). The internal consistency, mean, and standard deviation for negative emotionality were as follows:  $\alpha = .88$ ,  $M = 0.41$ ,  $SD = 0.18$ .

*Core self-evaluations.* This measure included a combination of adolescent sense of mastery and self-esteem. Mastery was measured with Pearlin's Mastery Scale (Pearlin, Lieberman, Menaghan, & Mullan, 1981). This measure consists of seven items, ranging from 1 (*strongly agree*) to 4 (*strongly disagree*), that indicate how respondents feel about the amount of control they have over the events in their lives. Rosenberg's (1965) Self-Esteem measure consists of 10 items ranging from 1 (*strongly agree*) to 5

(*strongly disagree*), with some items recoded so that a higher score reflected higher self-esteem. There was a high correlation between mastery and self-esteem ( $r = .78$ ,  $p < .01$ ). The two measures were averaged to reflect an adolescent's overall core sense of self. A high score reflected a combined sense of high self-esteem and mastery. The scale had very good internal consistency ( $\alpha = .88$ ). The mean and standard deviation were 3.82 and 0.66, respectively.

*Secure representation of romantic partners.* A subscale of the Romantic Relationships Interpersonal Schema Scale (Paley, 1993) was used to assess positive and negative representations of self and partner. This measure assesses the degree to which the adolescent views relationships with romantic partners as trustworthy and dependable—core components of attachment security (Bowlby, 1969, 1982; Sroufe et al., 2005). Items for this subscale included responses such as "I believe most romantic partners are pretty dependable in relationships," and "I believe most partners in romantic relationships are pretty trustworthy." These items were averaged to reflect an overall secure representation of romantic partners. This subscale included a total of eight items:  $\alpha = .90$ ,  $M = 4.60$ , and  $SD = 0.44$ . Because we did not have a similar measure for friendships, we used this single scale as a predictor of behavior to either romantic partners or friends. In theory, the degree of attachment security should generalize across types of close relationships (e.g., from mothers to friends; see Sroufe et al., 2005).

Results

*Correlations, Means, and Standard Deviations*

Correlations for the behavioral indicators of the TSO model appear in Table 1. The correlations in Table 1 show a pattern in which the correlation among focal negative interpersonal behaviors is stronger when the time lag is shorter, a pattern that is consistent with most longitudinal investigations of retest or differential stability (e.g., Caspi & Shiner, 2006). Correlations among the covariates appear in Table 2. As expected, negative emotionality was significantly and positively related to maternal negative behaviors and negatively and significantly associated with core self-evaluation and a secure representation of romantic partners.

Table 1  
*Correlations, Means, and Standard Deviations of Focal Negative Behavior Indicators During Emerging Adulthood*

Indicator	1	2	3	4	5	6	7	8
1. Low-warm behavior, 1995	1.00							
2. High-hostile behavior, 1995	.51	1.00						
3. Low-warm behavior, 1997	.40	.30	1.00					
4. High-hostile behavior, 1997	.21	.38	.57	1.00				
5. Low-warm behavior, 1999	.35	.24	.42	.24	1.00			
6. High-hostile behavior, 1999	.29	.39	.34	.39	.66	1.00		
7. Low-warm behavior, 2001	.29	.20	.41	.32	.48	.48	1.00	
8. High-hostile behavior, 2001	.27	.36	.35	.38	.36	.56	.68	1.00
<i>M</i>	4.19	4.49	4.15	4.43	3.96	4.73	4.23	5.24
<i>SD</i>	2.07	2.45	1.97	2.35	1.83	2.17	1.91	2.34

Note. All correlations significant at  $p < .01$ .

Table 2  
Correlations Among the Predictor Variables

Variable	1	2	3	4	5
1. Maternal low-warmth behaviors	1.00				
2. Maternal high-hostility behaviors	.63**	1.00			
3. Negative emotionality	.16**	.14*	1.00		
4. Core self-evaluation	-.17**	-.14*	-.54**	1.00	
5. Secure representation of romantic partners	-.14**	-.10*	-.40**	.56**	1.00

\*  $p < .05$ . \*\*  $p < .01$ .

Both of the maternal negative behaviors were significantly and strongly related with each other. Maternal negative behaviors were significantly and negatively related to a secure representation of romantic partners, and a positive core self-evaluation and secure representation of romantic partners were significantly and positively related with each other.

TSO Model

The TSO model uses three types of latent variables (Cole et al., 2005), as shown in Figure 1. The TSO model specifies a set of State ( $S_t$ ) factors that are measured by the two observed variables at every wave: high-hostility and low-warmth. The variance in each of these latent state variables is explained by two other latent variables: a Trait (T) factor (i.e., focal negative behavior in Figure 1) and a time-specific Occasion ( $O_t$ ) factor. The T factor represents the aspects across the S factors that are stable over time, whereas the  $O_t$  factor represents aspects of the  $S_t$  factors that fluctuate over time. In addition, the TSO model specifies a first-order autoregressive relationship between  $O_t$  and  $O_{t+1}$ .

We used Mplus Version 4 (Muthén & Muthén, 1998–2004) to estimate the TSO model using maximum likelihood estimation. The TSO model necessitates several equality constraints for model identification (Cole et al., 2005). The factor loadings were constrained to be equal across waves, and the error variance for the state indicators was also constrained to be equal across waves. This corresponds

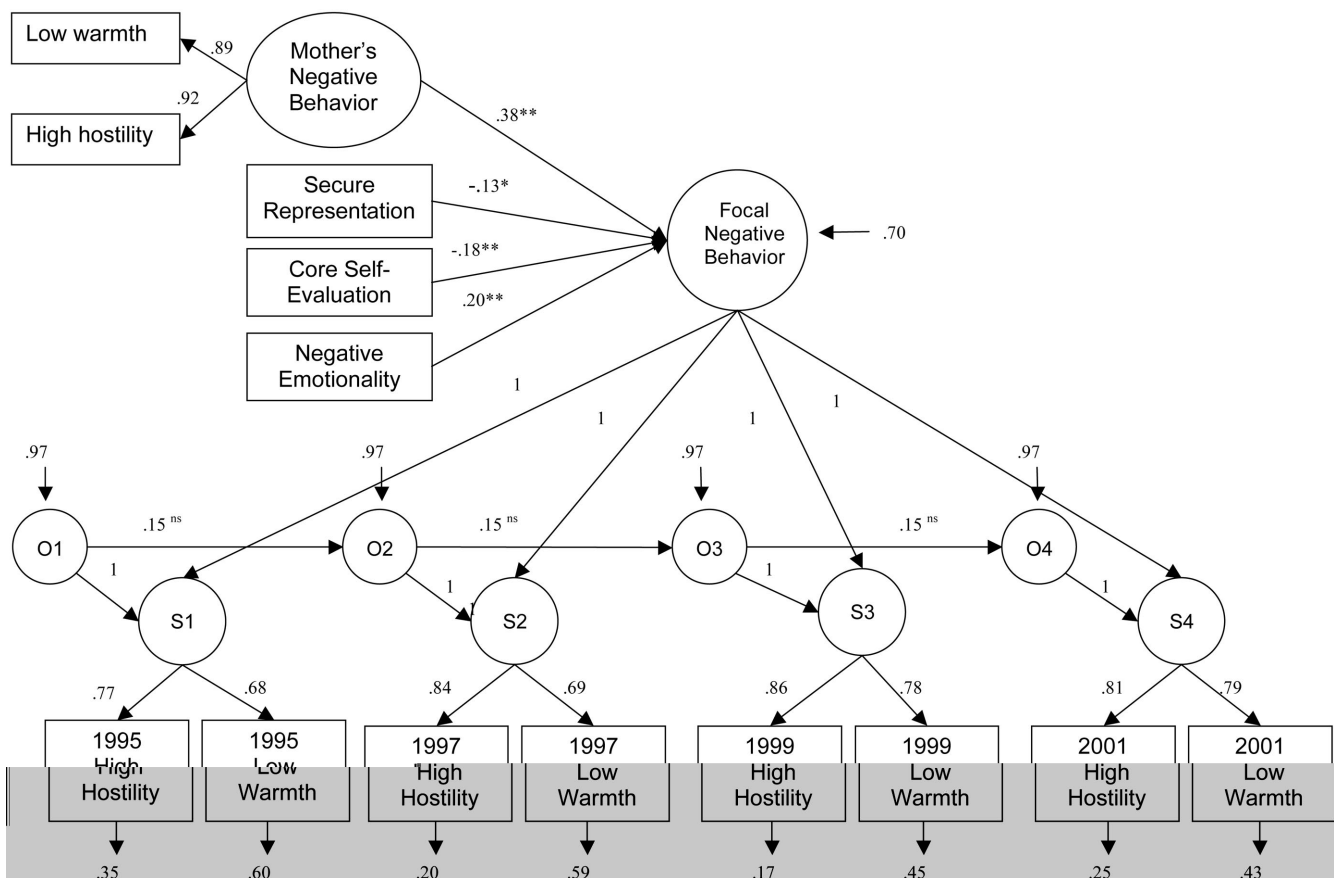


Figure 1. Negative focal behaviors to a friend or romantic partner predicted by parenting, cognitive representation of romantic partners, core self-evaluations, and negative emotionality in adolescence—standardized coefficients. The autoregressive paths were significant at trend level ( $p = .07$ ). All factor loadings were statistically significant ( $p < .01$ ). Full model estimates with unstandardized estimates are available upon request from Holly Hatton. O = Occasion factor; S = State factor. \*  $p < .05$ . \*\*  $p < .01$ .

to an assumption of measurement invariance for the S factor across time. The auto-regressive path coefficients between adjacent O factors were constrained to be equal to each other. Finally, the residual variances for the O factors were specified to be equal across waves. The model fit the data well. The chi-square was nonsignificant,  $\chi^2(21, N = 528) = 27.96, p = .14$ , and other goodness-of-fit indices indicated that the specified model fit was acceptable: comparative fit index (CFI) = .99, Tucker–Lewis index (TLI) = .99, and root-mean-square error of approximation (RMSEA) = .03. To identify whether cross-wave constraints should be relaxed, we allowed the coefficients between adjacent O factors to be freely estimated. The chi-square difference test was nonsignificant,  $\Delta\chi^2(3, N = 528) = 5.36, p = .15$ , suggesting that specifying these cross-wave constraints was consistent with the data.

The proportion of variance in the S factors accounted for by the T factor was .46, and the proportion of variance in the S factors accounted for by the O factors was .54. Thus, it appears that variations in negative behavior toward a friend or romantic partner during emerging adulthood are due to nearly equal amounts of trait and occasion influences. Next, a conditional model was specified to assess the independent effects of maternal negative behavior and individual characteristics on the T factor during emerging adulthood. This model with predictors fit the data well:  $\chi^2(47, N = 528) = 58.29, p = .13$ , CFI = .99, TLI = .99, and RMSEA = .02. All of the covariates were entered in the model together, so each estimated effect is adjusted for the remaining covariates.<sup>1</sup>

As shown in Figure 1, negative emotionality and maternal negative behavior were positively and significantly associated with the trait aspects of negative focal behaviors. In contrast, core self-evaluations and a secure representation of romantic partners were negatively and significantly associated with the trait aspects of focal negative behaviors. It is important to note that these are independent effects (beta coefficients), and thus these associations take account of the degree of overlap among predictors. In follow-up analyses, we found little evidence that this set of predictors consistently predicted O factors, a finding that supports the contention that these variables are related to the trait aspects of interpersonal interactions.<sup>2</sup>

## Discussion

The primary goal of this article was to illustrate how the TSO model can be used to further the understanding of hostile interpersonal interactions during young adulthood. First, the TSO model was used to decompose variance in repeated measures of observed behaviors with close relationship partners into trait and state aspects. Second, we used these parameters to test theoretically informed predictions about the antecedents of the trait-like aspects of negative interpersonal interactions. Findings were consistent with the hypothesis that negative interpersonal behaviors involve occasion-specific and trait-like aspects. That is, aspects of interpersonal interactions at any given point in time reflect both an enduring tendency to interact with

partners in a characteristic fashion as well as more dynamic and fluctuating interpersonal processes that are specific to a given measurement occasion.

Furthermore, these findings contribute to the larger literature that has examined the stability of individual characteristics. Personality psychologists have long debated over the degree of stability in behaviors across time (see, e.g., Roberts & Pomerantz, 2004; for an earlier review, see Epstein & O'Brien, 1985). The present results indicate that there is an appreciable degree of stability in negative interpersonal behaviors across the young adult years—a finding that supports the personality perspective that there are notable behavioral consistencies. At the same time, however, these results highlight the fact that there is instability in interpersonal behaviors. Thus, the key point is that negative interpersonal interactions are a relatively stable phenomenon. Indeed, one virtue of the TSO model is that it provides a precise decomposition of variance so that researchers can begin to precisely quantify the degree of “traitness” for a given construct. However, the main substantive contribution of this piece is the evaluation of a comprehensive set of predictors of those relatively enduring aspects of interpersonal interactions. In short, we found support for an integrative approach in that both family of origin experiences and individual characteristics are associated with the degree to which individuals consistently behave negatively with close others during emerging adulthood. Moreover, we found evidence that all of the predictors that we considered had unique effects for understanding the potential antecedents of negative interactions. This finding suggests that a complete account of the origins of negative interactions in close relationships requires a model that incorporates insights from several distinct literatures (e.g., attachment, family socialization, personality) that are only rarely considered in the same analysis.

In addition to demonstrating that insights from several different literatures are important for understanding the “origins” of the stable aspects of an interpersonal style, these results also bear on a narrower argument in personality psychology. That is, although core self-evaluations and negative emotionality are strongly correlated (i.e.,  $r = -.54$ ), each predicted the trait aspects of negative interactions controlling for the effects of the other. Thus, our results suggest that both core self-evaluations as well as negative emotionality uniquely contribute to the scientific understanding of negative interactions. Negative emotionality captures the temperamental disposition to experience negative emotions, whereas core self-evaluations capture perceptions of overall worth and competence; thus, it is possible to draw conceptual distinctions between the two constructs. Moreover, these results indicate that it is fruitful

<sup>1</sup> Gender did not predict the trait factor ( $\beta = -.08, p = .35$ ) and was therefore omitted from the model. Additionally, controlling for the effect of gender did not affect the size of the independent effects.

<sup>2</sup> The O factor results are available upon request from Holly Hatton.

to consider these two dimensions of individual characteristics as separate constructs for prediction purposes in this domain of interpersonal functioning. It seems that both are important for understanding correlates of negative interpersonal styles in young adulthood.

### Limitations and Conclusions

There are at least a few limitations of this work that are important to note. First, we used a sample that primarily consisted of rural Caucasian participants, which may limit the generalizability of the findings. Future research should perform similar analyses with more diverse samples. Second, our findings are also limited to a certain developmental period, namely emerging adulthood. It is possible that the relative balance of trait and occasion-specific aspects of negative interactions might change with development. Likewise, it is an open question as to whether the elements in our model will predict the trait aspects of negative interactions later in the life span. These are important issues for additional research. Third, the TSO model itself has limitations given that it can lead to improper solutions when the proportion of trait variance is very high or low (Ciesla, Cole, & Steiger, 2007). However, the present results indicate that for interpersonal phenomena of the types considered here, the TSO model provides an appropriate tool for evaluating both stability and change in interpersonal processes and their developmental antecedents. Fourth, there are limits in our observed maternal negative behaviors, given that the observed maternal negative behaviors may also capture evoked responses to the adolescent's negative behavior. That is, the adolescent's behavior itself may cause a mother to exhibit less warmth or more hostility during the interaction. However, it should be noted that we included controls for negative emotionality in our model, which may help control for such evocative effects. Nonetheless, we acknowledge that parent-child interactions often involve bidirectional influences.

Finally, additional research should try to examine the predictors of the occasion-specific aspects of negative interactions. Such predictors would be related to the less stable dimension of negative interactions and would be expected to change from occasion to occasion. For example, it could be that things, such as stressful life events and transitory hassles, are reliable predictors of the O factors in the TSO model. One issue is that these sorts of predictors might be more specific to the type of relationship (i.e., friendship vs. romantic union) and development period (i.e., college years vs. later adulthood). For example, economic conditions might prove more influential on committed romantic unions in adulthood, whereas stress due to academic workload may prove more influential on friendships and romantic unions during the college years. This possibility makes it difficult to specify a comprehensive model of the occasion-specific influences during the period of the life span that we investigated. Moreover, our focus was on testing models of the origins of interpersonal interactions, and those models are either explicitly or implicitly framed as explanations of the enduring aspects of negative interac-

tions. Thus, we believe that it was appropriate to restrict our analyses to predictors of the trait-like aspects of interpersonal interactions.

In conclusion, this study demonstrates the usefulness of the TSO model for family psychology and extends previous research on the predictors of negative interpersonal interactions. Substantively, these results reveal that a considerable portion of an individual's interpersonal behavior reflects an enduring quality that is consistent across time and partner. Moreover, those enduring aspects of interpersonal interactions are independently associated with personality traits, experiences in the family of origin, and cognitive representations of relationships. As such, our work indicates that there is merit in several distinct perspectives on the origins of negative interpersonal interactions, and we suggest that future work can benefit from a strong synthesis of different research traditions coupled with appropriate analytic models.

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