The Vicissitudes of Conflict Measurement

Stability and Reliability in the Frequency of Disagreements¹

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Abstract. This report examined the stability and reliability of self-reported conflict frequency in relationships with mothers, fathers, and best friends. Participants were drawn from three independent samples in the Netherlands (n = 72, M = 15.6 years), Germany (n = 242, M = 19.7 years), and the United States (n = 250, M = 19.8 years). Participants completed both topic-based surveys and interaction-based diary assessments of conflict frequency. Within samples, comparable levels of internal consistency and temporal stability emerged in each relationship for both assessment techniques. Topic-based and interaction-based assessments of conflict frequency were moderately correlated in each relationship within samples. Daily topic-based assessments with short intervals between time points may provide the most advantageous assessment strategy for obtaining reliable measures of conflict frequency in adolescents' close relationships.

Keywords: interpersonal conflict, reliability, social interaction diary, stability

Introduction

Disagreements are an inevitable feature of close relationships. Adolescents report that most interpersonal conflicts occur with mothers, followed by fathers and best friends (Laursen & Collins, 1994). These findings are quite robust across European and North American samples. Yet despite the invariance in the rank ordering of disagreement partners, stability of conflict frequency within relationships tends to be quite modest over time (Stattin & Klackenberg, 1992). Substantial variability has been reported in the absolute frequency of disagreements within relationships. Much of this variation can be traced to differences in assessment practices. This report examines the consistency of two commonly used assessments of conflict-frequency measures from adolescents' reports of disagreements with mothers, fathers, and best friends in Dutch, German, and US samples.

Assessments of conflict differ in terms of specific cues that guide respondents in the recollection of events. In *top*-

ic-based methods, participants are presented with a list of topics and asked to recall all that were the source of a disagreement during a specific period (e.g., the previous week). In *interaction-based* or diary methods, participants are asked to recount all social interactions with others and asked whether each contained a disagreement. Distinctions between the cues utilized by different assessment techniques have important implications for the measurement of conflict because participants may fail to recollect some disagreements in the absence of salient cues.

The frequency of conflict is typically described with reference to a specific time period. Topic-based assessments encompass a wide range of time intervals, from a day to a year, whereas interaction-based measures tend to be restricted to daily assessments collected at systematic or random intervals, sometimes for several consecutive days (Bolger, Davis, & Rafaeli, 2003). Reference periods matter because individuals infer meaning from them; short periods imply frequent, mundane experiences and long periods imply rare, affectively laden events (Winkielman, Knäuper, & Schwarz, 1998). As a consequence, shorter reference pe-

This paper is part of a series on "Youth Development in Europe: Transitions and Identities" that will appear in the European Psychologist throughout 2008 and 2009. Taken together, the papers aim to make a conceptual contribution to the increasingly important area of youth development, especially within the context of an expanding Europe, by focusing on variations and changes in the transition to adulthood and emerging identities. The series will conclude with a summary by the organizers of the series, Katariina Salmela-Aro (University of Jyväskylä, Finland) and Ingrid Schoon (University of London, UK).

riods should increase the likelihood that all disagreements will be described. Furthermore, because longer time frames for the recall of conflict increase biases linked to relationship representations (Feeney & Cassidy, 2003), shorter reference periods are less likely to be confounded with perceptions of the relationship. However, questions remain as to whether brief reference periods provide an adequately consistent (reliable) measure of conflict frequency.

In the present study, we examined temporal and internal consistency of interaction-based assessments of daily conflict using social interaction diaries and topic-based assessments of daily, weekly, and monthly disagreements. Consistent with previous research (Laursen & Koplas, 1995; Stattin & Klackenberg, 1992), we anticipated that topicbased measures of conflict frequency would display moderate levels of consistency. Less is known about the consistency of conflict frequency assessed with interactionbased methods. We expected there would be somewhat more stability in measures based on longer reference periods because estimates are more likely to be affected by perceptions of the relationship. We also suspected that youth reports of disagreements with parents would be more consistent than conflicts with friends because youth tend to have more emotionally intense disagreements with parents (Laursen & Koplas, 1995; Thomas & Diener, 1990). This is one of the first studies to examine the consistency of conflict frequency in close relationships of older adolescents during the transition to young adulthood, yet we tentatively expected similar, moderate levels of consistency across assessments and relationships, within samples. Finally, we expected topic- and interaction-based assessments of conflict to be moderately to highly correlated within samples.

Method

Participants and Procedures

Dutch Sample

Participants included 72 youth (32 boys and 40 girls) between 14 and 16 years of age (M=15.6). Adolescents were recruited from the CONAMORE study (see Van Doorn, Branje, Hox, & Meeus, in press, for sampling procedures). Adolescents described weekly disagreements with mothers, fathers, and best friends approximately 6 months prior to, and 6 months after completing social interaction diaries for 7 consecutive days. Participants received the diary by mail with written instructions, and a postage-paid envelope in which they could return the completed diary. Of the 113 adolescents initially invited, 90 agreed to participate, and 72 adolescents returned completed diaries. Analyses contrasting participants and those who did not return the diary in terms of demographic and study measures indicated only

one significant difference: Participants reported less frequent conflicts with best friends than nonparticipants.

German Sample

Participants included 242 females between 14 and 22 years of age (M = 19.7). Of these, 43% (n = 104) were university students. Individuals completed an online survey describing monthly disagreements with their mother and friend immediately prior to completing an online diary for 7 consecutive days. Publicity for the study was generated through links on websites dedicated to psychological research, postings on online forums, and popular media outlets. Of the 3,106 individuals who initially participated, 1,865 were excluded for not completing 7 consecutive days of the diary, and 999 were excluded for not meeting other selection criteria (e.g., reporting on relationship with father). Analyses contrasting participants and those who did not complete the diary in terms of demographic and study measures indicated only one significant difference: Participants reported less frequent monthly conflicts with best friends than nonparticipants.

US Sample

Participants included 250 students (124 females and 126 males) enrolled in a public university in southeastern Florida (USA). Participants ranged from 18 to 22 years of age (M = 19.8). The sample consisted of 47.2% European Americans, 18.8% Hispanic Americans, 18.4% African Americans, 6.4% Asian Americans, and 9.2% with blended ethnic backgrounds. A precondition for inclusion in the study was living at home with at least one biological parent. A total of 58.0% lived with two biological parents, 22.4% lived with one biological parent and one step-parent (or significant other), and 19.6% lived in single-parent households. Students described daily disagreements with each parent approximately 1 day prior (M = 0.63, SD = 2.39) and 2 days after (M = 1.40, SD = 1.90) completion of social interaction diaries of 7 consecutive days. Participants were given written and oral instructions by trained research assistants describing how to complete the diary. Of the 276 students who initially agreed to participate, 26 (10.6%) failed to complete all three assessments. Attrition analyses indicated participants did not differ from nonparticipants on any demographic or study measures.

Measures

Topic-Based Assessments

Participants in the Dutch and US samples completed versions of the Interpersonal Conflict Questionnaire (Laursen, 1993). Dutch participants were asked to recall the frequen-

Table 1. Means, standard deviations, and Cronbach's αs of interpersonal conflict measures in Dutch, German, and US samples

Conflict measure	Mother-child conflict F			Father-c	Father-child conflict			Friend conflict		
	M	(SD)	α	M	(SD)	α	M	(SD)	α	
Dutch sample $(n = 72)$										
Topic-based weekly conflict (prediary)	1.87	(0.57)	.90	1.75	(0.55)	.92	1.28	(0.34)	.92	
Topic-based weekly conflict (postdiary)	1.88	(0.56)	.92	1.75	(0.54)	.93	1.26	(0.32)	.93	
Interaction-based conflict	0.41	(0.40)	.69	0.26	(0.31)	.74	0.23	(0.31)	.53	
German sample ($n = 242$)										
Topic-based monthly conflict (prediary)	11.91	(12.04)	.81				4.48	(5.64)	.78	
Interaction-based conflict	0.55	(1.03)	.57				0.27	(0.69)	.65	
US sample $(n = 250)$										
Topic-based daily conflict (prediary)	1.59	(2.33)	.84	0.95	(1.74)	.81				
Topic-based daily conflict (postdiary)	0.67	(1.38)	.76	0.35	(0.81)	.77				
Interaction-based conflict	0.21	(0.24)	.58	0.11	(0.17)	.64				

Notes. αs for interaction-based assessments represent the reliability of weekly conflict measured with daily reports across seven consecutive days. αs for topic-based assessments represent the reliability of conflict frequency from the previous day (US), week (Dutch), and month (German) from 10, 34, and 8 items, respectively.

cy of conflicts during the previous week from a list of 34 topics. Items ranged from 1 (never) to 5 (often). In the Dutch sample, weekly conflicts describe the averaged score of these items for each relationship partner. US participants were asked to recall all disagreements during the previous day from a list of 10 topics. The number of possible disagreements on each topic ranged from 0 to 10. In the US sample, daily conflicts describe the total number of disagreements with each relationship partner. German participants identified the number of disagreements during the previous month from a similar list of eight topics. In the German sample, monthly conflicts describe the total number of conflict topics identified with each relationship partner.

Interaction-Based Assessments

All participants completed social interaction diaries for 7 consecutive days, which were adaptations of the Rochester Interaction Record (Nezlek, 1993; Reis & Wheeler, 1991). Participants were instructed to complete the diary at the end of each day or as early as possible on the next day. Dutch participants only described interactions that included conflict. German participants described all interactions and indicated those that included one of eight disagreement topics. US participants described all social interactions and identified those interactions that included a disagreement. So, in the Dutch and US samples, interaction-based assessments of conflict describe the total number of social interactions that included a disagreement; in the German sample, interaction-based assessments of conflict describes the total number of conflict topics identified from each day.

Results

Internal Consistency

Topic-Based Assessments

Cronbach's α s were calculated separately for the pre- and post diary assessments (see Table 1). These estimates are based on 34 topics in the Dutch sample, 8 topics in the German sample, and 10 topics in the US sample. In all three samples, these estimates revealed moderate to high internal consistency (.76 to .93) of conflict frequency in each relationship.

Interaction-Based Assessments

Cronbach's α s were also calculated using the seven daily social interaction-based assessments. Compared with top-ic-based assessments, interaction-based assessments revealed lower levels of internal consistency (.53 to .74) for reports of disagreements in each relationship across the seven daily assessments.

These estimates must be interpreted cautiously because they include variance that may be attributed to different levels of analysis (Hox & Kleiboer, 2007). So, we examined the variance reliably explained between relationships and across daily assessments using hierarchical linear models. Each model consisted of three levels (within-individuals, between-relationships, and across-days). Table 2 presents the results of these models. The individual-level averages (Level 1) indicate that participants reported between five and six disagreements across the entire week in all samples. The variance explained between-relationships (Level II) was substantially greater for the Dutch and Ger-

Table 2. Hierarchical linear multilevel models assessing reliability of interaction-based assessments of conflict between-relationships and within-persons in Dutch, German, and US samples

	Level I (days)	Level II (relationships)	Level III (individuals)
Dutch sample $(n = 72)$		_	
N	1,212 (5.64)	215	72
Reliability intercept		0.51	0.62
German sample ($n = 24$)	2)		
N	2,423 (5.13)	472	242
Reliability intercept		0.53	0.43
US sample $(n = 250)$			
N	2,353 (5.29)	445	250
Reliability intercept		0.21	0.48

Notes. N refers to the total number of weekly social interactions reported (Level I), the total number of relationships (Level II), and the total number of participants (Level III), respectively. Values in parentheses represent individual-level averages. The reliability intercepts at Level II and Level III represent the variance explained between relationships and the (unique) variance explained at the individual-level across daily assessments, respectively.

man sample than the US sample. Finally, the reliability intercept representing the variance reliably explained across days (Level III) suggested marginally adequate levels of consistency in the daily interaction-based measures of weekly conflict frequency in all three samples.

Mean-Level Stability

Topic-Based Assessments

Separate repeated measures ANOVAs examined changes in conflict frequency over time for the Dutch and US participants (only prediary assessments were available for German participants). In both analyses, gender was included as a between-subjects factor. Time (i.e., pre- and postdiary) was the repeated measure. Conflict frequency was the dependent variable. The analysis of the US sample also included age as a covariate. Separate analyses were conducted for each relationship. The only statistically significant differences involved the US sample. In mother-adolescent relationships, an interaction between gender and time emerged, F(1, 239) = 8.49, p = .004. Females reported more disagreements on the prediary measure (M = 2.39, SD= 3.61) than males (M = 1.18, SD = 2.00). In father-adolescent relationships, a main effect for gender emerged, F(1, 209) = 12.76, p < .001. Females reported more disagreements on both the pre- (M = 1.57, SD = 2.87) and postdiary assessments (M = 0.52, SD = 1.15) compared to males (M = 0.64, SD = 1.41; and M = 0.24, SD = 0.64, forpre- and postdiary, respectively).

Interaction-Based Assessments

Separate repeated measures ANOVAs were performed to examine daily changes in the weekly diary measures in all three samples. In the analyses involving the Dutch and US samples, gender was included as a between-subjects factor; age was included as a covariate in the analyses for the German and US samples. Time (i.e., 7 days) was the repeated measure. The daily interaction-based assessments of conflict were the dependent variable. In each analysis, the frequency of conflict did not significantly change during the 7 consecutive days of diary assessments (i.e., all main effects and interactions were nonsignificant)

Rank-Order Stability

Topic-Based Assessments

Spearman correlations were computed for pre- and postdiary assessments of the Dutch and US participants (see Table 3). Nonparametric correlations were selected because of the skewed nature of the frequency measures. For the Dutch participants, weekly conflict frequency measures demonstrated moderately high levels of stability over the 1 year interval between assessments. In the US sample, the daily conflict frequency measures demonstrated lower levels of stability over the (approximately) 10 day time interval between assessments.

Table 3. Nonparametric correlations assessing stability of interpersonal conflict measures in Dutch, German, and US samples

	Mother- child	Father- child	Friend
	ρ	ρ	ρ
Dutch youth $(n = 72)$			
Topic-based weekly conflict	.74**	.65**	.53**
Interaction-based conflict	.44**	.28*	.55**
German adolescents ($n = 242$)			
Interaction-based conflict	.40**		.38**
US young adults ($n = 250$)			
Topic-based daily conflict	.33**	.26**	
Interaction-based conflict	.30**	.25**	

Notes. ρ = Spearman's rho. Coefficients for interaction-based assessments represent associations between the average number of interactions with conflict on weekdays (Monday, Tuesday, Wednesday, and Thursday) and the average number of conflictual interactions on weekends (Friday, Saturday, and Sunday). Coefficients for topic-based assessments represent associations between pre- and postdiary assessments of daily conflicts for the US sample and weekly conflicts for the Dutch sample. Stability estimates for Dutch and US samples are based on the average number of conflicts; stability estimates for the German sample are based on average number of conflict topics. *p < .05, **p < .01.

Interaction-Based Assessments

Spearman correlations were also calculated based on the average number of interactions with conflict on weekdays (Monday, Tuesday, Wednesday, and Thursday) and weekends (Friday, Saturday, and Sunday). These revealed similar moderate levels of relative stability in each of the samples (see Table 3).

Associations Between Interaction- and Topic-Based Assessments

Finally, we examined associations between interactionbased and topic-based assessments of conflict frequency within samples. Spearman correlations were computed between assessments for each relationship. All correlations were significant (p < .05). In the Dutch sample, diary assessments were moderately correlated with both the preand postdiary assessments of weekly disagreements with mother (r = .45, r = .48), father (r = .33, r = .47), and best friend (r = .28, r = .39). In the German sample, the diary measure was moderately correlated with the prediary measure of monthly conflict with mothers (r = .39); this association was significantly lower for conflicts with best friends (r = .13). In the US sample, the diary assessments were moderately correlated with both the pre- and postdiary topic-based assessments of conflicts with mother (r =.32, r = .47) and father (r = .34, r = .32). These findings suggest that retrospective topic-based assessments and diary-based methods are similar, but not identical, measures of conflict frequency.

Summary and Conclusions

As expected, all measures of conflict frequency generally demonstrated moderate levels of temporal stability and adequate levels of internal consistency. Topic-based measures of weekly and monthly disagreements were somewhat more stable than daily interaction-based measures. Interaction-based diary assessments demonstrated similarly moderate levels of consistency across relationships and did not differ as a function of adolescent gender. Assessments of conflict frequency were also moderately correlated within relationships and samples. Collectively, our findings suggest conflict frequency may be consistently measured with both topic-based and interaction-based assessments of disagreements with parents and peers, with both cue-based measures being moderately associated within samples and relationships.

In all three studies, conflict was defined as behavioral opposition and disagreement. This operationalization separates the frequency of conflicts from other distinct aspects of the disagreement, such as emotional intensity, impact on the relationship, and strategy used for resolution. Distin-

guishing the unique effects of these qualitatively different components is crucial for understanding the role of conflict in close relationships and the psychosocial adjustment of both relationship partners (Burk & Laursen, 2005; Laursen & Collins, 1994). Identifying disagreements from shorter reference periods represents an important means of controlling for various recollection biases and relationship perceptions (Feeney & Cassidy, 2003; Schwarz, 1999). However, daily topic-based assessments of mother-child disagreements were less stable for females compared to males. This difference was not expected, and needs to be replicated. Overall our findings suggest measures of daily disagreements demonstrated adequate, but somewhat lower levels of consistency compared to weekly and monthly disagreements.

Diary methods offer an attractive alternative for developmental researchers because of their ability to examine changes over the course of a day or week (see Bolger et al., 2003). However, diary methods are costly, both to the researcher and the participants. The response burden seems to be an especially important issue for adolescent participants, leading to either attrition or participants not completing all diary entries when prompted or instructed, a practice known as backfiling (Green, Rafaeli, Bolger, Shrout, & Reis, 2006). Electronic assessments, such as the online assessment used in our German study, are able to ensure diary entries are completed on time by checking the timing of entries. However, in this study, over half of the targeted female participants who started the diary study were excluded from the analyses because they failed to complete seven consecutive daily assessments. Manipulation checks did not identify substantial backfiling in our paper-andpencil assessments, but future research employing diary methods should ensure the integrity of the timing of diary entries and be wary of possible issues related to attrition or missing values.

Several caveats should be acknowledged. First, assessment techniques and reference periods were confounded among the three samples, thus, precluding a direct comparison of results. The German and US samples were most comparable, presenting a general picture of consistency in young adults' reports of disagreements with parents and friends; but future cross-cultural studies should address our limitations. It should be noted that our selection of German females, Dutch youth, and adolescents from the US was arbitrary. Furthermore, differences in age and gender across the three samples also limited between sample comparisons. Second, the studies presented here are based entirely on adolescent self-reports. Previous research suggests family members hold discrepant views of their shared experiences (Larson & Richards, 1994), so it remains to be seen whether these findings may be generalized to reports from both relationship partners. Third, we exclusively focused on cue-based measures of conflict frequency, without consideration of freely recalled disagreements. It is possible that freely recalled conflicts offer an advantage over cue-based measures because they avoid potential method-related biases. So, the relative consistency of freely recalled conflicts compared to cue-based measures remains an open question. Finally, we did not investigate the validity of the various conflict frequency measures. Topic-based assessments of conflict frequency have been demonstrated to be an important predictor, correlate, and consequence of various measures of youth adjustment (e.g., Adams & Laursen, 2007); less is known about the predictive validity of interaction-based measures.

Despite these limitations, this brief report offers some valuable insights relating to the assessment of conflict frequency. We presented findings from three independent samples that suggest conflict frequency may be reliably assessed with daily, weekly, and monthly assessments using either topic-based or interaction-based cues. Topic-based and interaction-based diary methods were also found to be moderately correlated. However, these associations were not high enough to indicate that both assessment techniques provide an identical picture of conflict frequency in close relationships. Incorporating both diary and survey measures into a single latent construct (see Hox & Kleiboer, 2007) seems to provide a promising avenue to more thoroughly examine convergent and discriminant validity and the nature of shared and unshared variance between assessments.

Measuring the frequency of interpersonal conflict presents researchers with several important decisions, including the appropriate length of reference periods, type of recollection cues, and length of time between longitudinal assessments. Each choice represents a trade-off between the biases inherent in longer reference periods and the relative instability inherent in daily snapshots of close relationship functioning. Daily assessments with shorter intervals between longitudinal time points may provide the most advantageous assessment strategy, combining the best (and avoiding the worst) of both strategies.

Acknowledgments

The first author was supported by a grant from the Swedish Research Council to Margaret Kerr and Håkan Stattin during preparation of this manuscript. Brett Laursen received support from the US National Institute of Child Health and Human Development (HD 33006) and the US National Institute of Mental Health (MH 58116).

References

- Adams, R.E., & Laursen, B. (2007). The correlates of conflict: Disagreement is not necessarily detrimental. *Journal of Family Psychology*, *21*, 445–458.
- Bolger, N., Davis, A., & Rafaeli, E. (2003). Diary methods: Capturing life as it is lived. *Annual Review of Psychology*, 54, 579–616.

- Burk, W.J., & Laursen, B. (2005). Adolescent perceptions of friendship and their associations with individual adjustment. *International Journal of Behavioral Development*, 29, 156–164.
- Feeney, B.C., & Cassidy, J. (2003). Reconstructive memory related to adolescent-parent conflict interactions: The influence of attachment-related representations on immediate perceptions and changes in perceptions over time. *Journal of Personality and Social Psychology*, 85, 944–955.
- Green, A.S., Rafaeli, E., Bolger, N., Shrout, P.E., & Reis, H.T. (2006). Paper or plastic? Data equivalence in paper and electronic diaries. *Psychological Methods*, 11, 87–105.
- Hox, J.J., & Kleiboer, A.M. (2007). Retrospective questions or a diary method? A two-level multitrait-multimethod analysis. Structural Equation Modeling: A Multidisciplinary Journal, 14, 311–325.
- Larson, R., & Richards, M.H. (1994). Divergent realities: The emotional lives of mothers, fathers, and adolescents. New York: Basic Books.
- Laursen, B. (1993). The perceived impact of conflict on adolescent relationships. *Merrill-Palmer Quarterly*, 39, 535–550.
- Laursen, B., & Collins, W.A. (1994). Interpersonal conflict during adolescence. *Psychological Bulletin*, 115, 197–209.
- Laursen, B., & Koplas, A.L. (1995). What's important about important conflicts? Adolescents' perceptions of significant daily disagreements. *Merrill-Palmer Quarterly*, 41, 536–553.
- Nezlek, J.B. (1993). The stability of social interaction. *Journal of Personality and Social Psychology*, 65, 930–941.
- Reis, H.T., & Wheeler, L. (1991). Studying social interaction with the Rochester Interaction Record. Advances in Experimental Social Psychology, 24, 269–318.
- Schwarz, N. (1999). Self-reports: How the questions shape the answers. *American Psychologist*, *54*, 93–105.
- Stattin, H., & Klackenberg, G. (1992). Discordant family relations in intact families: Developmental tendencies over 18 years. *Journal of Marriage and the Family*, *54*, 940–956.
- Thomas, D.L., & Diener, E. (1990). Memory accuracy in the recall of emotions. *Journal of Personality and Social Psychology*, 59, 291–297.
- Van Doorn, M.D., Branje, S.J.T., Hox, J.J., & Meeus, W.H.J. (in press). Intraindividual variability in adolescents' perceived relationship satisfaction: The role of daily conflict. *Journal of Youth and Adolescence*.
- Winkielman, P., Knäuper, B., & Schwarz, N. (1998). Looking back at anger: Reference periods change the interpretation of emotion frequency questions. *Journal of Personality and Social Psychology*, 75, 719–728.

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