**Children’s Narrative Representations of Peer Experiences in Cultural Contexts: The Relations to Psychological Adjustment**

Qingfang Song1 · Jessie Bee Kim Koh2 · Qi Wang3

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**Abstract**

This study examined children’s narrative representations of peer experiences in cultural contexts and its concurrent and long-term relations to psychological adjustment. Thirty-four European American and 30 Chinese immigrant 9-10 years old children completed a narrative task to tell stories based on two scenario stems. Children’s peer-related self-views, loneliness, and social anxiety were assessed and again a year later. Peer interaction themes in children’s completed stories, particularly conflict resolution, were associated with European American children’s positive self-views and lower loneliness at both time points, as well as lower social anxiety at time 2. In contrast, conflictual themes exhibited significant association only with Chinese immigrant children’s engaging self-views at time 1. The associations of peer interaction themes to children’s positive self-views emerged to be significant for Chinese immigrant children only at time 2. Furthermore, peer interaction themes did not correlate with Chinese immigrant children’s loneliness and social anxiety at either time point. The results suggested the culture-dependent role of narrative representations of peer experiences in children’s psychological adjustment.

**Keywords** Peer relations · Narrative representations · Psychological adjustment · Culture · Middle childhood

Peer experiences influence various aspects of children’s adjustment, affecting their self-esteem, externalizing problems, and internalizing problems (Caldwell et al. 2004). Some theoretical frameworks highlight the internalization process through which children interpret interpersonal experiences and construct knowledge of social interactive contingencies (Crick and Dodge 1994; Nelson 1981). This internalization process is proposed as a key social-cognitive mechanism that directs children’s psychosocial functioning. Yet little empirical research has been dedicated to examine children’s internal representations for peer experiences. For examples, what types of peer interactions from real experiences are encoded and organized? How are peer conflicts represented and resolved? Less is known about the associations between such representations and children’s psychological adjustment in cultural contexts. Provided different cultural emphases on interpersonal relatedness in the self conceptualization (Markus and Kitayama 1991; Wang 2013), individuals from different cultures may perceive peer encounters distinctively, resulting in disparate associations with psychological adjustment.

Peer influences on children’s psychological adjustment in middle childhood deserve special attention. Transitioning from early childhood, children in middle childhood face a salient developmental task, that is, the establishment and maintenance of diverse peer relations. Compared with attachment relationships in the family environment, peer relations are novel and can thus be more complex and stressful (Collins et al. 1995). On the one hand, children may form intimate peer groups and strengthen friendship quality, from which they experience companionship, help, care, and validation (Parker and Asher 1993). On the other hand, the likelihood of experiencing peer conflict is high during middle childhood, ranging from conflict among friends, to social exclusion from groups or chronic peer victimization (Kochenderfer and Ladd 1996). Therefore, coping with peer conflict through cognitive, emotional, and behavioral strategies constitutes a challenging and prevalent task for children in middle childhood (Collins et al. 1995; Kochenderfer-Ladd 2004).
Extant literature has mostly focused on the link between children’s actual peer experiences and psychological adjustment in middle childhood. Studies have provided empirical evidence that the number of peer affiliations that children have is linked with their positive self-evaluations of social acceptance (Boivin and Hymel 1997), and positive qualities in best friendships can protect children from internalizing and externalizing problems (for a review, see Vitari et al. 2011), as well as help them during school transitions (e.g., Kingery et al. 2011). Peer adversity, on the other hand, is associated with children’s negative self-schema (Boivin and Hymel 1997) and can generate risks to well-being, such as feelings of anxiety and depression (Storch and Ledley 2005). Nevertheless, aversive peer experiences only partially account for negative self-views (e.g., Hymel et al. 1985; Kristen et al. 2007) and internalizing problems such as loneliness (Boivin and Hymel 1997). Children’s psychological adjustment, which includes the ways they understand themselves and peers as well as their subjective feelings of loneliness and anxiety, may not be a mere reflection of their peer experiences.

Although a number of studies have attempted to capture the complexity of direct peer experiences at the group level (e.g., peer group affiliation, crowd) and at the dyadic level (e.g., between friends), there is a lack of knowledge at the individual level: how are the features of peer experiences cognitively processed and represented by children? Given a hypothetical social situation, are children more likely to perceive it as an opportunity for affiliative peer interactions or an occasion where peer conflict arises? If peer conflict occurs, would children think it can be resolved and turned into a positive outcome? According to several theoretical perspectives (e.g., Boivin and Hymel 1997; Crick and Dodge 1994), children develop abstract knowledge, schemas, and judgment towards self and interaction partners from their memory database of daily social experiences. Researchers have argued that children’s understanding of the social world is primarily organized in relationship schemas that are based on repeated similar events in real life and that summarize the predicted roles and interaction contingencies for self and others (Crick and Dodge 1994; Nelson 1981). These mental representations guide the processing of incoming information, enabling children to understand the intentions of others and behave accordingly in future social encounters. They tend not to fluctuate as a result of a few exceptional experiences but remain relatively stable across situations (Crick and Dodge 1994). Thus, children’s internal representations of peer experiences, as compared with subsets of actual peer experiences, may be a more proximal factor in affecting their psychological adjustment.

Narrative entails an active act of sense making through which individuals discern meaning from their experiences in line with their cultural expectations (Bruner 1990). It has been increasingly used in psychological research in recent decades to understand subjective modes of organizing experience and constructing reality (McAdams 2013; McLean et al. 2007; Miller et al. 2007; Nelson and Fivush 2004; Wang and Leichtman 2000). In the context of peer relations, one important narrative approach to assessing children’s internal representations of interpersonal experiences is projective story completion (Wang and Leichtman 2000; Woolgar 2000). For example, with the prop of a small doll or pictures, children are presented with relationship-oriented story stems (e.g., MacArthur Story Stem Battery, Attachment Doll Story Completion Task, and Manchester Child Attachment Story Task) that leave them to complete the stories in their own way (Green et al. 2000). This technique is designed to stimulate children to draw upon their scripted knowledge of relationships and resolve conflict presented in the story stems. The story narratives not only reflect children’s past experiences, but also their ‘construction of reality’ (Holmberg et al. 2007).

Furthermore, narrative themes in children’s completed stories show associations with children’s actual interpersonal experiences and reveal children’s views of self and others (Oppenheimer 2006). For example, children’s positive representations of attachment figures in their narratives differentiated children in secure attachment from those in insecure attachment (Solomon and George 1999). Compared with non-maltreated children, maltreated children included more negative representations of parents being harsh and punitive, and more negative representations of self as engaged in aggression, non-compliance, and shame in their narratives (Toth et al. 2000). Other studies have linked narrative themes to psychosocial adjustments (Warren et al. 2000; Zahn-Waxler et al. 2008). Children whose narratives depict interpersonal interactions with more caring themes of affiliation, reparation, and prosocial behaviors exhibit positive developmental trajectories in later years (Zahn-Waxler et al. 2008). Children who portray more negative themes, including aggression, destruction, and social withdrawal in their narratives, in contrast, tend to have more social, emotional, and behavioral problems (Pass et al. 2012; Warren et al. 2000). More important, narrative representations of interactive themes are found to mediate the associations of children’s actual interpersonal experience to internalizing problems and social competence, whereby children with warm parenting construct representations of caring themes in their narratives, which in turn guide their competent social behaviors (Laible et al. 2004; Toth et al. 2000).

Notably, culture plays an important role in shaping children’s narrative representations of themselves and others (Wang 2006, 2013). Western cultures place an emphasis on the separateness of the self and value the individual’s
autonomy over group goals. In contrast, East Asian cultures hold the view that the self is interconnected with others in larger social networks or hierarchy. Fitting in with others and subordinating personal needs to group integration is thus deemed highly important (Markus and Kitayama 1991; Triandis 1995). Consequently, the development of close relations may follow different pathways in these cultural contexts (Rothbaum et al. 2000).

In particular, given that conflict is considered to be a threat to social harmony, East Asian children tend to avoid overt conflict (Benjamin et al. 2001). When an interpersonal conflict arises, East Asian children rely on indirect strategies to resolve conflict through disengagement, which diminishes further social interactions (French et al. 2005). Conflict with friends is also found to be positively associated with loneliness for Indonesian and Chinese adolescents (Liu et al. 2015). In comparison, Western children are encouraged to be self-assertive and express self-interests, even though it may result in interpersonal conflict (French et al. 2011). Different from their East Asian counterparts, U.S. children more frequently use active strategies, such as negotiation and seeking help from a third party, to resolve peer conflict (French et al. 2005). In most Western samples, effective resolution to the conflict within friendship makes a unique prediction to children’s decreased loneliness (Parker and Asher 1993), whereas failure to resolve peer conflict and conflict avoidance are associated with loneliness and social anxiety (Johnson et al. 2001).

There is limited research on whether the cultural differences in children’s self-construal and conflict management are reflected in children’s representations of peer experiences. In a study by Zahn-Waxler et al. (1996), Japanese and U.S. preschool children completed stories concerning a series of hypothetical interpersonal situations, some dealing with distress and others interpersonal conflict. Compared with Japanese children, U.S. children included more aggressive themes in their verbal responses to interpersonal conflict situations, and expressed more aggressions both verbally and behaviorally with a doll puppet when responding to distress situations. The prominence of aggressive themes in U.S. children’s narratives reflected their independent orientations such as assertion and conflict. Interestingly, U.S. children also enacted more affiliation and prosocial behaviors in response to interpersonal conflict situations than did Japanese children, suggesting U.S. children might be more motivated to generate complex scripts for conflict resolution. However, no cultural differences were found in children’s verbal responses reflecting interdependent orientations, such as affiliative or reparative themes. In a study by Wang and Leichtman (2000), European-American and Chinese kindergarteners were asked to complete story stems that involved emotionally charged situations such as peer conflict, competition, and family relations. Chinese children’s stories contained more themes of social affiliation and moral correctness and fewer themes of autonomy and self-assertion, than did European-American children’s stories. Notably, results from these studies were not separated for situations pertaining to child–peer relations and child–parent relations, unique contexts in which children may attribute different meanings to interpersonal conflict (Laursen and Collins 1994). Furthermore, these studies did not assess children’s psychological adjustment. So it is unclear how children’s representations of peer experiences may be linked to their psychological adjustment in different cultural contexts.

The present study has two main purposes. First, it investigated in school-aged European American and Chinese immigrant children the role of culture in shaping children’s internal representations of peer experiences. Following previous research (French et al. 2005; Wang and Leichtman 2000; Zahn-Waxler et al. 1996), we expected European-American children to include less caring themes but more conflictual themes, and to be more likely to include conflict resolution in their narratives than Chinese immigrant children. Second, the study examined the concurrent and longitudinal associations between children’s narrative representations of peer experiences and their psychological adjustment in cultural contexts. In line with the literature (Laible et al. 2004; Zahn-Waxler et al. 2008), we hypothesized that (1) caring themes would be associated with better adjustment for both European American and Chinese immigrant children; (2) conflictual themes would be associated with better adjustment for European American children but worse adjustment for Chinese immigrant children; and (3) conflictual resolution themes would be associated with better adjustment only for European American children.

**Method**

**Participants**

Thirty-four European-American (EA) children (21 boys, mean age = 9.68 years; range = 9.00–10.42 years) and 30 first-generation Chinese immigrant (CI) children (15 boys, mean age = 9.42 years; range = 8.92–10.42 years) and their mothers from upstate New York participated in a larger longitudinal study of social-cognitive development in middle childhood. All participants came from middle-class families. Parents in CI families were originally from Mainland China, Taiwan, and Hong Kong, and all but 3 children were born in the United States. The three CI children who were born outside the U.S. had lived in America since they were 2–3 years old. Parents gave permission for their children to participate and children gave
were all video tape-recorded. The tasks relevant to the session and a semi-structured mother-child play task, which reminiscing activity, followed by an interviewer-child session at time points. Each home visit began with a mother-child interview and the rest of CI children spoke English at both time points. Each home visit began with a mother-child reminiscing activity, followed by an interviewer-child session and a semi-structured mother-child play task, which were all video tape-recorded. The tasks relevant to the present study are described below.

Procedure

Two female researchers visited the families twice, one year apart. We chose to measure the longitudinal relations between children’s narrative themes and psychological adjustment with a 1-year interval because it was sufficient to reveal the directionality of the relations, before children entered the teen age with the onset of new psychosocial factors. English-Chinese bilingual researchers visited the CI families and interviewed children in the language that children preferred. All materials were written in both English and Chinese, and a translation and back-translation procedure was carried out to ensure their equivalence in both literal and sense meaning. Two CI children at time 1 spoke Chinese and English interchangeably during the interview and the rest of CI children spoke English at both time points. Each home visit began with a mother-child reminiscing activity, followed by an interviewer-child session and a semi-structured mother-child play task, which were all video tape-recorded. The tasks relevant to the present study are described below.

Measures

Child story narratives about peer scenarios

Children’s responses to two hypothetical peer scenarios were elicited through a projective story-completion task at time 1. The researcher started with a standardized introduction about the story completion task and the central character in the story, “We are going to tell stories about a boy/girl whose name is John/Jenny. John/Jenny is 9/10 years old just like you. I will start each story and you will help me finish the story”. In order to make the child identify with the story character, the name, gender, and age of the story character were modified to match up with the child. For CI children, one additional piece of information about the story character’s ethnic background, “John/Jenny’s mom and dad are from China”, was added to further their identification with the story character. Then the researcher started a story stem and asked the child to complete it (i.e., “tell me what happens next”). Children were encouraged to tell the story in the way they would like and to include as many details as they could by receiving open-ended prompts (e.g., “tell me more”, “anything else happens?”). Two story stems were presented, one about John/Jenny who was always being shy and got called to answer a question in an English class, and the other one about John/Jenny seeing some kids play ball together. The two story stems were designed to represent two most common school situations (i.e., studying and playing) where peer experiences are prevalent. More than 20% of the children provided peer interaction themes in their narratives to either story stem. The order of presenting the two story stems was counterbalanced across children. This task lasted approximately 10 min.

Child descriptions about self in relation to peers

Children were interviewed for descriptions about themselves in relation to their peers at both time 1 and time 2. Adapted from prior research (Keller et al. 1978; Wang 2004), the interview started with an open-ended prompt. The researcher asked the child, “(Child’s name), I would like to write a story about you and other kids in school. To write a story that will tell about (Child’s name) and other kids in school, what’s the first thing I should put in the story?” The researcher further prompted the child after each response, “And what else should I write to tell about you and other kids in school?” until the child indicated by speech or gesture that he or she was finished. This task lasted approximately 10 min.

Loneliness

Loneliness and Social Dissatisfaction Questionnaire (LSDQ; Asher and Wheeler 1985), a 16-item self-report scale, was used to assess children’s feelings of loneliness (e.g., “I’m lonely”), feelings of social adequacy versus inadequacy (e.g., “I’m good at working with other children”), and subjective estimations of peer status (e.g., “I have lots of friends”). Children responded to each item by using a 5-point Likert scale from 1 (not at all true for me) to 5 (true all the time for me). Positively worded items were reverse coded and the loneliness scores were summed across all items with higher scores indicative of greater loneliness and social dissatisfaction. The LSDQ has been shown to be a reliable and valid measure in ethnic minority children (Arce 2017). The scale exhibited high internal consistencies (α = .85 at time 1; α = .92 at time 2) in this study.

Social anxiety

The Social Anxiety Scale for Adolescents (SAS-A; La Greca and Lopez 1998) was used during both home visits to assess children’s subjective experiences of social anxiety. Children responded to 18 items (e.g., “I worry about what other kids think of me”) on a 5-point Likert scale indicating how well the item can describe them (1 = not at all true, 5 = true all the time). Scores of all items were summed to
create a Total Social Anxiety scale. The SAS-A has been shown to have good reliability and validity estimates in the community sample composed of various ethnic groups and in Spanish-speaking adolescents in Spain (García-López et al. 2001; Prinstein and Greca 2002). In this study, the internal consistencies of the Total Social Anxiety scale were .89 at time 1 and .93 at time 2.

**Child verbal skill**

Mothers filled out a Child Communication Survey adapted from Feagans and Farrans (1997) to rate children’s language and communication skills. CI mothers rated their children’s verbal skills in both English and Chinese. Children’s verbal skill for the language that was used in the interview tasks was used in the analyses. This survey had a Cronbach’s $\alpha$ = .98 for the current sample.

**Data Analyses**

All coding was performed on participants’ responses in their original language. Children’s verbal responses were parsed into propositions. Proposition, a subject-verb construction (e.g., “we played”, Fivush et al. 1995), which was used as the unit of coding for all variables except for the variable of conflict resolution in children’s story narratives.

**Coding of child story narratives**

Narrative variables of peer interaction themes were developed based on previous studies (Shields et al. 2001; Zahn-Waxler et al. 1994; Zahn-Waxler et al. 2008). Three peer interaction themes were used to capture children’s narrative representations of peer experiences to the two story stems. Final scores of caring themes, conflictual themes, and conflict resolution were averaged across the two story stems.

**Caring themes** Caring peer interaction themes included prosocial (e.g., “they helped her to participate in the game”), reparative (e.g., “then they said ‘sorry’”), and affiliative interactions (e.g., “they played together”) involving the story character (John/Jenny) and other kids. The total number of caring themes in children’s verbal response was counted for each story stem.

**Conflictual themes** Conflictual peer interaction themes included physical aggression (e.g., “he spit on them”), verbal aggression (e.g., “they teased her”), relational aggression (e.g., “they didn’t allow her to play if she played with her friend”), and disagreement (e.g., “then they began to argue about it”). The total number of conflictual themes in children’s response was counted for each story stem.

**Conflict resolution** This variable was to measure the presence of resolution following a peer conflict. For example, a story started with peer exclusion (e.g., “they said ‘no, you can’t join.’”) and ended with peer affiliation (e.g., “later they played happily together.”). Resolution was coded as either 0 (not present) or 1 (present) for each story stem.

**Coding of self-descriptions in relation to peers**

A set of variables were developed based on previous studies (e.g., Wang 2004; Wang and Leichtman 2000; Woike 1994) to capture different aspects of peer-related self-views. Repetition and meaningless responses (e.g., “We will become zombie.”) were not coded.

**Positivity** The valence of each proposition was coded as indicating positive (e.g., “I have lots of friends in school”), negative (e.g., “(there are) some kids I don’t get along with”), or neutral (e.g., “we have color rotations in the school.”) descriptions of self in relation to peers. A composite score of “Positive Self-Descriptions/Negative Self-Descriptions + 1)” was created to indicate the positivity of peer-related self-views.

**Engagement** Each proposition was coded as engaging if it described the similarity between the self and peers (e.g., “we go to the same class”) and involvement in shared activities (e.g., “I race with her”). A proposition was coded as disengaging if it referred to dissimilarity or comparison between the self and peers (e.g., “I am taller than him”) or disassociation (e.g., “we didn’t interact much”). A composite score of “Engaging Self-Descriptions/Disengaging Self-Descriptions + 1)” was formed to index the level of engagement between the self and peers.

Two coders independently coded 20% of the data for each task. The intraclass correlation coefficients (ICCs) ranged from .87–1.00 across narrative theme variables. The ICCs across self-descriptions variables ranged from .90–1.00 for time 1 measurement and .93–1.00 for time 2 measurement. One coder coded the remaining data for each task.

Preliminary analyses showed no main effect for gender, and thus gender was not considered further. In connection with the hypotheses, we tested cultural differences in major variables. We conducted one-way ANCOVAs to examine possible cultural effects on each type of narrative themes, with child age and verbal skill included as covariates. Separate one-way ANCOVAs were conducted to examine cultural differences in the positivity, and engagement level of children’s peer-related self-views, loneliness, and social anxiety respectively at time 1 and time 2, with child age and verbal skill included as covariates.

One of our primary questions was to test the concurrent and longitudinal relations of caring, conflictual, and conflict
resolution themes in the story narratives to children’s psychological adjustment for EA children and CI children. First, we calculated partial correlations between narrative themes and children’s psychological adjustment separately for EA and CI children. Given the age effects in the caring themes and some psychological adjustment variables, child age was controlled in calculating correlations. Correlation coefficients and their significance levels were reported in the table. Next, we used SPSS bootstrap procedure to produce robust estimate of correlation coefficient with 1,000 iterations. If the bootstrap confidence interval does not include 0, there is 95% probability that the correlation coefficient is significant (Efron and Tibshirani 1998). Both procedures yielded converging results and correlations identified as significant from both procedures were interpreted as significant.

Narrative variables of caring themes and conflictual themes, as well as the positivity and engagement levels of self-descriptions at both time points, were positively skewed and were transformed using logarithmic transformations. Untransformed data were used for analyses testing the cultural differences, which are typically seen as more robust to skewness and transformed data were used for correlational analyses (Tabachnick and Fidell 2000). One EA child at time 1 skipped the narrative story completion task due to the procedural error. Data for this child was not included in further analysis. One CI child included a peer interaction theme explicitly pertaining to his ethnic background and the results did not change with the child excluded. Therefore, this child’s data was included in the report of results. A few children did not complete all tasks. So the degree of freedom varied slightly across tests.

### Results

#### Cultural Differences in Narrative Themes and Psychological Adjustment

Table 1 lists descriptive statistics for caring, conflictual, and conflict resolution themes in children’s story narratives as a function of culture. ANCOVA analysis on caring themes revealed a marginally significant main effect of age, $F(1, 59) = 3.92, p = .05, \eta^2_p = .06$, and a marginally significant main effect of child verbal skill, $F(1, 59) = 3.25, p = .08, \eta^2_p = .05$, but no significant main effect of culture was found, $F(1, 59) = .28, p = .60, \eta^2_p = .01$. No other effects neared significance in predicting conflictual and conflict resolution themes.

Results of ANCOVAs indicated there were age effects in predicting the engagement level of children’s self-descriptions at time 1, $F(1, 57) = 10.98, p = .002, \eta^2_p = .16$, and at time 2 at a marginally significant level, $F(1, 45) = 3.77, p = .06, \eta^2_p = .08$. A marginally significant language effect also emerged, $F(1, 45) = 3.92, p = .05, \eta^2_p = .08$, that children with better language skill had slightly more engaging self-descriptions at time 2. Cultural effect was significant in predicting the engagement level of children’s self-descriptions at time 1, $F(1, 57) = 5.08, p = .03, \eta^2_p = .08$, and marginally significant at time 2, $F(1, 45) = 3.24, p = .08, \eta^2_p = .07$, whereby EA children (Time 1: $M = 3.62, SD = 4.00$; Time 2: $M = 1.85, SD = 2.17$) had less engaging self-descriptions than CI children (Time 1: $M = 5.60, SD = 7.96$; Time 2: $M = 2.71, SD = 5.82$). No cultural differences neared significance for the engagement level of children’s self-descriptions at time 2 or positivity at either time point.

#### Table 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>EA (SD)</th>
<th>CI (SD)</th>
</tr>
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<tbody>
<tr>
<td>Caring Themes T1</td>
<td>1.42 (1.62)</td>
<td>1.52 (2.38)</td>
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<tr>
<td>Conflictual Themes T1</td>
<td>0.55 (0.89)</td>
<td>0.70 (1.16)</td>
</tr>
<tr>
<td>Conflict Resolution T1</td>
<td>0.23 (0.31)</td>
<td>0.23 (0.29)</td>
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<tr>
<td>Positive Self-Views T1</td>
<td>1.42 (1.26)</td>
<td>1.20 (1.27)</td>
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<td>2.00 (1.77)</td>
<td>1.62 (1.96)</td>
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<tr>
<td>Engaging Self-Views T1</td>
<td>3.62 (4.00)</td>
<td>5.60 (7.96)</td>
</tr>
<tr>
<td>Engaging Self-Views T2</td>
<td>1.85 (2.17)</td>
<td>2.71 (5.82)</td>
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<tr>
<td>Loneliness T1</td>
<td>1.83 (0.47)</td>
<td>1.90 (0.45)</td>
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<tr>
<td>Loneliness T2</td>
<td>1.81 (0.53)</td>
<td>1.94 (0.50)</td>
</tr>
<tr>
<td>Social Anxiety T1</td>
<td>2.13 (0.64)</td>
<td>2.17 (0.60)</td>
</tr>
<tr>
<td>Social Anxiety T2</td>
<td>2.13 (0.62)</td>
<td>2.19 (0.48)</td>
</tr>
</tbody>
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EA European American, CI Chinese immigrant, T1 time 1, T2 time 2
Positive self-views as shown in Table 2, similar and different results emerged. Themes and Psychological Adjustment Relations between Narrative Peer Interaction

Table 2 Correlations between narrative peer interaction themes and psychological adjustment with child age partialed out

<table>
<thead>
<tr>
<th></th>
<th>European American</th>
<th>Chinese immigrant</th>
<th>European American vs. Chinese immigrant</th>
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<tr>
<td></td>
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<td>Conflictual</td>
<td>Resolution</td>
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<tr>
<td>Time 1</td>
<td>.34</td>
<td>.33</td>
<td>.52**</td>
</tr>
<tr>
<td>Time 2</td>
<td>.49*</td>
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<td>.51**</td>
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Engaging self-views

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<th>Conflictual</th>
<th>Resolution</th>
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<td>−.41*</td>
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<td>Time 2</td>
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<td>.18</td>
<td>.03</td>
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Loneliness

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<th>df</th>
<th>Caring</th>
<th>Conflictual</th>
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<tr>
<td>Time 1</td>
<td>−.35*</td>
<td>−.46**</td>
<td>−.39*</td>
<td>30</td>
<td>.12</td>
<td>.01</td>
<td>.03</td>
<td>27</td>
<td>−1.83</td>
<td>−1.91</td>
<td>−1.67</td>
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<tr>
<td>Time 2</td>
<td>−.71***</td>
<td>−.72***</td>
<td>−.65***</td>
<td>23</td>
<td>.08</td>
<td>.19</td>
<td>.19</td>
<td>21</td>
<td>−3.21**</td>
<td>−3.64*</td>
<td>−3.21**</td>
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Social anxiety

<table>
<thead>
<tr>
<th></th>
<th>Caring</th>
<th>Conflictual</th>
<th>Resolution</th>
<th>df</th>
<th>Caring</th>
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<tbody>
<tr>
<td>Time 1</td>
<td>−.32</td>
<td>−.34</td>
<td>−.34</td>
<td>29</td>
<td>.20</td>
<td>.11</td>
<td>.13</td>
<td>27</td>
<td>−2.00*</td>
<td>−1.74</td>
<td>−1.81</td>
</tr>
<tr>
<td>Time 2</td>
<td>−.73***</td>
<td>−.55**</td>
<td>−.46*</td>
<td>23</td>
<td>.02</td>
<td>.21</td>
<td>.12</td>
<td>21</td>
<td>−3.14**</td>
<td>−2.76*</td>
<td>−2.05*</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001, two-tailed

ANOVA analyses revealed that there was only a significant age effect in children’s social anxiety at time 1, F(1, 59) = 7.86, p = .01, ηp² = .12. No significant age or cultural effect was found for children’s social anxiety at time 2 or loneliness at either time point.

Relations between Narrative Peer Interaction Themes and Psychological Adjustment

As shown in Table 2, similar and different results emerged for EA and CI children. As far as caring themes were concerned, there were significant associations to both EA and CI children’s positive self-views at time 2. On the other hand, caring themes in EA children’s narratives were associated with lower loneliness at time 1 and time 2 and lower social anxiety at time 2. However, no significant correlations between caring themes and loneliness and social anxiety were found for CI children.

One significant association for conflictual themes was found for both EA and CI children. Specifically, children who included more conflictual themes had more positive self-views at time 2. Furthermore, conflictual themes were only associated with CI children’s engaging self-views at time 1 but not for EA children. Negative associations of conflictual themes to loneliness at both time 1 and time 2 and social anxiety at time 2 were only significant for EA children but not for CI children.

Conflict resolution themes exhibited significant association with children’s positive self-views at time 1 only for EA children but not for CI children, whereas their associations to children’s positive self-views at time 2 were significant for both EA and CI children. Negative correlations between conflict resolution themes and loneliness at time 1 and time 2 and social anxiety at time 2 were found for EA children. No significant associations of conflictual resolution themes to CI children’s loneliness and social anxiety were found.

We further compared the magnitudes of those correlation coefficients between EA children and CI children. As shown in Table 2, analyses with Fisher’s r to z transformations indicated that EA children and CI children exhibited significantly different correlations of caring themes, conflictual themes, and conflict resolution themes to both loneliness and social anxiety at time 2, as well as correlations of caring themes to social anxiety at time 1 (|z|s > 1.96, ps < .05). The magnitudes of other correlations were not significantly different between EA and CI children.

Additional analyses were conducted where each psychological adjustment variable assessed at time 1 was controlled in calculating the longitudinal correlations between narrative variables and the corresponding adjustment variable assessed at time 2. All results but two were consistent with those shown in Table 2. Caring themes at time 1 were no longer associated with EA children’s positive self at time 2 when EA children’s positive self at time 1 was controlled for. Conflict resolution themes in EA children’s narratives at time 1 were no longer associated with their lower level of social anxiety at time 2 when social anxiety level at time 1 was controlled for. Fisher’s r to z transformations indicated similar pattern as described above with one exception. The longitudinal correlation between conflict resolution themes at time 1 and social anxiety at time 2 was no longer significantly different between EA
children and CI children, after controlling for social anxiety at time 1.

**Discussion**

The present study examined the role of culture in children’s narrative representations of peer experiences and its relations to their psychological adjustment. An increasing number of studies have used the story completion technique to assess children’s attachment styles with caregivers and the links to children’s externalizing and internalizing problems (Laible et al. 2004). This study tapped on European American children and Chinese immigrant children’s narrative themes specific to peer interactions, a plausibly more proximal factor related to their psychological outcomes than actual peer experiences. Interestingly, narrative peer interaction themes exhibited culture-variant associations with children’s self-views, loneliness and social anxiety for European American and Chinese immigrant children. The findings highlight that narrative representations of peer experiences embody the way children organize such experiences and construct reality (e.g., McAdams 2013), which may reflect culture-specific conceptualization of self in relation to others, and further entail children’s psychological adjustment in different cultural contexts.

Consistent with our prediction, narrative peer interaction themes, particularly conflict resolution, showed significant associations with European American children’s positive self-views at both time 1 and time 2. Conflict resolution theme may entail the adaptive social information processing scheme, including appropriately understanding their own and others’ intentions leading to conflict, coming up with effective strategies, and confidently carrying out strategies to deal with the conflict (Crick and Dodge 1994). It was found that European American children who form the representations of conflict resolution tend to perceive peer relations to be intimate, satisfying, and fulfilling to their preferences and needs. We interpret this finding as further evidence that Western cultures emphasize individuality and autonomy and encourage individuals to actively resolve interpersonal conflict (Rothbaum et al. 2000). The internalization of peer experiences as conflictual but resolvable may facilitate positive evaluations of self and peer relations for independently oriented children, whereas it may not appear consequential for interdependently oriented Chinese immigrant children until later. Peer interaction themes predicted Chinese immigrant children’s self-views positivity only at time 2 but not time 1. Provided formal schooling and the increasing peer contact, first generation Asian American children show gradual acculturation in the development of self-knowledge (Wang et al. 2015). Such developmental trajectory found in the current study may resemble Chinese immigrant children’s acculturation process and their gradual assimilation into active conflict resolution as emphasized in American culture.

Furthermore, the links of narrative peer interaction themes to children’s loneliness and social anxiety also varied for European American children and Chinese immigrant children. Feelings of loneliness and social anxiety are inner-directed and derived from negative cognitive and affective representations of unsatisfying social relationships (Anderson 1999), and thus may be strongly related to children’s narrative representations of peer experiences. As expected, European American children who included more caring, conflictual, and conflict resolution themes in the narratives had lower levels of loneliness and social anxiety, particularly at time 2. Children in middle childhood become increasingly susceptible to peer influences and aversive peer experiences, which can greatly contribute to internalizing problems (Parker et al. 2006). Strong longitudinal associations suggest the importance of forming adaptive representations of peer experiences for later adjustment. Given the prevalence of peer conflict in middle childhood (Cole et al. 2010), it is adaptive for European American children to internalize caring interactions as well as effective resolution to peer conflict and get prepared to approach challenging peer situations in the future, thus protecting them from the feelings of loneliness and social anxiety in the long run. In contrast, caring and conflictual themes were not associated with Chinese immigrant children’s loneliness and social anxiety as expected. The result was somewhat consistent with finding from autobiographical memory studies that autobiographical memory plays a more central role in predicting well-being for individuals in Western cultures than those of other cultural backgrounds (Reese et al. 2016; Wang 2014). Asian American children were less likely than European American children to use autobiographical memory, that is, memory of personally significant past events, to develop self-understanding and help with emotion regulation (Wang et al. 2015). Children’s narrative representation of peer experiences in the present study was a generalized form of repeated past peer experiences. Accordingly, Chinese immigrant children may be less likely to rely on such internalization to understand and direct the emotional aspects of peer experiences, which involves explicit evaluations of their satisfaction and subjective feelings in social situations.

Interestingly, there was one significant cultural difference in children’s psychological adjustment, whereby Chinese children had more engaging peer-related self-views than did European American children. The engagement-disengagement aspect of peer-related self-views is in accordance with the integration-differentiation cognitive process, which pertains to perceiving stimuli as “separate”
or “connected” and is associated with communal social motives (Woike 1994; Woike and Polo 2001). The result was also consistent with the previous finding that Asian children and adolescents value extensive social interactions for friendship (French et al. 2006). Furthermore, conflictual themes made unique associations with the engagement level of peer-related self-views particularly for Chinese immigrant children, which further underlined Chinese cultural emphasis on interdependent views of self (e.g., Triandis 1995). Chinese immigrant children who internalize a greater number of conflictual themes in the narratives may perceive lower engagement between self and peers in terms of more similarity and mutual involvement. In contrast, as the engagement-disengagement aspect of self in peer relations may not be a prominent dimension of European American children’s self-construal, conflictual themes were not related to the development of engaging self-views for European American children.

Contrary to our prediction, European American and Chinese immigrant children did not differ in their representations of any peer interaction themes during the narrative story completion task. This study only assessed children’s representations of peer interaction themes based on verbal expressions, and it was somewhat consistent with Zahn-Waxler et al. (1996) that more pronounced cultural differences existed in young children’s nonverbal expressions of anger than in the verbal expressions. Another possible explanation was that most Chinese immigrant children in the study used English in response to the story prompts, which may attenuate the influence of their Chinese cultural value system (Wang et al. 2010). Also we need to make note that this study focused on middle childhood, during which peer interactions dramatically increase and constitute a particularly important context for child development (Ladd 2005). The result suggests that both European American and Chinese immigrant children in middle childhood may be sensitive to the caring and conflictual peer interactions and focus on peer conflict resolution to similar degrees, although peer conflict and conflict resolution may entail varied influences on psychological adjustment depending on children’s cultural backgrounds.

Limitations

There are some limitations that are noteworthy. Because children’s actual peer experiences were not measured in the study, it was difficult to test directly the developmental pathways between actual peer experiences, narrative representations, and psychological adjustment. Transactional perspectives conceptualize reciprocal influences between peer experiences and children’s perceptions of the self and peers, which can jointly influence peer stress and psychological adjustment (Caldwell et al. 2004; Ladd and Troop-Gordon 2003). It would be important to disentangle the possible direct and mediational contributions from children’s internalized representations of peer experiences to psychosocial adjustment. By employing a longitudinal design involving assessment at two time points, the current study detected some developmental trends in Chinese immigrant children’s psychosocial adjustment which was possibly due to acculturation process. To better trace the developmental trajectory in the immigration contexts, additional longitudinal studies that cover a wider developmental period and adopt more culturally-sensitive measurement are needed to examine children’s knowledge of self in relation to peers across different cultural groups. In addition, the current sample was small, particularly at time 2 assessment with 20% attrition. We need to be cautious about interpreting results based on a small sample.

Regardless, this study demonstrated the importance of piecing into children’s internal representations of peer experiences, which revealed varied relations to psychological adjustment for children of different cultural backgrounds. Narrative peer interaction themes, particularly conflict resolution, predicted positive peer-related self-views and lower levels of loneliness and social anxiety for European American children, whereas associations of conflictual and conflict resolution themes with children’s loneliness and social anxiety were nonsignificant for Chinese immigrant children. The culture-disparate results further underlined cultural differences in different meanings associated with peer conflict and conflict resolution, thus encouraging research not only to compare the extent to which children of different cultural groups narrate on those peer interaction themes, but also different dynamics in relation to various aspects of their psychological adjustment. The results underscore the significance of facilitating children to form peer scheme adaptive to their cultural conceptualization of self in relation to others. Due to parent-child acculturation discrepancy, Asian American children, compared with their European American peers, have more difficulty communicating with their parents about peer problems (Rhee et al. 2003).

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Author Contributions Q.S.: collaborated with the design of the study, executed the study, analyzed the data, and prepared the manuscript. J. B.K.K.: collaborated with the designing, execution, data analyses, and writing of the study. Q.W.: designed the study, and collaborated with the execution, data analyses, and writing of the study.
Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures in the study were approved by the Cornell University Institutional Review Board.

Informed Consent Informed consent was obtained from all individual participants included in the study.

References


