Chinese Children's Conceptions of Shyness

A Prototype Approach

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Three studies were conducted to explore Chinese children's understanding of shyness. In Study 1 (N = 174, M age = 10.18) interviews with Chinese children revealed a group of diverse attributes that characterized their conceptions of shyness. In Study 2 (N = 273, M age = 10.19) a rating procedure was used to identify attributes that were prototypical of a Chinese shy child. Study 3 (N = 216, M age = 10.24) explored the typology and dimensions underlying Chinese children's descriptions of a shy child by asking them to compare and rate the similarity of shyness attributes derived in Study 1 and Study 2. The findings suggest that there are both cultural similarities and variations in children's conceptions of shyness.

Recently there has been increasing interest in understanding shyness in non-Western settings such as Mainland China. While research carried out in North American contexts has generally shown that children who are shy and reserved are at risk for adjustment problems (Rubin & Asendorpf, 1993), studies of Chinese children have yielded inconsistent findings. For instance, Chen and his colleagues (Chen, Rubin & Li, 1995; Chen, Rubin, Li, & Li, 1999; Chen, Rubin, & Sun, 1992) found that shyness/sensitivity—rated by peers as someone who is very shy, who is usually sad, and whose feelings get

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hurt easily—was associated with peer acceptance and positive school adjustment in Chinese children aged 8–14 years old. In contrast, Schwartz, Chang, and Farver (2001) found that Chinese fourth- to sixth-grade children who were nominated by their peers as shy, timid, and avoidant of social contacts were disliked and victimized at school. In a more recent study, Chen, Cen, Li, and He (2005) also identified a negative rather than a positive association between peer nominations of shyness/sensitivity and Chinese third- and fourth-grade children's school adjustment.

Despite these conflicting findings, few studies have paid attention to how shyness is understood by Chinese children. The item "someone who is very shy" has been frequently included in measures of shyness (Chang, 2003, 2004; Chen et al., 1992, 1995, 2005; Schwartz et al., 2001). However, little attempt has been made to examine what it means to be shy (*hai xiu* in Mandarin) to Chinese children, why they would nominate a peer as being shy, and how their understanding of shyness may be similar to or differ from that of Western children. Therefore, the purpose of the current studies was to explore Chinese children's conceptions of shyness by examining their reasons for nominating their peers as being shy using a prototype approach.

Conceptions of Childhood Shyness

In studies of North American children, shyness has been defined as "wariness and anxiety in the face of social novelty and perceived social evaluation" (Coplan et al., 2007, p. 7). This definition encompasses two forms of shyness: shyness toward strangers (Asendorpf, 1990) and anxious shyness toward negative social evaluation (Asendorpf, 1990; Xu, Farver, Chang, Zhang, & Yu, 2007). Shyness toward strangers refers to a fearful and inhibited reaction toward unfamiliar individuals, is possibly biologically based, and is relatively stable over time (Kagan, 1994). On the other hand, anxious shyness refers to passive withdrawal, social avoidance, and a fear of negative social evaluation with familiar peers; this pattern of behavior is also known as anxious solitude (Gazelle et al., 2005). In a four-year longitudinal study of German children, Asendorpf (1990) found that children's social inhibition with strangers and their classmates was initially moderately correlated in preschool years. Yet when children became familiar with their classmates, the correlation gradually decreased over time. In addition, social inhibition associated with familiar classmates, presumably resulting from constant negative evaluations from peers, became increasingly correlated with children's experience of peer rejection, whereas social inhibition toward strangers was not.

Buss and Plomin (1984) categorized shyness as fearful and self-conscious. Fearful shyness resembles shyness toward strangers (as mentioned above), emerges early in life, and is characterized by social wariness

and fear of novelty. In contrast, self-conscious shyness refers to sensitivity or inhibition in response to public attention or scrutiny (Buss, 1986; Crozier, 1999). Self-conscious shyness develops in parallel with the self-concept and involves a process of internal self-focusing within the context of others. Self-conscious shyness is likely to be elicited in response to public attention or scrutiny and occurs in situations such as when a child makes a class presentation or responds to a teacher's question in front of classmates.

Researchers have also differentiated shyness from the broad construct of social withdrawal, an umbrella term that encompasses various forms of behavioral solitude in children (Rubin, Burgess, & Coplan, 2002). In several studies, shyness was inferred from only one form of social withdrawal: social reticence (Coplan, Rubin, Fox, Calkins, & Stewart, 1994; Hart et al., 2000). Coplan, Prakash, O'Neil, and Armer (2004) suggested that reticent young children commonly display an onlooker pattern of behavior and are often unoccupied during peer free play. They are motivated to engage in peer interaction but are inhibited by a fear of social encounters. This high approach-high avoidance motivational conflict distinguishes shy children from two other groups of withdrawn children: those who are unsociable and prefer to be alone without a strong motivation to interact with others (Coplan et al., 2004; Coplan et al., 2007) and those who are actively isolated and are left out by their peers (Ladd & Profilet, 1996; Rubin & Mills, 1988).

Children's Understanding of Shyness in the Western Contexts

Research conducted in the Western settings has shown that children use the word "shy" early in life (Ridgeway, Waters, & Kuczaj, 1985), and their definitions or descriptions were similar to what has been reported in the Western psychological literature (Crozier, 1995; Crozier & Burnham, 1990; Yuill & Banerjee, 2001). Crozier and his colleagues (Crozier, 1995; Crozier & Burnham, 1990) asked 5- to 11-year-old British children, "What do you think shyness is?" A content analysis provided some support for Buss et al.'s (1984) model, which showed that children's descriptions of shy behavior could be classified as either fearful or self-conscious shyness. In addition, children's references to behaviors and experiences that were associated with self-conscious shyness were more prevalent among older (10–11-year-olds) than younger children (5–8-year-olds).

Crozier (1995) also examined children's conceptions of shyness using a prototype approach. This approach maintains that concepts are organized around their clearest or prototypical examples (Cantor, Mischel, & Schwartz, 1982; Fehr & Russell, 1984). Because prototypical descriptors are more quickly and more frequently identified as examples of a target concept than are less prototypical ones, individuals often perceive or evaluate a person by

comparing the person's characteristics to the prototypical features that are consistent with the target concept (Rosch, Simpson, & Miller, 1976). For instance, children may evaluate whether a peer is shy or not by comparing his or her behaviors to the attributes they believe represent the key features of being shy. Therefore, the first step in using this approach involves identifying descriptors of a target concept, and then the typology and/or dimensions underlying the descriptors are examined using exploratory methods, such as cluster analysis or multidimensional scaling. This approach has been used to categorize person perception (Rosenberg, 1982), morality (Walker & Pitts, 1998), psychopathology (Rosch, 1977), emotions (Shaver, Schwartz, Kirson, & O'Connor, 1987), personality (Haslam, Bain, & Neal, 2004), situations (Yang, Read, & Miller, 2006), and implicit interpersonal relationships (Haslam & Fiske, 1992).

To identify the prototypical behavioral features that were associated with childhood shyness, Crozier (1995) asked 9- to 12-year-old children to write down the first things they thought of when they heard the words "being shy." Children produced an average of 5.55 shyness descriptors, and most of their responses could be classified into the fearful and self-conscious forms of shyness proposed by Buss et al. (1984). However, in Crozier's (1995) study the prototypical shyness descriptors were categorized using a coding method based on Buss et al.'s (1984) theory of fearful and self-conscious shyness rather than on exploratory data analyses.

There is also evidence to suggest that school-age children can differentiate shyness from some forms of social withdrawal such as active isolation. Younger and Daniels (1992) asked first-, third-, and fifth-grade children to nominate up to three classmates who were best represented by items that described withdrawn behavior, such as "being shy" or "being left out," and to provide an explanation for their nominations. The results indicated that most children responded to the item "someone who is very shy" by mentioning behaviors that reflected fear and inhibition in unfamiliar or familiar situations (e.g., "she's always afraid when she meets someone for the first time"). In contrast, when responding to the item "someone who is often left out" most children nominated peers who were actively isolated (e.g., "the other kids won't let her play with them").

Shyness in Chinese Children

Few studies have examined how shyness is understood in non-Western settings. China presents an interesting case because the traditional value system differs from most Western societies in the emphasis that is placed on group orientation and social harmony (Ho, 1986). These values originate primarily from Confucian philosophy, which views the self as a part of a larger whole

that comprises natural, human, and spiritual entities and considers individual behavior inextricably linked to a responsibility for the group and relative status within the social hierarchy. Thus, the meaning of shy behavior is not only construed at the individual level (e.g., whether such behavior reflects fear or social anxiety) but is also understood in terms of the relevance for group functioning (e.g., whether such behavior prevents the child from appearing bold and overly assertive or standing out in the group). Consequently, the Chinese notion of shyness is multidimensional because it encompasses fearful and anxious behavior that is relevant to individual children's psychological functioning (as is the case in the Western conception of shyness) and includes modest and unassuming behavior that seems to be particularly important for group functioning. For example, shyness has often been used to describe Chinese children who do not brag about their good grades (modest behavior) and those who back off when facing potential conflict with peers (nonassertive behavior), behaviors that are associated with maintaining harmonious social interactions and, to date, have not been mentioned as relevant in Western children's conceptions of shyness (e.g., Crozier, 1995).

To empirically investigate the Chinese notion of childhood shyness, Xu et al. (2007) carried out a series of pilot studies whereby Mainland Chinese elementary school teachers were asked to describe and provide examples of behaviors characteristic of a school-age shy child. The results showed that some descriptions, such as "afraid to join or approach peer play groups," were consistent with a common North American definition of shyness (e.g., Coplan et al., 2007), whereas other responses, such as "behaving modestly" and "not showing off," were not. To explore these differences, a peer-nomination measure of shyness was developed based on the Chinese teachers' descriptions and was piloted with three independent samples of fourth-, fifth-, and sixth-grade Chinese children. Exploratory and confirmatory factor analyses consistently identified two factors: anxious shyness, which resembled the North American notion of shyness associated with negative social evaluation and was expressed as a passive form of social restraint whereby a child feels fearful in social situations and avoids social contact, and regulated shyness, which represented a form of self-controlled social restraint expressed as nonassertive and unassuming behavior.

Xu et al. (2007) also found that regulated shyness was positively associated with peers' nominations of social preference and mothers' ratings of self-regulation and was negatively associated with children's self-reported loneliness and social anxiety, whereas the reverse was found for anxious shyness. However, teachers rated both regulated shy and anxiously shy children as having limited peer contacts and being relatively solitary, which suggested that both anxiously shy and regulated shy children may be behaviorally inhibited in their social interactions. In addition, both anxious

and regulated shyness were moderately associated with shyness toward strangers. Xu et al.'s (2007) findings suggest that the Chinese notion of childhood shyness may include a form of regulated shyness that is expressed as nonassertive and unassuming behavior and is correlated with, but distinguishable from, the shyness toward strangers and anxious shyness that characterize the North American conceptions of shyness.

The Current Studies

A limitation of Xu et al.'s (2007) studies was that regulated shyness was derived from Chinese teachers' understanding of shyness, but the Chinese Shyness Scale was a peer-nomination measure whereby children were not asked to think about shy peers when evaluating items. Therefore, it was unclear whether their responses actually differentiated the behavior of shy children. The current three studies were designed to address these limitations and to contribute to our understanding of shyness in Chinese culture by examining children's reasons why they nominate their peers as being shy. Consistent with the early socialization of Chinese children to be attentive and sensitive to the needs of others and to gauge one's own behavior in relation to its impact on group functioning, it was anticipated that their conceptions of shyness would include fearful and anxious behavior as well as modest and unassuming behavior, which may be absent or inadequately incorporated into current Western conceptions of shyness.

Using child interviews, the objective of Study 1 was to elicit a broad array of child-generated characteristics that were descriptive of a shy child. These characteristics were then filtered using an established set of judgment rules into descriptor lists to be used in Study 2. In Study 2, children rated the prototypicality of the shyness descriptors derived in Study 1. We expected that shyness would encompass varying descriptors whereby high ratings would be associated with features that were highly characteristic of shyness and low ratings would be associated with those that were less characteristic. The findings of Study 2 were expected to reveal the central features of shyness from the Chinese children's perspective.

The objective of Study 3 was to identify the implicit typology and dimensions that Chinese children used to understand the attributes of shyness. In particular, children were asked to compare and rate the similarity of pairs of prototypical descriptors for shyness derived in Study 1 and Study 2. Children's ratings were subjected to cluster and multidimensional scaling analyses to yield underlying typology or dimensions that were not influenced by Western conceptions or the investigators' preconceptions about childhood shyness.

The three studies were conducted with fourth- to fifth-grade children because middle childhood is a time when physical, cognitive, and social

developmental changes begin to have an impact on shyness (Crozier, 1995). Moreover, this period is when sensitivity to social evaluation and a sense of self-consciousness become prominent, and children are able to recognize and conceptualize shyness in an adultlike manner (Spooner, Evans, & Santos, 2005).

Study 1: Chinese Children's Reasons for Nominating Their Peers As Being Shy

The purpose of this study was to explore Chinese children's understanding of what it means to be shy and to generate behavioral descriptors of shyness by examining the reasons why children nominated their peers as being shy.

Study 1 Method

Participants

The participants were 174 fourth- and fifth-grade children (84 boys, M age = 10.18) recruited from an elementary school in Shanghai, China. The elementary school had three fourth- and fifth-grade classes with about 40 students per class. Two classes from each grade participated. Teachers contacted parents to provide information about the study and to obtain consent. No parent or child refused consent.

Procedure

To examine children's reasons for nominating their peers as being shy, trained research assistants matched to the child's gender conducted a 20–30-minute semistructured interview individually with each child in a quiet room at the elementary school. The research assistants established rapport and became familiar with the children prior to the interviews. Children were informed that they would be asked a few questions about how they think about their peers and that the questions would have nothing to do with their schoolwork.

In studies of Chinese children, researchers have commonly used two peer-nomination formats: peers who fit specific roles in a hypothetical class play (e.g., Chen et al., 1992), and peers who fit specific behavioral attributes (e.g., Schwartz et al., 2001). A positive association between shyness and school adjustment has been found in studies where class-play method was used (e.g., Chen et al., 1992), whereas a negative association between shyness and school adjustment was identified in studies that used the behavior-nomination method (e.g., Schwartz et al., 2001). Although the conflicting findings were most likely due to different operationalization of shyness, both nomination procedures were used in order to rule out the possibility that

variations in the nomination procedures influenced children's understanding of shyness. Specifically, about half of the children (one fourth- and one fifth-grade class) were assigned to the class-play condition, and the other half (one fourth- and one fifth-grade class) were assigned to the behavior-nomination condition. In the class-play condition, 85 children (41 boys, M age = 10.14 years) used a class list to choose up to 3 children they felt were best suited for a role that is "very shy," "well liked by others," or "liked least by others" in a hypothetical class play. Only the questions about shyness were relevant in this study. Following Younger et al. (1992), children were then asked, "You picked . . . for this role. Why did you pick him/her? Why did you think s/he would be the best person for this part?" These questions were followed by probes designed to clarify children's responses (e.g., "Tell me what you mean by that?" or "Can you tell me more about that?") or to clarify the relevance of the answers they gave (e.g., "Why is that important?" or "Why would that make him/her good for the part?"). These probes were designed to eliminate potential ambiguity or contradictions in children's reasons. The interviews were tape-recorded and transcribed for coding.

In the behavior-nomination condition, 89 children (43 boys, M age = 10.22 years) were asked to pick from a class list the names of 3 peers whom they felt were "very shy," "well liked by others," or "liked least by others." Only the questions about shyness were relevant in this study. Children were asked, "You thought . . . was very shy. Why did you pick him/her? Why do you think s/he is the one who could be best described as shy?" These questions were followed by probes designed to clarify children's responses (e.g., "Tell me what you mean by that" or "Can you tell me more about that?") or to clarify the relevance of the answers they gave (e.g., "Why is that important?" or "Why would that make you think s/he was very shy?"). The interviews were tape-recorded and transcribed for coding.

Interview Coding

To code children's explanations for their nominations, a series of judgment rules adapted from Kohnstamm, Halverson, Nervielde, and Havill (1998) and Walker and Pitts (1998) were used. Six research assistants coded the transcripts for individual descriptors, three for each interview condition, using the following rules:

1. A descriptor was defined as an adjective (e.g., "timid"), a verb (e.g., "cries"), a phrase referring to a description of behavior (e.g., "does not ask other kids to play with him/her very often"), or personal characteristics (e.g., "does not know how to talk to other kids").
2. When a description of behavior appeared with a description of a situation/context, the situation was included in the descriptor only if

the situation was necessary for behavior to occur or for understanding the behavior (e.g., in coding "embarrassed when being complimented by others," "being complimented by others" was included in the descriptor because it was necessary for eliciting children's embarrassment). Consensus among three research assistants was required for including the situations in the descriptors. The intercoder agreement calculated via the percentage of agreement among the three coders was 73% for the class-play condition and 74% for the behavior-nomination condition.

3. Words or phrases that were judged to be synonymous or repetitious in meaning were collapsed. This strategy was used to maintain possible subtle distinctions but did not treat words or phrases that were clearly redundant as separate descriptors. Agreement among the three research assistants was required for collapsing of words or phrases into a single descriptor. The intercoder agreement was 71% for the class-play condition and 74% for the behavior-nomination condition.
4. Idiosyncratic responses, responses that could be collapsed with other thematically related descriptors or those with low frequency (defined as <2) were dropped. Agreement among three research assistants was required for dropping any response. The intercoder agreement was 74% for the class-play condition and 71% for the behavior-nomination condition.

Study 1 Results

In the class-play condition, the children nominated an average of 1.69 peers as shy and produced 158 (averaging 1.86 per child) shyness descriptors. In the behavior-nomination condition, the children nominated an average of 1.79 peers as shy and produced 179 (averaging 2.01 per child) shyness descriptors. Using the coding and judgment procedure mentioned above, we formed the responses into nonredundant descriptor lists by grouping synonymous descriptors and eliminating idiosyncratic responses (e.g., s/he looks like Lin Zhiying, a Chinese pop singer who is believed to be shy) and low frequency responses (defined as <2; e.g., he speaks in "sharp throat," or a high-pitched tone). This procedure resulted in a list of 31 descriptors for the class-play condition and 33 descriptors for the behavior-nomination condition. The two lists, despite being coded independently by different judges, largely overlapped with each other, and 28 descriptors appeared in both lists. Therefore, one master list was derived by combining the two lists, which resulted in a total of 35 shyness descriptors (Table 1).

Table 1. Frequencies and Prototypicality Ratings of the Shyness Descriptors

	Frequency		
Shyness Descriptor	Class Play	Behavior Nomination	Prototypicality
1. Is embarrassed when being criticized	12	10	6.30
2. Does not show off	10	11	6.20
3. Does not talk much	15	17	6.11
4. Is afraid to talk to someone s/he does not know	5	6	6.07
5. Is timid	4	5	6.01
6. Is nervous being the focus of attention	5	6	5.97
7. Is afraid to join others' play	6	6	5.90
8. Is embarrassed being complimented by others	9	8	5.90
9. Is afraid to raise hand to answer questions	6	8	5.81
10. Does not play much during the class break	7	8	5.75
11. Walks away when disagreeing with other kids	6	6	5.66
12. Does not ask other kids to play with him/her very often	5	6	5.65
13. Does not brag (about good grades)	6	8	5.56
14. Does things in a low-tune way (i.e., low profile)	5	6	5.52
15. Worries about saying things in front of classmates	4	4	5.43
16. Is modest	7	6	5.36
17. Watches others play but does not join in	5	5	5.32
18. Does not know what to say when meeting someone for the first time	3	2	5.26

19. Does not play with kids from other classrooms	2	2	5.24
20. Is concerned about making a presentation in front of other classmates	3	6	5.13
21. Is nervous when answering questions in class	4	6	5.09
22. Feels uneasy when being compared to other kids	0	2	5.03
23. Avoids being "the head of the wind" (i.e., under the spotlight)	3	3	4.82
24. Has a light voice	3	7	4.74
25. Works on homework by him/herself during the class break	5	4	4.63
26. Feels uneasy when others talk about him/her	0	2	4.55
27. Lowers his/her head when talking to someone s/he does not know	2	0	4.46
28. Backs off when being challenged by others	3	5	4.20
29. Hides in the background in group activities	3	2	4.01
30. Is polite	3	4	3.70
31. Cries easily	0	2	3.60
32. Is afraid to tell teachers when being bullied	2	3	3.45
33. Is sad	2	0	2.94
34. Does not know how to talk to other kids	2	0	2.69
35. Is introverted	0	2	*

* Prototypicality rating was not calculated because few children knew the meaning of the word "introverted."

As shown in Table 1, the frequencies of shyness attributes ranged from 2 to 32 (M = 9.57, SD = 6.56). The three most frequently mentioned shyness descriptors were "does not talk much" (N = 32), "is embarrassed when being criticized" (N = 22), and "does not show off" (N = 21). Six attributes were mentioned the least (N = 2) (i.e., "feels uneasy when being compared to other kids," "lowers his/her head when talking to someone s/he does not know," "feels uneasy when others talk about him/her," "cries easily," "does not know how to talk to other kids," "is sad," "is introverted"). The two nomination methods resulted in a similar number of shyness attributes ($t[68] = .75$, $p > .05$).

Study 1 Discussion

The results of Study 1 revealed some similarities between Chinese children's understanding of shyness and the Western conception of shyness. For instance, descriptors such as "afraid to talk to strangers" or "watching others play but not joining in" seems to capture shyness toward strangers and anxious shyness toward negative social evaluation as defined in Asendorpf's (1990) work. Consistent with Buss's (1986) theory, attributes that characterize self-conscious shyness were also found in Chinese children's description of a shy peer (e.g., "nervous being the focus of attention" and "embarrassed being complimented by others"). In addition, some descriptors were characteristic of social disengagement or nonsocial behavior (e.g., "does not play much") and resembled the nonsocial subtype of social withdrawal found in previous North American studies (Coplan et al., 2007; Hart et al., 2000). Moreover, the two nomination methods produced two largely overlapped lists of shyness attributes; most of them have been found to characterize Western children's understanding of shyness (e.g., Crozier et al., 1990; Crozier, 1995). These results suggest that Chinese children's conceptions of shyness encompass fearful and anxious behavior that may reveal a child's psychological functioning to others.

Chinese children's reasons for nominating their peers as being shy also included attributes that may be particularly important for maintaining social harmony. Descriptors such as "does not brag [about his/her grades even if s/he does well in the exam]" indicate modesty, and "walks away when disagreeing with other kids" exemplifies nonassertive behavior. Moreover, although modest and nonassertive behaviors are generally not included in the North American definition of childhood shyness, they may be apparent in the Chinese setting because they contribute to minimizing potential conflict and decrease the chances that a child may be viewed by peers as being bold or self-promoted, which interferes with cooperation among group members.

Study 1 had some limitations. The pool of shyness descriptors may have contained some nonprototypical characteristics of shyness. Some attributes, especially those with low frequencies, may have been idiosyncratic to particular children or could be characteristics of some shy children but are not the defining features of shyness. To understand the attributes that are central or prototypical to Chinese children's conceptions of shyness, Study 2 was conducted to filter out the nonprototypical descriptors derived in Study 1 and to identify attributes that were most salient in children's nomination of their shy peers.

Study 2: Prototypicality Ratings of Shyness Descriptors Generated by Chinese Children

Study 1 addressed the question of what behaviors or attributes came to mind when Chinese children nominated their peers as being shy, but it did not directly answer the question of how important these behaviors or attributes are to Chinese children's conceptions of shyness. Therefore, the purpose of Study 2 was to examine the prototypicality of the shyness descriptors generated by children in Study 1.

Participants

The participants were 273 (131 boys, M age = 10.28) fourth- and fifth-grade children from another elementary school in Shanghai, China. The elementary school had three fourth- and fifth-grade classes with approximately 40 students per class. All classes from fourth and fifth grades were recruited to participate. Teachers contacted parents to provide information about the study and to obtain consent. No parent or child refused consent.

Procedure

Children were group-administered a questionnaire where they were asked to provide prototypicality ratings for the list of 35 descriptors generated by children in Study 1. Children were told that "the researchers are interested in how you think about shy children and they want you to indicate how likely it is that you would say that a child is shy if he or she . . ." (e.g., "is afraid to talk to someone s/he does not know"). Each descriptor was listed on a page next to an 8-point scale (0 = unsure/don't know, 1 = almost never, 4 = sometimes, 7 = almost always). Children were told that if they were unsure of the meaning of any descriptor they could also choose 0 on the scale. The list of descriptors was randomized for each child so that each

child received a different version of the questionnaire. Children were seated apart so that they could not see how their classmates responded. This questionnaire took about 15–20 minutes to complete.

Study 2 Results

We first examined the frequency distribution for each item and found that children chose 0 for only the item "introverted"; 244 out of 273 children indicated that they were unsure of the meaning. Therefore, we did not calculate the rating for this descriptor. The mean ratings for all descriptors are provided in Table 1 (in the order of prototypicality). Five descriptors in addition to "introverted" were eliminated from the list because they had ratings lower than 4 (= sometimes). This elimination criterion was chosen to be conservatively inclusive and at the same time to exclude the descriptors that were not considered by most participants as characteristic of a shy child. The final list consisted of 29 descriptors of shyness. The nonprototypical descriptors included attributes that applied to only a small group but not the majority of shy children (e.g., cries easily), seemed to focus on negative emotionality but not shyness per se (e.g., sad), referred to ability (e.g., does not know how to talk to other kids), or referred to a similar construct but was not understood by many children of this age (e.g., introverted).

To examine possible gender and grade differences, a 2 × 2 MANOVA was conducted for the prototypicality ratings of shyness descriptors. No differences were revealed.

Study 2 Discussion

Research has indicated that the prototype approach can isolate the most salient attributes that people use to guide their everyday assessment of others (Walker et al., 1998). For instance, the likelihood of a child being referred to as shy by peers depends on the child's overall similarity to an internalized shy prototype. The more a child manifests attributes matching the shy prototype, the more likely it is that others would identify this child as being shy. However, how a prototype is formed or whether a particular attribute is prototypical is susceptible to predominant cultural values and socialization goals that may shape the meaning of prototypical attributes and specify the centrality of a particular attribute to a person-concept prototype such as shyness.

Consistent with the results of Study 1, inspection of the ratings for the shyness descriptors revealed evidence of both cultural similarities and difference. The prototypical shyness descriptors included fearful and anxious

behaviors that are important in determining a child's psychological functioning and are central in the Western notion of shyness. However, modest and unassuming behavior, which may be nonprototypical in Western contexts, also characterizes the Chinese children's conceptions of the shyness prototype. Consistent with the emphasis on group orientation, modest and unassuming behaviors are relevant for evaluating children's contribution to social harmony in the group (e.g., not showing off to others or avoiding conflict with others). Moreover, both modest and unassuming behavior and fearful and anxious behavior had high prototycality ratings, suggesting that Chinese children often use both to infer whether their peers were shy or not. However, it was unclear how the prototypical attributes may be interrelated and how they are organized within Chinese children's conceptions of shyness. Therefore, Study 3 was conducted to examine the typology and dimensions underlying the shyness attributes.

Study 3: Similarity Rating

Study 2 identified descriptors that were central to Chinese children's conceptions of shyness. Study 3 attempted to explore the typology and dimensions underlying children's descriptions of a shy child using similarity ratings for each pair of descriptors.

Study 3 Method

Participants

The participants were 216 (101 boys, M age = 10.24) fourth- and fifth-grade children from a third elementary school in Shanghai, China. The elementary school had three fourth- and fifth-grade classes with approximately 40 students per class. All fourth- and fifth-grade classes were recruited to participate. However, data were not available for one fourth-grade class due to a scheduling conflict. Teachers contacted parents to provide information about the study and to obtain consent. No parent or child refused consent.

Procedure

Because we were interested in identifying the implicit typology and dimensions underlying Chinese children's conceptions of shyness, it was necessary to examine the interrelations among the various shyness attributes. One way to address this objective is to examine the perceptual distances among the

shyness descriptors, which may be represented by a symmetric (shyness) attribute by attribute matrix. Each element in the matrix represents the perceptual distance, operationalized as similarity (co-occurrence) rated by each child, between a pair of shyness descriptors. Overall, the co-occurrence matrix can be analyzed using data-reduction methods such as cluster analysis so that the interrelations among various shyness attributes can be examined and prototypical clusters of shy attributes may be revealed.

Therefore, the final list of 29 descriptors generated in Study 1 and Study 2, which had moderate to high (≥4) prototypicality ratings, were subjected to paired comparisons made by the participating children. Each descriptor was printed on a 3×5 card. Children were individually interviewed in a quiet room at the elementary school by trained research assistants matched to the child's gender. Prior to the formal testing, the research assistants were trained in the following way:

1. Each assistant was given practice to be familiarized with testing procedure so that s/he could correctly switch among different sets of cards. Each set of cards has a unique presentation order that was predetermined using the Ross (1934) method (see details below).
2. Each assistant was trained to use the same instructions for participating children.
3. Each assistant pilot-tested at least five children before the formal testing.

The research assistants established rapport and became familiar with the children prior to the interviews. Children were asked, "Read each pair [of descriptors] and tell me which two are most likely to be seen in the same child. Do you think the two kinds of behaviors go together?" Their ratings were made on a 5-point scale (1 = very unlikely, 5 = very likely). All possible pairings of the shyness descriptors were used ($29 \times 29 = 841$). For each child, a random pool of 7 or 8 descriptors was used to avoid child fatigue (Spence & Domoney, 1974). To ensure that each attribute appeared with similar frequency in the rating task, a sampling restriction was imposed so that every four random pools would include all the 29 descriptors. Using this procedure, an average of 14.15 ratings was obtained for each pair of descriptors.

Ross (1934) suggested that when using the method of paired comparison, the pairs that involve a particular stimulus should be arranged to appear as far apart as possible. In his mathematical procedure, he balanced the presentation order of each stimulus so that no stimulus would appear consecutively in a series of pairings. In Study 3, this method was used to determine the presentation order of each pair.

Study 3 Results

Indices of pairwise associations among the shyness descriptors were constructed from the similarity ratings by taking the mean rating for each pair of descriptors across the children who rated that pair. Therefore, the mean ratings were based on subsamples of children who provided similarity ratings for particular pairs. The grand mean similarity ratings was 3.79 (SD = .68).

The aggregated similarity matrix was susceptible to both hierarchical cluster analysis (HCA) and multidimensional scaling analysis (MDS). As Walker et al. (1998) pointed out, HCA generates clusters of attributes based on patterns of associations (or perceptual distance) among the shyness descriptors in the similarity (co-occurrence) matrix. That is, HCA can answer the question of what prototypes (clusters) explained the interrelation (co-occurrence) among various shyness attributes and thus addressed the objective of identifying the typology underlying the various shyness attributes. In contrast, MDS generates a map of location of attributes relative to each other on the basis of an appropriate number of dimensions as a function of dissimilarity derived from the similarity (co-occurrence) matrix (Walker et al., 1998). MDS can answer the question of how prototypical clusters are related with each other and how the relations among prototypical clusters may be represented in a perceptual map. Thus, MDS addressed the objective of identifying dimensions underlying prototypical shyness attributes.

Hierarchical Cluster Analysis

To examine the typology of the shyness descriptors derived in Study 1 and Study 2, the aggregated similarity matrix was cluster analyzed using the between-group average-linkage method with squared Euclidean distances. The number of clusters was determined by applying significance tests to the series of fusion values in the current tree (Wishart, 2004). The cluster solution was defined when the successive fusion values made a significant jump or drop, a strategy similar to the use of scree plot in factor analysis. This procedure resulted in a four-cluster solution. Other stopping rules or criteria were also considered (Milligan & Cooper, 1985) with the purpose of both maximizing interpretability and minimizing the distance between adjacent cluster solutions in the agglomerative process. Specifically, four stopping rules or criteria were adopted: agglomeration coefficients calculated via the average distances of all observations within clusters, cubic clustering criterion (CCC), pseudo F statistics, and pseudo t^2 statistics. The examination of pseudo t^2 statistic indicated that both four-cluster solution and two-cluster solution met the stopping rule (i.e., pseudo t^2 statistic had two peaks at two-cluster solution

and four-cluster solution), whereas the examination of agglomeration coefficients, pseudo *F* statistic, and the CCC revealed that four-cluster solution was plausible (e.g., the CCC had the peak at four-cluster solution and then continued to fall when the number of clusters decreased). Taken together, a four-cluster solution seemed the most plausible.

The four clusters were labeled based on the nature of the descriptors comprising each cluster as well as the prototypicality ratings from Study 2; that is, highly prototypic descriptors were considered to be more reflective of the cluster label. As shown in Table 1, Cluster A was termed "fearfulness/anxiety toward novelty/challenge" because it contained attributes that described fearfulness or anxiety in response to novel events such as Item 4 ("is afraid to talk to someone s/he does not know") and challenging events (i.e., surprising, uncertain, nonordinary events) such as Item 28 ("backs off when being challenged by others," an extraordinary or surprising event) and Item 12 ("does not ask other kids to play with him/her very often," avoidance of an uncertain event). Cluster B was labeled "fearfulness/anxiety toward negative social evaluation" because most attributes within this cluster exemplified inhibited response toward social evaluative cues that are often associated with negative social experiences (e.g., Item 1, "is embarrassed when being criticized"). Because the attributes within Cluster C captured nonsocial (e.g., Item 3, "does not talk much") and unassuming behaviors (e.g., Item 2, "does not show off"), whereas those within Cluster D described self-consciousness (e.g., Item 6, "is nervous being the focus of attention"), Clusters C and D were labeled as "nonsocial/unassuming behavior" and "self-consciousness," respectively.

To examine how relevant each cluster of descriptors was to the children's conceptions of shyness, the prototypicality ratings for all the descriptors within a cluster were averaged. A 2 (gender) × 4 (cluster) ANOVA was conducted using the prototypicality ratings as the dependent variable. No main effects for gender and cluster were revealed. This indicated that these clusters of descriptors should be regarded as equally descriptive of a shy child.

Multidimensional Scaling Analysis

To further examine the dimensions underlying Chinese children's descriptions of shyness, MDS was conducted. MDS designates each shyness descriptor as a point in a so-called perceptual map in which the distance between any two points represents the frequency with which two descriptors co-occur (Hair, Anderson, Tatham, & Black, 1995). One purpose of MDS is to identify the dimensional coordinates that can best represent the

configuration of the points in the perceptual map. In the current study, a nonmetric individual difference scaling model (INDSCAL) was used to examine dimensions underlying Chinese children's descriptors of shyness using the dissimilarity matrix, transformed from similarity matrix (Young & Harris, 2004). The Kruskal stress values for successive dimensional solutions, which represent the proportion of the variance not accounted for by each solution, indicated that a two-dimensional solution provided a good fit to the data with a relatively low stress value of .20. The final R^2, which represents the proportion of variance accounted for by the two-dimensional solution, was .82.

The MDS also yielded two-dimensional coordinates that could be used to position all the shyness descriptors in a perceptual map. Examination of the coordinates indicated that the shyness descriptors were organized along two dimensions. Based on the attributes distributed at the ends of the coordinates, we labeled the two dimensions as regulated-reactive and internal-external (Table 2 and Figure 1). For the regulated-reactive dimension, fearful/anxious behavior such as "timid" or "afraid to raise hand to answer questions" defined the reactive end point, whereas self-controlled behavior such as "walks away when disagreeing with other kids" or "does not brag [about good grades]" defined the regulated end point. In general, the attributes in the cluster "fearfulness/anxiety toward negative social evaluation" and the cluster "fearfulness/anxiety toward novelty/challenge" tended toward the reactive end, whereas the attributes in the cluster "nonsocial/unassuming behavior" were mostly at the regulated end. Most attributes in the cluster "self-consciousness" fell in between the reactive and regulated ends.

For the internal-external dimension, attributes that reflected the subjective experience of feeling shy, such as "embarrassed when being complimented by others" or "feels uneasy when others talk about him/her," defined the internal end point, whereas the external end point was anchored by attributes that reflected observable signs of acting shy, such as "does not play much during the class break" or "hides in the background in group activities." In general the attributes within the cluster "self-consciousness" occupied the internal end, whereas the attributes in the other three clusters tended toward the external end.

Finally, to examine how the clusters of shyness descriptors derived from the HCA could be represented as a function of the coordinates derived from the MDS, we plotted them on an x-y axis. We expected that the descriptors within each cluster would have relatively similar dimensional coordinates. As shown in Figure 1, the four clusters could be classified in the dimensional space derived from the MDS. For example, the cluster "nonsocial/

Table 2. Dimensional Coordinates of Attributes for Chinese Children's Conceptions of Shyness

Cluster and Attributes	Coordinate	
	Regulated-Reactive	Internal-External
Cluster A. Fearfulness/anxiety toward novelty/challenge		
4. Is afraid to talk to someone s/he does not know	.80	.12
12. Does not ask other kids to play with him/her very often	.43	.73
18. Does not know what to say when meeting someone for the first time	.60	.58
19. Does not play with kids from other classrooms	.65	.00
27. Lowers his/her head when talking to someone s/he does not know	.79	.23
28. Backs off when being challenged by others	.65	.30
Cluster B. Fearfulness/anxiety toward negative social evaluation		
1. Is embarrassed when being criticized	1.48	–.13
5. Is timid	1.49	.15
7. Is afraid to join others' play	1.44	.04
9. Is afraid to raise hand to answer questions	1.25	.54
15. Worries about saying things in front of classmates	1.41	.19
17. Watches peers' play but does not join in	1.21	.54
21. Is nervous when answering others' questions	1.42	.29

Cluster C. Nonsocial/unassuming behavior		
2. Does not show off	–1.59	.20
3. Does not talk much	–.94	.99
10. Does not play much during the class break	–.64	1.07
11. Walks away when disagreeing with other kids	–1.81	–.08
13. Does not brag (about good grades)	–1.79	–.24
14. Does things in a low-tune way (i.e., low profile)	–1.47	.63
16. Is modest	–1.69	–.34
23. Avoids being "the head of the wind" (i.e., under the spotlight)	–1.79	.01
24. Has a light voice	–.32	.89
25. Works on homework by him/herself during the class break	–1.17	.55
29. Hides in the background in group activities	–.58	1.06
Cluster D. Self-consciousness		
6. Is nervous being the focus of attention	.02	–1.73
8. Is embarrassed being complimented by others	–.66	–1.85
20. Is concerned about making a presentation in front of other classmates	.44	–1.51
22. Feels uneasy when being compared to other kids	.38	–1.43
26. Feels uneasy when others talk about him/her	–.04	–1.80

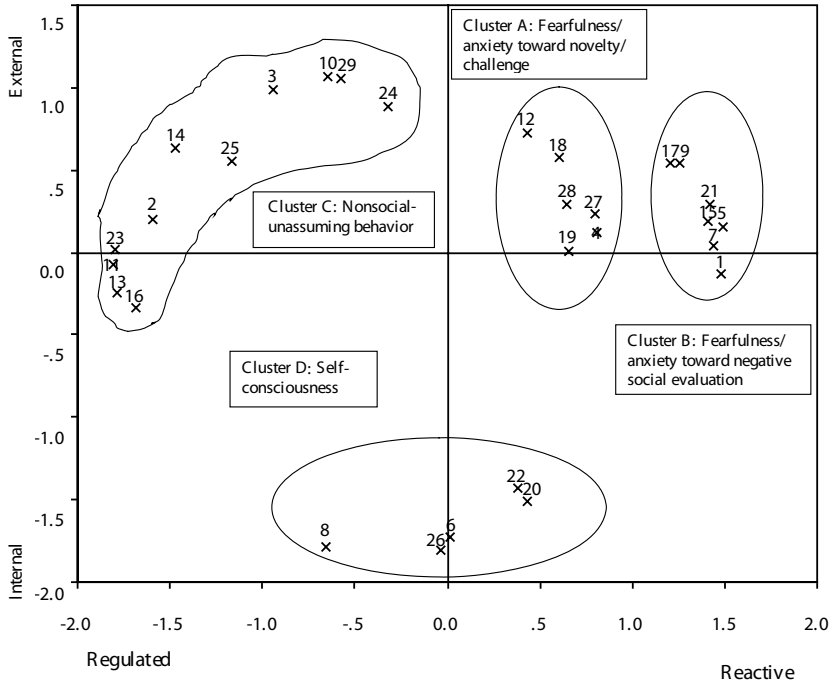

Figure 1. Two-dimensional representation of the attributes of Chinese children's conceptions of shyness. The loops drawn on the configuration are based on a hierarchical cluster analysis of the attributes.

unassuming behavior" is located at external pole of the internal-external dimension (reflecting observable behavior of acting shy) and tending toward the regulated pole of the regulated-reactive dimension (reflecting self-regulation).

Study 3 Discussion

Study 3 identified four clusters of behaviors that may characterize shyness from a Chinese child's point of view. Two clusters—fearfulness/anxiety toward novelty/challenge and fearfulness/anxiety toward negative social evaluation—seemed to correspond to Asendorpf's conceptions of shyness toward strangers and anxious shyness toward negative social evaluation (Asendorpf, 1990). The third cluster resembles Buss et al.'s (1984) concept of self-conscious shyness, which emphasizes the subjective experience of

feeling shy in response to public attention or scrutiny. Both self-consciousness and fearfulness/anxiety toward negative social evaluation encompass public self-awareness. However, self-consciousness may be elicited in situations that do not involve being negatively evaluated by others. As pointed out by Asendorpf (1990), fearfulness/anxiety toward negative social evaluation may be a consequence of self-perceived inadequacies generally associated with constant peer rejection, neglect, or ridicule, whereas self-consciousness could occur when being complimented by others and may not necessarily involve fear or anxiety (Buss et al., 1984; Buss, 1986).

The fourth cluster of attributes was comprised of unassuming and nonsocial behavior. Research has found a nonsocial/nonanxious type of behavior in North American children (Coplan et al., 1994; Hart et al., 2000). In these studies, the nonsocial/nonanxious behavior is typically conceptualized as indicating an object orientation rather than a person orientation and is believed to reflect a lack of motivation to or interest in interacting with others. However, the nonsocial/unassuming behavior may differ from the nonsocial/nonanxious behavior for two reasons. First, the nonsocial/unassuming behavior encompasses attributes that seem to denote not only a nonsocial nature but also a modest and unassuming behavior that has not been found in Western children's conceptions of shyness in previous studies (Crozier et al., 1990; Crozier, 1995). Second, nonsocial behavior was closer to unassuming behavior than to fearfulness/anxiety toward novelty, challenge, or negative social evaluation in the perceptual map (see Figure 1). When nonsocial behavior co-occurs with unassuming behavior in the same children, Chinese peers may interpret such behavior as avoiding being bold or standing out in the group rather than being afraid to interact with others.

Multidimensional scaling analysis revealed that Chinese children's conceptions of shyness seemed to fall on two dimensions—regulated-reactive and internal-external—that differentiated the four clusters of shyness attributes. The regulated-reactive dimension differentiated fearfulness/anxiety toward novelty/challenge and fearfulness/anxiety toward negative social evaluation (at the reactive end) from nonsocial/unassuming behavior (at the regulated end). This is similar to Xu et al.'s (2007) finding that regulated shy behavior was associated with mothers' ratings of Chinese children's self-regulation, whereas shyness toward strangers and anxious shyness were associated with mothers' ratings of Chinese children's negative affectivity. To some extent, this may be related to the Chinese value system. That is, Chinese children who behave in both an unassuming and a nonsocial fashion are not necessarily viewed negatively because the combination of these behaviors is likely to be construed as an indication of self-control or self-regulation in a setting where social harmony is valued over

individual prominence. However, because the dimensional ratings derived from MDS were relative and the zero on the regulated-reactive dimension was arbitrary, falling on the regulated end does not necessarily mean that nonsocial behavior such as not talking much is considered self-regulation in Chinese children. In fact, Figure 1 showed that nonsocial behavior fell between the reactive and regulated end points on that dimension, while unassuming behavior was closer to the regulated end. Therefore, the results of MDS only suggest that nonsocial behavior compared to fearfulness/anxiety toward novelty/challenge or negative social evaluation may be viewed by Chinese children as less reactive or more regulated.

Interestingly, while as expected the attributes of self-consciousness fell on the internal end of the internal-external dimension, most also fell between the reactive and regulated end points on that dimension. One interpretation is that although self-consciousness is reactive and emotional in nature, it may not be regarded as dysregulation by Chinese fourth- and fifth-grade children. For children of this age, social comparisons are important, and the children are highly self-conscious especially in Chinese school settings where competition is common and comparisons are made daily. Moreover, there is research to suggest that some self-conscious emotions, such as shame and embarrassment, serve important moral functions in the Chinese culture and thus are vital in regulating children's social behavior (Li, Wang, & Fischer, 2004). For example, "embarrassed when being complimented by others" may be viewed as a sign of modesty and maturity and thus as beneficial for harmonious peer social relations.

General Discussion

In response to inconsistent findings regarding the developmental outcomes associated with Chinese children's shyness, the current studies attempted to explore what it means to be shy from a Chinese child's point of view using a prototype approach. We sought to uncover the reasons why Chinese children nominated their peers as being shy and, by extension, their implicit conceptions of shyness in their lay language.

In general, our findings point to cultural similarities and variations in children's understanding of shyness. Consistent with Asendorpf's (1990) and Buss's (1986) theories of shyness and previous Western studies of children's conceptions of shyness (Crozier et al., 1990; Crozier, 1995), many Chinese children considered their peers to be shy due to their fearfulness/anxiety toward novelty or negative social evaluation or their self-consciousness in response to public attention or scrutiny. However, Chinese children's understanding of shyness also encompasses unassuming behav-

ior that has not been regarded as prototypical of a shy child in Western settings but serves an important function in maintaining social harmony in Chinese peer interactions. These findings support the notion that predominant cultural values to some degree shape the formation of a person concept such as shyness and its prototype.

The clustering of shyness attributes provides some support for the conceptual distinctions among subtypes of shyness made by previous researchers. For instance, attributes of self-conscious shyness can be differentiated from fearfulness/anxiety toward novelty/challenge, which supports Buss's (1986) distinction between fearful shyness and self-conscious shyness. Attributes of fearfulness/anxiety toward novelty/challenge also formed a separate cluster from attributes of fearfulness/anxiety toward negative social evaluation. This finding is consistent with Asendorpf's (1990) model of social inhibition with strangers and toward negative social evaluation. Finally, the identification of nonsocial/unassuming cluster in children's conceptions of shyness correspond to Xu et al.'s (2007) findings in which a regulated type of shyness appeared to differ from shyness toward strangers and anxious shyness.

The findings of the current studies by no means address the conflicting findings on Chinese children's shyness. But the identification of multiple clusters of shyness attributes suggests that the variation in children's understanding of peers' shyness may have played a significant role in producing some of the inconsistencies noted in earlier findings on the developmental outcomes of children's shyness. Moreover, the emergence of nonsocial/unassuming behavior in Chinese children's conceptions of shyness suggests that attributes characteristic of regulated shyness may in part account for the unexpected positive outcomes of shyness identified in previous studies (e.g., Chen et al., 1992). Because shyness/sensitivity measured in Chen et al. (1992, 1995, 1999) focused on aspects such as having sensitive feelings that may be conductive to peer group functioning (Chang et al., 2005; Xu et al., 2007), it may to some degree capture regulated shyness that would lead to some positive adjustment in Chinese children. In contrast, other studies (e.g., Schwartz et al., 2001) tended to assess shyness as timidity or anxiety with peers that resembled Western notions of anxious shyness toward negative social evaluation and was associated with negative psychosocial outcomes in Chinese children.

The current studies were largely exploratory. Therefore, there are some limitations that should be mentioned. First, our analyses described children's conceptions of shyness but not necessarily the psychological conceptions of shyness that have been scientifically validated. For instance, the clustering of the four groups of shyness attributes may be alternatively

interpreted as representing components of shyness rather than different forms of shyness. In addition, as an exploratory approach, cluster analysis does not always generate groups that are conceptually distinct. Therefore, the findings should be interpreted with caution.

Second, partly due to the analytical strategies used in the studies, our findings were limited to children's conceptions of shyness and do not permit inferences about subtypes of shy children. Cluster analysis and multidimensional scaling analysis were based on the shyness attributes generated by the children and not on various shy children who were nominated by peers.

Third, the prototype approach is limited because it did not reveal why children gave high or low similarity ratings when they compared pairs of shyness attributes. The approach lacks explanatory power, and it can only be assumed that the two dimensions of regulated-reactive and internal-external derived from the MDS were representative of most children's reasoning behind their similarity ratings.

Fourth, our studies relied exclusively on peer reports. Thus, it remains unclear how the various shyness attributes might map on to shy children's self-perceptions, observations of shy children's social behavior, or the perceptions of teacher and parents.

Finally, these studies were conducted with children of a limited age range and did not address developmental differences. Children's developing cognitive abilities to understand and evaluate other people may lead to variations in their conceptions of a shy peer. Moreover, it is unclear how the clusters of shyness attributes, particularly the nonsocial/unassuming cluster, might be associated with children's psychosocial outcomes over time. One possibility is that nonsocial behavior may become increasingly unfavorable with age and would eventually lead to some adjustment problems even in the Chinese setting. Accordingly, a divergence between unassuming and nonsocial behavior and a convergence between nonsocial behavior and fearfulness/anxiety may occur in older children's or adolescents' conceptions of shyness. Therefore, future studies need to examine developmental differences in Chinese children and adolescents' understanding of shyness.

References

Asendorpf, J. B. (1990). The development of inhibition during childhood: Evidence for a two-factor model. *Developmental Psychology, 26,* 721–730.

Buss, A. H. (1986). A theory of shyness. In Jones, W. H., Cheek, J. M., & Briggs, S. R. (Eds.), *Shyness: Perspectives on research and treatment* (pp. 39–46). New York: Plenum.

Buss, A. H., & Plomin, R. (1984). *Temperament: Early developing personality traits.* Hillsdale, NJ: Erlbaum.

Cantor, N., Mischel, W., & Schwartz, J. C. (1982). A prototype analysis of psychological situations. *Cognitive Psychology, 14,* 44–77.

Chang, L. (2003). Variable effects of children's aggression, social withdrawal, and prosocial leadership as functions of teacher beliefs and behaviors. *Child Development, 74,* 535–548.

Chang, L. (2004). The role of classrooms in contextualizing the relations of children's social behaviors to peer acceptance. *Developmental Psychology, 40,* 691–702.

Chang, L., Li, L., Li, K. K., Liu, H., Guo, B., Wang, Y., & Fung, K. Y. (2005). Peer acceptance and self-perceptions of verbal and behavioral aggression and social withdrawal. *International Journal of Behavioral Development, 29,* 48–57.

Chen, X., Cen, G., Li, D., & He, Y. (2005). Social functioning and adjustment in Chinese children: The imprint of historical time. *Child Development, 76,* 182–195.

Chen, X., Rubin, K. H., & Li, Z. (1995). Social functioning and adjustment in Chinese children: A longitudinal study. *Developmental Psychology, 31,* 531–539.

Chen, X., Rubin, K. H., Li, B., & Li, D. (1999). Adolescent outcomes of social functioning in Chinese children. *International Journal of Behavioral Development, 23,* 199–223.

Chen, X., Rubin, K. H., & Sun, Y. (1992). Social reputation and peer relationships in Chinese and Canadian children: A cross-cultural study. *Child Development, 63,* 1336–1343.

Coplan, R. J., Girardi, A., Findlay, L. C., & Frohlick, S. L. (2007). Understanding solitude: Young children's attitudes and responses to hypothetical socially-withdrawn peers. *Social Development, 16,* 390–439.

Coplan, R. J., Prakash, K., O'Neil, K., & Armer, M. (2004). Do you "want" to play? Distinguishing between conflicted shyness and social disinterest in early childhood. *Developmental Psychology, 40,* 244–258.

Coplan, R. J., Rubin, K. H., Fox, N. A., Calkins, S. D., & Stewart, S. L. (1994). Being alone, playing alone, and acting alone: Distinguishing among reticence, and passive- and active-solitude in young children. *Child Development, 65,* 129–137.

Crozier, W. R. (1995). Shyness and self-esteem in middle childhood. *British Journal of Educational Psychology, 65,* 85–95.

Crozier, W. R. (1999). Individual differences in childhood shyness. In L. A. Schmidt and J. Schulkin (Eds.), *Extreme fear, shyness, and social phobia: Origins, biological mechanisms, and clinical outcomes* (pp. 14–29). New York: Oxford University Press.

Crozier, W. R., & Burnham, M. (1990). Age-related differences in children's understanding of shyness. *British Journal of Developmental Psychology, 8,* 179–185.

Fehr, B., & Russell, A. J. (1984). Concept of emotion viewed from a prototype perspective. *Journal of Experimental Psychology: General, 113,* 464–486.

Gazelle, H., Putallaz, M., Li, Y., Grimes, C., Kupersmidt, J. B., & Coie, J. D. (2005). Anxious solitude across context: Girls' interactions with familiar and unfamiliar peers. *Child Development, 76,* 227–246.

Gray, J. A. (1982). The neuropsychology of anxiety: An enquiry into the functions of the septo-hippocampal system. New York: Clarendon and Oxford University Press.

Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). *Multivariate data analysis* (4th ed.). Englewood Cliffs, NJ: Prentice Hall.

Hart, C. H., Yang, C., Nelson, L. J., Robinson, C. C., Olsen, J. A., Nelson, D. A., Porter, C. L., Jin, S., Olsen, S. F., & Wu, P. (2000). Peer acceptance in early childhood and subtypes of socially withdrawn behavior in China, Russia and the United States. *International Journal of Behavioral Development, 24,* 73–81.

Haslam, N., Bain, P., & Neal, D. (2004). The implicit structure of positive characteristics. *Personality and Social Psychology Bulletin, 30,* 529–541.

Haslam, N., & Fiske, A. P. (1992). Implicit relationship prototypes: Investigating five theories of the cognitive organization of social relationships. *Journal of Experimental Social Psychology, 28,* 441–474.

Ho, D. Y. F. (1986). Chinese pattern of socialization: A critical review. In M. H. Bond (Ed.), *The Psychology of the Chinese People* (pp. 1–37). New York: Oxford University Press.

Kagan, J. (1994). *Galen's Prophecy.* New York: Basic Books.

Kohnstamn, G. A., Halverson, C. F., Mervielde, I., & Havill, V. L. (1998). *Parental descriptions of child personality: Developmental antecedents of the Big Five?* London: Erlbaum.

Ladd, G. W., & Profilet, S. M. (1996). The Child Behavior Scale: A teacher-report measure of young children's aggressive, withdrawn, and prosocial behavior. *Developmental Psychology, 32,* 1008–1024.

Li, J., Wang, L. Q, & Fischer, K. W. (2004). The organization of the Chinese shame concept. *Cognition and Emotion, 18,* 767–797.

Milligan, G. W., & Cooper, M. C. (1985). An examination of procedures for determining the number of clusters in a data set. *Psychometrika, 50,* 159–179.

Ridgeway, D., Waters, E., & Kuczaj, S. A. (1985). Acquisition of emotion-descriptive language: Receptive and productive vocabulary norms for ages 18 months to 6 years. *Developmental Psychology, 21,* 901–908.

Rosch, E. (1977). Human categorization. In N. Warren (Ed.), *Advances in cross-cultural psychology* (pp. 1–49). London: Academic Press.

Rosch, E., Simpson, C., & Miller, S. R. (1976). Structural bases of typicality effects. *Journal of Experimental Psychology: Human Perception and Performance, 4,* 491–502.

Rosenberg, S. (1982). The method of sorting in multivariate research with applications selected from cognitive psychology and person perception. In N. Hirschberg and L. G. Humphreys (Eds.), *Multivariate Applications in the Social Sciences,* 117–142. Hillsdale, NJ: Erlbaum.

Ross, R. T. (1934). Optimum orders for presentation of pairs in paired comparison. *Journal of Educational Psychology, 25,* 375–382.

Rubin, K. H., & Asendorpf, J. B. (1993). *Social withdrawal, inhibition, and shyness in childhood.* Hillsdale, NJ: Erlbaum.

Rubin, K. H., Burgess, K., & Coplan, R. (2002). Social inhibition and withdrawal in childhood. In P. K. Smith & C. Hart (Eds.), *Handbook of Childhood Social Development.* London: Blackwell.

Rubin, K. H., & Mills, R. S. (1988). The many faces of social isolation in childhood. *Journal of Consulting & Clinical Psychology, 56,* 916–924.

Shaver, P. R., Schwartz, J., Kirson, D., & O'Connor, C. (1987). Emotion knowledge: Further exploration of a prototype approach. *Journal of Personality and Social Psychology, 52,* 1061–1086.

Schwartz, D., Chang, L., & Farver, J. M. (2001). Correlates of victimization in Chinese children's peer groups. *Developmental Psychology, 37,* 520–532.

Spence, I., & Domoney, D. W. (1974). Single subject incomplete designs for nonmetric multidimensional scaling. *Psychometrika, 39,* 469–490.

Spooner, A. L., Evans, M. A., & Santos, R. (2005). Hidden shyness in children: Discrepancies between self-perceptions and the perceptions of parents and teachers. *Merrill-Palmer Quarterly, 51,* 437–466.

Walker, L. J., & Pitts, R. C. (1998). Naturalistic conceptions of moral maturity. *Developmental Psychology, 34,* 403–419.

Wishart, D. (2004). *ClustanGraphics primer: A guide to cluster analysis.* Edinburgh: Clustan, Ltd.

Xu, Y., Farver, J. M., Chang, L., Zhang, Z., & Yu, L. (2007). Moving away or fitting in? Understanding shyness in Chinese children. *Merrill-Palmer Quarterly, 53,* 527–556.

Yang, Y., Read, S. J., & Miller, L. (2006). A taxonomy of situations from Chinese idioms. *Journal of Research in Personality, 40,* 750–778.

Young, F. W., & Harris, D. F. (2004). Multidimensional scaling. In M. J. Norusis (Ed.), *SPSS 13.0 advanced statistical procedures comparison* (pp. 287–354). Upper Saddle River, NJ: Prentice Hall.

Younger, A., & Daniels, T. (1992). Children's reasons for nominating their peers as withdrawn: Passive withdrawal versus active isolation. *Developmental Psychology, 28,* 955–960.

Yuill, N., & Banerjee, R. (2001). Children's conceptions of shyness. In W. R. Crozier & L. E. Alden (Eds.), *International handbook of social anxiety: Concepts, research, and interventions* (pp. 119–136). Chichester: Wiley.