CHILDREN'S MORAL REASONING:
INFLUENCE OF CULTURE AND COLLABORATIVE DISCUSSION

BY

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THESIS

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Abstract

This study investigated the effects of culture and collaborative discussion on Chinese and American children's moral reasoning in reflective essays that they composed about a moral and practical dilemma. In contrast to American children who frequently expressed egocentric concerns, Chinese children exhibited altruistic tendencies and expressed more concern for maintaining in-group harmony, which are the core values advocated in collectivist culture. Collaborative discussion promoted children's moral reasoning in both cultures, leading to significantly more consideration of the principles of being honest, having empathy for others, keeping promises, honoring friendship, being trustworthy, and not betraying others by tattling.

Keywords: Moral reasoning, Collaborative Reasoning, argumentation, collectivism, individualism, altruism

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Chapter 1

Introduction

The purpose of this study is to investigate the influence of culture and collaborative discussion on moral reasoning of American and Chinese children. We sought to discover whether there is any difference between American and Chinese children's moral reasoning that could be explained by differences between cultures. By comparing the essays of American and Chinese children who had participated in collaborative discussions and those who had not, we attempted to determine if collaborative discussions have universal or culture specific effects on children's moral reasoning.

There is a body of research showing that peer interaction influences children's moral development (Berkowitz & Gibbs, 1983; Damon & Killen, 1982; Kruger, 1992; Walker, Hennig, & Krettenauer, 2000). For example, Damon and Killen (1982) found that through discussing a distributive justice problem, children who were paired with peers were more likely to advance in their moral reasoning than those were not. Similar results were also obtained for children who engaged in consensus-seeking discussions of two moral dilemmas with another peer partner (Kruger, 1992).

Most research about peer interaction and children's moral reasoning has involved participants with a Western cultural background. The development of moral functioning is undoubtedly socio-culturally situated (Tappan, 2006), yet little is known about whether peer interaction would affect the moral reasoning of children with an Eastern cultural background or whether the effects would be the same or different from the effects with Western children.

Culture and Moral Reasoning

Humans are social animals, and human development is characterized as a socializing process. Bronfenbrenner (1979) stressed that "human development is the process through which the growing person acquires a more extended, differentiated, and valid conception of the ecological environment, and becomes motivated and able to engage in activities that reveal the properties of, sustain, or restructure that environment" (p. 27). Erikson's views on positive development shared the same line of thought. According to Erikson, "the functioning of society, through the agencies of tradition, takes the individual in trust and tries to give consistent meaning to the emerging drive fragments and growing capacities" (as cited in Friedman, 1999, p. 234).

Children's moral development depends on the social environment that they live in. Cultures pass along moral norms to their people (Gibbs, Basinger, & Faller, 1992). Killen and Ruthland (2011) identified families and social groups as the two most important social contexts in which children's morality is formed and fostered.

Cross-cultural studies of moral reasoning have suggested culture-specific patterns. For example, when faced with a moral dilemma, people from East Asian backgrounds are likely to reference concepts of interpersonal harmony, concern for the welfare of others, mutual benevolence, and love when they offer moral arguments (Eckensberger & Zimba, 1997; Fang, Fang, Keller, Edelstein, Kehle, & Bray, 2003). This is because East Asian people feel, or are supposed to feel, that they are part of a closely knit collectivity, whether a family or a village, and their behavior should be guided by the expectations of the group (Nisbett, Peng, Choi, & Norenzaya, 2001). In contrast, Western culture is oriented towards individualism; Western people have, or are supposed to have, strong feelings of autonomy (Trafimow, Triandis, & Goto, 1991). More often than not, people with an individualist background place the focus on themselves; whereas people coming from a collectivist culture usually center their attention and

actions on other people rather than themselves (Triandis, Leung, Villareal, & Clark, 1985; Triandis, & Suh, 2002). Therefore, we expected that in the present study, American and Chinese children would exhibit different moral reasoning patterns in their essays.

Collaborative Reasoning Approach to Discussion

The collaborative discussion approach we employed is Collaborative Reasoning (CR), a peer-led free-flowing discussion forum that encourages dialogical thinking, reasoned argument, and different perspectives on controversial issues (Anderson, Chinn, Waggoner, & Nguyen, 1998). Children are divided into heterogeneous groups to balance school academic performance, gender, and personality dispositions. CR provides a sustained collaborative context in which children are expected to find a solution to an issue raised by a story they have read (Lin et al., 2012). For example, in the story *A Trip to the Zoo* (Reznitskaya & Clark, 2001), two girls discuss whether they should join a field trip to a zoo. Lily is excited about seeing all kinds of animals, but Anna thinks that zoos are not good for animals. The question for deliberation is, "Are zoos good places for animals?" In CR discussions, students can speak freely without being nominated by the teacher. Teachers sit outside the group, reduce their level of talk, and intervene only occasionally to facilitate the discussion. In contrast to conventional classroom instruction, in CR, children are expected to take control (Kim, Anderson, Miller, Jeong, & Swim, 2011). They are encouraged to manage turn-taking, take their own positions and give supporting reasons and evidence, and respectfully challenge when they disagree with others.

Sociocognitive conflict theory provides a theoretical framework for Collaborative Reasoning. According to Piaget (1932) contradictions between the learner's existing understanding and what the learner experiences in the course of interacting with others stimulates thinking and promotes cognitive development. The cognitive dissonance theory

proposed by Festinger (1957) contends that humans feel discomfort when they simultaneously hold two or more conflicting beliefs. They seek a state of consonance by changing their existing beliefs, absorbing new evidence or ideas to construct a consistent system of beliefs, or giving less weight to dissonant elements. In collaborative discussions of controversial topics, children may respond to perceived contradictions and disturbance to their mental equilibrium by taking into account their own perspectives while considering others' incompatible viewpoints, reexamining and questioning their own ideas and beliefs, seeking additional information to reconcile the conflicting viewpoints, and trying out new ideas (Forman & Cazden, 1985; Webb, 2012).

Vygotskian sociocultural theory also recognizes the important role of social interaction in children's learning. According to Vygotsky (1978), children's cognitive growth from the actual development level to the potential developmental level depends upon the assistance of a more competent person; this competent person could be either a knowledgeable adult or a proficient peer. In collaborative discussions, less-proficient students can acquire or further develop concepts and skills by talking with competent peers, thus making the concepts and skills part of their own repertoires (Webb, 2012).

Research indicates that skills of argument children acquire during Collaborative Reasoning transfer to individually written reflective essays. Children who have participated CR discussions in America, China, and Korea are more likely to exhibit the pattern of argument, counterargument, and rebuttal in their essays than children in control groups (Reznitskaya, Anderson, McNurlen, Nguyen-Jahiel, Archodidou, & Kim, 2001; Dong, Anderson, Kim, & Li, 2008; Dong, Anderson, Lin, & Wu, 2009). Our explanation for these findings is that CR helps children develop a better overall sense of argument, hereafter termed an *argument schema*. An

argument schema is abstract knowledge about the structure of argumentative discourse (Anderson et al., 2001; Reznitskaya, et al., 2001; Reznitskaya & Anderson, 2002).

Detailed examination of students' reflective essays suggests that the organization of essays is the same across different cultures. Kim, Anderson, Miller, Jeong, and Swim (2011) found a universal organizational structure in the reflective essays of Korean and American children. This finding is inconsistent with the long held belief that Koreans, and people from other East Asian countries, prefer to write in an indirect or nonlinear way.

Kim and his colleagues (2011) also found that after participating in a series of CR discussions, Korean children made larger gains than American children in use of elements of argumentative discourse, with the exception, however, that the number of counterarguments contained in Korean and American essays was similar. This is surprising in that, as compared to American children, Korean children are likely to have fewer opportunities to put forth counterarguments during classroom instruction. So, CR might have been expected to have a stronger effect on Korean children's use of counterarguments.

The research so far on the effect of Collaborative Reasoning on reflective essays has focused on the structural level of analysis; a deep analysis at the content level is missing. If we say that the structure level analysis sketched the outline of a picture, then a content level analysis would fill out its features. The purpose of the current analysis was to understand the substance of children's moral reasoning as it is revealed in their reflective essays.

Chapter 2

Method

Participants

This paper presents a further analysis of the reflective essays of Chinese and American children collected in three previous studies (Dong et al., 2008, 2009; Reznitskaya et al., 2001). A total of 268 fourth- and fifth-grade students (138 girls, 130 boys) from 10 different classrooms in 7 different schools in China and America participated in the three studies.

The two studies in China were conducted in Anhui province in the Southeast of China (Dong et al., 2008, 2009). There were 148 fourth- and fifth-grade students (71 girls, 77 boys) from four classrooms in three public schools, one rural and two urban, serving mostly low- to middle-income families. They were all ethnically Han. A total of 76 children (37 girls, 39 boys) participated in CR discussions while 72 (34 girls, 38 boys) were controls.

The American study was conducted in the state of Illinois in the Midwest of the United States (Reznitskaya et al., 2001). The sample consisted of 115 fourth- and fifth-grade students (55 girls, 60 boys) from six classrooms in four public schools, one rural and three urban, serving mostly low- to middle-income families. Most of the students were European Americans, with many African Americans, and a few from other ethnic groups. There were 53 children (27 boys, 26 girls) in CR classrooms, and 62 (33 boys, 29 girls) in control classrooms.

Procedures

For CR classrooms, in the United States, teachers had a one day workshop to learn Collaborative Reasoning guidelines. In China, there was no teacher training session. Instead, the researchers introduced CR guidelines to the students and moderated the discussions. In both

countries, students were divided into heterogeneous discussion groups of 6 to 8 children, balancing talkativeness, academic achievement level, and gender.

Before each discussion, students read a story that raised the big question. For example, the story, *What should Kelly Do* (Weiner, 1980), is about a girl, Kelly, who wants to win a painting contest, but her classmate, Evelyn, is the best painter in the school. On the day to submit their work, Kelly discovers that Evelyn has left her painting outside on the playground and it is beginning to rain. The big question is, Should Kelly tell Evelyn about her painting*?*

Discussions typically lasted about 20 minutes. Students had four or five discussions in total. For control classrooms, normal teaching and learning activities were going on; these students did not get exposed to CR discussions.

After they finished the discussions, students in both China and the United States in both CR and control classrooms read the *Pine Wood Derby* (McNurlen, 1998), which they had not previously read or discussed, and were asked to write a reflective essay based on the story. In the story, Thomas is depicted as a poor and mean kid, with few friends, who has never won anything. Thomas finally gets a chance to win the championship in the Pine Wood Derby model car competition. But, he doesn't win fair and square because he had help from his brother in making the car, which is against rules. Thomas told this secret to his classmate, Jack, and asked him not to tell anyone. The reflective essay that students wrote is about is whether Jack should tell on Thomas or not. In the Chinese translation of the story, Chinese names were substituted for Jack (Xiaoyu), Thomas (Xiaoma), and the teacher, Mr. Howard (Mrs. Zhou).

Coding children's moral reasoning

In an *a priori* analysis of the dilemma in *The Pinewood Derby* nine moral principles and seven practical considerations were identified to which a child might appeal to support an argument about whether Jack should tell the teacher that Thomas had help from his brother in

building the model car. Reading through a sample of children's essays, we found three additional practical considerations that were incorporated into the coding system. While coding the entire set of essays, we did not notice any additional moral principle or practical consideration that we failed to foresee.

The nine moral principles that appeared in children's essays were: (a) Honesty. Thomas did not make the car by himself. He broke a rule because he got assistance from his brother. (b) Fairness. Thomas' use of assistance was not fair to other students in the class who made cars by themselves. (c) Empathy. Thomas was a poor kid and he had never won anything before. Jack's mother told him to be nice to people who are less fortunate. (d) Friendship. Jack and Thomas are friends. Friends help each other to keep secrets; or friends help each other to overcome weakness. (e) Promise. Thomas asked Jack to keep this secret for him. (f) Trust. Thomas trusted Jack, that's why he told the secret to Jack instead of somebody else. (g) Golden rule. One should treat others as one would like others to treat oneself; and one should not treat others in ways that one would not like to be treated. Nobody wants to be told on. If Jack were in Thomas' situation, he would not want to be told on, either. (h) Common good. Jack should make a decision that is beneficial for all or most students. (i) Don't tattle. It is wrong to betray friends to authorities. Nobody likes a tattletale.

Compared to moral principles, practical considerations often revealed children's desire to avoid bad consequences of decisions. The ten practical considerations that appeared in children's reflective essays were: (a) Jack will become an accomplice. Keeping the secret for Thomas makes Jack lie to the whole class; therefore he would become an accomplice. (b) Not telling on Thomas would do harm to him. Jack's tolerance for Thomas would make him behave even more badly in the future. (c) Jack will get into trouble. Thomas might beat up Jack if he tells the secret.

(d) The teacher will not believe Jack. Mr. Howard, the teacher of the class, might not believe Jack if he told him that Thomas cheated. (e) History will not rewrite. What happened has happened. There is nothing we can do to change the fact that Thomas got the trophy. (f) Jack will be rewarded for telling the truth. It is possible that Jack will get an award if he tells the secret. (g) Thomas will get mad. (h) Jack will be seen as a sore loser. People would think that the only reason Jack tells is because he feels jealous. (i) Thomas is mean. Thomas pushes kids for no reason and calls them names. (j) Not telling on Thomas would make him a better boy. By winning an award, Thomas will feel more confident about himself, he will do better in the future.

In addition to the moral principles and practical considerations, some children proposed their own solutions for handling the problem. The alternate solutions included: (a) Instead of Jack telling on Thomas, Thomas should tell the truth himself. (b) Instead of confiding in Jack, Thomas should keep his secret to himself. (c) Jack should negotiate with Thomas about telling the teacher. (d) Jack should negotiate with the teacher, seeking lenient treatment for Thomas' misdeed. (e) Jack should seek advice from his parents.

Children's essays were exported into the NVivo8 qualitative research software (QSR, 2008) to facilitate coding the moral principles and the practical considerations, each of which was coded as present (=1) or absent (=0). Number of moral principles is a sum of the nine binary moral principles coded from students' reflective essays. Similarly, number of practical considerations is the sum of the ten binary practical considerations. Our primary purpose for using binary variables was to avoid overweighting repetition or elaboration of a single moral principle or practical consideration. An additional reason is that using binary variables avoided the difficulty of parsing the English and Chinese essays into comparable units. A second rater

independently coded 15% of the essays. Inter-rater reliability was satisfactory (Cohen's kappa = .88 for moral principles, .81 for practical considerations).

Finally, essays were coded for alternate solutions to the story dilemma and for the presence of counterarguments. A counterargument is a statement produced by a student that opposes the student's initial position on the question (Dong, Anderson, Lin, & Wu, 2009). Counterarguments were coded as a binary variable, with 1 indicating that there was at least one counterargument included in an essay and 0 indicating there was none.

Chapter 3

Results

Descriptive statistics for number of moral principles, number of practical considerations, and proportion of essays containing a counterargument are presented in Table 1. The total number of moral principles was highly skewed and over-dispersed for a Poisson distribution. Thus, we employed a negative binomial regression analysis to test the effects of discussion condition (CR vs. Control), country (United States vs. China), and their interaction. The results showed significant main effects for both condition, $\chi^2(1, N = 260) = 3.87, p < .05$, and country, $\chi^2(1, N = 260) = 4.64, p < .05$, but not for the interaction, $\chi^2(1, N = 260) = .15, p = .70$. The results indicate that students who had participated in CR included more moral principles in their essays than their counterparts in the control group. Chinese students appealed to a greater variety of moral principles in their essays than American students.

Table 1. Means (SDs) of Three Measures Coded From Reflective Essays by Country and Discussion Condition

Measure	United States		China	
	CR	Control	CR	Control
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*
Moral Principles	2.11 (0.91)	1.66 (0.89)	3.11 (1.23)	2.17 (1.14)
Practical Considerations	0.53 (0.97)	0.31 (0.62)	0.78 (0.72)	0.67 (0.61)
Counterargument	0.62 (0.49)	0.31 (0.47)	0.79 (0.41)	0.52 (0.50)

Note: CR= Collaborative Reasoning

Number of appeals to practical considerations was also over-dispersed, so a negative binomial regression analysis was again used to test the main effects of discussion condition and country as well as their interaction. Significant effects were obtained for country, $\chi^2(1, N = 260) = 7.12, p < .01$, indicating that Chinese children appealed to a larger number of practical considerations than American children. However, significant effects were not found for discussion condition, $\chi^2(1, N = 260) = 2.56, p = .11$, nor the interaction of condition and country, $\chi^2(1, N = 260) = .81, p = .37$; although students in CR produced somewhat more practical considerations than children in the control group (see Table 1), significant treatment influences were not present.

A logistic regression analysis was conducted to determine the effects of discussion condition, country, and their interaction on the likelihood of a counterargument. The main effects were both significant; for condition, $\chi^2(1, N = 260) = 22.20, p < .01$; and country, $\chi^2(1, N = 260) = 10.14, p < .01$; whereas the interaction was not significant, $\chi^2(1, N = 260) = .02, p = .88$. The results suggest that CR has an impact on promoting children's spontaneous production of counterargument that is same across different countries. More Chinese than American children included a counterargument in their essays.

Table 2 presents the frequency distribution of the nine moral principles in children's reflective essays for each condition. Chi-square tests showed that compared with essays of students in the control condition, essays of children in the CR condition were more likely to contain moral principles of empathy, promise, friendship, trust, and don't be a tattletale.

Table 2. Frequency of Moral Principles in Reflective Essays by Discussion Condition

Moral Principle	CR	Control	χ^2
Honesty	81.4%	71.0%	3.87*
Fairness	31.8%	26.7%	.81
Empathy	55.0%	42.0%	4.44*
Promise	29.5%	18.3%	4.44*
Friendship	31.8%	19.8%	4.84*
Trust	12.4%	4.0%	6.45*
Common good	0%	0.8%	.99
Golden rule	1.6%	1.5%	.01
Don't tattle	26.4%	9.2%	13.20**

Note: Degrees of freedom = 1, N = 260, * p < .05, ** p < .01

Table 3 shows the frequency distribution of the nine moral principles in the reflective essays of children from each country. Chi-square tests showed significant differences in frequency of appeals to fairness, empathy, promise, friendship, and trust. The three most common moral principles used by American children were honesty, empathy, and fairness. The three most frequent moral principles in Chinese children's essays were honesty, empathy, and friendship. It seems that both American and Chinese children are likely to appeal to honesty and empathy in their reflective essays; however, Chinese children cared more about friendship, promise, and trust.

Table 3. Frequency of Moral Principles in Reflective Essays by Country

Moral Principle	United States	China	χ^2
Honesty	71.3%	80.0%	2.67
Fairness	36.5%	23.4%	5.30*
Empathy	41.7%	53.8%	3.73*
Promise	8.7%	35.9%	26.06**
Friendship	8.7%	39.3%	31.42**
Trust	1.7%	13.1%	11.16**
Common good	0%	0.7%	.80
Golden rule	1.7%	1.4%	.06
Don't tattle	16.5%	18.6%	.19

Note: Degrees of freedom = 1, N = 260, * $p < .05$, ** $p < .01$

Some Chinese children's understandings of friendship differed from that of American children. As shown in Table 3, 39.3% Chinese children touched on friendship in their reflective essays. Chinese children who wrote about friendship often did so in a different way from American children. Let us first take a look at American children's understanding of friendship.

> I don't think Jack should tell because if he does everyone might call him a
> tattletale and if he wants to be friends with Thomas then he won't tell.
> Well I think that he can tell if he wants to. But like he said this might be
> his fist time wining a prize. If Jack thinks that if he tells he might not be
> his friend.

As the foregoing essay illustrates, American children's interpretation of friendship follows the path that friends should keep secrets for each other. In the story Jack and Thomas are friends; therefore, Jack should not betray Thomas by telling on him behind his back.

 Among Chinese children who mentioned friendship in their essays, the majority followed the same line of reasoning as the American children, whereas a sizeable minority (15%) interpreted friendship in a different way. The examples shown below give some clues about the different way.

可能别人会问我："可是小宇已经答应小马了，而且他们俩又是好朋友。"我会这样回答他："如果小宇真的把小马当朋友，就应该去告发他。让小马把这个不好的习惯改掉." Other people will probably ask me "But Jack has already promised Thomas, and they are very good friends". I will answer them in this way "If Jack really takes Thomas as a true friend, he should tell on him in order to help him correct this bad habit."

理由：小宇应该告小马。因为小马和小宇是好朋友，朋友之间要互相帮助。要是小宇不告老师，那他们就不是好朋友。 Jack should tell on Thomas. This is because Jack and Thomas are good friends, friends should help each other. If Jack does not tell the teacher about what Thomas did, then we are not good friends at all.

有些人不同意我的观点，说小宇不应该告发小马，同情小马一次冠军也没得过。但小宇如果真的同情小马，就应该告发他，让他知道这样不对，这才算是朋友。 Some people who disagree with me would say that Jack should not tell on Thomas because Thomas has never won a trophy before. However, if Jack really feels sympathetic to Thomas, he should tell on Thomas. This would make Thomas realize what he did is wrong; and this is could be called a real friendship.

From the examples shown above, it is clear that some Chinese children's reasoning about friendship follows the line that friends should help each other overcome weaknesses. They interpreted Thomas's getting help from his brother as the weakness of being dishonest. As a real

friend of Thomas, what Jack should do is to tell the teacher for the purpose of helping Thomas modify his behavior.

The frequency distribution by discussion condition of the ten different practical considerations is shown in Table 4. Chi-square tests revealed only one significant difference. Children in the CR condition were more likely to mention that Jack might get into trouble.

Table 4. Frequency of Practical Considerations in Reflective Essays by Condition

Practical Considerations	CR	Control	χ^2
Accomplice	10.1%	5.6%	2.05
Do harm to Thomas	17.1%	21.4%	.78
Jack will get into trouble	15.5%	6.5%	5.97*
Teacher won't believe	2.3%	0%	3.08
History won't rewrite	2.3%	1.6%	.22
Make Thomas a better boy	3.9%	3.1%	.13
Jack will get rewarded	1.6%	0.8%	.35
Thomas will be mad	1.6%	2.3%	.19
Jack as a sore loser	4.6%	2.3%	1.08
Thomas is mean	8.5%	6.9%	.25

Note: Degrees of freedom = 1, N = 260, * p <.05

As shown in Table 5, American and Chinese children have different concerns when it comes to practical considerations. The practical considerations that American children most frequently thought of are: Jack will get into trouble, Thomas is mean, and Thomas will be mad; whereas for Chinese children, doing harm to Thomas was the primary concern, followed by Jack

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would become an accomplice, and Jack will get into trouble. Chi-square tests shown in Table 5 indicate that significant differences in regard to the frequency of Jack would become an accomplice, doing harm to Thomas, and Thomas will be mad. The following excerpt from an essay composed by a Chinese student illustrates a typical concern of Chinese children.

> 我认为小宇应该告发小马，因为小马首先犯规了，周老师说了希望自己独立完成模型车，可小马却是在哥哥的帮助下完成模型车，而小马夺得了模型车比赛冠军的成绩并不是他自己的成绩。如果小宇不去告发小马，小马就有可能一错再错，这对小马将来会有影响。如果小马撒谎出事了，那别人就会认为这一切都是小宇的错，因为他"害了"小马，没有让他从错误中出来。 I think Jack should tell on Thomas because Thomas broke the rule. Mr. Howard said that he hoped everybody could work independently, but Thomas built his model car with his brother's help. Thomas' trophy is not his real own accomplishment. If Jack does not tell on Thomas, Thomas would make mistakes again and again, which would affect his future life. If in the future, Thomas gets into trouble by lying, other people would attribute it to Jack's fault because he did real harm to Thomas. He did not help him to come out of his mistakes.

This excerpt represents Chinese children's primary practical consideration: Not telling on Thomas would do great harm to him. They were worried that their tolerance of Thomas' dishonesty now would lead him to rely more on cheating and lying, therefore destroying his future.

Table 5. Frequency of Practical Considerations in Reflective Essays by Country

Practical Consideration	United States	China	χ^2
Accomplice	0.9%	13.1%	13.52**
Do harm to Thomas	4.3%	31.0%	29.41**
Jack will get into trouble	11.3%	10.3%	.61
Teacher won't believe	2.6%	0%	3.83
History won't rewrite	2.6%	1.4%	.51
Make Thomas a better boy	2.6%	4.1%	.45
Jack will get rewarded	0%	2.1%	2.41
Thomas will be mad	4.3%	0%	6.43*
Jack as a sore loser	1.7%	4.8%	1.83
Thomas is mean	10.4%	5.5%	2.18

Note: Degrees of freedom = 1, N = 260, * p < .05, ** p < .01

Table 6. Frequency of Alternate Solutions in Reflective Essays by Country

Proposed solution	United States	China	χ^2
Thomas should tell the teacher himself.	4.3%	0%	6.43*
Thomas should keep the secret to himself	3.5%	0%	5.12*
Jack should negotiate with Thomas	0%	9.7%	11.74**
Jack should negotiate with the teacher	0%	6.2%	7.40**
Jack should seek advice from his parents	0%	1.4%	1.60

Note: Degrees of freedom = 1, N = 260, * p < .05, ** p < .01

Small percentages of American and Chinese student came up with alternate strategies to handle the dilemma described in the Pinewood Derby story. We conducted Chi-square tests to examine whether CR affected type of alternate solution, but we failed to find any significant results. However, there were pronounced differences between the two cultures. Table 6 presents the frequency of each alternate solution in American and Chinese children's essays. The alternate solutions for American children clustered at: Instead of Jack telling on Thomas, Thomas himself should tell the truth; and, Thomas should have kept the secret to himself. Chinese children centered on: Jack should negotiate with Thomas; Jack should negotiate with the teacher; and, less frequently, Jack should seek advice from his parents. The following excerpts from five essays offer good examples of each alternate solution.

Thomas should tell the teacher himself: I think he should tell on Thomas because Mr. Howard said to make a car by yourself. And the person that won second place should get the trophy if they didn't cheat. And he should do the right thing and give the trophy back and tell them what really happened. If that was his first time ever he shouldn't cheat.

Thomas should have kept the secret to himself: Some people might say he shouldn't tell on him because Thomas trusted him or something like that. Thomas shouldn't of told anybody.

Jack should negotiate with Thomas: 不过要告发小马也不应该在那么多同学面前，小宇可以先跟小马聊聊告诉他这样做是不对的。Jack should not tell on Thomas in front of so many classmates, Jack should negotiate with Thomas first, telling him that what he did is wrong.

Jack should negotiate with the teacher: 朋友可能会问，他告发了小马，那同学们不就会骂他是奸细了吗？答：小宇可以和老师商量一下，不要让秘密被公开制造各种绯闻。老师的语气也要温柔一些，不要暴跳如雷. People who disagree with me would say if he tells on Thomas, he would be called a tattletale by other students. I would say that Jack should negotiate with the teacher about not making this secret public in case of

triggering any gossip. The teacher should also use a mild and gentle tone (when he talks with Jack); there is no need to be furious.

Jack should seek advice from his parents: 我认为小宇还有一种办法，就是回家和父母讨论一下，但不要说具体人名，比如说"有一个小朋友他在一个比赛中，犯了规，老师不知道，但他的一个朋友知道了，他要不要告诉老师？"家长经历的事情多，一定会有丰富的经验，自己做不了主可以去请教家长。I think there is another way to handle this problem: To discuss it with parents. Don't say Jack's name. Just ask them that if a student knows his friend breaks some rules in a contest, should s/he tell the teacher or not? Parents have gone through a lot of things; they must have rich life experience. When it is hard to make a decision, just consult your parents.

Chapter 4

Discussion

A major finding of this study is that in reflective essays, Chinese children considered a greater number of different moral principles, and also a greater number of practical considerations, than American children. Chinese and American children emphasized different moral principles and practical considerations, as well as different alternate solutions to the dilemma of whether Jack should tell on Thomas, a boy who won a contest but broke the rules. Compared to American children, Chinese children gave more consideration to the obligations of friendship, and some of them perceived these obligations in different fashion from American children. Moreover, Chinese children were most often worried that not telling on Thomas would do harm to him, allowing him to stay on a path of cheating and lying as he grew older, which was rarely seen in American children's essays. Other prominent concerns of Chinese children were that, if Jack did not tell the teacher, he would become an accomplice in Thomas' misdeed, followed by Jack will get into trouble.

Altruistic concerns predominated in Chinese children's essays. The justifications they gave for their positions on the dilemma emphasized Thomas' welfare, and the obligation they felt to help him. To justify their positions, American children more often referred to self-interest, such as avoiding Thomas' wrath or avoiding classmates' ridicule for being a tattletale. The primary explanation for this contrast is the ethical education that Chinese and American children receive.

Ethical education in China cannot be discussed without referring to Confucius, the most famous philosopher and educator in Chinese history. Confucius taught that every human being is born good, enabling them to pursue the virtues of humanity (Ren 仁), righteousness (Yi 义),

propriety (Li 礼), wisdom (Zhi 智), and credibility (Xin 信). A person can achieve these virtues by means of education. Confucius said the evil parts in man are caused by a bad environment or external influences. Since the innate nature of human beings is good, wrongdoers should be taught shame and decency and, hence, reformed through education and moral persuasion (Ren, 1997). Confucius' teachings on morality remain the core of China's moral education even today (Kelly & Tseng, 1992).

Confucianism permeates every corner of schools. It sets the framework for teacher-student relationships. Students are expected to show great respect for their teachers. Teachers are looked up to as models of morality as well as knowledge and wisdom (Jin & Cortazzi, 1998). With its stress on respect for elders, discipline, and conformity to moral and social norms, Confucianism has a fundamental impact on Chinese pedagogy. Ethics, like Chinese and mathematics, is a compulsory subject for elementary school students. China's elementary schools are departmentalized; hence, elementary schools have teachers who specialize in teaching ethics. The goals of ethical courses are to cultivate children's moral concepts and encourage them to behave according to moral norms. A concern for morality infuses the entire curriculum, especially in language, literature, and social studies (Chiu, 1990).

Compared to the strong emphasis that Chinese schools place on children's ethical education, the emphasis in schools in the United States is less prominent. Narvaez (2006) explains that, "Prior to the 20th century, character development was one of the primary goals of education [in the United States]. Schools were considered places for conveying factual information, including facts about the moral life. Over the course of the 20th century the purpose of school narrowed to teaching 'the basics' (i.e., reading, writing, arithmetic), and educators tried to stay out of battles over religious and moral values … At the beginning of the 21st century, the

number of schools adopting character education programs was on the rise " (p. 704). Although there seems to be a revival of school-based moral education, what form moral education should take remains fraught with controversy and overall the emphasis on moral education is probably not as great as the emphasis in Chinese schools.

At home, young Chinese children constantly receive moral and social lessons from their caregivers. Parents and grandparents feel that they are obligated to teach children proper behavior from an early age (Fung, 1994). Miller, Wiley, Fung, and Liang (1997) conducted a comparative study of storytelling in Chinese and American families. They found that Chinese families were likely to tell stories of children's past transgressions to convey the importance of behaving according to moral and social norms. However, European American families did not treat stories as opportunities for moral lessons, but instead employed stories as a medium for entertainment and affirmation. Since how parents interact with their children has been shown to be a key factor affecting children's moral reasoning (Eisenberg & Murphy, 1995; Smetana, 1999; Walker & Taylor, 1991), Chinese parents' response to children's transgressions and concern about conforming to moral codes undoubtedly influences children.

Many have supposed that cultural context is integral to children's moral development (Tappan, 2006), and that values, such as keeping a promise, telling the truth, helping others, are transmitted from generation to generation (Gibbs, Basinger, & Faller,1992). The process of transmission and uptake of values does not take place in a vacuum. Therefore, we believe that the great concern over moral education by Chinese families, schools, and society at large could explain why Chinese children's essays contained a greater number and variety of moral principles.

The contrast between altruistic and self-interested concerns at the micro individual level in children's essays may correspond to the contrast between collectivism and individualism at the macro cultural level. The altruistic concerns presented by Chinese students exemplify 'allocentrism', the tendency of people in collectivist cultures to center their attention on others instead of themselves (Triandis, Leung, Villareal, & Clark, 1985); and the self-centered concerns emphasized by American children represent 'idiocentrism', the orientation most commonly found in individualist cultures of placing the focus on one's self (Triandis, Leung, Villareal, & Clark, 1985; Triandis & Suh, 2002). Presumably the reason Chinese children are found to be more allocentric is that they are exposed more frequently and insistently to collectivist norms than children growing up in individualist cultures, and people tend to align their attitudes and behavior with cultural norms, or at least to give the appearance of doing so.

The analysis of the moral principles invoked in the reflective essays indicated that Chinese children gave greater priority to the principles of friendship, promise, and trust than American children. An explanation is that in collectivist cultures, people have a strong sense of belongingness to their social groups, and they want to avoid face to face conflicts in order to maintain harmonious in-group relationships. The alternate solutions to the dilemma proposed by Chinese and American students also revealed cultural influences. Chinese children paid special attention to the manner of telling on Thomas; they preferred that Jack negotiate with the teacher or Thomas in private in order to maintain harmonious interpersonal relationships, a consideration that never appeared in American children's essays. Moral principles such as friendship, promise, and trust, as well as the method of handling conflicts by negotiation are advocated in Chinese culture to maintain in-group harmony. For Chinese people, the most important group is the family. Beyond the family, the school and the classroom are significant social entities for

students. This might help to explain why maintaining classroom harmony was a theme in the reflective essays of Chinese children.

Another major finding of this study is that Collaborative Reasoning promotes children's moral reasoning, as evidenced by the nature of the arguments the children presented in essays they wrote about the Jack and Thomas dilemma. Compared to control students, students from both the United States and China who had participated in four or five CR discussions appealed to a wider range of moral principles in their writings. CR heightened children's disposition to invoke principles of empathy toward others, keeping promises, honoring friendship, not betraying trust, and not tattling on others.

Children who experienced CR were more likely than controls to consider a counterargument from an opposing perspective (see Table 1). This is not a new finding, but only a confirmation of the findings of the original studies (Dong et al., 2008, 2009; Reznitskaya et al., 2001) from the reanalysis of the children's essays based on the revised coding scheme.

It should be emphasized that neither CR nor control students had previously read or discussed the story that served as the writing prompt. Thus, the explanation for the fact that CR students were more likely to entertain a counterargument and considered a greater number of moral principles cannot be as simple as that CR students repeated statements they had heard others use in a discussion. The explanation must be more general. In CR discussions, children are no longer a passive audience as they typically are in conventional teacher-dominated classrooms. They become active agents in moral reasoning and have the opportunity to author their own moral arguments. Hence, through discussing stories about moral and practical dilemmas, we believe that CR students develop a greater sensitivity to ethical issues, learn to look at the issues

from more than one perspective, and advance their understanding of the implications of moral principles relevant to the issues.

A caveat is that moral reasoning does not necessarily lead to moral judgment. Instead, the judgment could come first; moral reasoning could be a *post hoc* rationalization generated after a judgment has been reached on other grounds (Haidt, 2001). A further caveat is that the ability to engage in moral reasoning does not assure moral behavior, as embarrassing ethical lapses by public figures in both China and the United States make all too clear.

We had expected to find that CR would have a stronger influence on Chinese students than American students. The expectation was based on the assumption that in school typically Chinese students have fewer opportunities for critical and independent thinking than American students and, therefore, would have more to gain from Collaborative Reasoning. Dong and her colleagues (2008) describe the atmosphere in Chinese elementary school classrooms as teacher-dominated, formal, and the discipline as quite strict, with few opportunities for student initiative or extended student talk. Students "sit in straight rows, stand up to answer the teacher, and recite much of what they are required to learn in unison . . . both teachers and students are accustomed to whole-class teaching covering a prescribed curriculum at a prescribed pace" (Dong et al., 2008, p. 403).

However, the expectation that Chinese students would have a stronger response than American students to Collaborative Reasoning was not confirmed. None of the analyses showed an interaction between discussion condition and country. Instead, whether or not they experienced Collaborative Reasoning, the essays of Chinese students contained significantly more appeals to moral principles and practical considerations and were significantly more likely to consider a counterargument than the essays of American students.

There are a few limitations of this study. The major one is that this is study is a reanalysis of the data from three small quasi-experiments. In small quasi-experiments there is no way to be sure that effects were not due, for instance, to variations in the skill and enthusiasm of the teachers or to differences in the social dynamics of cohorts of students. A second limitation is that we did not directly assess children's allocentric and idiocentric tendencies; thus, attributing the differences observed in American and Chinese children's moral reasoning to culture remains speculative. Nor did we survey children about their moral beliefs prior to the intervention, which would have made the case that CR has effects on children's moral reasoning more convincing. Another limitation is that while the binary scoring scheme has desirable features, it gives as much credit to a student who mentions a principle as a student who thoroughly elaborates the implications of the principle.

We conclude by returning to the questions: To what extent does culture affect children's moral reasoning? If there are effects, are they stable and enduring or easily changed? In the present study, we aimed to shed some light on these questions through the contrast provided by participation in Collaborative Reasoning. On the one hand, despite different cultural backgrounds, both Chinese and American students adjusted to Collaborative Reasoning and made comparable and significant changes in their moral reasoning. On the other hand, children's reflective essays revealed substantial differences attributable to cultural norms that remained whether or not children experienced Collaborative Reasoning.

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