

## **Apologizing in Mandarin Chinese: A Study on Developmental Patterns\***

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This study of the pragmatic development of the speech act of apology compares perception and production data from Mandarin-speaking participants in different age groups. Using a cross-sectional approach, subjects from 4 age groups (3rd grade, 6th grade, 10th grade and college freshmen) were selected to represent children, early adolescents, adolescents, and young adults groups. Data were collected using the perception assessment task and the discourse completion task. Differences across age groups were statistically significant in the perception of the obligation to apologize and the likelihood of apology acceptance but not statistically significant in the perception of the severity of the offense indicating the ability to judge offense severity develops earlier than the ability to assess what action to take after the offense and how people will respond to the apology. Developmental changes in apology production were also found through quantitative analysis of production data.

Key words: pragmatic development, speech act of apology, Mandarin

### **1. Introduction**

The research literature on language development now boasts a large number of studies providing a rich description of children's development in phonetic and morphemic, semantic, and syntactic knowledge. Nevertheless, research on growth in their capacity to "do things with words" (i.e., pragmatic development), though fruitful and continuing to flourish, has progressed at a much slower pace. While there has been substantial study of L1 pragmatic development, many aspects of pragmatic development remain under-researched. The development of pragmatic competence in the speech act of apology is one such area.

Apologies have the power to restore a damaged relationship, mitigate loss of face, and stimulate forgiveness (Lazare 2004). To apologize appropriately requires that one first recognize having done something wrong, something that calls for an apology. Then, it is necessary to assess the severity of the offense and the weight of contextual variables, such as power and distance, in order to select an appropriate apology strategy. Appropriate performance of the speech act of apology requires the development of cognitive ability, social understanding, and linguistic skills. Due to the complexity of performing the speech act of apology, one would expect children of

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different ages to understand and use apologies differently. However, very little is known about how development in this area proceeds.

Most apology studies to date have examined the apologetic behavior of adults, focusing on cross-cultural comparisons or second-language learning issues (e.g., Blum-Kulka & Olshtain 1984; Olshtain 1989; Holmes 1989, 1990, Robin 1992, Sugimoto 1995, 1997, Hussein & Hammouri 1998, Suszczynska 1999, Tsai 2000, Chang 2004, Bataineh & Bataineh 2008, Chen 2008, Kim 2008, Liu 2008, Kamph & Blum-Kulka 2009). There have been a few studies exploring the development of the speech act of L1 apology, with the majority observing preschoolers or elementary school children. However, ways in which apologies by adolescents and young adults differ from apologies by children has remained unexplored. In addition, a review of the literature on pragmatic development reveals that Mandarin-speaking participants are a relatively under-researched speaker group. The limited age range covered in the existing literature and the paucity of developmental apology studies involving Mandarin-speaking participants leaves an incomplete picture of the developmental pattern of apology. This study attempts to fill gaps in current knowledge of the development of the speech act of apology by comparing perception and production data from Mandarin-speaking participants across different age groups.

## **2. Literature review**

To apologize appropriately requires that one recognize having done something wrong that calls for an apology. Researchers have pointed out that the concept of right and wrong changes as children develop. Piaget (1932) distinguished two stages of moral development, the first stage being heteronomous morality (seen from 4 to 7 years of age) in which one judges behavior by considering its consequences rather than the intention of the actor. Children at this stage believe that rules are set by authorities and cannot be altered. The second stage is autonomous morality (from 10 years of age and older) and, according to Piaget, children at this stage are able to judge an action by considering both its consequences and the actor's intention. They are aware that rules are created by people and subject to change by consensus.

Kohlberg (1976, 1986) distinguished six stages of moral development, grouped into three levels: pre-conventional (under the age of 9), conventional (age 10-20), and post-conventional (over 20). The first stage is punishment and obedience, in which children's moral reasoning is based on punishment. Authorities/adults define right and wrong. The second stage is individualism and purpose, in which moral reasoning is

based on rewards and self-interest. The third stage, beginning the conventional level in Kohlberg's theory, is interpersonal norms. At this stage, the individual often adopts his/her parents' standards, emphasizing good-person stereotypes and concerns for approval. The fourth stage is social system morality, in which moral reasoning is based on an understanding of social order and justice. The fifth stage, beginning the post-conventional level, is community rights versus individual rights. At this stage, the individual understands that standards may differ from one person to another. The sixth and highest stage is universal ethical principles, in which the individual develops a moral standard based on universal human rights.

In addition to changes that children experience in thoughts about right and wrong, their cognition also develops rapidly. Piaget identified four stages of cognitive development: sensorimotor stage (birth to 2), preoperational stage (ages 2 to 7), concrete operational stage (ages 7 to 11), and formal operational stage (ages 11 to 16). In the sensorimotor stage, infants construct an understanding of the world through the coordination of sensations with physical movement. In the preoperational stage, egocentric thinking is a salient feature. Children at this stage are able to use symbols (words, images, and drawings) to represent the world. In the concrete operational stage, individuals are capable of logical reasoning and can perform manual tasks but lack the capacity for abstraction. In the formal operational stage, individuals become capable of thinking in the abstract.

The development of cognitive ability, social understanding, and linguistic skills influences the ability to perform the speech act of apology. It would be reasonable to expect that individuals at different ages understand and use apologies differently. Darby & Schlenker (1982) examined the responses of children of different ages (K/1<sup>st</sup> graders, 4<sup>th</sup> graders, and 7<sup>th</sup> graders) to four variations of apology: 1) no apology, 2) a perfunctory apology ("Excuse me"), 3) a standard apology ("I'm sorry, I feel badly about this"), 4) an elaborated apology ("I'm sorry, I feel badly about this. Please let me help you"). They found that all three groups gave the elaborated apology more favorable ratings for forgiveness, liking, blame, and punishment. However, the older age groups were more sensitive than the youngest age group (K/1<sup>st</sup> graders) to the different levels of apology. Ohbuchi & Sato (1994) investigated the perceptions of Japanese children (2<sup>nd</sup> graders and 5<sup>th</sup> graders) regarding three types of responses made by transgressors in hypothetical situations. The three accounts that transgressors offered for their actions included: 1) apology condition: saying "Sure, I did it. I am very sorry. I feel bad now. Please, forgive me!" 2) excuse condition: saying "Sure, I did it, but I was very upset at that time because of the defeat," 3) no account condition: saying "I did it." The results showed that the older children (5<sup>th</sup> graders) evaluated the transgressors who apologized as less negative, less intentional, and more

remorseful than those who made excuses or gave no accounts for their behavior. The second graders were insensitive to the differences between the accounts. Smith (2009) examined the understanding of apology and emotion in children (age 3-9). The findings revealed that even preschool-age children understood that apologies can make a victim feel better. In addition, the children preferred a genuine apology to a non-genuine apology.

Kochanska, Casey & Fukumoto (1995) found that toddlers were able to use apology to mitigate offense when they were led to believe they had caused damage to toys and other objects, whereas they did not feel responsible when a damaged object was simply presented to them. Ljungberg et al. (2005) examined post-conflict behavior among preschool-age boys in Sweden and found that apologizing was rare compared to other types of affiliative post-conflict behavior, such as an invitation to play. In contrast, examining post-conflict behavior among preschool-age children in Japan, Fujisawa, Kutsukake & Hasegawa (2005) found apologizing was the most common form of post-conflict behavior.

Ely & Gleason (2006) examined the developmental pattern of apology across the age period 1;2 to 6;1 by analyzing the corpora from the Child Language Data Exchange System (CHILDES). The results showed that the average age at which girls produced apologies (2;2;0) was 3 months earlier than for boys (2;5;18). The average age of onset of apology production was 2;4. The authors also found an unbalanced U-shaped curve in the development of apology, with the lowest number of apologies being produced by three year olds. In addition, children's apologies became more elaborate as they grew older. Lin (2009) investigated the developmental pattern of apology of Chinese children aged 4-8. The findings showed that younger children (under 7 years old) employed more direct apology strategies than older children. Older children used more combined apology strategies than the younger children.

Through natural observation of Israeli preschool children and young adolescents, Kamph & Blum-Kulka (2009) explored how children of different ages apologize. They found that the range of apology strategies increased with age. While both the young and older groups employed the formulaic Illocutionary Force Indicating Device (IFID) forms *slixa* 'forgive' and *ani micta'er* 'I'm sorry', only the adult group used *mitnacel* 'apologize', a more formal IFID form. In addition, "promise of forbearance", "repair" and "minimization" and "intensification" occurred only in adult apologies. The findings also revealed that the range in types of violations increased with age. Additionally, younger children produced apologies mainly with regard to "breach of expectations."

Review of these studies revealed that research on the development of L1

apology, compared with the other strands of apology studies, points to a need for further exploration. The relatively few studies on the development of L1 apology have shown that age is an important factor. The majority of the studies on pragmatic development in L1 apology have examined young children. The paucity of research involving adolescents and young adults has resulted in a less than full understanding of how the production of apologies differ in different age groups. In addition, little attention has been paid to Mandarin-speaking children's development of apologetic behavior. Given that aspects such as politeness values and the linguistic forms used in the speech act of apology are culture-specific, it is reasonable to expect that development of apologetic behavior also varies across language and culture. Hence, it is important to examine the developmental patterns of the speech act of apology in many languages in order to determine not only differences but commonalities. In addition, examination of the development of L1 apology from different L1 speakers will provide baseline data for researchers in the field of interlanguage pragmatics to better our understanding of the development of L2 pragmatic competence.

In addition, most research on the role of gender in apology has shown that males and females differ in their choices of apology strategies (e.g., Fraser 1981, Holmes 1989, Bataineh & Bataineh 2006, Chen 2008). However, these findings were from studies of adults. Whether gender differences in apology strategies occur in young children and adolescents remained unexplored.

Finally, a review of the literature revealed that the majority of the research findings in pragmatic development of apology depend on either production data or perception data. In exploring developmental patterns, collection of production data allows the researcher to establish participants' pragmalinguistic knowledge of the strategies and linguistic forms that can be used to realize the speech act of apology. Including perception data can help in specifying participants' sociopragmatic norms and in understanding their sociopragmatic knowledge of contextual factors. This study employed both data collection techniques, thus providing additional insight into the developmental pattern of the speech act of apology.

The research questions that guided the study are as follows:

- 1) Are there developmental differences in perception as to the severity of offense, the obligation to apologize, and the likelihood of apology acceptance across different age groups and across gender among native Mandarin speakers?
- 2) How does the use of apology strategies differ across different age groups and across gender among native Mandarin speakers?
- 3) How does the repertoire of apology strategies expand as the age increases?

### **3. Methods**

#### **3.1 Subjects**

A cross-sectional approach was adopted to investigate the pragmatic development of the speech act of apology. To explore how apologies by adolescents and young adults differ from apologies by children, subjects from four age groups (3<sup>rd</sup> grade, 6<sup>th</sup> grade, 10<sup>th</sup> grade and college freshmen) were selected to represent children, early adolescents, adolescents, and young adults. Their ages were 9, 12, 16, and 19 years old. Each age group was composed of 60 people: 30 males and 30 females. A total of 240 subjects participated in the study. All the subjects were native speakers of Mandarin Chinese. Data of the 3<sup>rd</sup> graders and 6<sup>th</sup> graders were collected from the same elementary school in central Taiwan. The 10<sup>th</sup> graders were all from the same high school in northern Taiwan. The college freshmen participating in this study were from a research-oriented university in central Taiwan.

#### **3.2 Data collection**

This study employed a written discourse completion task (DCT) for data collection with an acknowledgement of its limitation in representing the naturally occurring interactions. The written DCT was considered an appropriate instrument for this study due to its strength in reflecting speakers' pragmalinguistic knowledge and sociopragmatic knowledge of the strategies and linguistic forms selected (Kasper 2000) and in allowing the researchers to manipulate the variables of interest (Beebe & Cummings 1996).

To make a comparison between the development of L1 and L2 apology possible, this study adopted scenarios devised by Chang (2010), including bumping into people, losing a borrowed book, being late and speaking ill of someone (See Appendix I for a sample of the questions in the questionnaire). Each scenario was repeated once with either a classmate or a teacher as the hearer. Respondents were presented with a description of the context and the social status of the interlocutors for each scenario. A total of 1,920 responses were collected and analyzed. As mentioned earlier, this study collected both perception and production data. The perception data were collected using a perception assessment questionnaire which elicited subjects' perceptions of three factors in each scenario: 1) severity of offense, 2) offender's obligation to apologize, and 3) likelihood of the apology being accepted. This format follows the assessment questionnaire in Bergman & Kasper (1993).

### 3.3 Procedures

The DCT questionnaire was distributed to the subjects in a classroom environment with a research assistant present to explain the procedures to the participants. The perception assessment task was administered first. In this task, the subjects were presented with the scenarios, each of which was followed by three items: (1) how serious is the offense? (2) Do you have the obligation to apologize? (3) Is your classmate/teacher likely to accept your apology? After reading the scenarios, they were asked to rate each offense on a 9-point scale for these three context-internal factors: 1) severity of offense, 2) offender's obligation to apologize, and 3) likelihood of the apology being accepted.

After the participants finished the perception assessment task, they were asked to write down what they would actually say in the situation. The participants were informed that the classmate in each scenario was of the same age as themselves, whereas the teacher was around age 40. Both the classmate and the teacher were characterized as acquaintances rather than strangers and were of the same gender as the participant.

### 3.4 Data analysis

With regard to the perception data, the means of the quantitative ratings and standard deviation of contextual factors were calculated and compared for each age group. To answer the first research question (Are there developmental differences in perception as to the severity of offense, the obligation to apologize and the likelihood of apology acceptance across different age groups and across gender among native Mandarin speakers?), two-way analysis of variance (ANOVA) was performed for age and gender to assess the statistical significance of differences across age and gender groups.

To analyze the production data, the researcher developed a coding scheme based on classifications of previous studies (e.g., Olshtain & Cohen 1983, Trosborg 1987, Blum-Kulka, House & Kasper 1989, Bergman & Kasper 1993). Table 1 presents the coding scheme used for the present study. The apology strategies produced by the participants were analyzed as consisting of a sequence of semantic formulas. For example, if a respondent apologized for losing the borrowed book, saying, "I'm sorry. I lost the book. I did not mean it. I will buy you a new one," this was coded as: [IFID]-[admission of fact]-[lack of intent]-[repair]. The data were coded by the researcher and a trained research assistant. Intercoder reliability was 90 percent.

**Table 1. The coding scheme of apology strategies of the present study**

<p><b>I. Illocutionary force indicating device (IFID)</b></p> <p>a. Expression of regret or offer of apology, e.g., <i>duibuqi</i> 對不起 or <i>baoqian</i> 抱歉 ‘I’m sorry’ or ‘I apologize.’</p> <p>b. Request for forgiveness, e.g., <i>qing yuanliang wo</i> 請原諒我 ‘Please forgive me.’</p>
<p><b>II. Adjuncts</b></p> <p>1. Explanation or account of the cause which brought about the violation</p> <p>2. Expression of the speaker’s responsibility for the offense</p> <p>a. Explicit self-blame, e.g., <i>shi wode cuo</i> 是我的錯 ‘It’s my fault.’</p> <p>b. Expressing lack of intent, e.g., <i>wo bu shi guyi de</i> 我不是故意的 ‘I didn’t mean it.’</p> <p>c. Acknowledgement, e.g., <i>wo bu yinggai zheme zuo</i> 我不應該這麼做 ‘I shouldn’t have done it.’</p> <p>d. Admission of fact, e.g., <i>wo chidao le</i> 我遲到了 ‘I’m late.’</p> <p>3. Offer of repair, e.g., <i>wo zai mai xinde gei ni</i> 我再買新的給你 ‘I’ll buy you a new one.’</p> <p>4. Promise of forbearance, e.g., <i>xia ci bu gan le</i> 下次不敢了 ‘It won’t happen again.’</p> <p>5. Minimization of the degree of offense, e.g., <i>na mei sheme ya</i> 那沒什麼呀! ‘That’s not a big deal!’</p> <p>6. Speaker showing concern for offended party, e.g., <i>ni haihao ma</i> 你還好嗎? ‘Are you all right?’</p> <p>7. Intensification, e.g., <i>feichang</i> 非常 ‘very’</p> <p>8. Alerter, e.g., <i>laoshi</i> 老師... ‘teacher’</p> <p>9. Justification, e.g., <i>nide gushi zhende hen wuliao</i> 你的故事真的很無聊 ‘Your story is really boring.’</p>

To answer the second research question (How does the use of apology strategies differ across different age groups and across gender among native Mandarin speakers?), the apology production data were analyzed in terms of: 1) the complexity of the participants’ apology strategy pattern, and 2) the developmental pattern in the choice of strategy. The complexity of the participants’ apology strategy pattern was examined in terms of the combination pattern of the apology strategies and the total number of strategies employed by each group. The developmental pattern in the choice of strategy was examined in terms of the difference in the frequency and the content of the each type of apology strategy employed. Analysis of the frequency of the strategies used across groups provided information concerning whether one strategy emerged before another. *Chi-square* analysis was performed to examine whether the difference was statistically significant or not. The analysis of the content



of the strategies allowed us to discover the difference in the linguistic forms used for each type of strategy across the different groups. The analysis of content/linguistic forms of the apology strategies involved qualitative analysis.

To answer the third research question (How does the repertoire of apology strategies expand as the age increases?), the analysis method that Chang (2010) proposed was adopted. Disregarding the contextual variations, Chang (2010) ranked the use of each type of strategy, based on the highest percentage that had occurred among scenarios, to investigate whether a certain apology strategy emerges earlier than others. For the rationale and the details of this procedures, please see Chang (2010).

#### 4. Results

##### 4.1 Differences in the perception of the severity of the offense, the obligation to apologize and the likelihood of apology acceptance

Tables 2 and 3 present the means and standard deviation for the perceived severity of the offense, the obligation to apologize, and the likelihood of apology acceptance across age and gender groups. A two-way analysis of variance measure was performed to test the effects of age and gender. As illustrated in Table 4, a significant main effect was found for age regarding perception of the obligation to apologize and perception of the likelihood of apology acceptance ( $F = 18.898, p = .000$ ;  $F = 40.062, p = .000$ ). There was no significant main effect found regarding perception of the severity of the offense ( $F = 1.484, p = .217$ ). The standard deviation was high for the third graders, which may indicate that variability in the ratings of the 3<sup>rd</sup> graders was higher than that of the other groups.

**Table 2. Means and standard deviation for the perception of the degree of severity, the obligation to apologize, and the likelihood of apology acceptance across age groups**

	Grade 3 Children	Grade 6 Young adolescents	Grade 10 Adolescents	College Young adults
Severity of the offense	6.74 (2.60)	7.00 (2.22)	6.98 (1.91)	6.85 (1.94)
Obligation to apologize	7.24 (2.54)	7.75 (1.88)	8.16 (1.53)	7.87 (1.53)
Likelihood of apology acceptance	5.17 (2.80)	5.66 (2.64)	6.69 (2.15)	6.42 (1.98)

Concerning perception of the obligation to apologize, the results of a Scheffe *F* test revealed that the 3<sup>rd</sup> graders perceived the obligation to apologize as significantly lower than did the 6<sup>th</sup> graders, 10<sup>th</sup> graders and the college group. The results also disclosed that differences were statistically significant between the 6<sup>th</sup> graders and the two other age groups (10<sup>th</sup> graders and 3<sup>rd</sup> graders) in the mean ratings of obligation to apologize. The differences between the college freshmen and 10<sup>th</sup> graders were not statistically significant.

**Table 3. Means and standard deviation for the perception of the degree of severity, the obligation to apologize, and the likelihood of apology acceptance across gender groups**

Gender	Grade 3			Grade 6		
	M	F	<i>t</i> <i>p</i>	M	F	<i>t</i> <i>p</i>
Severity of the offense	6.13 (2.98)	7.34 (1.99)	-5.193 .000	7.03 (2.20)	7.00 (2.24)	.289 .773
Obligation to apologize	6.59 (3.06)	7.88 (1.68)	-5.749 .000	7.83 (1.89)	7.67 (1.88)	.926 .335
Likelihood of apology acceptance	4.81 (3.02)	5.52 (2.52)	-2.809 .005	5.91 (2.69)	5.42 (2.57)	2.027 .043
Gender	Grade 10			College		
	M	F	<i>t</i> <i>p</i>	M	F	<i>t</i> <i>p</i>
Severity of the offense	6.99 (1.96)	6.97 (1.91)	.097 .923	6.50 (2.12)	7.20 (1.66)	-4.045 .000
Obligation to apologize	8.18 (1.71)	8.14 (1.44)	.238 .812	7.68 (1.70)	8.06 (1.33)	-2.756 .006
Likelihood of apology acceptance	6.78 (2.33)	6.61 (1.96)	.864 .338	6.36 (2.12)	6.49 (1.83)	-.714 .475

**Table 4. ANOVA Table for the perception of the degree of severity, the obligation to apologize, and the likelihood of the apology acceptance across age and gender groups**

		<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Severity of the offense	age	21.350	3	7.117	1.484	.217
	gender	100.072	1	100.072	21.369	.000
Obligation to apologize	age	210.612	3	70.204	18.898	.000
	gender	65.701	1	65.701	18.219	.000
Likelihood of apology acceptance	age	700.880	3	233.627	40.062	.000
	gender	60.949	1	60.949	7.891	.005

Regarding the likelihood of apology acceptance, *Scheffe* post-hoc comparisons showed that the 3<sup>rd</sup> graders perceived the likelihood that the apology would be accepted as significantly lower than did 6<sup>th</sup> graders, 10<sup>th</sup> graders and college freshmen. The results also disclosed that 6<sup>th</sup> graders' ratings of the likelihood of apology acceptance were significantly lower than those of 10<sup>th</sup> graders and the college freshmen. In addition, the differences between 10<sup>th</sup> graders' and college freshmen's ratings of the likelihood of apology acceptance was not statistically significant.

Significant main effects were also found for gender with regard to the perception of the degree of severity, the obligation to apologize and the likelihood of apology acceptance. A *t*-test was further performed to analyze gender differences in severity, obligation and likelihood perceptions at each grade level. The results indicated that the male 3<sup>rd</sup> grade and college students perceived offenses as significantly less severe than did the female students. The male 3<sup>rd</sup> grade and college students assigned significantly lower apology obligation ratings than did the female students. In addition, the male 3<sup>rd</sup> grade students assigned significantly lower ratings to the likelihood of apology acceptance than did the female students.

#### 4.2 The complexity of the apology strategy pattern

Tables 5 and 6 present the differences in the total number and the mean number of strategies across age and gender groups. Concerning the difference in the total number of strategies employed, the college freshmen produced the highest total number ( $n = 1362$ ) and mean number of strategies ( $M = 2.86$ ) and the 3<sup>rd</sup> graders produced the lowest ( $M = 1.83$ ). The total number and mean number of strategies increased radically from grades 3 to 6. The effects of age and gender on the mean number of apology strategies were tested with a two-way analysis of variance measure. The results show a significant difference across groups for both age and gender, as reflected in Table 7. A *Scheffe F* test comparison revealed that the 3<sup>rd</sup> graders produced a significantly lower mean number of strategies than any of the other groups. Regarding gender differences, the results of a *t*-test show that female students produced a significantly higher mean number of strategies than did male students for all age groups (3<sup>rd</sup>:  $t = -7.794, p = .000$ ; 6<sup>th</sup> grade:  $t = -5.316, p = .000$ ; 10<sup>th</sup> grade:  $t = -4.035, p = .000$ ; college:  $t = -4.035, p = .000$   $t = -4.244, p = .000$ ).

Table 8 illustrates differences in the complexity of the apology strategy pattern across age groups. Examination of the complexity of the apology strategy patterns revealed that the 3<sup>rd</sup> graders, most of whom prefer either a single apology strategy (38.5%) or a two-strategy combination (42.7%), produced the least complex apology

**Table 5. Differences in the total number and mean number of strategies employed across age groups**

	Grade 3	Grade 6	Grade 10	College
Total number of strategies	876	1258	1090	1372
Mean number of strategies	1.83	2.62	2.27	2.86
<i>SD</i>	.78	1.01	.91	.98
Minimum	1	1	1	1
Maximum	4	6	5	6

**Table 6. Differences in the mean number of strategies employed between male and female students in each age group**

	Grade 3		Grade 6		Grade 10		College	
	M	F	M	F	M	F	M	F
<i>M</i>	1.57	2.09	2.38	2.86	2.10	2.44	2.67	3.04
<i>SD</i>	.73	.74	.87	1.07	.96	.84	.87	1.54

**Table 7. Analysis of variance for the mean number of strategies among groups**

Source of variance	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Gender	1	86.975	86.975	107.303	.000
Age	3	285.174	95.058	117.275	.000
Gender x age	3	2.673	.891	1.099	.348

**Table 8. Differences in the complexity of apology strategy patterns across age groups**

		Grade 3	Grade 6	Grade 10	College
Single apology strategy		185 (38.5%)	57 (11.9%)	91 (19.0%)	29 (6.0%)
Multi-strategy combination	2 strategies	205 (42.7%)	177 (36.9%)	224 (46.7%)	150 (31.3%)
	3 strategies	79 (16.5%)	155 (32.3%)	117 (24.4%)	189 (39.4%)
	4 strategies	11 (2.3%)	75 (15.6%)	40 (8.3%)	88 (18.3%)
	5 strategies	0	14 (2.9%)	8 (1.7%)	20 (4.2%)
	6 strategies	0	2 (0.4%)	0	4 (0.8%)

strategy pattern. The 6<sup>th</sup> graders, 10<sup>th</sup> graders and college freshmen, on the other hand, favored the pattern of a two-strategy combination (grade 6: 36.9%; grade 10: 47.2%; college: 31.4%) and a three-strategy combination (grade 6: 32.3%; grade 10: 24.6%; college: 39.2%). Five-strategy and six-strategy combination patterns were found in the apology production of the 6<sup>th</sup> graders (five-strategy: n = 14; six-strategy: n = 2) and college freshmen (five-strategy: n = 20; six-strategy: n = 6) whereas none of the participants from grade 3 used such complex patterns. Male students across the age groups were found to favor a single apology strategy, as can be seen in Table 9. In addition, the female respondents across each age group employed a higher number of four-strategy combination patterns in apology production than did the male respondents.

**Table 9. Gender differences in the complexity of apology strategy patterns across age groups**

		Grade 3		Grade 6		Grade 10		College	
		M	F	M	F	M	F	M	F
Single apology strategy		133	52	35	22	69	22	15	14
Multi-strategy combination	2 strategies	78	127	104	73	106	118	89	61
	3 strategies	22	57	77	78	46	71	101	88
	4 strategies	4	7	22	53	13	27	30	58
	5 strategies	0	0	2	12	6	2	4	16
	6 strategies	0	0	0	2	0	0	1	3

### 4.3 Developmental pattern in the choice of strategy

Tables 10 and 11 illustrate the differences in the frequency and the percentage of the IFID apology strategies across age and gender groups. Analysis of the frequency distribution of each individual apology strategy revealed that the “IFID expressing regret/apology” was the most frequently occurring strategy used by all age groups, younger and older participants alike. While the IFID expressing regret/apology was the most frequently used apology strategy among participants of different age groups, the frequency with which participants in grade 10 and in college used the IFID expressing regret/apology was significantly lower than that of the other groups. Significant age effects were observed in the use of the IFID expressing regret/apology strategy ( $\chi^2 = 37.186, p = .000$ ). Compared with the IFID expressing regret/apology, the other IFID strategy—“IFID expressing forgiveness” was less frequently used. The 6<sup>th</sup> graders appeared to use the IFID expressing forgiveness strategy more frequently than any other group. The 3<sup>rd</sup> graders had the lowest number of uses of the IFID

expressing forgiveness strategy. *Chi-square* analysis revealed significant effects of age ( $\chi^2 = 36.763, p = .000$ ). Concerning gender difference, the results showed that male participants employed the IFID expressing regret and IFID requesting for forgiveness strategies less often than the female participants did. The difference was found to be significant in the 10<sup>th</sup> graders' use of the IFID expressing regret strategy ( $\chi^2 = 12.810, p < .000$ ) and 6<sup>th</sup> graders' use of the IFID requesting for forgiveness strategy ( $\chi^2 = 10.863, p < .000$ ).

**Table 10. Differences in the frequency of IFID apology strategies across the age groups**

	Grade 3	Grade 6	Grade 10	College	$\chi^2 (p)$
IFID expressing regret/apology	454 (94.6%)	447 (93.1%)	408 (85%)	417 (86.9%)	37.186 (.000)
IFID requesting for forgiveness	13 (2.7%)	55 (11.5%)	20 (4.2%)	40 (8.3%)	36.763 (.000)

**Table 11. Differences in the frequency of IFID apology strategies between male and female participants in each age group**

	Grade 3			Grade 6			Grade 10			College		
	M	F	$\chi^2$	M	F	$\chi^2$	M	F	$\chi^2$	M	F	$\chi^2$
IFID regret	229	225	.651	222	225	.293	190	218	12.810**	202	215	3.728
IFID forgiveness	3	10	3.874	16	39	10.863**	9	11	.209	16	24	1.745

\*\*<.001

In addition to the difference in the frequency of the IFID expressing regret/apology strategy, a developmental difference was found in the use of the linguistic forms of the IFID expressing regret/apology and expressing forgiveness. Table 12 presents the frequency of three major linguistic forms of IFID expressing regret/apology: 1) *duibuqi* 'I am sorry'; 2) *baoqian* 'I apologize'; and 3) *buhaoyisi* 'excuse me'. As seen in Table 12, *duibuqi* was predominant across all age groups, accounting for 90.6% of IFID expressing regret/apology production by grade 3 and 75.8% by grade 6 participants. Among older participants (10<sup>th</sup> graders and college freshmen), *duibuqi* dropped to 48.3% and 52.4% of IFID expressing regret/apology production. In contrast, use of the formula *baoqian* increased with age. The rate of *baoqian* and *buhaoyisi* used by younger participants (i.e., the 3<sup>rd</sup> graders and the 6<sup>th</sup> graders) was lower than that of the older participants. Likewise, a developmental difference was found in the richness of the lexicons used to request for forgiveness. Younger participants (3<sup>rd</sup> graders, 6<sup>th</sup>

graders and 10<sup>th</sup> graders) were found to only use the lexeme *yuanliang* ‘excuse, forgive, pardon’, to request forgiveness. College participants’ forgiveness strategy, on the other hand, include lexemes such as *baohan* ‘excuse, forgive, bear with me’, *kuanshu* ‘forgive’, and *jianliang* ‘forgive me’.

**Table 12. Frequency of each type of IFID expressing regret/apology across age groups**

Expression of regret/apology	Grade 3	Grade 6	Grade 10	College
<i>duibuqi</i> 对不起	435 (90.6%)	364 (75.8%)	232 (48.3%)	251 (52.3%)
<i>baoqian</i> 抱歉	7 (1.4%)	46 (9.6%)	145 (30.2%)	118 (24.7%)
<i>buhaoyisi</i> 不好意思	7 (1.5%)	5 (1.0%)	14 (2.9%)	18 (3.8%)
Others	5 (1.0%)	32 (6.6%)	17 (3.4%)	30 (6.2%)

Tables 13 and 14 illustrate the differences in the preferences for the use of the strategy of the expression of responsibility for an offense across age and gender groups. This strategy includes four sub-strategies—“admission of fact” (e.g., *wo chidao le* ‘I’m late.’), “blame” (e.g., *shi wode cuo* ‘It’s my fault.’), “lack of intent” (e.g., *wo bu shi guyi* ‘I didn’t mean it.’) and “acknowledgement” (e.g., *wo bu yinggai zheme zuo* ‘I shouldn’t have done it.’). Examination of the total number of expressions of responsibility for an offense each group produced reveals that participants from the 3<sup>rd</sup> grade were least willing to acknowledge responsibility (n = 143), followed by the 10<sup>th</sup> graders (n = 201), 6<sup>th</sup> graders (n = 254) and the college freshmen (n = 287). Among these four sub-strategies, admission of fact was most frequently used by all the age groups; the acknowledgement, the least used. The reason why the third graders were least willing to take responsibility may be because they lack knowledge of the necessary linguistic forms to express responsibility for the offense. Regarding the difference between male and female participants in the use of expressions of responsibility for an offense, the female participants in grade 3 were found to assign more responsibility using the admission of fact strategy than the male participants did ( $\chi^2 = 12.523, p < .000$ ).

Another developmental difference emerged in the use of intensifiers. As shown in Table 15, college freshmen were found to intensify their expressions of apology most frequently (n = 90) whereas the 3<sup>rd</sup> graders used this strategy least frequently (n =

**Table 13. Differences in the frequency of expressions of responsibility for an offense across age groups**

	Grade 3	Grade 6	Grade 10	College
Admission of fact	88 (18.3%)	117 (24.4%)	82 (17.1%)	122 (25.4%)
Blame	28 (5.8%)	46 (9.6%)	54 (11.3%)	75 (15.6%)
Lack of intent	14 (2.9%)	55 (11.5%)	56 (11.7%)	70 (14.6%)
Acknowledgement	13 (2.7%)	36 (7.5%)	9 (1.9%)	20 (4.2%)
Total number of expressions of responsibility for an offense	143	254	201	287

**Table 14. Differences in the frequency of the expressions of responsibility for an offense between male and female participants in each age group**

	Grade 3			Grade 6			Grade 10			College		
	M	F	$\chi^2$	M	F	$\chi^2$	M	F	$\chi^2$	M	F	$\chi^2$
Admission of fact	29	59	12.523**	57	60	.102	34	48	2.883	60	62	.044
Blame	10	18	2.427	20	26	.866	30	24	.751	32	43	1.912
Lack of intent	5	9	1.177	26	29	.185	17	39	9.748	29	41	2.408
Acknowledgement	7	6	0.93	16	20	.480	3	6	1.019	6	14	3.236

\*\*<.001

28). In addition to the differences in the total number of intensification strategies, a difference was found in the range of intensifier types employed. As seen in Table 16, college freshmen used the widest range of intensifiers (9 types, including *feichang* ‘very’, *hen*, ‘quite’, *zhen* ‘really’, *shifen* ‘extremely’, *zhende hen*, ‘really quite’, *zhende/zhendeshi/zhenshi feichang* ‘really very’, *shizai hen*, ‘indeed quite’ *shizai feichang* ‘indeed very’) to modify their expression of apology and the 3<sup>rd</sup> graders used the narrowest (5 types: *feichang*, ‘very’, *hen* ‘quite’, *zhen* ‘really’, *zhende hen* ‘really quite’, *zhende/zhendeshi/zhenshi feichang* ‘really very’). In addition, a gender difference was found in the use of intensification strategies. The results of *chi*-square analysis revealed that intensification strategy was used significantly more often by the female participants in grade 3 and grade 6 than by male participants (grade 3:  $\chi^2 = 12.228$ ,  $p < .01$ ; grade 6:  $\chi^2 = 21.044$ ,  $p < .01$ ), as shown in Table 17. The findings that the 3<sup>rd</sup> and 6<sup>th</sup> graders perceived the obligation to apologize as significantly lower than



the 10<sup>th</sup> graders and college freshmen may explain why the 3<sup>rd</sup> and 6<sup>th</sup> graders intensified their expressions of apology less frequently than did the 10<sup>th</sup> graders and college freshmen.

**Table 15. Differences in the frequency of the intensification strategy across age groups**

	Grade 3	Grade 6	Grade 10	College
Intensification	28 (5.8%)	59 (12.3%)	89 (18.3%)	90 (18.8%)

**Table 16. Frequency of each type of intensifier employed by each age group**

Expression of Intensification	Grade3	Grade 6	Grade10	College
<i>feichang</i> 非常	13	11	8	17
<i>hen</i> 很	9	33	52	19
<i>zhende hen</i> 真的很	3	6	17	31
<i>zhende/zhendeshi/zhenshi feichang</i> 真的(是)/真是非常	1	3	4	7
<i>zhen</i> 真	2	1	2	7
<i>zhende/zhenshi</i> 真的/真是	0	3	5	5
<i>shifen</i> 十分	0	1	1	1
<i>tai</i> 太	0	1	0	0
<i>shizai hen</i> 實在很	0	0	0	2
<i>shizai feichang</i> 實在非常	0	0	0	1
Total number of intensification used	28	59	89	90
Total types of intensifiers used	5	8	7	9

**Table 17. Differences in the frequency of the intensification strategy across gender groups**

	Grade 3			Grade 6			Grade 10			College		
	M	F	$\chi^2$	M	F	$\chi^2$	M	F	$\chi^2$	M	F	$\chi^2$
Intensification	5	23	12.23**	13	46	21.04**	38	49	1.39	35	55	6.37

\*\*<.001

Developmental changes were also observed in the use of the repair strategy, as reflected in Table 18. The repair strategy was offered more often for situations where one lost a book borrowed from a classmate or a teacher. College freshmen used the highest frequency of this strategy (n = 97), followed by the 10<sup>th</sup> graders (n = 66), and

the 6<sup>th</sup> graders (n = 57), whereas the 3<sup>rd</sup> graders provided this strategy in the lowest frequencies (n = 12). Aside from the difference in frequency, an age effect in the use of the repair strategy was revealed in the finding that none of the 3<sup>rd</sup> graders employed modifiers in the content of their repair strategy. The use of the modifier *yiding* ‘certainly’, *mashang* ‘immediately’ by older participants in the content of their repair strategy such as *wo yiding hui zai mai yi ben xinde gei ni* ‘I will **certainly** buy you a **new** one’ or *wo mashang mai yi ben xinde gei ni* ‘I will buy you one **immediately**’ expressed a higher level of sincerity than simply saying *wo hui zai mai yi ben huan gei ni* ‘I will buy one to return to you’ as provided by the participants from grade 3. Gender difference was not found to be significant in the use of the repair strategy, as can be seen in Table 19.

**Table 18. Differences in the frequency of the repair strategy across age groups**

	Grade 3	Grade 6	Grade 10	College
Repair strategy	12 (2.5%)	57 (11.9%)	66 (13.8%)	97 (20.2%)

**Table 19. Differences in the frequency of the repair strategy across gender groups**

	Grade 3			Grade 6			Grade 10			College		
	M	F	$\chi^2$	M	F	$\chi^2$	M	F	$\chi^2$	M	F	$\chi^2$
Repair	4	8	1.317	28	29	.020	37	29	1.124	40	57	3.734

Table 20 presents differences in the frequency of use of the explanation strategy across age groups. As shown in Table 20, participants from all four age groups employed the explanation strategy to explain why a violation had happened. College freshmen were found to produce the highest number of instances of the explanation strategy (17.7%). The use of the explanation strategy increases with age. In addition to a quantitative difference, qualitative differences can be observed in the content of the explanation provided by participants of different age groups. As can be seen in the examples 1-5, in the situation where a person was one hour late for an appointment with a teacher/classmate, both 3<sup>rd</sup> graders and 6<sup>th</sup> graders explained that they were late because they were playing and forgot about the time. The college freshmen, on the other hand, gave reasons such as having to deal with a very important situation or getting stuck in a traffic jam as the cause of the offense. Concerning gender differences, it was found that differences in the use of the explanation strategy between male and female participants varied by age, as seen in Table 21. Female participants from grade 6 used the explanation strategy significantly more often than

did male participants ( $\chi^2 = 6.680, p < .01$ ). Male college freshmen, however, produced a significantly higher proportion of the explanation strategy in their apologies than did female participants ( $\chi^2 = 11.807, p < .000$ ).

**Table 20. Differences in the frequency of the explanation strategy across age groups**

	Grade 3	Grade 6	Grade 10	College
Explanation strategy	34 (7%)	42 (8.8%)	46 (9.5%)	85 (17.7%)

*Example 1. Duibuqi wo wan guo tou le. (Grade 3)*

對不起我玩過頭了。

‘Sorry, *I was playing and forgot about the time.*’

*Example 2. Laoshi duibuqi, yinwei wo tanwan suoyi chidao, qing laoshi yuanliang. (Grade 6)*

老師對不起，因為我貪玩所以遲到，請老師原諒。

‘Teacher, sorry, I am late *because I indulged in playing*. Please forgive me.’

*Example 3. Duibuqi wo wang le shijian. (Grade 10)*

對不起我忘了時間。

‘Sorry, *I forgot about the time.*’

*Example 4. Duibuqi gang you hen zhongyao de shiqing yao chuli suoyi chidao le. (College)*

對不起剛有很重要的事情要處理所以遲到了。

‘Sorry, I am late *because I had to deal with a very important thing*’

*Example 5. Duibuqi yingwei lu shang saiche chidao le. (College)*

對不起因為路上塞車遲到了。

‘Sorry, I am late *because of traffic jam.*’

**Table 21. Differences in the frequency of the explanation strategy between male and female participants across age groups**

	Grade 3			Grade 6			Grade 10			College		
	M	F	$\chi^2$	M	F	$\chi^2$	M	F	$\chi^2$	M	F	$\chi^2$
Explanation	12	22	3.165	13	29	6.680*	20	26	.886	58	29	11.807*

\*<.01

#### 4.4 The order of emergence of apology strategies

Table 22 presents the use of apology strategies in eight situations across all the groups. To examine the order of emergence of apology strategies among native Mandarin Chinese speakers, the use of each type of strategy was ranked, ignoring the contextual differences, according to the highest percentage that had occurred among scenarios. Take the participants in grade 10 for example. As can be seen in Table 22, the number of students who used the IFIDs expressing regret/apology strategy varied from 39 (65%) for scenario 4 to 59 (98%) for scenario 5. The highest percentage that occurred for use of the IFID strategy was 98%, indicating 98% of the 10<sup>th</sup> graders had acquired this strategy. In the same vein, the percentage of use of the repair strategy varied from 0% for scenario 5 to 50% for scenario 1. The highest percentage that occurred for the repair strategy was 50%. The ranking of the 10<sup>th</sup> graders' use of apology strategies, based on the percentage, appears to be the IFID strategy first, followed by alerter, repair, admission of fact, showing concern, intensification, explanation and minimization strategy (i.e., IFID expressing regret (98%) > alerter (53%) > repair (50%) > admission of fact (40%) = showing concern (40%) > intensification (35%) = explanation (35%) > minimization (30%)).

Table 23 displays the ranking of the highest percentage of each apology strategy used across the groups. A strategy which had reached a frequency of 30% or higher was considered emerging in the repertoire of apology strategies of any given group. As seen in Table 23, the 3<sup>rd</sup> graders merely used IFID expressing regret, alerter, and admission of fact. The 6<sup>th</sup> graders added one more apology strategy to their repertoire; that was, repair. Four more strategies appeared in the 10<sup>th</sup> graders' apology repertoire, which were intensification, showing concern, explanation, and minimization. One more strategy showed up in the college freshmen's apology repertoire. Ranking them in order allows us to establish an order of emergence of apology strategies. The core apology strategies such as IFID expressing regret, alerter, and admission of fact emerge first (level I), followed by the repair strategy (level II). Strategies which are more demanding linguistically and cognitively such as explanation, minimization, intensification, showing concern (level III), lack of intent", promise of forbearance, IFID requesting forgiveness, acknowledgement, and blame (level IV) emerge at a later stage.

Table 22. A comparison of the use of apology strategies among eight situations across groups

Scenario /Group	IFID		Adjuncts				Total type of strategies used								
	Regret/apology F (%)	Forgiveness	Expression of responsibility for the offence		Minimize	Justification									
			Admission of fact	Blame				Lack of intent	Acknowledgement						
<b>Scenario 1: Lost classmate's dictionary</b>															
Grade 3	57(95%)	2(3%)	21(35%)	8(13%)	2(3%)	5(8%)	0	0	0	0	0	0	0	7	
Grade 6	59(98%)	11(18%)	23(38%)	6(10%)	3(5%)	12(20%)	26(43%)	2(3%)	0	0	0	0	0	4(7%)	10
Grade 10	57(95%)	3(5%)	20(33%)	3(5%)	4(7%)	0	21(35%)	29(48%)	0	1(2%)	0	0	0	2(3%)	9
College	56(93%)	4(7%)	41(68%)	9(15%)	6(10%)	0	12(20%)	43(72%)	0	1(2%)	2(3%)	0	0	1(2%)	10
<b>Scenario 2: Lost teacher's dictionary</b>															
Grade 3	60(100%)	2(3%)	11(18%)	5(8%)	1(2%)	0	5(8%)	2(3%)	1(2%)	0	0	0	0	35(58%)	10
Grade 6	59(98%)	13(22%)	26(43%)	7(12%)	8(13%)	1(2%)	9(15%)	15(25%)	4(7%)	0	0	0	0	52(87%)	10
Grade 10	55(92%)	4(7%)	18(30%)	7(12%)	5(8%)	0	20(33%)	20(33%)	2(3%)	0	0	0	0	32(53%)	9
College	54(90%)	5(8%)	38(63%)	9(15%)	6(10%)	0	18(30%)	32(53%)	1(2%)	2(3%)	0	0	0	36(60%)	11
<b>Scenario 3: Speak ill of a teacher</b>															
Grade 3	55(92%)	3(5%)	5(8%)	3(5%)	3(5%)	0	8(13%)	1(2%)	8(13%)	0	0	0	1(2%)	25(42%)	11
Grade 6	53(88%)	9(15%)	12(20%)	1(2%)	15(25%)	4(7%)	9(15%)	6(10%)	2(3%)	1(2%)	0	0	4(7%)	47(78%)	14
Grade 10	42(70%)	2(3%)	4(7%)	4(7%)	10(17%)	6(10%)	12(20%)	3(5%)	2(3%)	9(15%)	1(2%)	0	11(18%)	26(43%)	14
College	47(78%)	10(17%)	0	5(8%)	19(32%)	6(10%)	19(32%)	5(8%)	3(5%)	4(7%)	10(17%)	17(28%)	2(3%)	28(47%)	13
<b>Scenario 4: Speak ill of a classmate</b>															
Grade 3	53(88%)	4(7%)	2(3%)	2(3%)	3(5%)	4(7%)	2(3%)	2(3%)	4(7%)	1(2%)	0	0	1(2%)	19(32%)	13
Grade 6	52(87%)	7(12%)	3(5%)	3(5%)	11(18%)	13(22%)	8(13%)	1(2%)	5(8%)	1(2%)	2(3%)	0	10(17%)	47(78%)	14
Grade 10	38(63%)	4(7%)	1(2%)	5(8%)	14(23%)	1(2%)	3(5%)	1(2%)	0	10(17%)	2(3%)	16(27%)	6(10%)	4(7%)	13
College	39(65%)	8(13%)	0	4(7%)	13(22%)	7(12%)	5(8%)	3(5%)	0	14(23%)	10(17%)	25(42%)	5(8%)	11(18%)	12
<b>Scenario 5: Being late for an appointment with a teacher</b>															
Grade 3	56(93%)	1(2%)	17(28%)	1(2%)	1(2%)	0	1(2%)	0	8(13%)	0	13(22%)	0	0	19(32%)	10
Grade 6	55(92%)	5(8%)	34(57%)	10(17%)	0	3(5%)	6(10%)	0	17(28%)	0	10(17%)	0	0	41(68%)	9
Grade 10	54(90%)	2(3%)	24(40%)	15(25%)	2(3%)	2(3%)	16(27%)	0	3(5%)	2(3%)	18(30%)	0	0	17(28%)	11
College	58(97%)	5(8%)	27(45%)	13(22%)	2(3%)	2(3%)	24(40%)	1(2%)	8(13%)	3(5%)	24(40%)	0	0	30(50%)	12
<b>Scenario 6: Being late for a meeting with a classmate</b>															
Grade 3	58(98%)	0	13(22%)	0	1(2%)	0	3(5%)	0	5(8%)	0	14(24%)	0	0	2(3%)	7
Grade 6	55(88%)	5(8%)	20(33%)	10(17%)	1(2%)	4(7%)	3(5%)	10(17%)	0	15(25%)	0	0	0	7(12%)	11
Grade 10	50(83%)	3(5%)	13(22%)	7(12%)	4(7%)	0	8(13%)	6(10%)	4(7%)	3(5%)	20(33%)	0	0	1(2%)	11
College	54(90%)	6(10%)	11(18%)	15(25%)	8(13%)	2(3%)	7(12%)	11(18%)	8(13%)	4(7%)	21(35%)	0	0	0	11
<b>Scenario 7: Bump into a teacher</b>															
Grade 3	56(95%)	1(2%)	11(19%)	4(7%)	1(2%)	0	5(8%)	0	10(17%)	4(7%)	4(7%)	0	0	28(48%)	10
Grade 6	58(97%)	3(5%)	7(12%)	6(10%)	5(8%)	0	6(10%)	2(3%)	13(22%)	8(13%)	6(10%)	0	0	43(72%)	11
Grade 10	47(78%)	1(2%)	8(13%)	10(17%)	0	4(7%)	1(2%)	1(2%)	2(3%)	16(27%)	2(3%)	0	0	20(33%)	11
College	53(88%)	1(2%)	2(3%)	13(22%)	7(12%)	2(3%)	5(8%)	0	15(25%)	27(45%)	9(15%)	0	0	27(45%)	11
<b>Scenario 8: Bump into a student</b>															
Grade 3	56(94%)	1(2%)	8(14%)	5(9%)	2(3%)	0	2(3%)	2(3%)	4(7%)	7(12%)	3(5%)	0	0	6(10%)	11
Grade 6	58(97%)	2(3%)	3(5%)	11(18%)	0	5(9%)	4(7%)	4(7%)	6(10%)	13(22%)	3(5%)	0	0	9(15%)	11
Grade 10	49(82%)	0	1(2%)	3(5%)	5(9%)	0	3(5%)	4(7%)	22(37%)	1(2%)	1(2%)	0	0	1(2%)	9
College	54(90%)	0	3(5%)	7(12%)	9(15%)	1(2%)	6(10%)	2(3%)	4(7%)	39(65%)	8(13%)	0	0	4(7%)	11

**Table 23. Ranking of frequently used strategies across groups % (N)**

Strategy \ Group	Grade 3 % (F)	Grade 6 % (F)	Grade 10 % (F)	College % (F)
IFID expressing apology	100% (60)	98% (59)	98% (59)	97% (58)
Alerter	58% (35)	87% (52)	53% (32)	60% (36)
Admission of fact	35% (21)	57% (34)	40% (24)	68% (41)
Repair	17% (10)	43% (26)	50% (30)	72% (43)
Intensification	15% (9)	20% (12)	35% (21)	40% (24)
Showing concern	12% (7)	22% (13)	40% (24)	65% (39)
Explanation	24% (14)	25% (15)	35% (21)	40% (24)
Minimization	2% (1)	17% (10)	30% (18)	42% (25)
Lack of intent	5% (3)	20% (12)	23% (14)	32% (19)
Promise of forbearance	17% (10)	28% (17)	7% (4)	25% (15)
IFID expressing forgiveness	7% (4)	22% (13)	7% (4)	17% (10)
Acknowledgement	13% (8)	25% (15)	10% (6)	12% (7)
Blame	13% (8)	17% (10)	25% (15)	25% (15)

## 5. Discussion and conclusion

This study set out to answer three research questions. The first research question concerned whether there are developmental differences in perceptions regarding the severity of the offense, the obligation to apologize and the likelihood of apology acceptance across age groups. The results of the perception data revealed that there is no significant age effect for the perception of the severity of the offense, indicating that children at the age of nine (3<sup>rd</sup> graders) have reached the same ability as adolescents and adults in assessing the severity of the offense.

Children (3<sup>rd</sup> graders) and young adolescents (6<sup>th</sup> graders), however, perceived the obligation to apologize and the likelihood of apology acceptance differently from adolescents and young adults, which may indicate that it is not until adolescence that one reaches an adult-like ability to assess what action to take after an offense is given and how people will respond to an apology. The findings that the differences across age groups were statistically significant in the perception of the obligation to apologize and the likelihood of apology acceptance (i.e. 3<sup>rd</sup> and 6<sup>th</sup> graders perceived the obligation to apologize and the likelihood of apology acceptance as significantly lower than 10<sup>th</sup> graders and college freshmen) but not statistically significant in the perception of the severity of the offense may indicate that the ability to judge the

severity of the offense develops earlier than the ability to assess what action to take after the offense and how people will respond to an apology.

The second and third research questions were intended to identify how the use of apology strategies differs across native Mandarin speakers of different age groups and how the repertoire of apology strategies expands. Findings from the quantitative analysis of production data revealed developmental changes in apology production generated by the participants of different ages. Subjects in grade 3 produced the least complex apology strategy patterns, mainly using a single apology strategy (38.5%) or two-strategy combination (42.7%) whereas older subjects combined a higher number of apology strategies (2-,3-,4-,5-,6-strategy-combination) in their apology production. The results showed that the frequency with which participants from grade 10 and college used the IFID expressing regret/apology strategy was significantly lower than that of 3<sup>rd</sup> graders and 6<sup>th</sup> graders, which may be due to the fact that the 3<sup>rd</sup> graders, with their limited repertoire of apology strategies, had to rely heavily on the IFID strategies and therefore produced the highest number of them. Likewise, the findings showed that younger subjects predominantly employed *duibuqi* ‘I am sorry’ whereas the older subjects (10<sup>th</sup> graders and college freshmen) use of *duibuqi* ‘I am sorry’ dropped to 48.3% and 52.4% and use of the formula *baqian* ‘I apologize’ increased with age, which may result from the fact that as one’s repertoire of apology strategies expands, one has more strategies to select from and the dependence on *duibuqi* ‘I am sorry’ alone decreases.

The findings that the majority of the younger participants employed the formula *duibuqi* ‘I am sorry’ and the use of the formula *baqian* ‘I apologize’ increased with age indicates the order of acquisition regarding the IFID strategy: the IFID expression *duibuqi* ‘I am sorry’ is learned first and the expression *baqian* ‘apologize’ later. Likewise, concerning the forgive strategy, the expression *yuanliang* ‘forgive’ is acquired earlier than the expressions *baohan* ‘forgive’ and *kuanshu* ‘forgive’. These findings concerning the expansion of linguistic forms of strategy parallel those in Kampf & Blum-Kulka’s (2009) study, which showed that both the younger and older groups employed the formulaic *slixa* ‘forgive’ and *ani micta’er* ‘I’m sorry’ IFID forms, and that only the adult group used *mitnacel* ‘apologize’, a more formal IFID form.

Unlike Kampf & Blum-Kulka’s (2009) study, which reported that repair and intensification did not occur in children’s apologies, the present study found the occurrence of these strategies in both young and old participants. One possible explanation for this discrepancy may be that it is the result of the difference in the offense contexts calling for an apology. The present study elicited apology data from “late”, “lost”, “criticizing” and “bump” scenarios. Since a difference in offense

contexts may elicit different apology perception and production, the developmental patterns found in this study may not provide a complete overview of the developmental pattern of apology production and apology perception, but rather present situation specific views of developmental pattern of apology production and apology perception.

The findings that the native Mandarin Chinese speakers' repertoire of apology strategies expanded with age in a certain order may indicate that a hierarchy exists in terms of linguistic demands, cognitive demands, necessity levels and face-threatening levels in apology strategies. The formulaic expression *duibuqi* 'I am sorry' emerges in the earliest stage because it is less demanding linguistically and cognitively and highly necessary in realizing the speech act of apology. The explanation strategy, in contrast, appears at a later stage because it is more linguistically and cognitively demanding and the necessity level is context dependent. The reason why three strategies for the "expression of responsibility for the offense" (i.e., blame, lack of intent and acknowledgement) emerge at a later stage may result from the high level of face threatening in these strategies. Taking responsibility, according to Nureddeen (2008), is the most direct and strongest apology strategy. Although the linguistic and cognitive demands of these three strategies (e.g., "It's my fault"; "I did not mean it"; "I shouldn't have done it") are not particularly high, the high level of threat to the speaker's 'face' when using these strategies may deter people from using them.

When comparing the order of emergence of native Mandarin Chinese speakers' apology strategies found in this study with that of Chang (2010), which explored the order of emergence of L2 apology strategies by Chinese learners of English, similarities were found in the order of emergence of apology strategies both groups. Both groups started from the formulaic expression "*I am sorry/duibuqi*" and the strategies such as explanation, blame, lack of intent, and acknowledgement emerged at a later stage. Future studies exploring the order of emergence of native English speakers' apology strategies are needed in order to clarify whether the cause of similarity found is due to a language universal or to L1 transfer. Examination of the order of emergence of apology strategies from different L1 speakers would provide baseline data for researchers in the field of interlanguage pragmatics to better the understanding of the development of L2 pragmatic competence.

The present study elicited apology data from late, lost, criticizing and bump scenarios. Since different offense contexts may elicit different apology perception and production, the developmental patterns found in this study may not provide an overview of the developmental pattern of apology production and apology perception, so much as present a developmental pattern of apology production and apology perception. Future research could adopt a post-interview in order to come to a better



understanding of the reasons behind rating perceptions of the severity level of an offense, the obligation to apologize, the likelihood of apology acceptance, and the process of selecting an appropriate apology strategy.

**Appendix I. Sample of the questions in the questionnaire (English version)**

1. You lost a dictionary that you borrowed from your classmate.
  - a. How serious is the offense?  

<b>not serious</b>	0 1 2 3 4 5 6 7 8 9	<b>very serious</b>
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  - b. Do you have the obligation to apologize?  

<b>no obligation</b>	0 1 2 3 4 5 6 7 8 9	<b>strong obligation</b>
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  - c. Is your classmate likely to accept your apology?  

<b>Unlikely</b>	0 1 2 3 4 5 6 7 8 9	<b>very likely</b>
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  - d. Is this situation embarrassing to you?  

<b>not embarrassing</b>	0 1 2 3 4 5 6 7 8 9	<b>very embarrassing</b>
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  - e. What would you say to apologize to your classmate? \_\_\_\_\_
2. You lost a dictionary that you borrowed from your teacher.
  - a. How serious is the offense?  

<b>not serious</b>	0 1 2 3 4 5 6 7 8 9	<b>very serious</b>
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  - b. Do you have the obligation to apologize?  

<b>no obligation</b>	0 1 2 3 4 5 6 7 8 9	<b>strong obligation</b>
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  - c. Is your teacher likely to accept your apology?  

<b>Unlikely</b>	0 1 2 3 4 5 6 7 8 9	<b>very likely</b>
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  - d. Is this situation embarrassing to you?  

<b>not embarrassing</b>	0 1 2 3 4 5 6 7 8 9	<b>very embarrassing</b>
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  - e. What would you say to apologize to your teacher? \_\_\_\_\_

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## 國語道歉語的表達與認知發展研究

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現有有關「道歉語」發展的研究多數探討西方兒童的發展，少有學者檢視東方兒童的道歉語發展情形。此外，多數探討道歉語發展的研究收集查驗兒童的語料。青少年的道歉表達與認知的情形和兒童、成人是否有差異則較少有學者探討。為清楚地瞭解道歉語的發展，本研究收集國小三年級、六年級、高中二年級及大學一年級學生的道歉語語料。每組各有男生 30 人，女生 30 人。資料收集的工具則是以情境問卷為主，收集道歉表達與認知資料。研究結果顯示在道歉認知的部分，四組不同年齡層的參與者對於情境的「冒犯嚴重程度」的認知差異不具顯著性。對於情境之「道歉的必要性」及「接受道歉的可能性」的認知部分，四組則有顯著差異。此研究發現意謂著道歉認知的發展歷程，對於情境的「冒犯嚴重程度」的認知發展應是早於冒犯別人之後需採取什麼行動及對方會如何回應的認知發展。在道歉表達的部分，各組所使用的道歉策略亦有顯著的差異。

關鍵詞：語用發展、道歉語、國語