

# Children's and Adults' Understanding of Faux Pas and Insults

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## Abstract

We examined 7- to 11-year-old children's and adults' social understanding by presenting stories containing either a verbal faux pas or a deliberate insult. Participants were asked about the speaker's knowledge, intent, and affect, and about the listener's perception of the speaker's intent, and the listener's affect before and after the speaker apologized. Nine-year-olds, 11-year-olds, and adults recognized that the speaker's knowledge or ignorance, but younger children did not. All age groups judged that the speaker did not intend harm and that the listener would not perceive the listener as intending harm. Nine-year-olds, 11-year-olds, and adults rated the speaker as feeling worse in faux pas stories than in insult stories, but younger children did not. All age groups rated the listener as feeling worse in insult stories than in faux pas stories. Children judged that an apology would improve the listener's feelings more than adults did.

**Keywords:** social cognition, perspective-taking, theory of mind

## 1. Introduction

During middle and late childhood, children's understanding of other minds advances beyond the basic understanding of mental states that is evident at earlier ages. Young children have a basic ability to identify and reason about another person's visual experience, knowledge, desires, beliefs, intentions, or emotions. When questioned with simple tasks, 3-year-olds may recognize that another person may not see or know the same things that children themselves see or know (Pillow, 1989; Pratt & Bryant, 1990). Likewise, 3-year-olds recognize that another person's desires may differ from their own (Bartsch & Wellman, 1995; Wellman & Woolley, 1990), and also can identify another person's intention (Shultz & Wells, 1985) or emotion (Harris, 1989). By 4 or 5 years of age children also recognize that another person may hold a false belief (Wimmer & Perner, 1983). Studies of early social understanding typically ask children to identify one person's mental state at one point in time. For example, children may be asked to reason about a story character's emotion or to reason about a character's belief. In contrast, more advanced, or higher order, social understanding includes the ability to coordinate relations among multiple mental states across multiple individuals. For instance, children's reasoning about recursive mental beliefs, such as John's belief about what Mary believes, generally improves around 5- to 6-years of age (Miller, 2012, 2013). As understanding of mental states advances, children are able to comprehend increasingly complex and subtle social events. For instance, children's ability to detect and comprehend a verbal faux pas has been used as a measure of advanced social understanding during middle and late childhood (Banerjee & Watling, 2005; Banerjee, Watling, & Caputi, 2011; Baron-Cohen, O'Riordan, Stone, Jones, & Plaisted, 1999). Recognition that a speaker has said something inappropriate that might hurt the listener's feelings unintentionally generally increases between about 7- and 11-years of age. In the present study, we examined children's understanding of faux pas, deliberate insults, and apologies. The goals of the study were to investigate (a) children's ability to identify the thought and feelings of a speaker and listener in events involving a faux pas or insult, and (b) children's ability to track changes in the speaker's and the listener's mental states over the course of a brief social exchange.

Faux pas, insults, and apologies are social acts that involve contrasting thoughts and feelings on the part of the speaker and listener. Mature understanding of these events requires recognition of differences in perspective, reasoning about recursive mental states, and understanding of relations among intentions, beliefs, and emotions. This type of advanced social understanding appears to improve during middle childhood. Recognition of differences in knowledge, belief, or desire is evident during early childhood (e.g., Bartsch & Wellman, 1995;

Wimmer & Perner, 1983), but recognition of contrasting mental states is elaborated further during middle childhood. From about 6- to 8-years of age, children recognize that two individuals may interpret the same information in different ways (e.g., Carpendale & Chandler, 1996; Lagatutta, Sayfan, & Blattman, 2010) or experience different affective responses to the same situation (Gnepp & Chilamkurti, 1988). Carpendale and Chandler (1996) reported that 8-year-olds, but not 5- and 6-year-olds, recognized that more than one interpretation is possible for ambiguous visual and verbal stimuli, such as a drawing that could be viewed as either a duck or a rabbit, or the word “ring” which could be understood as referring to either a diamond ring or a telephone ring. Six- and 7-year-old also recognize that prior knowledge or expectations may bias a person’s interpretation of ambiguous information, including ambiguous social events (Pillow, 1991; Pillow & Henrichon, 1996). Gnepp and Gould (1985) found that from 7- to 10-years of age children increasingly appreciate that prior experiences may influence a person’s affective reaction to an event. Gnepp and Chilamkuriti (1988) reported that around the same age children also consider a person’s personality traits when predicting the person’s emotional response to a situation.

Reasoning about higher-order, or recursive, beliefs also improves from early to middle childhood. To assess higher-order belief reasoning, Perner and Wimmer (1985) presented children with a story in which John and Mary were at a park when an ice cream truck arrived. After Mary left to get money for ice cream, John learned that the ice cream truck would be moving to the church. Unbeknownst to John, Mary also learned about the truck’s change location. Then John went to find Mary and learned that Mary had already gone to get ice cream. Children were asked where John would look for Mary. If children successfully engage in higher-order belief reasoning, they should predict that John would look for Mary in the park, although Mary was really headed for the church. Most 7- to 9-year-olds, as well as some 6-year-olds, correctly recognized John’s false belief about Mary’s belief concerning the truck’s location. However, with simplified stories with fewer words, characters, and scenes, subsequent studies have found that children as young as five years of age can successfully identify higher-order false beliefs (e.g., Coull, Leekam, & Bennett, 2006; Hayashi, 2007; Miller, 2013; Sullivan, Zaitchik, & Tager-Flusberg, 1994). Thus, by age five years, children may have some ability to engage in higher-order belief reasoning, but this ability continues to improve, and children do not achieve ceiling performance on the more challenging tasks until 7- or 8-years of age.

To assess advanced social reasoning in children 7- to 11- years of age, Baron-Cohen et al. (1999) developed a faux pas comprehension task. Understanding a verbal faux pas is a challenging social cognitive task. In a verbal faux pas, a speaker unwittingly says something that hurts or offends a listener. For example, Baron-Cohen et al.’s (1999) task included a story in which an adult said “I don’t think I have met this boy before”, when unwittingly referring to a young girl. Fully comprehending this event requires recognition of the story characters’ changing perspectives. The adult character began with a mistaken belief about the child’s gender, leading to a remark that could cause the child character to feel hurt, anger, and embarrassment. Upon realizing the error, the adult might feel embarrassment or guilt, and might try to rectify the situation with an apology, which may reduce the negative feelings experienced by both characters. Faux pas comprehension involves both recognition of first-order mental states, i.e., the individual thoughts, feelings, and intentions of the speaker and listener, and reasoning about second-order beliefs, i.e., the listener’s belief about the speaker’s knowledge and intention, and the speaker’s belief about the listener’s feelings and about the listener’s understanding of the speaker’s initial ignorance and intention. Baron-Cohen et al. (1999) presented children with ten scenarios in which a character committed a faux pas. After each story children were asked a detection question (Did someone say something that should not have been said?), an identification question (What was said that should not have been said?), a false belief question (Does the speaker know...?), and a comprehension question (about a detail specific to the story). To be credited with understanding the faux pas, children had to answer all four questions correctly. Performance improved from 7- to 11-years of age. In a subsequent study, Banerjee and Watling (2005) asked children if the listener felt happy/pleased or sad/upset in response to the speaker’s comment and whether the speaker intended to upset the listener. Nine-year-olds performed better than 6-year-old children on all questions. Overall, children had difficulty detecting whether something wrong was said, recognizing the speaker’s ignorance, and inferring the speaker’s intention. Children were more successful at identifying the faux pas comment, judging the listener’s affect, and answering the comprehension question. Performance on the faux pas task is related to children’s social adjustment. Banerjee and Henderson (2001) found that the faux pas comprehension task is negatively correlated with social anxiety in children and Banerjee and Watling (2005) found that the task was positively correlated with peer acceptance.

Studies of children's understanding of transgressions and apologies have examined children's views regarding the emotional consequences of deliberate moral transgressions, such as stealing, breaking a promise, or pushing another child (e.g., Arsenio & Rivka, 1992; Keller, Lourenco, Malti, & Saalbach, 2003; Nunner-Winkler & Sodian, 1988; Smith, Chen, & Harris, 2010). For example, Arsenio and Rivka (1992) told 4- to 8-year-old children stories in which one child stole candy from another child. Most children attributed positive emotions to victimizers and negative emotions to victims, but 4-year-olds attribute more extreme positive emotions to victimizers than did 8-year-olds. Subsequent studies suggest that children have complex views of victimizers. Keller et al. (2003) reported that although children attributed positive emotions to victimizers, children also viewed the victimizer negatively and judged the victimizer's positive emotions as wrong. Smith et al. (2010) investigated the influence of an apology on children's views of the transgressor and victim. When a transgressor apologized to a victim, children ages 4- to 9-years judged the transgressor as feeling less positive than a transgressor who did not apologize, and children judged victims who received an apology as feeling more positive than victims who did not receive an apology. Thus, children viewed an unapologetic transgressor as feeling good about the gains achieved via the transgressive action, but viewed an apologetic transgressor as feeling remorse about his or her harmful actions. In addition, children seemed to believe that apologies can improve a victim's feelings.

Previous studies have not investigated children's judgments about the effect of apologies following faux pas or deliberate insults. Because neither a verbal faux pas nor a deliberate insult results in material gains for the speaker, these events may be judged differently than more instrumental transgressions. Although a faux pas is not intended to cause harm, a listener may regard the faux pas as reflecting the speaker's true feelings. Consequently, even if the listener recognizes that no harm was intended, a faux pas still may be hurtful to the listener, and upon discovering the error, a speaker should feel bad about it. In contrast, because a deliberate insult is intended to hurt the recipient's feelings, the speaker may not feel as much remorse as a speaker who commits a faux pas. If children regard the act of apologizing as effective in and of itself, then they may expect an apology to improve the recipient's feelings following either a faux pas or insult. However, if children focus on the speaker's motivation, they may regard faux pas and insults as reflecting the speaker's true feelings, which could lead them to judge apologies as relatively ineffective.

In the present study we investigated children's and adults' understanding of faux pas, insults, and apologies. Children ages 7- to 11-years and adults were presented with brief vignettes in which one character, the speaker, either committed a faux pas or made an insulting remark, but subsequently apologized to the other character, the listener. We examined: (a) participants' detection of the faux pas or insult, i.e., recognition that the speaker had said something inappropriate, (b) participants' recognition of the speaker's knowledge or ignorance at the time of the faux pas or insult, (c) participants' assessment of the listener's emotion following the faux pas or insult, (d) participants' explanation for why the speaker committed the faux pas or insult, (e) participants' beliefs about the listener's perception of the speaker's intention following the faux pas or insults, (f) participants' ratings of the speaker's emotion following the faux pas or insult, and (g) participants' ratings of the listener's emotion following an apology by the speaker. We expected to find both similarities and differences in performance across the age groups in the study. First, in keeping with previous research (Banerjee & Watling, 2005; Baron-Cohen et al., 1999), we expected that detection of faux pas would increase with age; however, we expected that all age groups would detect the insult. Because insults are explicitly derogatory, children ages 7 years and older should have little difficulty recognizing them as inappropriate. Second, we expected that all age groups would judge the speaker's knowledge accurately. By 7-years of age children also should have little difficulty making a basic attribution of first-order knowledge or ignorance based on information presented in the stories. Third, we expected that compared to younger children, older children and adults would be more likely to judge that the listener would attribute harmful intent to the speaker following an insult but not following a faux pas. Such judgments should be challenging because they require complex and subtle higher order mental state reasoning. Fourth, we expected that recognition of the different affective consequences of faux pas and insults for the speaker as well as the listener would improve with increased age. Because understanding the speaker's and listener's emotions requires coordinating the perspectives of two individuals and considering relations among knowledge, motives, and emotions, reasoning about emotions in these events should be relatively challenging for the younger children.

## 2. Method

### 2.1 Participants

Sixty four children and 16 adults (8 women, 8 men,  $M = 19$  years) participated. The children were divided into 4 age groups: 16 7-year-olds (8 girls, 8 boys,  $M = 7$  years 1 month, range = 6; 0-7; 6), sixteen 8 year olds (6 girls, 10 boys,  $M = 8$  years 2 months, range = 7; 7-8; 11), sixteen 9-year-olds (8 girls, 8 boys,  $M = 9$  years 6 months, range = 9; 0-9; 12), and sixteen 11-year-olds (8 girls, 8 boys,  $M = 11$  years 7 months, range = 11; 0-12; 3). Children were recruited from three rural-suburban area schools located in either northern Illinois or western Kentucky. The student population at the elementary schools ranged from 49- to 87% Caucasian. These populations provided a diverse sample of children from primarily middle income families spanning an age range when improvements in advanced social understanding were expected to occur. Adults were undergraduate students at a large public university in northern Illinois. All participants were fluent in English. Parental consent and child assent were obtained from all students. Children received no material compensation for their participation. Adults signed a consent form and received course credit as partial fulfillment of a course requirement.

### 2.2 Materials

#### 2.2.1 Stories

Six faux pas stories and 6 insult stories were used. The stories are presented in the Appendix. Five of the faux pas stories were modeled directly from Baron-Cohen et al.'s (1999) faux pas task. A sixth story was created by the authors. The six contrasting insult stories involved the same characters and situations as the faux pas stories. The main characters in each story were children. In the faux pas stories the speaker was either ignorant of information relevant to the listener or held a false belief about an object that was important to the listener. As a result, the speaker unwittingly insulted the listener. For example, "Ashley spent all week working on a picture for the school's art show. On Friday night friends and family were invited to come view the school's work. Ashley invited her friend Jessica from another school. When they arrived, Ashley said, "Let's go look at the paintings. Everybody worked really hard on them." When they got to Ashley's picture Jessica said, "Who painted this picture? This painting is really ugly." In contrast, in the insult stories the speaker was knowledgeable and thus his or her comment to the listener was an intentional insult. For example, the insult version of the art show story ended with, "When they got to Ashley's picture Jessica said, "Wow, your painting is really ugly."

#### 2.2.2 Rating Scale

An emotion rating scale was used for ratings of the speaker's affect and the listener's affect. The scale was a 5-point scale (1 = bad to 5 = good). Three faces were drawn at points 1, 3, and 5 with the shape of the mouth being the only difference among the faces. A frown, a straight line, and a smile were used to depict "bad", "okay" and "good", respectively.

### 2.3 Procedure

Children were tested individually at their school. Adults were individually tested in a university laboratory. At the beginning of the session participants were also introduced to the emotion rating scale. Each participant heard six stories, including three faux pas stories and three insult stories. Participants heard either the insult or faux pas version of each of the six story themes. Both the order of themes and story type were counterbalanced across participants. Story type was alternated so that participants never heard two faux pas or two insult stories consecutively.

After each story participants were asked 9 questions: (a) Detection: participants were asked, "Did someone say something they should not have said?", (b) Knowledge/Ignorance: participants were asked about the speaker's knowledge or ignorance, e.g., "Did Jessica know Ashley painted the picture?", (c) Listener's Affect: participants were asked to rate the listener's affect using the emotion rating scale, e.g., "How does Ashley feel? Good, Bad, okay, or somewhere in-between?", (d) Explanation: participants were asked to explain why the speaker committed the faux or insult, e.g., Why do you think Jessica said, "This painting is really ugly?", (e) Perceived Intention: participants were questioned about listener's understanding of the intentions behind the speaker's insult or faux pas, e.g., "Does Ashley think Jessica meant to hurt her feelings?", (f) Speaker's Affect: participants were asked to rate the speaker's affect following the faux pas or insult using the emotion rating scale, e.g., "Later Jessica realized it was Ashley's painting. How does Jessica feel? Bad, Good, Okay, or somewhere in between?", (g) Apology Affect: participants were asked to rate the listener's emotion after the speaker apologized, e.g., "Jessica apologized. How does Ashley feel now? Okay, good, bad, or somewhere in-between?",

and (h) Memory: participants were asked two questions about details of the story, e.g., “What did Ashley make for the school’s art show?”, and “Does Jessica go to Ashley’s school?”. The same questions were asked for the Faux Pas and Insult versions of each story. The order of the questions was constant across all stories. Participants were asked to rate the target character’s emotions as bad, okay, good, or somewhere in-between. The presentation order of the emotion descriptors as counterbalanced across story and participants.

### 3. Results

Responses were analyzed with a series of 5 x 2 x 2 (Age x Gender x Story Type) ANOVA’s, with Story Type as a within-subjects factor. For the Detection, Knowledge/Ignorance, and Perceived Intention questions, participants were given a score of 1 for “yes” responses and 0 for “no” responses for each story. For each question scores for Faux Pas stories ranged from 0 to 3, and scores for Insult stories ranged from 0 to 3.

#### 3.1 Detection Question

For the Detection question, a 5 x 2 x 2 (Age x Gender x Story Type) repeated-measures ANOVA yielded a significant main effect of Story Type,  $F(1,70) = 12.16, p = .001, p^2 = .15$ . Participants recognized that the Speaker had said something inappropriate in the Insult stories more often than in the Faux Pas stories. There were no other significant effects. The mean number of insults detected, for each age group, is shown in Table 1. For both types of stories, all age groups performed above chance (1.5 correct) on the Detection Question (Faux Pas: 7-year-olds:  $t(15) = 38.63, p = .001$ , 8-year-olds:  $t(15) = 35.50, p = .001$ , 9-year-olds:  $t(15) = 23.42, p = .001$ , 11-year-olds:  $t(15) = 35.27, p = .001$ , adults:  $t(15) = 6.89, p = .001$ ; Insult: 7-year-olds:  $t(15) = 3.43, p = .004$ , 8-year-olds:  $t(15) = 6.75, p = .001$ , 9-year-olds: ceiling performance, 11-year-olds: ceiling performance, adults:  $t(15) = 6.46, p = .001$ ).

Table 1. Mean number of correct responses to the detection question by age and story type

Age	Detection	
	Faux Pas	Insult
	<i>M (SD)</i>	<i>M (SD)</i>
7-years	2.25 (0.93)	2.44 (1.09)
8-years	2.31 (0.87)	2.69 (0.70)
9-years	2.75 (0.45)	3.00 (0.00)
11-years	2.88 (0.50)	3.00 (0.00)
Adult	2.50 (0.89)	2.75 (0.77)

Note. Scores range from 0-3 for each Story Type.

#### 3.2 Knowledge Question

The Knowledge question assessed participants’ attribution of knowledge or ignorance to the speaker. Because the speaker was knowledgeable in Insult stories, but either held a false belief or was ignorant in the Faux Pas stories, participants should attribute knowledge to the speaker in the Insult stories but not in the Faux Pas stories. The mean number of stories in which knowledge was attributed to the speaker for each age group is presented in Table 2. A 5 x 2 x 2 (Age x Gender x Story Type) repeated-measures ANOVA yielded a significant main effect of Story Type,  $F(1,70) = 125.84, p < .001, p^2 = .64$ . Overall, participants regarded the speaker as more knowledgeable in the Insult stories than in the Faux Pas stories. This main effect was qualified by a significant Age x Story Type interaction,  $F(4,70) = 12.21, p < .001, p^2 = .41$ . One-way ANOVA’s conducted for each story type yielded a significant effect of Age for Insult stories,  $F(4,75) = 8.41, p < .001$ , but not for Faux Pas stories,  $F(4,75) = 1.08, p > .05$ . To examine performance further, paired *t* tests comparing the two Story Types were performed for each age group, using a Bonferroni correction of .01 ( $p = .05/5$  age groups). Nine-year-olds  $t(15) = 5.72, p < .001, p^2 = .71$ ; 11-year-olds  $t(15) = 8.88, p < .001, p^2 = .82$ ; and adults,  $t(15) = 8.88, p < .001, p^2 = .99$ , attributed knowledge to the speaker in the Insult stories significantly more often than to the speaker in the Faux Pas stories. Seven-year-olds  $t(15) = .00, p = 1.00, p^2 = 0$ , and 8-year-olds,  $t(15) = -2.55, p = .02, p^2 = .30$ , did not differentiate between story types. Scores for Faux Pas and Insult stories were compared to chance for each age group. Knowledge scores should be above chance for the Insult stories and below chance for Faux Pas

stories. Seven-year-olds attributed knowledge significantly below chance on both Faux Pas ( $t(15) = -2.30, p = .04$ ) and Insult stories ( $t(15) = -2.30, p = .04$ ). Eight-year-olds' performance did not differ significantly from chance for the Insult stories ( $t(15) = .63, p = .54$ ), but was significantly below chance for Faux Pas stories ( $t(15) = -2.24, p = .04$ ). Thus, neither 7- nor 8-year-olds demonstrated clear recognition of the speaker's knowledge in Insult stories. Nine-year-olds performed significantly above chance for Insult stories ( $t(15) = 4.62, p < .001$ ) and significantly below chance for Faux Pas stories ( $t(15) = -3.50, p = .003$ ), as did 11-year-olds (Insult:  $t(15) = 5.84, p < .001$ , Faux Pas:  $t(15) = -5.48, p > .001$ ) and adults (Insult:  $t(15) = 5.48, p < .001$ ; Faux Pas:  $t(15) = -6.26, p < .001$ ).

Table 2. Mean number of knowledge attributions to speaker for the knowledge question by age and story type

Age	Faux Pas	Insult
	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )
7-years	0.88 (1.09)	0.88 (1.09)
8-years	1.00 (0.89)	1.69 (1.20)
9-years	0.75 (0.86)	2.31 (0.70)
11-years	0.50 (0.73)	2.56 (0.73)
Adult	0.38 (0.72)	2.50 (0.73)

Note. Scores range from 0-3 for each Story Type.

### 3.3 Explanation Question

The Explanation question assessed whether participants attributed harmful intent to the speaker. Responses were coded as attributions of intent if the participant stated or implied that the speaker intended to produce a harmful outcome (e.g., "She was trying to be mean."). All other responses were coded as absence of intent. For each story, attributions of intent were scored as 1 and absence of intent was scored as 0. Half of participants' responses were coded by a second coder, Kappa = 0.83. The mean number of Intent explanations is shown in Table 3. A 5 x 2 x 2 (Age x Gender x Story Type) repeated-measures ANOVA yielded significant effects for Age,  $F(4,75) = 5.11, p = .001, p^2 = .20$ , and Story Type,  $F(1,75) = 16.30, p < .001, p^2 = .18$ . Adults, 11-year-olds, and 9-year-olds, provided attributions of harmful intent more often than did 7-year-olds or 8-year-olds. In addition, participants provided attributions of intent more often for insult stories ( $M = .50$ ) than for faux pas stories ( $M = .18$ ). Attributions of intent were infrequent for all age groups for both types of stories.

Table 3. Mean number of intent attributions for the explanation question by age

	7-years	8-years	9-years	11-years	Adult
<i>M</i>	0.13	0.13	1.03	1.00	1.03
<i>SD</i>	0.25	0.25	0.53	0.55	0.56

Note. Scores range from 0-6.

### 3.4 Perceived Intention Question

The Perceived Intention question assessed participants understanding of the listener's perspective regarding the speaker's intent. Because the speaker was knowledgeable in the Insult stories, the listener should judge the insult to be intentional. In contrast, because the speaker was ignorant in the Faux Pas stories, the listener should recognize that the speaker's comment was not intended as an insult. If participants considered the listener's awareness of the speaker's knowledge or ignorance, then participants should respond that the listener regards the insult as intentional in Insult stories but not in Faux Pas stories. Results are shown in Table 4. For the Perceived Intention question, a 5 x 2 x 2 (Age x Gender x Story Type) repeated-measures ANOVA yielded a significant main effect of Story Type,  $F(1,70) = 50.74, p < .001, p^2 = .42$ , which was qualified by an Age x Story Type interaction,  $F(4,70) = 2.88, p = .03, p^2 = .14$ . Participants responded that the listener perceived the insult as

intended more often in the Insult stories ( $M = 1.38$ ) than the Faux Pas stories ( $M = .67$ ). One-way ANOVA's for each story type yielded a significant effect of Age for Insult stories,  $F(4,75) = 4.18, p = .014$ , but not for Faux Pas stories,  $F(4,75) = 1.52, p > .05$ . Scores for the two story types were compared for each age group with paired  $t$  tests, using a Bonferroni correction of  $p = .01$ . Eight-year-olds  $t(15) = -2.78, p = .01, p^2 = .25$ ; 11-year-olds,  $t(15) = -5.18, p < .001, p^2 = .15$ ; and adults,  $t(15) = -3.11, p = .01, p^2 = .38$ , judged that listener as perceiving the insult as intended significantly more often in the Insult stories than in the Faux Pas stories, but 9-year-olds,  $t(15) = -2.44, p = .03, p^2 = .27$ , and 7-year-olds,  $t(15) = -1.58, p = .14, p^2 = 0$ , did not differentiate between the two story types.

Performance was compared to chance (1.5) using  $t$  tests. All age groups judged that the listener perceived the speaker as intending harm less often than would be expected by chance for faux pas stories (7-year-olds:  $t(15) = 38.63, p = .001$ ; 8-year-olds:  $t(15) = 35.50, p = .001$ ; 9-year-olds:  $t(15) = 23.41, p = .001$ ; 11-year-olds:  $t(15) = 35.27, p = .001$ ; Adults:  $t(15) = 6.89, p = .001$ ). For insult stories, 7-year-olds ( $t(15) = 1.82, p = .09$ ) and 8-year-olds ( $t(15) = 3.01, p = .01$ ) judged that the listener perceived the speaker as intending harm less often than would be expected by chance, but 9-year-olds ( $t(15) = .20, p = .85$ ), 11-year-olds ( $t(15) = 1.27, p = .22$ ), and adults ( $t(15) = 1.70, p = .11$ ) performed at chance on insult stories.

Table 4. Mean number of intent attributions for the perceived intent question by age and story type

Age	Faux Pas	Insult
	$M (SD)$	$M (SD)$
7-years	0.63 (0.96)	0.94 (1.24)
8-years	0.25 (0.58)	0.69 (1.08)
9-years	0.81 (0.98)	1.44 (1.26)
11-years	0.50 (0.82)	1.81 (0.98)
Adult	1.06 (1.18)	1.88 (0.89)

### 3.5 Speaker's Affect Question

The Speaker's Affect question assessed participants' judgments of the speaker's emotion after the speaker realized a faux pas had been committed or after the speaker had made an insult. The speaker might feel better in the insult stories than the faux pas stories because the speaker accomplished his or her goal in the insult stories, whereas the speaker made a mistake in the Faux Pas stories. However, judging the speaker's emotion in Faux Pas stories required consideration of the speaker's knowledge, the speaker's intention, and the listener's affect, as well as the speaker's recognition that he or she had unintentionally hurt the listener's feelings. Therefore, it was expected that younger children would have difficulty evaluating the speaker's emotion for Faux Pas stories. Younger children might rely on a simple strategy of judging all negative comments as bad and associating equally negative affect with both faux pas and insult. Scores for the Speaker's Affect questions were ratings from 1 to 5, with high scores indicating positive feelings and low scores indicating negative feelings. Ratings were averaged across the three Faux Pas stories and the three Insult stories to yield a score from 1-5 for Faux Pas stories and a score from 1-5 for Insult stories. Results are shown in Table 5. A  $5 \times 2 \times 2$  (Age x Gender x Story Type) repeated-measures ANOVA yielded a significant effect for Story Type,  $F(4,70) = 63.05, p < .001, p^2 = .47$ , which was qualified by a significant Age x Story Type interaction,  $F(4, 70) = 10.26, p < .001, p^2 = .37$ . Participants rated speakers as feeling worse for Faux Pas stories compared to Insult stories. To examine this interaction, paired  $t$ -tests were performed for each age group using a Bonferroni correction of .01. Nine-year-olds,  $t(15) = -2.94, p = .01, p^2 = .40$ ; 11-year-olds,  $t(15) = -8.27, p < .001, p^2 = .78$ ; and adults,  $t(15) = -7.26, p < .001, p^2 = .80$ , thought the speaker felt worse in faux pas stories than in insult stories, but 7-year-olds,  $t(15) = 0.84, p = 0.41, p^2 = 0.11$ , and 8-year-olds,  $t(15) = -2.20, p = .04, p^2 = .29$ , did not differentiate between the two story types. Older participants rated the speakers as feeling more positive in the insult stories than in the faux pas stories. This pattern suggests that older participants were better at reasoning about the speaker's beliefs and motives.

Table 5. Mean affect ratings for listener affect, speaker affect, and apology affect questions by age and story type

Age	Listener Affect		Speaker Affect		Apology Affect	
	Faux Pas	Insult	Faux Pas	Insult	Faux Pas	Insult
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
7-years	1.75(0.77)	1.79(0.77)	2.39(1.38)	2.13(0.83)	.44(0.78)	4.47(1.08)
8-years	2.00(0.89)	1.46(0.73)	2.00(1.00)	2.71(1.31)	4.42(0.52)	4.40(0.74)
9-years	1.42(0.48)	1.40(0.52)	1.73(0.85)	2.58(1.09)	4.17(0.81)	4.06(0.69)
11-years	1.40(0.39)	1.25(0.46)	1.27(0.51)	3.33(1.05)	4.00(0.79)	3.92(0.92)
Adult	1.21(0.38)	1.19(0.27)	1.23(0.34)	3.13(0.96)	3.02(0.65)	3.19(0.77)

Note. Scores range from 0-5 for each Story Type.

### 3.6 Listener's Affect Question

The Listener's Affect question assessed participants' judgments of the listener's emotion following the faux pas or insult. These judgments might be based on either the speaker's knowledge or the speaker's intention. If participants based their judgment on the speaker's knowledge, then participants might judge that the listener felt worse in the faux pas condition because the faux pas was perceived as reflecting the speaker's true opinion of the listener. If participants based their judgments on the speaker's intentions, participants might judge that the listener would be more hurt in the insult condition because the insult was intentional (i.e., insult condition). Either strategy requires participants to consider how the listener's representation of the speaker's mental states would influence the listener's interpretation of the speaker's behavior and the listener's affective response. Scores for the Listener's Affect questions were ratings from 1 to 5, with high scores indicating positive feelings and low scores indicating negative feelings. Ratings were averaged across the three Faux Pas stories and the three Insult stories to yield a score from 1-5 for Faux Pas stories and a score from 1-5 for Insult stories. Results are shown in Table 5. A 5 x 2 x 2 (Age x Gender x Story Type) repeated-measures ANOVA yielded a significant effect for Story Type,  $F(1,70) = 4.08$ ,  $p = .05$ ,  $p^2 = .06$ , and Age,  $F(4,70) = 4.07$ ,  $p = .005$ ,  $p^2 = .19$ . Participants rated the listener as feeling more negative in the insult stories than in the faux pas stories, and older children and adults rated the listener as feeling worse than did younger children. To further explore the main effect of Age, a post-hoc Tukey's HSD was performed. Seven-year-olds and 8-year-olds rated the listener as feeling better than did adults,  $HSD = 0.52$ ,  $p < .05$ , but neither 9-year-olds nor 11-year-olds differed from adults in their ratings of the listener's emotions.

### 3.7 Apology Affect Question

The Apology Affect question assessed participants' reasoning about the effectiveness of the speaker's apology following a faux pas or insult. Scores for the Apology Affect questions were ratings from 1 to 5, with high scores indicating positive feelings and low scores indicating negative feelings. Ratings were averaged across the three Faux Pas stories and the three Insult stories to yield a score from 1-5 for Faux Pas stories and a score from 1-5 for Insult stories. Results are shown in Table 5. A 5 x 2 x 2 (Age x Gender x Story Type) repeated-measures ANOVA yielded a significant effect for Age,  $F(4,70) = 10.07$ ,  $p < .001$ ,  $p^2 = .37$ . There was no effect of Story Type,  $F(1,70) = .03$ ,  $p = .87$ ,  $p^2 = .00$ . Using a Bonferroni correction of .01, adults' affect ratings were compared with children's affect ratings with t-tests. After the apology, adults rated the listener's affect lower than did children of all ages, smallest  $t(30) = 3.57$ ,  $p = .001$ . Children may have based their judgments solely on the speaker's apology, without considering how the listener's beliefs about the speaker's intentions or the speaker's beliefs about the listener might diminish the impact of an apology.

To examine the extent to which participants judged that the apology altered the listener's initial emotional response to the faux pas or insult, a 5 x 2 x 2 x 2 (Age x Gender x Story Type x Affect Rating) ANOVA, with Story Type and Affect Rating (Initial Listener Affect vs. Apology Listener Affect) as repeated measures factors, was conducted. The ANOVA yielded significant main effects for Age,  $F(4,70) = 15.01$ ,  $p = .001$ ,  $p^2 = .46$ , and Affect Rating,  $F(4,70) = 733.39$ ,  $p = .001$ ,  $p^2 = .91$  and a significant Age x Affect Rating interaction,  $F(4,70) = 2.99$ ,  $p = .02$ ,  $p^2 = .15$ . To examine this interaction, participants' ratings for Faux Pas and Insult stories were averaged to create a combined score for the listener's initial affect and another combined score for the listener's affect following the apology. Using a Bonferroni correction of .01, a t-test comparing Initial Listener Affect



scores and Apology Listener Affect scores was computed for each age group. All five age groups gave significantly higher ratings for Apology Listener Affect compared to Initial Listener Affect (7-year-olds:  $t(16) = 10.71, p = .001$ ; 8-year-olds:  $t(16) = 12.46, p = .001$ ; 9-year-olds:  $t(16) = 13.29, p = .001$ ; 11-year-olds:  $t(16) = 13.05, p = .001$ ; adults:  $t(16) = 12.29, p = .001$ ).  $t(16) = 10.71, p = .001$ . To determine whether the magnitude of the difference between Initial Listener Affect and Apology Listener Affect varied by age, difference scores between the two affect ratings were compared with a one-way ANOVA with Age as a between-subjects factor. This ANOVA yielded a significant effect of Age,  $F(4,75) = 2.77, p = .03$ . Adults' difference scores were compared with the difference scores for each of the four age groups of children with t-tests using a Bonferroni correction of .0125. Adults ( $M = 1.91$ ) had significantly lower difference scores than did children of all four ages (7-year-olds:  $M = 2.69$ ; 8-year-olds:  $M = 2.68$ , 9-year-olds:  $M = 2.71$ ; 11-year-olds:  $M = 2.63$ ; smallest  $t(30) = 2.86, p = .008$ ). Thus, although all age groups judged that the listener's affect would improve following an apology, children thought that the apology would have a greater impact than did adults.

### 3.8 Memory Questions

For Memory questions participants were given a score of 1 for correct responses and 0 for correct responses. Memory question scores ranged from 0-6 for each type of story. Results are shown in Table 6. A 5 x 2 x 2 ANOVA (Age x Gender x Story Type) with Story Type as a repeated measure yielded a significant effect of Age,  $F(4,70) = 7.25, p < .001, p^2 = .30$ . Seven-year-olds performed poorer than adults, 11-year-olds, and 9-year-old, Tukey's HSD = .81.

Table 6. Mean number of correct responses for memory questions by age and story type

Age	Faux Pas	Insult
	<i>M (SD)</i>	<i>M (SD)</i>
7-years	4.31 (1.35)	4.00 (1.32)
8-years	4.63 (1.09)	5.00 (1.21)
9-years	5.19 (1.11)	5.06 (0.85)
11-years	5.44 (0.73)	5.25 (0.93)
Adult	5.63 (0.62)	5.56 (0.63)

Note. Scores range from 0-6 for each Story Type.

## 4. Discussion

The present study investigated children's and adults' understanding of faux pas, insults, and apologies by examining 7- to 11-year-olds children's and adults' understanding of the perspectives of a speaker and listener in events involving either a verbal faux pas or an insult. We found both similarities and differences in performance across the age groups studied, and the pattern of results was partially consistent with our expectations. First, we expected that faux pas detection would improve with age, but that all age groups would detect the insults. However, for both faux pas and insult stories, all age groups recognized that something inappropriate had been said, but this tendency was stronger for insult stories. Second, we expected all age groups to make correct knowledge attributions for both faux pas and insult stories, but performance varied by age. Nine-year-olds, 11-year-olds, and adults attributed knowledge to the speaker in insult stories and ignorance or a false belief to the speaker in faux pas stories more often than would expected by chance; however, 7- and 8-year-olds did not demonstrate this pattern of attributions. Third, we expected judgments concerning the listener's recognition of the speaker's intent to change with age, but for faux pas stories all age groups judged that the listener would recognize that the speaker's comment was not intended to be harmful. Fourth, consistent with our expectation, there were age differences in participants' judgments about the speaker's and listener's affect. Nine-year-olds, 11-year-olds, and adults rated the speaker as feeling worse in faux pas stories than in insult stories, but younger children did not differentiate between the two stories in their ratings of the speaker's emotion. Participants rated the listener as feeling worse in insult stories than in faux pas stories, and across stories adults rated the listener as feeling worse than did 7- or 8-year-olds. Children and adults also differed in the judgments regarding the impact of apologies. Children judged that an apology would improve the listener's feelings more than adults did. These

results are discussed in relation to previous studies of children's understanding of faux pas or apologies, and to children's reasoning about multiple perspectives.

Previous studies of children's faux pas comprehension have reported that performance on composite measures of understanding improves with age during late childhood (Banerjee & Watling, 2005; Baron-Cohen et al., 1999). In addition to examining overall performance, Banerjee and Watling (2005) examined performance on individual questions. Although there were some differences between the questions used by Banerjee and Watling (2005) and those asked in the present study, performance was largely similar across the two studies, with some exceptions. Whereas Banerjee and Watling (2005) reported that 8- to 9-year-olds, but not 5- to 6-year-olds, performed above chance on a faux pas detection question, in the present study we found that all age groups performed above chance on the faux pas detection question. However, because the youngest age group in our study, 7-year-olds, was older than the youngest group in Banerjee and Watling's study, there may not be a discrepancy between the two sets of results. In both the present study and Banerjee and Watling's (2005) study, children of all ages performed above chance on questions about the speaker's knowledge in faux stories. Questions about the speaker's intent differed in the two studies. Banerjee and Watling asked children directly about the speaker's intention, but in the present study we asked participants (a) to explain why the speaker's committed the faux pas, and (b) about the listener's perception of the speaker's intention. Nevertheless, in both studies all age groups recognized that the speaker did not intend to harm the listener, and in the present study all age groups judged that the listener thought the speaker did not intend to harm the listener. Banerjee and Watling (2005) also reported that children from 5- to 9-years of age judged that the listener would feel upset by the faux pas. Because we asked participants to rate the listener's emotion with a rating scale, rather than answer a forced-choice question, we could not compare performance to chance expectations; however, children of all ages generally rated the listener's emotion as negative.

Unlike previous studies of faux pas comprehension, we presented insult stories, as well as faux pas stories, and also asked questions about the speaker's affect following the insult or faux pas and the listener's affect following an apology. Although participants recognized that something inappropriate had been said in the Insult stories and also judged that the listener would feel worse in Insult stories than in Faux Pas stories, 7- and 8-year-olds did not recognize that the speaker was knowledgeable in Insult stories. Moreover, in response to the explanation question and perceived intent question, for Insult stories none of the age groups judged that the speaker intended harm or that the listener thought that the speaker intended harm. Therefore, 7- and 8-year-olds did not appear to understand that the speaker deliberately insulted the listener or that the listener might perceive the insult as deliberately harmful. Older children and adults recognized the speaker's knowledge of information relevant to the insult, but nevertheless judged that the listener did not think the speaker intended to hurt the listener's feelings. Older children and adults may have made this pattern of judgments for because either (a) they thought of the insult as a thoughtless expression of the speaker's opinion uttered without intent to cause harm and assumed that the listener would perceive the insult in the same manner, or (b) they had difficulty taking the listener's perspective due to the complexity of the task. To recognize that the listener might attribute harmful intent to the speaker, participants would have to (a) recognize the speaker's knowledge and intent themselves, (b) recognize that the listener knew that the speaker was knowledgeable, a second-order mental state reasoning task, and (c) based on the listener's awareness of the speaker's knowledge, additionally recognize that the listener thought that the speaker wanted to hurt the listener's feelings, an even more complex higher order reasoning task. The present study did not examine the process underlying participants' judgments; however, because they did not judge that the listener would attribute hostile intent to the speaker, participants did not show evidence of engaging in complex higher order mental state reasoning. Instead, participants may have judged that the insult would not be perceived as deliberately harmful because that attribution was simpler, more immediate, and more intuitive. Nevertheless, the finding that participants rated the listener as feeling worse in Insult stories compared to Faux Pas stories, suggest that they detected a difference between the two events and perceived the insult to be more malicious, even though they did not expect the listener to attribute harmful intent to the speaker.

Children's ratings of the speaker's affect in the Insult stories contrasts with the results of studies of children's view of victimizer's who commit other types of transgressions. Previous studies have reported that children 4- to 9-years of age attribute positive emotions to victimizers who are guilty of stealing, pushing another child, or breaking a promise (e.g., Arsenio & Rivka, 1992; Keller et al., 2003; Nunner-Winkler & Sodian, 1988; Smith et al., 2010). In the present study, children rated speakers who uttered insults as feeling better than speakers who committed a faux pas, but typically rated the affect of speakers who committed insults as negative or neutral, rather than positive. This difference may reflect the fact that the speaker in Insult stories did not benefit in any

tangible way from the transgression. In the absence of material gain for the speaker, children may have judged the speaker's affect on the basis the social acceptability of the speaker's behavior and the social outcome, i.e., the listener's feelings. These results raise the question of whether children would attribute positive feelings to a speaker who commits an insult if the speaker derived material benefit as a consequence of the insult. Children's judgments of the speaker's affect also may have been influenced by the speaker's apology. Smith et al. (2010) reported that children judged a transgressor who apologized to a victim as feeling less positive than a transgressor who did not apologize. In the present study, in both Insult and Faux Pas stories, the speaker always apologized to the listener. Children may have taken the apology as evidence that the speaker felt bad about the insult or faux pas.

Following a transgression, children also children believe that an apology is likely to improve the victim's feelings. For example, Smith et al. (2010) reported that children ages 4- to 9-years of age attributed more positive feelings to a victim who received an apology compared to a victim who did not receive an apology, though 7- to 9-year-olds judged the impact of the apology to be greater than did younger children. In the present study, children and adults differed in the judgments regarding the impact of apologies. Children judged that an apology would improve the listener's feelings more than adults did. Thus, children's judgments were consistent with the results reported by Smith et al. (2010). Moreover, children regarded the apology to be effective following either a faux pas or a deliberate insult. Therefore, children appeared to view the act of apologizing as effective in and of itself, regardless of the speaker's knowledge or motivations for uttering the hurtful remark.

The present results suggest that children develop an increasingly cohesive understanding of social events from late childhood to adulthood. Unlike younger children, 9- to 11-year-olds recognized that a speaker who committed a faux pas acted in ignorance of the truth, and older children also judged that a speaker who committed a faux pas felt worse than a speaker who deliberately insulted a listener. This improvement in children's perspective-taking performance suggests that reasoning about others' thoughts and feelings during a social exchange is more challenging than identifying a single mental state of one individual during a simple event. That is, children as young as 3- to 5-years of age are able to identify another person's knowledge or emotion with simple tasks (Harris, 1989; Pillow, 1989), but in present study 7- and 8-year-olds sometimes had difficulty judging another person's mental states in the context of a social exchange involving multiple participants, a sequence of actions and reactions, and multiple inter-related mental states. In particular, older children and adults differentiation between the feelings of speakers who committed faux pas versus insults suggests that older children and adults to considered the speaker's knowledge and intent when judging the speaker's feelings. Younger children did not appear to engage in such complex perspective-taking. In addition, children and adults differed in their judgments regarding the impact of apologies. Adults' recognition that an apology might not entirely overcome a listener's prior negative affect suggests that adults judged the listener's post-apology emotion in the context of the sequence of events and mental states leading to the apology. Children appeared to judge the listener's emotional response to apology more or less as an isolated event. Thus, adults, and to some extent older children, appeared to integrate the actions and mental states that occurred during the faux pas or insult episodes more fully than did younger children. However, commonalities across the age groups also were found. Most notably, for both faux pas and insult stories all age groups judged that the speaker did not intend to harm the listener's feelings and that the listener would recognize that the speaker's did not intend harm. When judging the listener's perception of the speaker's intent, both children and adults may have by passed higher order mental state reasoning by egocentrically attributing their own belief about the speaker's lack of harmful intent to the listener.

The ability to coordinate multiple perspectives both during social interactions and across temporally extended episodes is an important area of social cognitive development deserving of research. Future studies should examine the development of advanced perspective-taking abilities by presenting children from middle childhood through adolescence with stories that include multiple characters and sequences of inter-related events, and asking children to reason about relations among multiple mental states, such as knowledge, beliefs, goals, intentions, and emotions.

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## Appendix

### Faux Pas and Insult Stories

#### Faux Pas Stories

Sally is a young girl with short blonde hair. She was at her Aunt Carol's house. The doorbell rang and her aunt Carol answered it. It was Nate, the boy next door, who Sally had not met. "Hi," Aunt Carol said, "nice of you to stop by." Nate said, "Hello", then looked at Sally and said, "Oh, I don't think I've met this boy before. What's your name?"

Did Nate know Sally was a girl?

Who is Nate?

Had Nate met Sally before?

For Richard's birthday, James saved up all his allowance for two weeks to buy Richard a special toy airplane. When he gave the airplane to Richard he said, "I really hope you like it." A few weeks later, the boys were playing with the airplane when Richard accidentally broke it. Richard said, "Oh well. I never liked the plane anyways. Someone gave it to me for my birthday."

Did Richard know James had given him the airplane for his birthday?

Who gave the airplane to Richard?

Why did James give Richard the airplane?

Roger had just started at a new school. One day before class, he was talking to a new friend Andrew. Roger said, "My mom got a job as the school's nurse." A few minutes later Claire came into the class and sat next to the boys. Claire said, "I just hate the new school nurse."

Did Claire know that Roger's mom is the new school nurse?

Where does Roger's mom work?

Did Claire hear Roger talking to Andrew?

Ashley spent all week working on a picture for the school's art show. On Friday night friends and family were invited to come view the school's work. Ashley invited her friend Jessica from another school. When they arrived, Ashley said, "Let's go look at the paintings. Everybody worked really hard on them." When they get to Ashley's picture Jessica said, "Who painted this picture? This painting is really ugly."

Did Jessica know Ashley painted the picture?

What did Ashley make for the school's art show?

Does Jessica go to Ashley's school?

Jason is a new kid at school. He was in the bathroom stall when Henry and Allen arrived at school. Allen said, "I need to go to the bathroom before class." Henry followed. As Henry and Allen entered the bathroom, Henry said, "That new kid Jason is weird looking, I don't like him."

Did Henry know Jason was in the bathroom stall?

What did Allen say to Henry before going into the bathroom?

Where was Jason when Henry and Allen came into the bathroom?

Amber's and Lauren's class was having a party and everyone was supposed to bring food to share with the class. Lauren brought in chocolate cookies. Amber came in late and did not see who brought what to the party. After lunch the teacher said, "Okay class, it is time for the party." Amber sat down next to Lauren at the party and said, "Did you try these chocolate cookies? These cookies are disgusting!"

Did Amber know Lauren had made the cookies?

What did Lauren make for the class party?

Who said it was time for the party?

Insult Stories

Sally is a young girl with short blonde hair. She was at her Aunt Carol's house. The doorbell rang and her aunt Carol answered it. It was Nate, the boy next door, who Sally had not met. "Hi," Aunt Carol said, "Nice of you to stop by. This is Sally my niece." Nate said, "Hello," then looked at Sally and said, "Your niece looks like a boy."

Did Nate know Sally was a girl?

Who is Nate?

Had Nate met Sally before?

For Richard's birthday, James saved up all his allowance for two weeks to buy Richard a special toy airplane. When James gave the airplane to Richard he said, "I really hope you like it." A few weeks later, the boys were playing with the airplane when Richard accidentally broke it. Richard said, "Oh well. I didn't like it when you gave it to me."

Did Richard know James had given him the airplane for his birthday?

Who gave the airplane to Richard?

Why did James give Richard the airplane?

Roger had just started at a new school. One day before class, Roger was talking to a new friend Andrew. Roger said, "My mom got a job as the school's nurse." Claire was sitting very close by and overheard them talking. Claire walked over to the boys and said, "Oh, I hate the new school nurse."

Did Claire know that Roger's mom is the new school nurse?

Where does Roger's mom work?

Did Claire hear Roger talking to Andrew?

Ashley spent all week working on a picture for the school's art show. On Friday night friends and family were invited to come view the school's work. Ashley invited her friend Jessica from another school. When they arrived, Ashley said, "Let's go look at the paintings. Everybody worked really hard on them." When they got to Ashley's picture Jessica said, "Wow, your painting is really ugly."

Did Jessica know Ashley painted the picture?

What did Ashley make for the school's art show?

Does Jessica go to Ashley's school?

Jason is a new kid at school. Henry and Allen saw Jason go into the bathroom. Allen said, "The new kid, Jason, just went into the bathroom." Jason was in the bathroom stall when Henry and Allen entered. Henry said, "That new kid Jason is weird looking, I don't like him."

Did Henry know Jason was in the bathroom stall?

What did Allen say to Henry before going into the bathroom?

Where was Jason when Henry and Allen came into the bathroom?

Amber's and Lauren's class was having a party and everyone was supposed to bring food to share with the class. Lauren brought in chocolate cookies. After lunch the teacher said, "Okay class, it is time for the party." Amber sat down next to Lauren at the party and said, "These cookies you made are disgusting!"

Did Amber know Lauren had made the cookies?

What did Lauren make for the class party?

Who said it was time for the party?

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