

# Is honesty always the best policy? Children's perceptions of negative performance feedback

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## Abstract

Children tend to discount negative feedback about their performance even when the feedback is delivered by an expert. This indifference toward feedback could hinder self-improvement. We examined whether children would be receptive to negative feedback from an expert when provided with an explicit reason why it was given. One-hundred twenty-one 4 to 8 year olds heard about a target peer whose work product was evaluated negatively by an expert peer and positively by either a single layperson or a consensus of laypersons (also peers). Children were assigned to one of the three conditions in which the reason for the negative feedback varied: the expert promised to tell the truth about the work, the expert was a designated "helper," or no explanation was provided. Children judged whether feedback from the expert and layperson(s) should be shared with the teacher and the target. Across ages, children indicated that the expert should share negative feedback with the teacher when the expert promised to tell the truth. Only 6 to 8 year olds reported that an expert who promised to tell the truth should convey this feedback to the target. Implications for children's interpretation of evaluative content in social learning situations are discussed.

## KEYWORDS

middle childhood, performance feedback, social cognition, social learning, valence

## 1 | INTRODUCTION

It is common to receive feedback to improve performance in academic and work domains (Dweck, 1976), but when feedback is negative it may be difficult for both children and adults to accept (e.g., Heyman et al., 2013; Leung et al., 2001). In fact, children demonstrate a preference for positive information in general and tend to be skeptical of criticism (e.g., Heyman et al., 2013). This preference for positivity (i.e., positivity bias, Boseovski, 2010) may interfere with children's acceptance of constructive criticism from a qualified individual, such as an expert, and prevent children from using feedback to meet goals. Therefore, it is important to understand the conditions in which children are willing to accept negative feedback. In the current study, we examined whether 4 to 8 year olds would accept an expert's negative assessment of work produced by a same-age target when given contextual information for why the feedback was delivered.

Beginning in the preschool period, expertise is a potent cue for children in learning contexts. Preschoolers distinguish between experts and non-experts and use this information to support their own learning (e.g., Koenig & Jaswal, 2011; Lutz & Keil, 2002). During middle childhood, children's sensitivity to expertise can be overshadowed by other considerations such as valenced statements (i.e., positive or negative statements; Croce & Boseovski, 2020). In some circumstances, children demonstrate a positivity bias such that they accept positive information from a less qualified source over negative, but accurate, information provided by an expert. For example, in Boseovski and Thurman (2014), 3 to 7 year olds were given conflicting valence information about a novel animal by a zookeeper (i.e., expert) and a maternal figure (i.e., non-expert). Half of the participants heard negative information from the zookeeper and positive information from the maternal figure and the remaining participants received the reverse combination. Overall, 3 to 5 year olds were more likely than expected by chance to endorse the expert's testimony as correct. In contrast, 6 to 7 year olds endorsed whichever source stated positive facts, consistent with a strengthening positivity bias (Boseovski, 2010).

This positivity bias also interferes with children's acceptance of feedback in performance-based contexts (e.g., Ruble et al., 1994). By age 5, children have experience with positive and negative evaluations from peers and teachers (e.g., Altermatt et al., 2002; Stipek & Daniels, 1988). However, children appear motivated to downplay or ignore negative relative to positive feedback. For example, children are skeptical of a teacher who told a child that her essay was the "worst in the class" relative to when the teacher evaluated the child's essay as the "best in the class" (Heyman et al., 2013). Children may think that criticism implies negative traits about the recipient or may be concerned about causing negative emotions for the recipient (Heyman & Giles, 2004). In one study, 6 to 11 year olds decided whether a game expert should provide truthful feedback to a novice target who was either performing well or poorly (Heyman, Fu, et al., 2009). Overall, children indicated that the game expert should provide positive feedback, but 6 to 8 year olds were more likely than older children to indicate that truthful negative feedback should not be shared with the target (Study 1). Some children reasoned that truthful negative feedback should be avoided to prevent hurt feelings (Study 2).

Across these contexts, children focused on valence. In fact, these examples indicate that valence influenced children's judgments of whether information was correct as well as whether it should be shared with a target. In addition to valence, children use other cues to determine whether information is accurate. For example, young children rely on group agreement (i.e., consensus) to learn new information, especially when they cannot access information for themselves (e.g., Corriveau et al., 2009; Einav, 2014). Children are also aware that it may be socially beneficial to agree with a consensus group (e.g., Cordonier et al., 2018). In some circumstances, a consensus opinion about target performance may be more informative than a lone individual's evaluation. However, some research indicates that when the valence of feedback, expertise, and consensus are manipulated in a performance feedback setting, children prioritize valence (Boseovski et al., 2017).

In one study, 4 to 8 year olds heard about a target child who produced artwork or music (Boseovski et al., 2017). Children either heard that this work was evaluated by an expert and one layperson or an expert and a group of three laypeople (i.e., a consensus). Critically, participants could not see or hear the target's work for themselves.

The expert provided positive feedback to the target (i.e., "looks/sounds very good") and the layperson(s) provided negative feedback (i.e., "looks/sounds very bad") in half of these stories; this contingency was reversed for the other half of participants (i.e., negative feedback from the expert). Participants were asked "Who do you think is right about [Target's] picture?" and "If you wanted to learn how to draw, who would you rather learn from?" Across all ages, children endorsed a positive evaluation of the target's work, regardless of expertise or consensus. In fact, approximately half of the participants referred to the positive evaluation as the basis for their endorsement. Notably, 6 to 8 year olds indicated a preference to learn from the expert, regardless of feedback valence, revealing that they perceived some value in the expert's views. Consensus had limited influence on children's judgments.

The perceived acceptability of an expert's direct criticism may depend on whether children have information that justifies the feedback. Without context, an individual who shares negative feedback may violate implicit social norms to avoid hurt feelings and to engage in positive social interactions (e.g., Banerjee, 2002; Bussey, 1999). We examined whether an assignment to be a helper and a promise to tell the truth provided context to increase children's acceptance of negative feedback. Five- to 10 year olds associate positive characteristics with the label of "helper," including positive assumptions about knowledge (Bryan et al., 2014; Ladd et al., 1983). Children's impressions of helpers and familiarity with help-seeking during learning (Gall, 1985) may support an understanding that a helper's feedback is intended to scaffold improvement. For example, in a critical follow-up study, Boseovski et al. (Experiment 2, 2017) found that 4 to 8 year olds accepted an expert's criticism when the expert reframed his or her negative feedback to say that the target child's drawing/song needed "more work" instead of stating that the work looked/sounded "very bad."

During early to middle childhood, positive views of people and target performance may be particularly likely given that unrealistically positive evaluations are recognized only later in development (e.g., Heyman et al., 2013; Kurman & Eshel, 1998). Children are also less inclined to seek or use feedback that verifies their own negative attributes relative to adults (e.g., Rodman et al., 2017; Swann et al., 1989). Children's highly positive views of others (Boseovski, 2010) could allow them to disregard criticism for a same-age peer as they would disregard it for themselves. In addition, children become aware of self-interest motives with age (Engelmann & Rapp, 2018). In a classroom setting, a peer helper could be perceived as favored by the teacher or as a peer engaged in self-promotion to gain favor, which children may view negatively (e.g., Babad, 1995). Indeed, school-age children rate helpers as less kind when they appear motivated by self-interest (e.g., Shorr, 1993).

We also examined whether children may be more receptive of an expert's feedback when the expert promised a teacher that he or she would tell the truth about a peer's performance. Children develop an early understanding of the contractual nature of promises that increases across middle childhood (Lee, 2000). Three- to 5 year olds protest when someone breaks a promise and persist longer at their own task when they have made a promise to complete it (e.g., Kanngiesser et al., 2017). Despite the power of making a promise, children understand that avoidance of the truth is sometimes appropriate to spare someone's feelings (e.g., white lie; Bussey, 1999; Talwar & Crossman, 2011). Although an understanding of others' feelings may make a broken promise acceptable, 7 year olds hold the individual who makes a promise accountable (Astington, 1988; Maas & Abbeduto, 2001). In addition, 8 to 16 year olds tend to be more honest when they make a promise to tell the truth (Evans & Lee, 2010). In the context of performance feedback, older children may weigh this commitment against socially acceptable lies and the emotional impact for the target (e.g., Heyman, Sweet, & Lee, 2009).

Both the assignment as a helper and the context of a promise may make children more receptive to negative feedback by introducing a socially acceptable reason to share criticism. In contrast to feedback statements that focus on the target's effort (Boseovski et al., 2017), this contextual information highlights potential attributions about the expert. In the current study we examined 4 to 8 year olds' acceptance of direct negative feedback about a target's work product from an expert "helper," an expert who promised to tell the truth, or an expert with no context for his or her statement. Given our focus on children's acceptance of negative feedback, we adapted the paradigm used by Boseovski et al. (2017), and all participants heard negative feedback from the expert and positive feedback from the layperson or a layperson consensus. Participants were asked who they thought was correct

about a target character's work, who they would like to learn from in the future, whether the expert's negative evaluation should be delivered as feedback to the target, and whether the expert's negative evaluation should be reported to the teacher. The latter two questions were included to explore whether children's endorsement of feedback depended on sensitivity to social norms and the potential for hurt feelings.

We predicted that children in the promise and helper conditions would be more likely to accept the expert's negative feedback as correct relative to a comparison condition in which no contextual information was provided. Based on the findings with older children in Boseovski et al. (2017), we also predicted that 6 to 8 year olds in the current study would be more likely than 4 to 5 year olds to indicate a preference to learn from the expert in future performance contexts. However, we anticipated that older children would be more sensitive to self-presentational concerns and positive information relative to younger children such that they would endorse untrue positive feedback as an appropriate white lie for the expert to report to the target. Consensus was included as a secondary interest to keep the design uniform across studies (Boseovski et al., 2017).

## 2 | METHOD

### 2.1 | Participants

One hundred twenty-one 4 to 8 year olds (65 females,  $M = 78.31$  months,  $SD = 16.86$  months) were recruited from childcare programs and community events in a mid-sized city in the southeastern United States. Participants' racial or ethnic identities consisted of 68.6% European American, 19.8% African American/Black, 0.8% Hispanic, 1.7% Asian, and 4.1% whose parents identified them as biracial or multiracial; an additional 5.0% of parents chose not to report this information. A range of socio-economic status households was represented; 57% reported a household income of \$60,000 or more annually.

Testing sessions occurred in the lab or after school centers. A subset of testing sessions ( $n = 12$ ) occurred in home residences. These participants were similar to the rest of the sample in the racial and socio-economic background (i.e., 50% European American; household income between \$40,000 and \$90,000). A chi-square test confirmed that these participants did not differ significantly in their responses from participants tested in the lab or other childcare settings (all  $p$ 's  $> 0.20$ ). Parents provided written consent for their children's participation and children 7 years of age and older provided written assent before participation. Approval for this study was obtained from the institutional review board.

### 2.2 | Materials

One color cartoon image depicted characters in a classroom setting: one target character who was drawing or playing the piano, one expert, either one or three laypeople, and one teacher (Mrs. Smith). All characters except the teacher were gender-matched to participants. The position of the expert character in the image varied based on condition (see Appendix A). Consistent with Boseovski et al. (2017), the image did not provide any information about the quality of the target's drawing or song so that participants could not form their own opinions about the target's performance. For example, participants who heard about a target character's drawing saw an image in which the easel was turned away so that participants could not see the target's artwork.

### 2.3 | Design

A 3 (expert type: comparison, helper, promise)  $\times$  2 (consensus level: 1 expert and 1 layperson vs. 1 expert and 3 laypeople) between-subjects design was used with age in months as a continuous predictor. Consistent with

Boseovski et al. (2017), children were randomly assigned to hear a story in one of these conditions in which the target character either drew a picture or played a song on the piano. All participants heard that the expert provided a negative evaluation of the target's work and the layperson(s) provided a positive evaluation of the work. Story domain (i.e., art or music) was counterbalanced across participants.

## 2.4 | Procedure

Participants were told that they were going to hear a story about children their age who were in a classroom. First, participants heard background information about a target character who was a novice at drawing or at playing the piano. Next, participants heard background information about a novice layperson(s) and an expert in the same domain (i.e., art or music). Then, participants heard a story that described one of the three contexts in which the expert provided negative feedback for the target's work and the layperson(s) always provided positive feedback. The presentation order for the background information about and testimony from the layperson(s) and expert information was randomized. In each condition, participants heard information about the expert and his or her reason for providing feedback, based on the conditions outlined below (see Appendix B for full introduction and condition material).

### 2.4.1 | Teacher's helper condition

Participants were told that the expert was assigned to be Mrs. Smith's helper and that the expert's job was to look at all the other children's artwork or listen to their music and evaluate their performance. To ensure that all children understood what it means to be a "teacher's helper," participants were told that "a person can be a helper when someone needs to pick things up or when there is a job to do or when there is something new to learn, just like learning to draw/play music."

### 2.4.2 | Promise condition

Participants were told that Mrs. Smith selected the expert to look at/listen to all his or her classmates' drawings/songs and required the expert to promise to tell the truth about the quality of classmates' work. Children were told that "a person who promises has to do what they say they will do, even if it makes others sad and hurts their feelings." This sentence was included to ensure that the youngest children in the sample understood the contractual nature of making a promise and to equate the number of information participants received in the other two conditions.

### 2.4.3 | Comparison condition

This condition was modeled after the manipulation in Boseovski et al. (2017), in which participants were not given a specific reason for the expert's negative feedback. Instead, participants heard filler information that described classroom activities in place of a statement about the expert's role (e.g., "Mrs. Smith is cleaning up the classroom and watering the class plants while all of the students are working on their drawings.").

After these descriptions were presented, participants were told that the expert looked at the target's artwork or listened to the target's song and "(s)he thinks it looks/sounds very bad" and that the layperson(s) "think(s) that it looks/sounds very good." This expert and layperson(s) testimony were delivered in the same manner

across conditions (i.e., the expert always delivered the negative feedback). The original phrase from Boseovski et al. (2017) (e.g., “very bad”) was kept to ensure that the youngest participants (4 year olds) were able to understand the evaluation clearly and to avoid any ambiguous or comparative language that would invoke social comparisons, which was not the focus of the present study (see Lapan & Boseovski, 2017; Ruble et al., 1980). After all background information was delivered, participants completed a comprehension check (five forced-choice questions) to ensure that they could identify which characters knew “a little” versus “a lot” about the target domain and which character provided positive versus negative feedback. The experimenter proceeded with the session only after children responded correctly to these questions and repeated the relevant information for any participant who answered one or more of the questions incorrectly. All participants were able to pass the check after one or two repetitions (two 4 year olds required three repetitions).

#### 2.4.4 | Test phase

After the presentation of all background and role information as well as expert and layperson(s) testimony, participants were asked two forced-choice questions that assessed their judgments regarding how feedback should be delivered to the teacher (e.g., Teacher feedback question: “Do you think that [Expert] should tell the teacher that [Target’s] drawing looks very good or very bad?”) and to the target character (e.g., Target feedback question: “Do you think that [Expert] should tell [Target] that his/her drawing looks very good or very bad?”). For both questions, participants received a score of 0 if they endorsed the positive feedback, which was always provided by the layperson(s); participants received a score of 1 if they endorsed the negative feedback, which was always provided by the expert. Participants were asked to provide a justification for their responses to these questions. Then, participants were asked the correctness question (e.g., “Who do you think is right about the picture?”) and future learning question (e.g., “If you wanted to learn to draw, would you rather learn about it from [Expert] or [Layperson(s)]?”), which were both forced-choice. Participants received a score of 0 if they endorsed the layperson(s) and a score of 1 if they endorsed the expert. All of these questions were presented in this fixed order.

### 3 | RESULTS

Due to the dichotomous nature of each dependent measure, logistic regression analyses were conducted. The best-fitting model used for all analyses reported below included age in months as a continuous predictor, the expert type as a categorical predictor, and the interaction terms for these two variables. Consistent with (Boseovski et al., 2017), consensus level was not a significant factor for participants’ responses across measures (all  $p$ s > .09) and therefore is not reported here. A post hoc power analysis for each variable ( $1-\beta = 0.80$ ) indicates that all the  $\beta$  for the significant main effects were sufficiently powered. Power was calculated using the powerMediation package (Qiu & Qiu, 2020) in R (R Core Team, 2020). This calculation showed the following ranges of  $\beta$ : Teacher feedback question:  $-1.24 \geq \beta \geq 1.10$ ; Target feedback question:  $-1.21 \geq \beta \geq 1.12$ ; Correctness question:  $-2.30 \geq \beta \geq 1.17$ ; Future learning question:  $-1.19 \geq \beta \geq 1.12$ . For the target feedback measure reported below, the interaction term was significant. Although the  $\beta$  suggests that this study design may have had poor sensitivity for a small to medium effect based on the power analysis, the OR suggest a large effect (Chen et al., 2010).

#### 3.1 | Teacher feedback question

The overall model for teacher feedback (scored 0 = positive feedback, 1 = negative feedback) was significant,  $\chi^2(5, N = 121) = 22.53, p < .001$ , Nagelkerke  $R^2 = .23$ . There was a significant effect of condition such that children

were more likely to indicate that the expert should deliver his/her true negative feedback to the teacher in the promise condition relative to the comparison,  $\beta = -2.18$ ,  $Wald = 13.68$ ,  $p < .001$ ,  $OR = 0.11$  (95% CI: .04, .36), or the helper conditions,  $\beta = -1.89$ ,  $Wald = 10.40$ ,  $p = .001$ ,  $OR = 0.15$  (95% CI: .05, .48), which did not differ from one another,  $\beta = 0.29$ ,  $Wald = 0.40$ ,  $p = .53$ . There was no significant effect of age and no interaction between condition and age ( $ps > .10$ ).

In addition, we examined whether children systematically endorsed the expert's feedback in each condition.  $T$  tests against chance performance revealed that participants in the promise condition indicated that the expert should deliver his/her true negative feedback to the teacher ( $M = 0.85$ ,  $SD = 0.36$ ) at a rate significantly above chance,  $t(39) = 6.12$ ,  $p < .001$ . Participants in the helper and comparison conditions were unsystematic:  $M = 0.49$ ,  $SD = 0.51$ ,  $t(40) = 0.15$ ,  $p = .88$  and  $M = 0.43$ ,  $SD = 0.50$ ,  $t(39) = 0.95$ ,  $p = .35$ .

Participants were asked to justify why they thought the expert should deliver positive or negative feedback to the teacher. Two experimenters coded these responses independently and had a high level of reliability,  $\kappa = .92$ . Among older children, 30.1% referred to the expert's assignment as a reason to report specific feedback to the teacher (e.g., "because she said a promise to tell her feeling"). The remaining majority of these responses were coded as "other," but this result was driven primarily by younger children, 79.2% of whom responded "I don't know" or recited part of a sentence from the story.

### 3.2 | Target feedback question

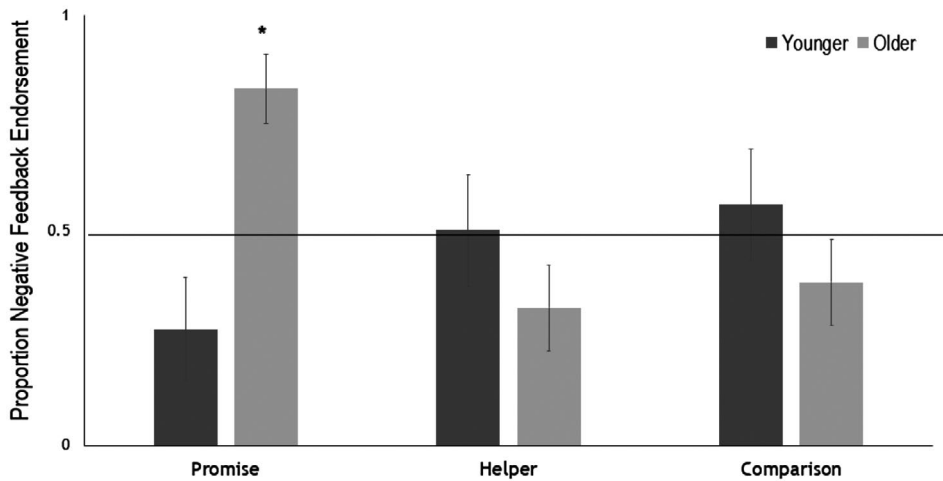
The overall model for target feedback (scored 0 = positive feedback, 1 = negative feedback) was significant,  $\chi^2(5, N = 120) = 14.80$ ,  $p = .011$ , Nagelkerke  $R^2 = .15$ . With age, children were more likely to endorse the expert's feedback (i.e., negative feedback) overall,  $\beta = 1.03$ ,  $Wald = 6.63$ ,  $p = .01$ ,  $OR = 2.81$  (95% CI: 1.25, 6.18), but this effect was qualified by a significant interaction with expert type: with age, children were more likely to endorse the expert's feedback in the promise condition relative to the comparison condition,  $\beta = -1.42$ ,  $Wald = 6.94$ ,  $p = .008$ ,  $OR = 0.24$  (95% CI: 0.08, 0.70) and the helper condition,  $\beta = -1.35$ ,  $Wald = 7.03$ ,  $p = .008$ ,  $OR = 0.26$  (95% CI: 0.10, 0.70), which did not differ from one another,  $\beta = 0.68$ ,  $Wald = 0.02$ ,  $p = .09$ .

To examine how younger and older children performed in each condition, we also conducted  $t$  tests against chance for each condition with age group as a categorical variable (younger: 4 to 5 year olds and older: 6 to 8 year olds). Six- to 8 year olds indicated that the expert should provide his/her true feedback (i.e., negative feedback) to the target in the promise condition ( $M = 0.83$ ,  $SD = 0.38$ ) at a rate significantly above chance,  $t(23) = 4.29$ ,  $p < .001$ . These participants did not endorse the expert's feedback at a rate significantly different from chance in the helper or comparison conditions:  $M = 0.32$ ,  $SD = 0.48$ ,  $t(24) = 1.89$ ,  $p = .07$  and  $M = 0.38$ ,  $SD = 0.49$ ,  $t(23) = 1.24$ ,  $p = .23$ , respectively. Younger children were unsystematic: promise:  $M = 0.27$ ,  $SD = 0.46$ ,  $t(14) = 1.97$ ,  $p = .068$ ; helper:  $M = 0.56$ ,  $SD = 0.51$ ,  $t(15) = 0.49$ ,  $p = .63$ ; and comparison:  $M = 0.50$ ,  $SD = 0.52$ ,  $t(15) = 0.00$ ,  $p = 1.0$ . See Figure 1.

Participants were asked to justify why they thought the expert should deliver positive or negative feedback to the target and the same two experimenters coded these responses with a high level of reliability,  $\kappa = .95$ . Both younger children (22.9%) and older children (24.7%) referred to how positive feedback would make the target feel (e.g., "because that will make her feel happy"). In addition, 20.5% of older children referred to the assignment of the expert (e.g., "because the teacher told her to say what she really thinks even if it hurts feelings"). Thirty-eight percent of participants responded with "I don't know" or recited a sentence about the expert's feedback from the story.

### 3.3 | Correctness question

The overall model for the correctness item (scored 0 = layperson(s) correct, 1 = expert correct) was not significant,  $\chi^2(5, N = 121) = 1.72$ ,  $p = .89$ . A  $t$  test against chance collapsed across age and condition revealed that participants



**FIGURE 1** Proportion of children who endorsed negative feedback for the target feedback question by participant age and condition. Error bars represent standard errors. \* $p < .001$

were more likely than expected by chance to endorse the layperson(s) (i.e., positive feedback) as correct about the target's work,  $M = 0.23$ ,  $SD = 0.42$ ,  $t(120) = 6.98$ ,  $p < .001$ .

### 3.4 | Future learning question

The overall model for the future learning item (scored 0 = layperson, 1 = expert) was not significant,  $\chi^2(5, N = 118) = 9.27$ ,  $p = .09$ . A  $t$  test against chance collapsed across age and condition revealed that participants did not systematically endorse learning from the expert or the layperson(s),  $M = 0.55$ ,  $SD = 0.50$ ,  $t(117) = 1.11$ ,  $p = .27$ .

As a supplemental question at the end of the testing session, children were asked to indicate whether the target would feel happy or sad if the expert told the target that his or her work was "very bad." The majority of children (83.5%) indicated that the target would feel sad.

## 4 | DISCUSSION

In this study, children were sensitive to an expert's promise to tell the truth and endorsed the expert's negative feedback as the appropriate information to report to the teacher. Interestingly, there were developmental differences with respect to children's perceptions of target-appropriate feedback. With age, children indicated that truthful negative feedback should be delivered to the target. However, only 6 to 8 year olds in the promise condition endorsed negative target feedback systematically. This finding suggests that children increasingly are aware that criticism can scaffold improvement despite the social benefits associated with reporting positive feedback (Banerjee, 2002; Bussey, 1999). Why, then, did these same children fail to endorse the expert as "correct" when asked directly for their own views? Notably, these kinds of discrepancies in children's judgments concerning expertise are not uncommon (e.g., Boseovski et al., 2016; Marble & Boseovski, 2019). These results are also consistent with a developmental tendency to prioritize positive information in social learning (see Marble & Boseovski, 2020 for a review). Below, we consider possible theoretical ties to moral reasoning and developmental implications for frameworks of children's social learning.



It is unlikely that children were uncertain about expertise given that children correctly identified the expert as knowledgeable. Children may have resisted negative feedback as correct because it could reflect an expert's poor character or lack of concern about potential psychological harm for the target. In this way, children may not have viewed negative feedback as socially appropriate. Indeed, many children referenced that the target would feel "sad" in response to negative feedback. Therefore, it is possible that the feedback was interpreted as person-oriented (Dweck, 1999; Kamins & Dweck, 1999). This interpretation is consistent with the finding that 4- to 8 year olds were more likely to accept a negative, process-oriented evaluation (Boseovski et al., 2017, Experiment 2) than a direct negative statement (Experiment 1).

In addition to the possible discomfort with expressing a negative view, children in the current study may have perceived that a range of feedback could be "correct" in a subjective domain (Mills & Keil, 2008; but see Lapan & Boseovski, 2017). This possibility seems most likely for older children, who may have appreciated that evaluations of artwork or music are aesthetic judgments for which opinions vary (Kuhn et al., 2000). However, this interpretation is unlikely in light of children's qualitative responses. Approximately half of the older children referred to the expert's assignment or referred to how the layperson(s)' positive feedback would make the target feel when asked to justify whether positive or negative feedback should be delivered to the target.

Older children's endorsement of negative feedback was somewhat surprising in light of children's preference for positivity and children's sensitivity to self-presentation in peer relationships (Banerjee & Yuill, 1999). The apparent conflict between children's endorsement of positive feedback as correct but negative feedback as appropriate for the target and teacher may indicate that children's moral reasoning is tied to their social learning judgments when valenced content is involved. Older children may have recognized the interpersonal dilemma of the expert but found the moral obligation of a promise to tell the truth more compelling (Heyman & Dweck, 1998; Lee, 2013). The presence of the secondary authority figure (i.e., teacher), to whom the promise was made, may have increased the salience of this obligation. In addition, children may have viewed the expert's report to be acceptable, while maintaining that it was wrong and simply assigned blame to the authority figure for the hurtful behavior (e.g., Schleifer et al., 1983).

If responsibility, blame, and compliance were salient, older children may have been motivated to view truthful, negative feedback as appropriate. A sizeable percentage of older children referred to the expert's obligations in their open-ended responses. Older children may have remained objective about the importance of negative feedback for the target and teacher via some form of psychological distancing (Mischel & Rodriguez, 1993; White & Carlson, 2016). However, had the feedback been directed at the participants themselves, they may have been especially influenced by a positivity bias. Indeed, the pattern that emerged for the target feedback measure may align with a developmental decline in perceptions of overlap between the self and peers (e.g., Collyer & Marcovitch, 2019).

A theoretical account that ties together children's prioritization of evaluative content with their moral reasoning may shed light on the developmental differences evident in this study. Specifically, developmental differences emerged when children were asked about target-appropriate feedback, but not among children in the promise condition when they were asked about teacher-appropriate feedback. Given preschoolers' understanding of psychological harm (e.g., Helwig et al., 1995; Helwig et al., 2001), it is not surprising that at least some younger children endorsed positive feedback for the target. However, young children struggle to understand who is responsible when a promise is broken (e.g., Mant & Perner, 1988). Children develop a better understanding of the commitment and intentionality associated with promises at approximately 7 years of age (Astington, 1988).

It is possible that younger children struggled to coordinate what they know across each of these areas of social and moral knowledge. In fact, social domain theory suggests that young children cannot always coordinate social information (e.g., information about authority or convention) with moral principles (e.g., psychological harm) to evaluate situations or individuals (Richardson et al., 2012; Turiel et al., 2014). In this case, younger children might have focused on positivity and considered the negative outcome for the target if the target were to receive negative feedback. Preschoolers have a general understanding that white lies protect others' feelings

(Talwar & Crossman, 2011) and in some circumstances are prone to focus on outcomes (Boseovski et al., 2013; Nelson, 1980).

Younger children could have also focused on the authority in the room (e.g., Laupa, 1991) and reasoned from the perspective that a promise to the teacher should be kept regardless of the feedback. However, it may not have been possible for young children to coordinate these considerations systematically across various measures. Further, younger children might have understood the expert's promise to be associated with the teacher but not the target (i.e., not generalizable), consistent with the finding that children systematically endorsed the expert's negative feedback as appropriate for the teacher in the promise condition. Future research should address whether young children understand the protective nature of positive feedback to the same extent as older children (who were able to provide qualitative responses to that effect in this study) or whether a combination of other factors produced the mixed response patterns of younger children for that question.

Another direction for future research would be to investigate why children may not always endorse information from someone in a designated helping role. Despite 3 to 6 year olds' sensitivity to labels that indicate prosocial behavior (e.g., Bryan et al., 2014), the helper condition did not produce the predicted effect. Children may have viewed the expert labeled as the helper as someone who ingratiated themselves to the teacher because the expert did not make an explicit statement offering help to the target (e.g., see Bennett & Yeeles, 1990; Ingram & Bering, 2010). Children may have suspected that this expert's feedback was delivered based on a self-interest motive and discounted the evaluation (Mendelsohn & Straker, 1999). Future research in this area should address children's perceptions of knowledgeable individuals with various roles, which may vary as a function of cultural norms and values (e.g., Fu et al., 2016).

Finally, it would be helpful to explore additional boundaries to process-oriented praise and criticism that could shift both younger and older children's acceptance level of constructive criticism (Amemiya & Wang, 2018). For example, an expert can suggest specific aspects of a song that need to be improved, which may further contextualize why she or he has provided an overall negative evaluation of it. Indeed, the expert's feedback in this study was strongly and explicitly negative (i.e., "very bad") as a starting point to investigate how person-level information may shift children's interpretation of such direct criticism.

Taken together, findings from the current study suggest that the way evaluative feedback is delivered matters. Previous research has detailed the negative implications of both praise and criticism (see Dweck, 1999). The present study focused on the developmental differences and biases involved in children's reasoning about evaluative feedback from experts. The findings suggest that children may invoke social norms or even moral principles when they evaluate criticism. In turn, children may not accept an expert's criticism as constructive unless they have sufficient context to ameliorate negative perceptions of these statements.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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## REFERENCES

- Altermatt, E. R., Pomerantz, E. M., Ruble, D. N., Frey, K. S., & Greulich, F. K. (2002). Predicting changes in children's self-perceptions of academic competence: A naturalistic examination of evaluative discourse among classmates. *Developmental Psychology*, 38(6), 903–917. <https://doi.org/10.1037//0012-1649.38.6.903>
- Amemiya, J., & Wang, M. T. (2018). Why effort praise can backfire in adolescence. *Child Development Perspectives*, 12(3), 199–203. <https://doi.org/10.1111/cdep.12284>

- Astington, J. (1988). Promises: Words or deeds? *First Language*, 8, 259–270. <https://doi.org/10.1177/014272378800802404>
- Babad, E. (1995). The “teacher’s pet” phenomenon, students’ perceptions of teachers’ differential behavior, and students’ morale. *Journal of Educational Psychology*, 87(3), 361–374. <https://doi.org/10.1037/0022-0663.87.3.361>
- Banerjee, R. (2002). Audience effects on self-presentation in childhood. *Social Development*, 11(4), 487–507. <https://doi.org/10.1111/1467-9507.00212>
- Banerjee, R., & Yuill, N. (1999). Children’s explanations for self-presentational behaviour. *European Journal of Social Psychology*, 29(1), 105–111. [https://doi.org/10.1002/\(SICI\)1099-0992\(199902\)29:1<105:AID-EJSP910>3.0.CO;2-K](https://doi.org/10.1002/(SICI)1099-0992(199902)29:1<105:AID-EJSP910>3.0.CO;2-K)
- Bennett, M., & Yeeles, C. (1990). Children’s understanding of showing off. *The Journal of Social Psychology*, 130(5), 591–596. <https://doi.org/10.1080/00224545.1990.9922950>
- Boseovski, J. J. (2010). Evidence for “Rose-colored glasses”: An examination of the positivity bias in young children’s personality judgments. *Child Development Perspectives*, 4(3), 212–218. <https://doi.org/10.1111/j.1750-8606.2010.00149.x>
- Boseovski, J. J., Chiu, K., & Marcovitch, S. (2013). Integration of behavioral frequency and intention information in young children’s trait attributions. *Social Development*, 22(1), 38–57. <https://doi.org/10.1111/sode.12008>
- Boseovski, J. J., Hughes, C., & Miller, S. E. (2016). Expertise in unexpected places: Children’s acceptance of information from gender counter-stereotypical experts. *Journal of Experimental Child Psychology*, 141, 161–176. <https://doi.org/10.1016/j.jecp.2015.09.002>
- Boseovski, J. J., Marble, K. E., & Hughes, C. (2017). Role of expertise, consensus, and informational valence in children’s performance judgments. *Social Development*, 26(3), 445–465. <https://doi.org/10.1111/sode.12205>
- Boseovski, J. J., & Thurman, S. L. (2014). Evaluating and approaching a strange animal: Children’s trust in informant testimony. *Child Development*, 85(2), 824–834. <https://doi.org/10.1111/cdev.12156>
- Bryan, C. J., Master, A., & Walton, G. M. (2014). “Helping” versus “being a helper”: Invoking the self to increase helping in young children. *Child Development*, 85(5), 1836–1842. Retrieved from [www.jstor.org/stable/24033023](http://www.jstor.org/stable/24033023)
- Bussey, K. (1999). Children’s categorization and evaluation of different types of lies and truths. *Child Development*, 70(6), 1338–1347. <https://doi.org/10.1111/1467-8624.00098>
- Chen, H., Cohen, P., & Chen, S. (2010). How big is a big odds ratio? Interpreting the magnitudes of odds ratios in epidemiological studies. *Communications in Statistics—simulation and Computation*, 39(4), 860–864. <https://doi.org/10.1080/03610911003650383>
- Collyer, D. A., & Marcovitch, S. (2019). Children’s perceptions and representations of self–other overlap with peers. *Early Childhood Research Quarterly*, 47, 321–330. <https://doi.org/10.1016/j.ecresq.2019.01.006>
- Cordonier, L., Nettles, T., & Rochat, P. (2018). Strong and strategic conformity understanding by 3- and 5-year-old children. *British Journal of Developmental Psychology*, 36(3), 438–451. <https://doi.org/10.1111/bjdp.12229>
- Corriveau, K. H., Fusaro, M., & Harris, P. L. (2009). Going with the flow: Preschoolers prefer nondissenters as informants. *Psychological Science*, 20(3), 372–377. <https://doi.org/10.1111/j.1467-9280.2009.02291.x>
- Croce, R. C., & Boseovski, J. J. (2020). Trait or testimony? Children’s preferences for positive informants. *Journal of Experimental Child Psychology*, 190, 104726. <https://doi.org/10.1016/j.jecp.2019.104726>
- Dweck, C. S. (1976). Children’s interpretation of evaluative feedback: The effect of social cues on learned helplessness. *Merrill-Palmer Quarterly of Behavior and Development*, 22(2), 105–109. Retrieved from [www.jstor.org/stable/23083956](http://www.jstor.org/stable/23083956)
- Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality, and development*. Psychology Press.
- Einav, S. (2014). Does the majority always know best? Young children’s flexible trust in majority opinion. *PLoS One*, 9(8), e104585. <https://doi.org/10.1371/journal.pone.0104585>
- Engelmann, J. M., & Rapp, D. J. (2018). The influence of reputational concerns on children’s prosociality. *Current Opinion in Psychology*, 20, 92–95. <https://doi.org/10.1016/j.copsyc.2017.08.024>
- Evans, A. D., & Lee, K. (2010). Promising to tell the truth makes 8- to 16-year-olds more honest. *Behavioral Sciences & the Law*, 28(6), 801–811. <https://doi.org/10.1002/bsl.960>
- Fu, G., Heyman, G. D., Cameron, C. A., & Lee, K. (2016). Learning to be unsung heroes: Development of reputation management in two cultures. *Child Development*, 87(3), 689–699. <https://doi.org/10.1111/cdev.12494>
- Gall, S. N. L. (1985). Help-seeking behavior in learning. *Review of Research in Education*, 12, 55–90. [www.jstor.org/stable/1167146](http://www.jstor.org/stable/1167146) <https://doi.org/10.2307/1167146>
- Helwig, C. C., Hildebrandt, C., & Turiel, E. (1995). Children’s judgments about psychological harm in social context. *Child Development*, 66(6), 1680–1693. <https://doi.org/10.2307/1131903>
- Helwig, C. C., Zelazo, P. D., & Wilson, M. (2001). Children’s judgments of psychological harm in normal and noncanonical situations. *Child Development*, 72(1), 66–81. Retrieved from [www.jstor.org/stable/1132472](http://www.jstor.org/stable/1132472)
- Heyman, G. D., & Dweck, C. S. (1998). Children’s thinking about traits: Implications for judgments of the self and others. *Child Development*, 69(2), 391–403. <https://doi.org/10.2307/1132173>
- Heyman, G. D., Fu, G., & Lee, K. (2013). Selective skepticism: American and Chinese children’s reasoning about evaluative academic feedback. *Developmental Psychology*, 49(3), 543–553. <https://doi.org/10.1037/a0031282>

- Heyman, G. D., Fu, G., Sweet, M. A., & Lee, K. (2009). Children's reasoning about evaluative feedback. *British Journal of Developmental Psychology*, 27(4), 875–890. <https://doi.org/10.1348/026151008X390870>
- Heyman, G. D., & Giles, J. W. (2004). Valence effects in reasoning about evaluative traits. *Merrill-Palmer Quarterly*, 50(1), 86–109. <https://doi.org/10.1353/mpq.2004.0004>
- Heyman, G. D., Sweet, M. A., & Lee, K. (2009). Children's reasoning about lie-telling and truth-telling in politeness contexts. *Social Development*, 18(3), 728–746. <https://doi.org/10.1111/j.1467-9507.2008.00495.x>
- Ingram, G. P., & Bering, J. M. (2010). Children's tattling: The reporting of everyday norm violations in preschool settings. *Child Development*, 81(3), 945–957. Retrieved from [www.jstor.org/stable/40599144](http://www.jstor.org/stable/40599144)
- Kamins, M. L., & Dweck, C. S. (1999). Person versus process praise and criticism: Implications for contingent self-worth and coping. *Developmental Psychology*, 35(3), 835–847. <https://doi.org/10.1037/0012-1649.35.3.835>
- Kanngiesser, P., Köymen, B., & Tomasello, M. (2017). Young children mostly keep, and expect others to keep, their promises. *Journal of Experimental Child Psychology*, 159, 140–158. <https://doi.org/10.1016/j.jecp.2017.02.004>
- Koenig, M. A., & Jaswal, V. K. (2011). Characterizing children's expectations about expertise and incompetence: Halo or pitchfork effects? *Child Development*, 82(5), 1634–1647. Retrieved from [www.jstor.org/stable/41289869](http://www.jstor.org/stable/41289869)
- Kuhn, D., Cheney, R., & Weinstock, M. (2000). The development of epistemological understanding. *Cognitive Development*, 15(3), 309–328. [https://doi.org/10.1016/S0885-2014\(00\)00030-7](https://doi.org/10.1016/S0885-2014(00)00030-7)
- Kurman, J., & Eshel, Y. (1998). Self-enhancement, generality level of self-evaluation, and emotional adjustment. *The Journal of Social Psychology*, 138(5), 549–563. <https://doi.org/10.1080/00224549809600410>
- Ladd, G. W., Lange, G., & Stremmel, A. (1983). Personal and situational influences on children's helping behavior: Factors that mediate compliant helping. *Child Development*, 54(2), 488–501. <https://doi.org/10.2307/1129711>
- Lapan, C., & Boseovski, J. J. (2017). When peer performance matters: Effects of expertise and traits on children's self-evaluations after social comparison. *Child Development*, 88(6), 1860–1872. <https://doi.org/10.1111/cdev.12941>
- Laupa, M. (1991). Children's reasoning about three authority attributes: Adult status, knowledge, and social position. *Developmental Psychology*, 27(2), 321–329. <https://doi.org/10.1037/0012-1649.27.2.321>
- Lee, K. (2000). Lying as doing deceptive things with words: A speech act theoretical perspective. In J. W. Astington (Ed.), *Minds in the making: Essays in honor of David R. Olson* (pp. 177–196). Blackwell Publishing.
- Lee, K. (2013). Little liars: Development of verbal deception in children. *Child Development Perspectives*, 7(2), 91–96. <https://doi.org/10.1111/cdep.12023>
- Leung, K., Su, S., & Morris, M. W. (2001). When is criticism not constructive? The roles of fairness perceptions and dispositional attributions in employee acceptance of critical supervisory feedback. *Human Relations*, 54(9), 1155–1187. <https://doi.org/10.1177/0018726701549002>
- Lutz, D. J., & Keil, F. C. (2002). Early understanding of the division of cognitive labor. *Child Development*, 73(4), 1073–1084. Retrieved from [www.jstor.org/stable/3696271](http://www.jstor.org/stable/3696271)
- Maas, F. K., & Abbeduto, L. (2001). Children's judgements about intentionally and unintentionally broken promises. *Journal of Child Language*, 28(2), 517–529. <https://doi.org/10.1017/S0305000901004743>
- Mant, C. M., & Perner, J. (1988). The child's understanding of commitment. *Developmental Psychology*, 24, 343–351. <https://doi.org/10.1037/0012-1649.24.3.343>
- Marble, K. E., & Boseovski, J. J. (2019). Children's judgments of cultural expertise: The influence of cultural status and learning method. *The Journal of Genetic Psychology: Research and Theory on Human Development*, 180(1), 17–30. <https://doi.org/10.1080/00221325.2018.1562418>
- Marble, K. E., & Boseovski, J. J. (2020). Content counts: A trait and moral reasoning framework for children's selective social learning. In J. Benson (Ed.), *Advances in child development and behavior* (Vol. 58, pp. 96–129).
- Mendelsohn, M., & Straker, G. (1999). Social perspective taking and use of discounting in children's perceptions of others' helping behavior. *The Journal of Genetic Psychology*, 160(1), 69–83. <https://doi.org/10.1080/00221329909595381>
- Mills, C. M., & Keil, F. C. (2008). Children's developing notions of (im) partiality. *Cognition*, 107(2), 528–551. <https://doi.org/10.1016/j.cognition.2007.11.003>
- Mischel, W., & Rodriguez, M. L. (1993). Psychological distance in self-imposed delay of gratification. In R. R. Cocking & K. A. Renninger (Eds.), *The development and meaning of psychological distance* (pp. 109–121). Lawrence Erlbaum.
- Nelson, S. A. (1980). Factors influencing young children's use of motives and outcomes as moral criteria. *Child Development*, 51(3), 823–829. <https://doi.org/10.2307/1129470>
- Qiu, W., & Qiu, M. W. (2020). Package 'powerMediation'.
- R Core Team. (2020). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. <https://www.R-project.org/>
- Richardson, C. B., Mulvey, K. L., & Killen, M. (2012). Extending social domain theory with a process-based account of moral judgments. *Human Development*, 55(1), 4–25. <https://doi.org/10.1159/000335362>
- Rodman, A. M., Powers, K. E., & Somerville, L. H. (2017). Development of self-protective biases in response to social evaluative feedback. *Proceedings of the National Academy of Sciences*, 114(50), 13158–13163. <https://doi.org/10.1073/pnas.1712398114>

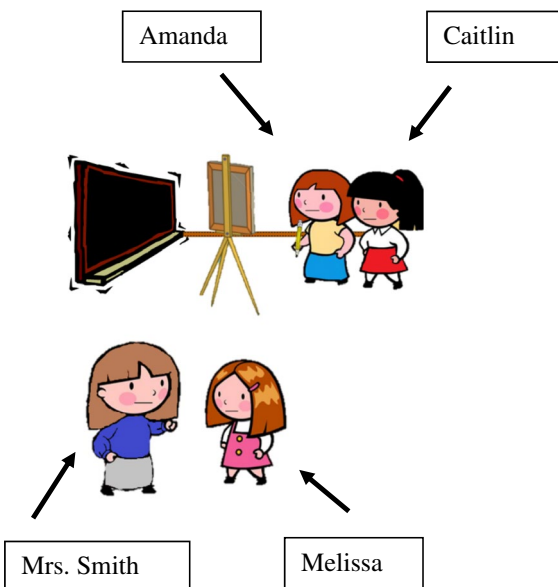
- Ruble, D. N., Boggiano, A. K., Feldman, N. S., & Loebl, J. H. (1980). Developmental analysis of the role of social comparison in self-evaluation. *Developmental Psychology*, *16*(2), 105. <https://doi.org/10.1037/0012-1649.16.2.105>
- Ruble, D. N., Eisenberg, R., & Higgins, E. T. (1994). Developmental changes in achievement evaluation: Motivational implications of self-other differences. *Child Development*, *65*(4), 1095–1110. <https://doi.org/10.2307/1131307>
- Schleifer, M., Schultz, T. R., & Lefebvre-Pinard, M. (1983). Children's judgements of causality, responsibility, and punishment in cases of harm due to omission. *British Journal of Developmental Psychology*, *1*(1), 87–97. <https://doi.org/10.1111/j.2044-835X.1983.tb00546.x>
- Shorr, D. N. (1993). Children's perceptions of others' kindness in helping: The endocentric motivations of pride and guilt. *The Journal of Genetic Psychology*, *154*(3), 363–374. <https://doi.org/10.1080/00221325.1993.10532189>
- Stipek, D. J., & Daniels, D. H. (1988). Declining perceptions of competence: A consequence of changes in the child or in the educational environment? *Journal of Educational Psychology*, *80*(3), 352–356.
- Swann, W. B. Jr, Pelham, B. W., & Krull, D. S. (1989). Agreeable fancy or disagreeable truth? Reconciling self-enhancement and self-verification. *Journal of Personality and Social Psychology*, *57*(5), 782–791.
- Talwar, V., & Crossman, A. (2011). From little white lies to filthy liars: The evolution of honesty and deception in young children. In J. Benson (Ed.), *Advances in child development and behavior* (Vol. 40, pp. 139–179). Elsevier.
- Turiel, E., Smetana, J. G., & Killen, M. (2014). Social contexts in social cognitive development. In W. M. Kurtines, J. Gewitz, & J. L. Lamb (Eds.), *Handbook of moral behavior and development* (Vol. 2, pp. 307–332). Psychology Press.
- White, R. E., & Carlson, S. M. (2016). What would Batman do? Self-distancing improves executive function in young children. *Developmental Science*, *19*(3), 419–426. <https://doi.org/10.1111/desc.12314>

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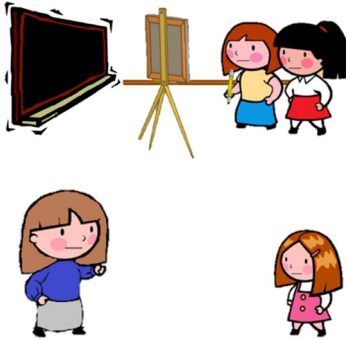
## APPENDIX A

Example stimuli used in the promise and helper condition (Panel A) versus stimuli used in the comparison condition (Panel B) for the “art” stories. Character names marked in Panel A match the example protocol in Appendix B. Note that the quality of the artwork cannot be evaluated by participants. The classroom context was maintained for similarity across conditions.

Panel A



## Panel B

**APPENDIX B**

Full example script (female participant, art domain, expert vs. one layperson) for each character introduction is below, which was followed by the condition manipulations: Teacher's helper (Panel A), Promise (Panel B), or Comparison (Panel C), and the testimony (all participants). The Target was always introduced first; the expert and layperson(s) introductions were randomized. The order of expert and layperson(s) testimony was randomized.

Introduction (all participants):

Target: This is Amanda. She is a girl your age. After school, she sometimes draws pictures, but she can only draw a few easy things. Amanda has never taken an art class on how to draw and she cannot draw every kind of shape. She has only shown her pictures to a few people. She only draws pictures in her free time. Right now, Amanda is drawing a picture.

Expert: This is Melissa. She is also a girl your age. She draws pictures every day after school. Melissa has taken many art classes. She knows how to draw shapes and she can draw twenty things. She practices drawing every chance she gets. She shows her pictures to many people.

Layperson: This is Caitlin. She is another girl your age. She draws pictures once in a while after school. Caitlin has never taken art classes. She cannot draw shapes and she can only draw one thing. Caitlin practices drawing only when she needs something to do. She has only shown her pictures to her family.

Panel A.

This is Mrs. Smith, the teacher for the classroom. Mrs. Smith has chosen Melissa to look at all of the drawings and to be the teacher's helper by saying what she thinks about the drawings. A person can be a helper when someone needs to pick things up or when there is a job to do or when there is something new to learn, just like learning to draw.

Panel B.

This is Mrs. Smith, the teacher for the classroom. Mrs. Smith has chosen Melissa to look at all of the drawings and she tells Melissa to promise to tell the truth about what she thinks about the drawings. A person who promises has to do what they say they will do, even if it makes others sad and hurts their feelings.

Panel C.

This is Mrs. Smith, the teacher for the classroom. Mrs. Smith and all of the other children in the class look at each other's drawings and they tell each other what they think about the drawings. Mrs. Smith is cleaning up the classroom and watering the class plants, while all of the students are working on their drawings.

Testimony (all participants):

Melissa looks at Amanda's picture and she thinks that it looks very bad.

Caitlin looks at Amanda's picture and she thinks that it looks very good.