“Why Does Rain Fall?”: Children Prefer to Learn From an Informant Who Uses Noncircular Explanations

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These two studies explored 3- and 5-year-olds’ evaluation of noncircular and circular explanations, and their use of such explanations to determine informant credibility. Although 5-year-olds demonstrated a selective preference for noncircular over circular explanations (Experiment 1: Long Explanations; Experiment 2: Short Explanations), 3-year-olds only demonstrated a preference for the noncircular when the explanations were shortened (Experiment 2). Children’s evaluation of the explanations extended to their inferences about the informants’ future credibility. Both age groups demonstrated a selective preference for learning novel explanations from an informant who had previously provided noncircular explanations—although only 5-year-olds also preferred to learn novel labels from her. The implications and scope of children’s ability to monitor the quality of an informant’s explanation are discussed.

Children are surprisingly selective when deciding from whom to learn. By early preschool, children rely on multiple cues when determining informant credibility, such as prior accuracy in a particular domain, benevolence, and social group status (e.g., Corriveau & Harris, 2009a, 2009b; Corriveau, Fusaro, & Harris, 2009; Corriveau, Kinzler, & Harris, 2013; Harris, 2012; Kinzler, Corriveau, & Harris, 2011; Koenig & Woodward, 2010; Mascaro & Sperber, 2009). To date, studies on children’s selective learning have largely focused on how children use an informant’s accurate or inaccurate labeling of a familiar object when subsequently deciding from whom to learn a novel fact—usually a novel object’s name or function (e.g., Birch, Vauthier, & Bloom, 2008; Koenig & Harris, 2005). This focus on children’s evaluation of single-word utterances is surprising, given that preschoolers shift from primarily asking “what” and “where” questions, which can be answered with one-word responses, to asking “why” and “how” questions, which require longer explanations (Chouinard, 2007; Frazier, Gelman, & Wellman, 2009; Issacs, 1930). Indeed, not only do preschool children begin to ask questions that call for causal explanations but they also begin to provide explanations that may help in their understanding of causal mechanisms (Kuhn & Katz, 2009; Legare, Gelman, & Wellman, 2010; Rittle-Johnson, Saylor, & Swyget, 2008).

Based on preschooler’s developing understanding of the role of explanations in learning, it seems likely that children would determine an informant’s future credibility by attending not only to her single-word utterances but also to her explanations. Indeed, recent research indicates that preschoolers can make judgments about the quality of explanations. Mercier, Clément, and Bernard (in press) demonstrated that children as young as 3 weigh the quality of explanations when making subsequent decisions. Mercier et al. presented 3-, 4-, and 5-year-olds with a series of vignettes where two speakers offered contradictory arguments (Task 1: argument supported by perceptual evidence [strong argument] vs. circular argument [weak argument]; Task 2: weak argument vs. no argument). Although all age groups endorsed the strong argument, only 4- and 5-year-olds endorsed the weak argument over no argument.

The data from Mercier et al. (in press) suggest that even young preschoolers can use explanation quality to make decisions. Nevertheless, little is known about the developmental origins of children’s use of these evaluations to make inferences about source credibility. Here, we present the first set of studies exploring children’s use of explanation quality to evaluate an informant’s credibility.
The task of evaluating explanations to determine informant credibility is more complex than evaluating single utterances. Children need to compare the speaker’s utterance to their own background knowledge, as well as to evaluate the internal coherence of the statement (e.g., Harris, Kroothof, Meerum Terwogt, & Visser, 1981; Markman, 1979). These tasks are difficult even for adults and older children (e.g., Mercier, 2012). For example, Baum, Danovitch, and Keil (2008) presented 5- to 10-year-olds with explanations for why natural phenomena occur (e.g., why polar bears are white)—a circular explanation and a noncircular explanation. Whereas 5-year-olds had a fragile preference for noncircular explanations, 10-year-olds displayed a robust preference. Similarly, Bernard, Mercier, and Clément (2012) presented 3- to 5-year-olds with two speakers who provided differing explanations for the location of a hidden object. One explanation included the causal connective because, whereas the other explanation used the phatic term well (e.g., the ball is in “the blue box because Camille always puts her ball in the blue box” and “Well, Camille always puts her ball in the blue box”). Four- and 5-year-olds searched in the location identified by the speaker using causal connectives. Taken together, these studies suggest that children’s evaluation of explanatory coherence develops over the preschool and elementary school years.

In the current set of studies, we focus on argument circularity as a marker of explanatory coherence. Circular explanations refer to statements that reiterate the information from the original question without adding new information. By contrast, noncircular explanations provide more information than was provided in the original question. We focus on argument circularity for several reasons. First, manipulating argument circularity allowed us to focus on the abstract structural properties of explanations, rather than on the content of the explanation themselves. Second, adults and older children selectively prefer noncircular explanations (Baum et al., 2008; Hahn & Oaksford, 2007; Rips, 2002). Circular explanations are ubiquitous in everyday conversation, suggesting that most preschoolers have been exposed to this type of explanatory structure. Finally, manipulating argument circularity allowed us to hold other markers of explanation complexity constant, such as utterance length, reading ease, and vocabulary difficulty.

Even if young children can monitor for argument circularity, do they use this information to make evaluations about an informant’s future credibility? On the one hand, given that the task of evaluating explanation quality is taxing for young children, it is possible that children’s evaluations will not extend to inferences about informant credibility. On the other hand, extensive research suggests that children use an informant’s prior behavior to make such inferences at the single-word level (e.g., Harris & Corriveau, 2011). If children use similar mechanisms when evaluating explanations, they might also evaluate the source of the noncircular explanation as more credible. The present set of studies aimed to evaluate children’s developing understanding of explanatory coherence, as well as to assess children’s preference for learning future information from the explanation’s source.

Three- and 5-year-olds were presented with pictures of two informants and tested in two phases. In the training phase, both informants provided explanations for familiar entities. Although the entities were familiar to the children, the causal explanations were not. In each of four trials, one informant consistently provided a noncircular explanation, whereas the other informant provided a circular explanation. Children were invited to endorse one of the two explanations.

In the test phase, the informants provided conflicting information about novel entities. In the novel explanations task, informants provided conflicting noncircular explanations about a novel object. In the novel labels task, informants provided conflicting labels for a novel object. Finally, children were asked to explicitly judge the credibility of the two informants.

We made three separate but related predictions. First, if children are able to judge the quality of the explanation, they should selectively prefer the noncircular over the circular explanation in training trials. Second, if children are able to use explanation quality to make inferences about the informants’ future credibility, they should prefer to learn from the informant who had previously provided noncircular over circular explanations. Finally, individual differences in children’s preference for noncircular explanations during the training trials should be related to their selective learning from the two informants in test trials.

**Experiment 1**

**Method**

**Participants**

Thirty-three children participated in the study: seventeen 3-year-olds (7 female, \(M = 3;7\), \(SD = 5\) months, range = 3;2–4;2) and sixteen 5-year-olds
Children’s Preference for Informants Who Use Noncircular Explanations

(10 female, $M = 5;1$, $SD = 4$ months, range = 4;10–6;9). Children spoke English as their first language, and were recruited from local preschools and a children’s exhibit at a local science museum. Ninety percent were White; 10% were Asian American. Although information on socioeconomic status was not collected, the preschools and museum serve a predominantly middle- and upper-middle-class population.

Materials

Children sat at a small table located in the corner of a quiet room where an experimenter presented two pictures of females wearing differently colored shirts (black, green). The females were matched for attractiveness and displayed neutral affect. During the training trials, four pictures of familiar entities were used (e.g., polar bear, car, rain, plant). During the novel explanations and novel labels tasks, eight pictures of novel objects were used (see Table 2).

Procedure

All children participated in four trial types: (a) training, (b) novel explanation, (c) novel label, and (d) explicit judgment. Trials were presented in a fixed order, with the exception of the novel explanation and novel label trials, which were counterbalanced across participants.

<table>
<thead>
<tr>
<th>Event</th>
<th>Statement</th>
<th>Circular explanation</th>
<th>Noncircular explanation</th>
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<tbody>
<tr>
<td><strong>Experiment 1</strong></td>
<td></td>
<td></td>
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<tr>
<td>Rain</td>
<td>These girls think they know why it rains. Let’s see what they think</td>
<td>Sometimes it rains because it is wet and cloudy outside, and water falls from the sky. When water falls from the sky it is called rain and it gets us all wet</td>
<td>Sometime it rains because there are clouds in the sky that are filled with water When there is too much water in the clouds it falls to the ground and gets us all wet</td>
</tr>
<tr>
<td>Flowers/trees</td>
<td>These girls think they know why trees and flowers grow. Let's see what they think</td>
<td>Flowers and trees grow because they become taller and taller. They grow when their stem gets long and they get more and more leaves</td>
<td>Flowers and trees grow because we feed them water, which keeps them healthy and strong. The sun also helps them grow by giving them energy, which keeps them healthy and strong</td>
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<tr>
<td><strong>Experiment 2</strong></td>
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<tr>
<td>Rain</td>
<td>These girls think they know why it rains. Let’s see what they think</td>
<td>It rains because water falls from the sky and gets us wet</td>
<td>It rains because the clouds fill with water and get too heavy</td>
</tr>
<tr>
<td>Flowers/trees</td>
<td>These girls think they know why trees and flowers grow. Let’s see what they think</td>
<td>They grow because their stems get longer and longer and they get taller</td>
<td>They grow because we feed them water and the sun gives them light</td>
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said”) and nonverbal (e.g., pointing) responses were accepted. The order of explanation and the informant providing the circular explanation was counterbalanced across participants.

**Novel explanations.** Immediately following the fourth training trial, children participated in either the novel explanations or novel labels task. The experimenter said, “Here are the same two girls again. Remember, this one is wearing a green shirt and this one is wearing a black shirt. They are going to explain some things that we don’t know about.” For each of the four trials, the experimenter placed a picture of a novel object between the informants, and said, for example, “Look at this object. Now I wonder why it has (e.g., a round thing there). Let’s see what these girls think” (see Table 2).

The experimenter pointed to both girls sequentially and stated their explanations. Both explanations were always noncircular and equivalent in plausibility. For example, “The girl in the green shirt says it has a round thing there so that we can spin it on the table” and “The girl in the black shirt says it has a round thing there so that we can roll it on the table.” Immediately following the explanations, the experimenter repeated the two explanations and asked, “Why do you think (e.g., it has a round thing)?” The order of the explanations, and the informant offering each explanation was counterbalanced across participants.

**Novel labels.** The experimenter began by saying, “Now the girls are going to tell us the names of some funny-looking things.” For each of the four trials the experimenter placed a picture of a novel object between the informants and said, for example, “The girl in the green shirt says that’s a foppick” and “The girl in the black shirt says that’s a tillen” (see Table 2, lower panel). The experimenter repeated the two labels, and asked, “What do you think it’s called?” The order of the labels, and the informant offering each label was counterbalanced across participants.

**Explicit judgment.** Finally, the experimenter pointed to the picture of each informant and said “Do you remember when the girl in the green shirt was talking about some things that we know about like polar bears and rain? Was she very good or not very good at explaining those things?” The same question was posed for the girl in the black shirt (counterbalanced across participants). Finally, children were asked to judge the relative quality of the informants: “Which girl was better at explaining those things?”

### Results

**Training Trials**

Table 3 displays the children’s mean preference for the informant providing noncircular explanations during the training trials along with comparisons with 50% chance performance. Responses offered by 5-year-olds were significantly different from those offered by 3-year-olds, \( t(31) = 5.56, p < .001, d = 0.97 \). Whereas 5-year-olds were above chance in choosing the noncircular explanations, 3-year-olds did not systematically choose either explanation.

**Novel Explanations and Novel Labels**

Table 3 also displays children’s mean preference for the informant providing noncircular explanations and comparisons to 50% chance for both the

<table>
<thead>
<tr>
<th>Novel objects</th>
<th>Informant 1 response</th>
<th>Informant 2 response</th>
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<tr>
<td>Plastic hook</td>
<td>It has a triangle in the middle so we can see through it</td>
<td>It has a triangle in the middle so we can put our fingers through it</td>
</tr>
<tr>
<td>Metal hook</td>
<td>It has hooks so that we can hang scarves on it</td>
<td>It has hooks so that we can hang hats on it</td>
</tr>
<tr>
<td>Sprinkler head</td>
<td>It is shiny so that we can see it from far away</td>
<td>It is shiny so that it looks bright like the sun</td>
</tr>
<tr>
<td>Car medallion</td>
<td>That’s a nez</td>
<td>That’s a cray</td>
</tr>
<tr>
<td>Black door hinge</td>
<td>That’s a modi</td>
<td>That’s a seebo</td>
</tr>
<tr>
<td>Citrus juicer</td>
<td>That’s a foppick</td>
<td>That’s a tillen</td>
</tr>
<tr>
<td>Red retractable funnel</td>
<td>That’s a rossi</td>
<td>That’s a bobe</td>
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novel explanations and the novel labels task. In the novel explanations task, both 3- and 5-year-olds performed above 50% chance, systematically endorsing explanations from the informant who had provided noncircular explanations. In the novel labels task, 5-year-olds were also above chance in privileging this informant. By contrast, 3-year-olds did not systematically choose either informant.

To confirm these findings, a 2 (age group: 3-year-olds, 5-year-olds) × 2 (trial type: novel explanations, novel labels) repeated measures analysis of variance (ANOVA) was conducted. This analysis revealed a main effect of age group, \( F(1, 31) = 4.75, p < .05, \eta_p^2 = .13 \), and a Trial Type × Age Group interaction (\( F(1, 31) = 5.24, p < .05, \eta_p^2 = .15 \)). The main effect of trial type was not significant.

To interpret the interaction, the simple effect of age group was calculated for each trial type. On the novel explanations task, both 3- and 5-year-olds demonstrated similar levels of selectivity, preferring to endorse explanations from the informant who had previously offered noncircular explanations, \( F(1, 31) = 4.75, p < .05, \eta_p^2 = .13 \). By contrast, in the novel labels task, 5-year-olds were significantly more selective than 3-year-olds, \( F(1, 31) = 12.82, p < .001 \).

Explicit Judgment

Table 3 displays children’s average correct performance and comparison to 50% chance for the explicit judgment trials. Five-year-olds were significantly more likely than 3-year-olds to judge the noncircular informant as “better,” \( t(31) = 2.29, p < .05, d = 0.43 \). Although 5-year-olds systematically judged the informant giving noncircular explanations as “better,” 3-year-olds were at chance in judging the informants. Note that the data are similar when exploring the final forced-choice question only.

Discussion

In Experiment 1, we examined preschoolers’ developing preference for circular versus noncircular explanations. We also investigated children’s use of explanation type to determine an informant’s future credibility across two novel learning tasks.

First, children’s preference for noncircular explanations develops over the preschool years. In the training trials, 3-year-olds displayed no systematic preference for noncircular explanations, whereas 5-year-olds selectively preferred the noncircular explanations. This finding is consistent with previous research indicating that 5-year-olds choose a noncircular explanation as the “best” explanation for why something occurs (Baum et al., 2008; Experiment 1). Note that these data suggest that 5-year-olds’ evaluation of explanation quality extends beyond the evaluation of a single word (e.g., a causal connective because; Bernard et al., 2012). Both the noncircular and circular explanations included a causal connective; thus, if children were simply monitoring for such target words, they should have been at chance in evaluating the explanations.

Second, both 3- and 5-year-olds used the quality of an informant’s explanation when assessing her subsequent credibility. When asked to endorse a
novel explanation, both 3- and 5-year-olds demonstrated a significant preference for learning from the informant who had provided noncircular explanations. Three-year-olds’ preference is impressive, given that they did not display a selective preference for either explanation type in the training trials. Nevertheless, children’s preference for learning from the informant who provided noncircular explanations is fragile in early preschool. Whereas 5-year-olds also preferred to learn novel labels from this informant, and to explicitly judge her as “better,” 3-year-olds displayed no systematic preference.

Why would 3-year-olds display selectivity in some test trials, but not in explicit judgment trials? One possibility is that 3-year-olds’ poor performance on the training trials, and subsequent fragile preference on test trials, was due to task demands. The explanations used in Experiment 1 were relatively long (\( M = 27 \) words). Note that we had attempted to decrease memory load by repeating the two explanations prior to inviting the child to respond. Nevertheless, in Experiment 2, we probed children’s explanation monitoring further by decreasing the explanation length in the training trials.

Experiment 2

Method

Participants

Thirty-two different children participated in the study: sixteen 3-year-olds (14 female, \( M = 3;7, SD = 5 \) months, range = 3;3–4;3) and sixteen 5-year-olds (10 female, \( M = 5;7, SD = 4 \) months, range = 5;2–6;2). Children spoke English as their first language and were recruited from local preschools. Seventy-five percent were White, 12.5% were Southeast Asian American, and 12.5% were East Asian American. Although information on socioeconomic status was not collected, the preschools serve a predominantly middle- and upper-middle-class population.

Procedure

The procedure was identical to Experiment 1, with the exception of the explanations in the training trials (see Table 1, bottom panel). For all four training trials both the circular and noncircular explanations were matched for length (explanation length < 13 words) and for readability (Flesch, 1948). There were no significant differences in readability between the two types of explanations (\( M_{\text{circular}} = 84.3, M_{\text{noncircular}} = 92.3 \), \( t(6) = 1.68, ns \), suggesting that, as in Experiment 1, the explanations were of equal reading difficulty. Moreover, there were no significant differences in the readability, when comparing the explanations from Experiments 1 and 2.

Results

Training Trials

Table 3 (bottom panel) displays mean preference for the noncircular explanations and comparisons to 50% chance. Both 5-year-olds and 3-year-olds were above 50% chance in choosing noncircular explanations. There were no significant differences between the responses given by 3- and 5-year-olds, \( t(30) = 1.79, ns \).

Novel Explanations and Novel Labels

Table 3 also displays mean preference for endorsing the informant who had previously provided noncircular explanations and comparisons to 50% chance for the novel explanations and novel labels tasks. As in Experiment 1, both 3- and 5-year-olds performed above 50% chance in endorsing the novel explanations from the informant who had provided noncircular explanations. Whereas 5-year-olds performed above 50% chance in endorsing novel labels, 3-year-olds were unsystematic in endorsing the novel labels provided by either informant. However, these differences in chance-level performance should be interpreted with caution, as a 2 (age group: 3-year-olds, 5-year-olds) x 2 (trial type: novel explanations, novel labels) repeated measures ANOVA revealed no significant main effects or interactions.

Explicit Judgment

As in Experiment 1, 5-year-olds were significantly more likely than 3-year-olds to judge the noncircular informant as “better,” \( t(30) = 2.07, p < .05, d = 0.34 \). Whereas 5-year-olds systematically judged the informant giving noncircular explanations as “better,” 3-year-olds were at chance in judging the informants. Note that the findings are similar when exploring the final forced-choice question only.

Relation Between Training Trials and Test Trials

Finally, we assessed the relation between children’s judgment of explanation quality and their
preference for learning from the informant who had provided noncircular explanations. We examined children’s mean test performance (novel explanations + novel labels, max = 8) as a function of the mean number of noncircular explanation choices in the training trials (max = 4), collapsed across Experiments 1 and 2. Children displayed a stronger preference for the noncircular informant in the test trials if they had shown more sensitivity toward noncircular explanations during training trials. Almost two thirds of the children tested (40 of 65) chose the noncircular explanations for at least three of four training trials. Of these 40 children, 58% endorsed the informant who had provided noncircular explanations on at least six of the eight test questions. By contrast, of the 25 children who chose the noncircular informant for < 3 training trials, only 16% endorsed the informant who had provided noncircular explanations on at least six test questions. This difference in test performance by training performance is significant, \( \chi^2(1, N = 65) = 10.91, p < .001, \phi = .41 \).

To further examine these findings, we conducted a multiple linear regression with total test score as the dependent variable and age in months, training score and experiment as independent variables. Age was a significant predictor (\( \beta = 0.35, SE = 0.01, p < .05 \)), accounting for 9% of the variance in test performance. In addition, training performance accounted for 28% of the variation in performance on the test trials (\( \beta = 0.79, SE = 0.19, p < .001 \)). No other main effects or interactions were significant. Thus, children’s preference for noncircular explanations during training trials predicted their preference for learning from the noncircular informant during test trials even after controlling for age in months and experiment.

Discussion

Both 3- and 5-year-olds preferred the noncircular explanations during the training trials. Recall that these explanations were shorter than those used in Experiment 1, suggesting that 3-year-olds’ selective preference for noncircular explanations in Experiment 2 may be due to the decreased memory load required to make these judgments.

Taken together, the results from Experiment 2 provide additional support for the findings in Experiment 1. Both 3- and 5-year-olds monitored the quality of the informants’ explanations, and used those explanations to make inferences about the informants’ future credibility. They endorsed novel explanations provided by the informant who previously used noncircular explanations. However, as in Experiment 1, only 5-year-olds selectively endorsed this informant in the novel labels task and explicitly judged her as “better,” a point that we turn to again in the General Discussion. Moreover, when collapsing across both experiments, children’s preference for the noncircular explanations in the training phase accounted for unique variance in their subsequent learning from the informant who used noncircular explanations, even after controlling for age.

General Discussion

Taken together, Experiments 1 and 2 support the conclusion that, counter to previous findings (Baum et al., 2008), preschoolers can judge the quality of an explanation by attending to the circularity of the argument. Moreover, preschoolers demonstrated this preference even though both explanations included the causal connective because (Bernard et al., 2012). Thus, these data extend previous work by showing that children’s evaluation of explanation quality develops over the preschool years and is relatively robust by age 5 (Frazier et al., 2009; Mercier et al., in press).

To the best of our knowledge, no research has explored how children use assessments of explanation quality to judge an informant’s credibility. Instead, previous research has focused on children’s judgments of an informant’s expertise at the single-word level (Sobel & Corriveau, 2010; Koenig & Jaswal, 2011). Across two experiments, we find that both age groups selectively chose the informant who had provided noncircular explanations on a near transfer task (novel explanations). Similarly, 5-year-olds preferred this same informant when learning novel labels. Children’s endorsement of this informant was also related to their judgment of explanation quality even after controlling for age. Taken together, preschoolers are surprisingly selective, not only in using single words but also in using entire utterances to judge an informant’s credibility.

Although preschoolers selectively endorsed the claims of the informant who had previously used noncircular explanations, in both experiments only 5-year-olds explicitly judged this informant as “better.” This discrepancy in performance between explicit judgment and test performance is in contrast to previous findings demonstrating a relation between performance on these two tasks (e.g., Koenig, Clément, & Harris, 2004). One difference between our setup and previous research was that
although the circular explanation was fallacious, it did not have the same degree of blatant inaccuracy as would be seen by an informant mislabeling a shoe a “car.” If anything, the difference between a circular and a noncircular explanation might be seen as a difference between an accurate explanation and a more neutral one. Some previous research has compared children’s selective preference for an accurate labeler over a neutral labeler (who simply states “let me take a look at that”; Corriveau, Meints, & Harris, 2009). Although 4-year-olds were able to explicitly judge the accurate labeler as “better,” 3-year-olds were not, suggesting that 3-year-olds may struggle when explicitly evaluating two informants who display more subtle differences in accuracy. An alternative explanation is that selectivity in explicit judgment questions may require more metacognitive abilities than needed for simple endorsement. Future research should include both endorse and explicit judgment questions to explore children’s selective learning in these more complex settings.

What is developing in the preschool years in children’s learning from explanations? We suggest that children’s ability to monitor explanations may display a similar pattern to their monitoring of single-word utterances (e.g., object labels; Jaswal & Neely, 2006; Koenig & Harris, 2005). Whereas older preschoolers (4- and 5-year-olds) use multiple strategies to infer informant credibility (e.g., accuracy and inaccuracy of object labeling), younger preschoolers use more narrow strategies (e.g., inaccuracy only; Pasquini, Corriveau, Koenig, & Harris, 2007). Similarly, when monitoring for explanation quality, older preschoolers may be more flexible when attending to global strategies (e.g., argument circularity). By contrast, younger preschoolers can use these strategies when selectively learning from informants—but only in certain situations and under certain conditions. Future research should explore the developmental sequence of the cues used for explanation monitoring.

What are the limits of children’s explanation monitoring? On the one hand, children might endorse all claims from an informant providing high-quality explanations. Indeed, research on children’s learning of scientific concepts indicates that young preschoolers blindly accept an informant’s explanations without considering how these claims match with real-world evidence (e.g., Kuhn, Cheney, & Weinstock, 2000). An alternative possibility is that children continue to monitor explanation quality even after determining that an informant is credible. Indeed, in some instances, at least a minority of children and adults weight perceptual experience over information from others (Asch, 1956; Corriveau & Harris, 2010). Future research should examine how children approach novel situations when they have access to both high-quality informants and real-world evidence.

One further question concerns the scope of children’s knowledge about a given domain. In the present experiments, the informants supplied information about scientific phenomena. Given the influence of context on children’s sensitivity to explanations (Kuhn, 2001), it is plausible that children might employ different strategies to evaluate explanations across domains. For example, recent research indicates that adults’ explanations influence how children understand nonobservables such as religious phenomena (Canfield & Ganea, 2013; Woolley, Ma, & Lopez-Mobilla, 2011).

In summary, during the preschool years, children become increasingly sophisticated questioners, thereby prompting a rapidly expanding exposure to multiverse explanations. Our research provides evidence that children are capable of assessing an entire explanation in judging its quality. Perhaps even more compelling, children not only monitor explanations for quality but they also use this information to make judgments about an informant’s future credibility.

References


