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PAPER

Choosing your informant: weighing familiarity and recent accuracy

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Abstract

In two experiments, children aged 3, 4 and 5 years (N = 61) were given conflicting information about the names and functions of novel objects by two informants, one a familiar teacher, the other an unfamiliar teacher. On pre-test trials, all three age groups invested more trust in the familiar teacher. They preferred to ask for information and to endorse the information that she supplied. In a subsequent phase, children watched as the two teachers differed in the accuracy with which they named a set of familiar objects. Half the children saw the familiar teacher name the objects accurately and the unfamiliar teacher name them inaccurately. The remaining half saw the reverse arrangement. In post-test trials, the selective trust initially displayed by 3-year-olds was minimally affected by this intervening experience of differential accuracy. By contrast, the selective trust of 4- and 5-year-olds was affected. If the familiar teacher had been the more accurate, selective trust in her was intensified. If, on the other hand, the familiar teacher had been the less accurate, it was undermined, particularly among 5-year-olds. Thus, by 4 years of age, children trust familiar informants but moderate that trust depending on the informants' recent history of accuracy or inaccuracy.

Introduction

When children learn about the world from others, they do not treat the information provided by every person equally. Instead, a growing body of research indicates that young children monitor the past accuracy of informants and use this information when deciding which informant to trust (Birch, Vauthier & Bloom, 2008; Clément, Koenig & Harris, 2004; Harris, 2007; Jaswal & Neely, 2006; Koenig, Clément & Harris, 2004; Koenig & Harris, 2005). For example, Koenig and Harris (2005, Experiment 1) showed 3- and 4-year-olds a film in which two unfamiliar informants labeled three familiar objects. One informant consistently labeled the objects correctly whereas the other informant consistently labeled them incorrectly. Children then watched the two informants supply conflicting labels for a set of unfamiliar objects and were asked what they thought each unfamiliar object was called. Although 3-year-olds did not discriminate between the two informants, 4-year-olds preferred to ask for and endorse labels from the previously accurate informant.

Other findings have indicated an ability to monitor informant accuracy even among 3-year-olds. Pasquini, Corriveau, Koenig and Harris (2007) modified the paradigm of Koenig and Harris (2005) in three ways. First, the location of the informants from trial to trial remained constant across trials. Second, the experimenter repeated what the two informants said after every trial. Finally, one more accuracy trial was added such that each child saw one informant make four errors and the other informant correctly label four objects. Under these conditions, both 3- and 4-year-olds preferred to ask for and endorse labels from the previously reliable informant, although that preference was stronger among 4-year-olds. Birch *et al.* (2008) also found that both 3- and 4-year-olds were able to monitor the accuracy of informants. They presented 3- and 4-year-olds with one informant who consistently provided accurate information about familiar objects and a second informant who consistently provided inaccurate information. Children subsequently used this information when deciding which informant to rely upon for information about unfamiliar objects whether with respect to their names (Study 1) or their functions (Study 2).

These experimental results involved unfamiliar informants. Thus, it is not clear whether young children also monitor the accuracy of familiar informants. Children might monitor an informant's accuracy for only a brief initial period. More specifically, having established during early encounters that a given informant is accurate, they might ignore any subsequent errors, thereby retaining their trust in the informant. An equally plausible alternative is that children monitor an informant over an extensive period, generally creating a deep reservoir of trust in the reliability of the person's claims. A short-term display of inaccuracy on the part of this familiar informant might have little impact on this reservoir. In

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either of these two cases, children should retain their trust in a familiar informant even in the face of his or her temporary inaccuracy. Thus, although previous findings have clearly shown that preschoolers – especially 4-year-olds – come to mistrust an inaccurate informant, this might apply only to unfamiliar informants and not to familiar informants.

Experiment 1

Experiment 1 examined two related aspects of informant familiarity. First, in four pre-test trials we asked whether 3- and 4-year-olds use familiarity as a cue when deciding which of two informants to trust. To assess whether children use this strategy, we varied the relative familiarity of two informants by presenting children with films of a familiar teacher from their preschool site paired with an unfamiliar teacher from an affiliated preschool site. In pre-test trials, both teachers served as informants who labeled novel objects and pantomimed novel functions. Children were recruited from two preschool facilities such that for children from preschool 1, teacher 1 was familiar and teacher 2 was unfamiliar, whereas for children from preschool 2, teacher 1 was unfamiliar and teacher 2 was familiar. We anticipated that children would be more likely to trust information provided by the particular teacher who was familiar to them. To probe the scope of that trust, children were given two types of trial. On *Ask* trials, they were invited to indicate whom they wished to ask for information. On *Endorse* trials, having heard each informant make a different claim, they were invited to say which claim they agreed with. As a further probe of the child's relationship with the familiar teacher, we asked the two teachers to rate their relationship with each child in their care using the Student–Teacher Relationship Scale – Short Form (Pianta, 2001). We anticipated that children exhibiting a more close and/or a less conflictual relationship with the familiar teacher might be especially prone to seek and endorse information from her as opposed to the relatively unfamiliar teacher.

Our second goal was to assess the extent to which children take an informant's recent history of accuracy into account even in cases where they could, in principle, rely solely on familiarity. Accordingly, after the four pre-test trials, children were presented with four accuracy trials in which they could assess the relative reliability of the two teachers. Half of the children viewed a film in which the familiar teacher was 100% accurate whereas the unfamiliar teacher was 0% accurate; the other half of the children viewed a film in which the familiar teacher was 0% accurate whereas the unfamiliar teacher was 100% accurate. Then, children received four post-test trials, equivalent in format to the pre-test trials. Thus, they were presented with films in which the two informants labeled novel objects. If children prefer to use evidence of recent accuracy to differentiate between conflicting claims, they are likely to choose the previously accurate informant, regardless of familiarity. If children prefer to be guided by their prior relationship with the teacher, they are likely to choose the more familiar informant, regardless of her recent accuracy.

Method

Participants

Forty-one children participated in this study: 20 3-year-olds (M = 3;4, SD = 3 months, range: 3;0–3;10, nine male) and 21 4-year-olds (M = 4;5, SD = 4 months, range: 4;0–5;0, 11 male). Twenty-two of the children (10 3-year-olds, 12 4-year-olds) were recruited from the main site of a preschool in Buffalo, NY and the remaining 19 children were recruited from a separate site of the preschool. Both preschools recruit children from a broad socioeconomic range. The children were primarily White, although a range of ethnicities was represented. Children participated with the consent of their parent.

Procedure

All children were tested in three phases. First, children participated in eight *pre-test trials* in which they viewed movies showing a familiar and an unfamiliar informant labeling and demonstrating the function of novel objects. Children's preference for asking and endorsing the more familiar informant was measured during these eight trials. Second, children received four *accuracy trials* in which one of the two informants consistently labeled four familiar objects accurately and the other informant consistently labeled the objects inaccurately. Children's own names for these familiar objects were also elicited. Finally, children received a *post-test* in which the two informants labeled novel objects. Children's preference for asking and endorsing the familiar informant was again measured during four post-test trials. In addition, their explicit judgments regarding the accuracy of the two informants were obtained both immediately before and after these four post-test trials. Finally, children were probed for their preferred explanation of why one of the informants made errors. Each phase is described in more detail below.

Pre-test. Each child was tested in two sets of four trials: a *novel object label* set consisting of four trials, and a *novel object function* set consisting of four trials. The order of sets was systematically varied across participants. For each of the two sets, a short film was created comprising four clips, one for each trial. All clips featured the same two female preschool teachers. The teachers were similar in age and appearance and were recruited from the sites of the two preschools in Buffalo, NY. Teacher 1 was familiar to the children in the first site (Teacher 2 was unfamiliar) and Teacher 2 was familiar to the children in the second site (Teacher 1 was unfamiliar). The two

Table 1 *Stimuli used in novel object label trials, novel object function trials, accuracy trials, and post-test trials in Experiments 1 and 2*

	Novel objects	Informant 1 labels	Informant 2 labels
Novel labels	Grey rubber squeegee	'That's a snegg'	'That's a hoon'
	Blue toilet flapper	'That's a yiff'	'That's a zazz'
	Metal cocktail pourer	'That's a crut'	'That's a larp'
	Metal bathroom hook	'That's a linz'	'That's a slod'
Novel functions	Yellow plastic sprinkler attachment	Look through like a telescope	Hold up to mouth and blow
	Wooden orange juicer	Roll on table	Hammer on table
	Black and grey knee pad	Snap like a slingshot	Use as a hat
	Black toilet plunger	Spin like a top	Squish together
Accuracy trials	Spoon	'That's a duck'	'That's a spoon'
	Bottle	'That's a bottle'	'That's an apple'
	Brush	'That's a brush'	'That's a plate'
	Doll	'That's a cup'	'That's a doll'
Post-test trials	Orange hose attachment	'That's a lig'	'That's a joob'
	Gold and red sprinkler head	'That's a doap'	'That's a thaf'
	Green toilet flapper	'That's a tark'	'That's a chab'
	Metal lemon juicer	'That's a nevi'	'That's a mogo'

female teachers wore differently colored shirts and were seated at a table. Each clip began with a male teacher standing behind the two female teachers and placing a novel object on the table between them (e.g. a green rubber toilet flapper, a gold and red metallic sprinkler head; see Table 1 for a full list of objects). Before each clip was played, children were presented with a still photograph of the relevant object. The order of trials was maintained across participants, as shown in Table 1.

To introduce the task, the experimenter pointed to a still frame from the film and said, 'See these two people? That's your teacher C. and she's wearing a pink shirt. That's S. and she's a teacher at another school and she's wearing a black shirt. They're going to show you some things and tell you what they are called (what they are used for). I want you to listen very carefully and then I'm going to ask you some questions. Let's watch.' On each trial, children were asked about the name or function of the novel object. After their ignorance had been established, children were invited to ask one of the two informants for information (Ask Question). Both informants then offered conflicting information about the novel object; the male teacher repeated that information, and invited children to endorse one of the two informants (Endorse Question).

For each trial of *Film 1 (Novel Object Labels)* and *Film 2 (Novel Object Functions)*, children saw a still photograph of a novel object and a corresponding video clip. On any given trial, once they had been shown the still photograph of the novel object, children were asked, 'Do you know what this is called (what this is for)?' Children were given a chance to reply and were then presented with the *Ask Question*, 'I bet one of these people can help us find out. Which person would you like to ask, C. with the pink shirt, or S. with the black shirt?' Children who claimed to know the name or function of the novel object were told, 'Actually, I don't think that's what it is called (what it is for). I bet one of these people can help us find out. Which person would you like to ask, C. with the pink shirt, or S. with the black shirt?'

Next, children saw a video clip in which a male teacher placed the relevant novel object on the table and asked one teacher, 'Can you tell me what this is called?' or 'Can you tell me what this is for?' The first female teacher responded by producing a novel label (e.g. 'That's a *snegg*') or by producing and pantomiming a novel function (e.g. 'You use that for *fepping*'). The same question was posed to the second female teacher, who produced a different, novel label (e.g. 'That's a *hoon*') or produced and pantomimed a different, novel function (e.g. 'You use that for *roking*'). In each film, the order in which teachers were asked questions alternated across the four video clips.

Endorse Questions were posed after children had watched the video clip. The experimenter paused the video, reiterated the information supplied by the two informants, and asked children what they thought the object was called (used for). For example, in the *novel object label* trials, the experimenter said, 'C. in the pink shirt said it's a *snegg* and S. in the black shirt said it's a *hoon*. What do you think it's called, a *snegg* or a *hoon*?' Children were requested to give either a verbal ('what S. said,' 'a snegg') or a nonverbal (pointing) response. Because previous experiments found no systematic difference in performance between *Ask* and *Endorse Questions*, we expected to combine answers to these questions in order to achieve more statistical power from each individual trial.

Accuracy trials. A short film of four clips was created for the accuracy trials. The film featured the same two informants (one the familiar preschool teacher, one the unfamiliar preschool teacher) again wearing different, solid-colored shirts seated at a table. As in pre-test trials, each clip began with a male teacher standing behind two female teachers and placing an object on the table between them. On all four trials, the objects were familiar (e.g. spoon, bottle; see Table 1 for a full list of objects used in accuracy trials). The order of trials was maintained across participants.

To introduce the task, the experimenter pointed to a still frame from the film and said, 'Now C. and S. are going to show you some more things and tell you what they are called. I want you to listen very carefully and then I'm going to ask you some questions. Let's watch.' The accuracy of the teachers' claims was not mentioned in this introduction.

On each accuracy trial, children were first presented with a picture of a familiar object and then watched a video clip of the male teacher, the two female teachers and the familiar object. Trials began when the male teacher placed the object on the table between the two female teachers and asked one teacher, 'Can you tell me what this is called?' One teacher labeled all four objects correctly (100% correct). For example, when presented with a brush, the accurate teacher said, 'That's a brush.' The other teacher labeled all four objects incorrectly (0% correct). For example, when presented with a brush, the inaccurate teacher said, 'That's a plate.' For half of the participants, the familiar teacher was 100% correct and the unfamiliar teacher was 0% correct. For the other half, the unfamiliar teacher was 100% correct and the familiar teacher was 0% correct. In each film, the order in which the teachers were asked to label the familiar object alternated across the four video clips. In every clip, the object labels provided by the two teachers were matched for age of acquisition (Fenson, Dale, Reznick, Bates, Thal & Pethick, 1994).

Name Checks occurred after viewing each video clip. The experimenter paused the video and asked children what they thought the object was called. For example, the experimenter said, 'C. in the pink shirt said it's a *brush* and S. in the black shirt said it's a *plate*. What do you think it's called, a *brush* or a *plate*?'

Post-test. The post-test consisted of three *Explicit Judgment Questions*, followed by four *post-test trials* involving novel objects, and a further three *Explicit Judgment Questions*. To pose the *Explicit Judgment Questions*, the experimenter referred to a still frame of the video and asked, 'Was C. in the pink shirt very good or not very good at answering these questions?' The experimenter then repeated this question in reference to the other informant (S. in the black shirt). Finally, children were asked to make a judgment about the relative accuracy of the two informants, 'Which person was better at answering the questions?' These three Explicit Judgment questions were asked after the fourth and final accuracy trial. The four *post-test trials* followed the same format as the four pre-test trials for novel object labels. Finally, immediately following the fourth and final post-test trial, children were asked the second set of *Explicit Judgment Questions*. The format was identical to that used for the first set.

Finally, an *Explanation Probe* was asked following the *Explicit Judgment* questions. Children were reminded of a specific error that one of the informants made during a familiarization trial and were asked why the error was made. For example, children might be asked, 'Remember when S. in the black shirt said that the brush was a plate? Why do you think she said that? Was it because she didn't know what it was called, or because she was just pretending?' The order of the two forced-choice alternatives varied across children.

Student–Teacher Relationship Questionnaire. The Student–Teacher Relationship Scale – Short Form (Pianta, 2001) was used to assess the relationship between the children and the familiar preschool teacher who had been presented in the films. Teachers were asked to read and rate (from 1: definitely does not apply, to 5: definitely applies) 15 statements about different aspects of their relationship with each child at the preschool where they worked. Seven of the questions were used to compile a *closeness* measure. The remaining eight questions were used to compile a *conflict* measure. Neither measure predicted the pattern of information-seeking that was observed, as briefly described in the discussion of Experiment 1.

Results

We first examine pre-test trials to check whether children preferred to ask for and endorse information from the more familiar teacher within each of the two trial sets (novel object labels and novel object functions). We then report on children's replies to the name checks during the accuracy trials. Next, we examine children's replies to the Explicit Judgment questions – after they had received accuracy information. We then analyze to what extent children preferred the more familiar informant in post-test trials as compared to pre-test trials. Finally, we report children's replies to the Explanation Probe.

To anticipate, both age groups showed a preference for the familiar teacher in pre-test trials. The pattern of responding in post-test trials varied with age. Three-year-olds were relatively unaffected by the differential accuracy of the two teachers during the accuracy trials. Thus, they maintained their initial preference for the familiar teacher, irrespective of how the two teachers behaved during the accuracy trials. By contrast, 4-year-olds displayed a stronger preference for the familiar teacher if she had proved accurate but no preference if she had proved inaccurate.

Pre-test

Comparisons to chance on the novel object label trials. Scores for the Ask and Endorse questions are found in Table 2 together with comparisons to chance via *t*-tests. Scores on *Ask* questions represent the proportion of trials on which children asked for information about the novel objects from the more familiar informant. Both 3- and 4-year-olds performed above chance in asking the more familiar informant. Scores on *Endorse* questions represent the proportion of trials on which children endorsed the label provided by the more familiar

Table 2 *Performance on pre-test trials by age (3, 4, 5), trial set (labels, functions) and question type (ask, endorse). Scores represent the proportion (standard deviation) of times children chose to ask or endorse the more familiar teacher in Experiment 1 (3- and 4-year-olds) and Experiment 2 (5-year-olds)*

	Experiment 1				Experiment 2	
	3-year-olds $N = 20$	$t(19)$	4-year-olds $N = 21$	$t(20)$	5-year-olds $N = 20$	$t(19)$
Labels						
Ask	.71 (.15)	5.68***	.60 (.19)	2.36*	.83 (.17)	8.85***
Endorse	.64 (.24)	2.34*	.62 (.20)	2.68*	.71 (.19)	5.10***
Functions						
Ask	.76 (.21)	6.47***	.67 (.20)	3.84***	.78 (.14)	8.90***
Endorse	.65 (.29)	2.60*	.69 (.16)	5.59***	.79 (.19)	6.90***
Totals						
Labels Total	.66 (.17)	4.20***	.61 (.16)	2.99**	.77 (.10)	11.83***
Functions Total	.71 (.22)	4.33***	.68 (.15)	5.62***	.78 (.13)	9.87***
Overall Total	.68 (.17)	4.95***	.64 (.13)	5.04***	.78 (.08)	15.98***
Total Site 1	.64 (.18)	2.57**	.65 (.12)	3.77***	.78 (.07)	12.17***
Total Site 2	.73 (.15)	4.63***	.65 (.14)	3.34**	.77 (.08)	9.83***

* $p < .05$; ** $p < .01$; *** $p < .001$.

informant. Both 3- and 4-year-olds performed above chance in endorsing the more familiar informant's label.

In summary, on the novel object label trials, both 3- and 4-year-olds preferred to ask for and to endorse information from the more familiar informant.

Comparisons to chance on the novel object function trials. Proportion correct for the Ask and Endorse questions are found in Table 2. Both 3- and 4-year-olds performed above chance in asking the more familiar informant. They also performed above chance in endorsing the more familiar informant. In summary, as in the novel object label trials, both 3- and 4-year-olds preferred to ask for and endorse information from the more familiar informant.

Name checks during accuracy trials

Every 3- and 4-year-old accurately chose the correct label for the familiar objects in all four accuracy trials. Thus, children's naming was unaffected by the incorrect names supplied by one of the two teachers, irrespective of whether she was familiar.

Post-test

Explicit Judgment performance. The proportion of times that children responded accurately to the first (EJ1) and second (EJ2) set of Explicit Judgment questions is shown in Table 3. Inspection of Table 3 reveals that overall 4-year-olds gave more correct replies than 3-year-olds. In addition, children generally replied correctly if the familiar informant had been accurate, but were less likely to reply correctly if the familiar informant had been inaccurate, especially on the second set of questions (EJ2). To check these conclusions, a three-way ANOVA with age (3, 4) and condition (familiar 100% correct, familiar 0% correct) as the between-subjects variables and EJ question (EJ1, EJ2) as the within-subjects variable was calculated for the number of correct replies. The main effect of Age group ($F(1, 37) = 5.21$, $p < .05$, $\eta^2 = .12$) confirmed that 4-year-olds gave more correct replies than 3-year-olds (3-year-olds, $M = .59$, $SD = .27$; 4-year-olds, $M = .78$, $SD = .29$). In addition, there were main effects of Condition ($F(1, 37) = 11.71$, $p < .01$, $\eta^2 = .24$), and EJ question ($F(1, 74) = 9.18$, $p < .01$, $\eta^2 = .20$) and an interaction between these variables ($F(1, 74) = 7.01$, $p < .05$, $\eta^2 = .16$).

Table 3 *Proportion (standard deviation) of correct replies to Explicit Judgment questions by age group (3, 4, 5), condition (familiar 100% accurate, familiar 0% accurate) and Explicit Judgment set (EJ1, EJ2) in Experiment 1 (3- and 4-year-olds) and Experiment 2 (5-year-olds)*

	Experiment 1		Experiment 2
	3-year-olds	4-year-olds	5-year-olds
Familiar 100% correct	$N = 10$	$N = 10$	$N = 10$
Explicit Judgment 1	.78 (.33)	.90 (.22)	1.0 (0)
Explicit Judgment 2	.70 (.20)	.93 (.21)	.93 (.21)
Familiar 0% correct	$N = 10$	$N = 11$	$N = 10$
Explicit Judgment 1	.67 (.37)	.75 (.30)	.93 (.21)
Explicit Judgment 2	.27 (.29)	.54 (.40)	.90 (.16)
Total			
Familiar 100% correct Total	.74 (.27)	.92 (.22)	.98 (.11)
Familiar 0% correct Total	.47 (.33)	.65 (.35)	.92 (.19)

To interpret the interaction, the simple effect of Condition was calculated for each set of EJ questions. On the first set of questions, preschoolers' judgments about the two informants were generally correct for both conditions ($F(1, 41) = .77$, *ns*). On the second set of questions, children's judgments were less likely to be correct if the familiar informant had been 0% rather than 100% accurate ($F(1, 41) = 14.11$, $p < .001$). Thus, as shown in Table 3, children were generally correct on the first set of EJ questions but

Table 4 *Performance on the pre- and post-test trials by age (3, 4, 5), question type (ask, endorse) and condition (familiar 100% accurate, familiar 0% accurate). Scores indicate the proportion of times (standard deviation) children chose to ask or endorse the more familiar teacher in Experiment 1 (3- and 4-year-olds) and Experiment 2 (5-year-olds)*

	Ask	Endorse
3-year-olds		
Pre-test Familiar 100% correct	.75 (.14)	.64 (.23)
Pre-test Familiar 0% correct	.70 (.16)	.66 (.22)
Post-test Familiar 100% correct	.70 (.21)	.61 (.22)
Post-test Familiar 0% correct	.62 (.13)	.57 (.16)
4-year-olds		
Pre-test Familiar 100% correct	.68 (.13)	.63 (.13)
Pre-test Familiar 0% correct	.59 (.17)	.68 (.18)
Post-test Familiar 100% correct	.93 (.12)	.93 (.12)
Post-test Familiar 0% correct	.45 (.29)	.52 (.24)
5-year-olds		
Pre-test Familiar 100% correct	.84 (.12)	.71 (.14)
Pre-test Familiar 0% correct	.76 (.09)	.79 (.12)
Post-test Familiar 100% correct	.90 (.18)	.88 (.18)
Post-test Familiar 0% correct	.20 (.20)	.15 (.18)

made errors on the second set, especially when it was the familiar informant who had been inaccurate.

In the *Explanation Probe*, when the familiar informant had been 0% correct, 60% of 3-year-olds and 54% of 4-year-olds said that she 'didn't know' the names of the familiar objects. The remaining children – 40% of 3-year-olds and 46% of 4-year-olds – said that she was 'just pretending'. When the unfamiliar informant had been 0% correct, 80% of 3-year-olds and 80% of 4-year-olds said that she 'didn't know' the names of the familiar objects. The remaining children – 20% of 3-year-olds and 20% of 4-year-olds – said that she was 'just pretending'. Thus, a greater proportion of children attributed ignorance to the unfamiliar informant.

Comparison of children's overall performance on pre-test and post-test trials. To assess the impact of accuracy trials on children's preference for the familiar teacher, we compared children's scores on the Ask and Endorse probes during post- versus pre-test trials. These scores are shown in Table 4.

A four-way ANOVA with Age (3, 4) and Condition (familiar 100% accurate, familiar 0% accurate) as the between-subjects variables and Question Type (ask, endorse) and Phase (pre-test, post-test) as the within-subjects variables was calculated for the number of choices directed at the familiar informant. This revealed a main effect of Condition ($F(1, 37) = 21.73$, $p < .001$, $\eta^2 = .37$) and a three-way interaction of Age × Condition × Phase ($F(1, 74) = 6.28$, $p < .05$, $\eta^2 = .15$). Inspection of Table 4 suggests that 4-year-olds but not 3-year-olds altered their preference from pre- to post-test trials.

To check this conclusion, the simple effect of Phase was calculated for each of the four possible Age × Condition combinations. Three-year-olds did not show any shift in preference for the familiar teacher between pre- and post-test trials, regardless of condition (familiar 100% correct: $F(1, 74) = .01$, *ns*; familiar 0% correct: $F(1, 74) = .75$, *ns*). In contrast, 4-year-olds showed a greater preference for the familiar teacher after the accuracy trials if she had been 100% accurate ($F(1, 74) = 5.02$, $p < .01$). If the familiar teacher had been 0% accurate, their preference for her weakened slightly after the accuracy trials but this decline was not significant ($F(1, 74) = 1.76$, .20).

Discussion

In the introduction, we asked whether preschool children trust a familiar rather than an unfamiliar informant and whether that preference is altered if the familiar informant proves accurate or inaccurate. Our findings provide a clear answer to the first question. Both age groups preferred to ask for and endorse information about novel labels and functions from the familiar informant rather than the unfamiliar informant. This preference emerged in each preschool. Thus, the teacher who was systematically preferred in one preschool was systematically less preferred in the other preschool. By implication, children's selectivity cannot be attributed to a preference for the appearance or interactive style of just one of the two teachers. Instead, it can be plausibly attributed to the differential familiarity that children had with the two teachers in each preschool.

We had speculated that children's trust in a familiar teacher might be moderated by the extent to which children had either a close or a conflictual relationship with the familiar teacher (as measured by the Student–Teacher Relationship Scale – Short Form; Pianta, 2001). We found no effect for either scale when the four-way ANOVA reported above was re-calculated with the measures of closeness and of conflict included as covariates. Arguably, familiarity *per se* is the main determinant of children's selective trust, rather than the particular type of emotional relationship that they have established. However, two major caveats are warranted. First, both teachers were experienced preschool workers with a stable history of employment at the respective facilities. Hence, they had probably established relatively close relationships with most, if not all, of the children in their care. Indeed, scrutiny of the scores for the group of children at each preschool confirms that scores were concentrated in the upper and lower half of the scales for closeness and conflict, respectively. Thus, neither teacher reported having a distant relation to any child in her care. Second, direct observation of teacher–child relationships might provide a more probing assessment of whether children's emotional relationship to an informant affects their trust in that informant. For example, measures derived from attachment theory, especially if they involved an assessment of children's relationship to a primary caregiver, might reveal that certain emotional aspects of children's relationship with a given informant do affect their trust.

We now turn to the second question, namely the extent to which evidence for the inaccuracy of either the familiar or unfamiliar informant altered the pattern of selective trust that children had displayed during the pre-test trials. Three-year-olds were minimally affected by this accuracy information. First, they were less accurate in their replies to the Explicit Judgment questions than 4-year-olds. Second, the analysis of responses in pre- and post-test trials confirmed that 3-year-olds' overall preference for the familiar informant during pre-test trials remained unaltered during post-test trials, whether the familiar informant had been 100% or 0% correct during the accuracy trials. For 3-year-olds, therefore, familiarity appears to be a more important heuristic than accuracy when selecting between two informants. More generally, these findings are consistent with a pattern that has recurred across several earlier experiments. Three-year-olds are less sensitive to recent variation in the accuracy of their informants than are 4-year-olds (Clément *et al.*, 2004; Koenig *et al.*, 2004; Koenig & Harris, 2005, Experiment 1; Pasquini *et al.*, 2007).

Four-year-olds were affected by exposure to the differential accuracy of the two informants during the accuracy trials. First, they gave more correct replies to the Explicit Judgment questions than 3-year-olds. Second, the analysis of responses in pre- and post-test trials confirmed that 4-year-olds' initial preference for the familiar informant tended to intensify or attenuate depending on the relative accuracy of the two informants. Thus, when the familiar informant had been 100% accurate, 4-year-olds displayed a stronger preference for her. By contrast, if the familiar informant had been 0% accurate, 4-year-olds' initial preference for her tended to weaken.

One final result of Experiment 1 deserves comment. Both age groups were relatively accurate in their replies to the first set of Explicit Judgment questions but often made errors in the second set. In particular, they were likely to claim that the familiar teacher had been accurate even when she had been consistently inaccurate. A plausible interpretation of this result is that children were prone to misremember information inconsistent with their initial schema of that teacher. Similar results were reported by Leichtman and Ceci (1995). Three- and 4-year-olds with prior expectations regarding a male visitor to their day-care center were more likely to misremember the details of his visit than children with no prior expectations.

Experiment 2

The results of Experiment 1 suggest that there is a developmental shift. Unlike 3-year-olds, 4-year-olds weigh recent accuracy alongside familiarity when deciding whom to trust. We might expect the pattern displayed by 4-year-olds in Experiment 1 to emerge even more strongly among older children. Accordingly, in Experiment 2, we tested 5-year-olds using the same procedure as in Experiment 1.

Method

Participants

Twenty 5-year-olds (M = 5;8, SD = 3 months, range: 5;3–6;1, nine male) participated in this study. Ten of the children were recruited from one kindergarten classroom of a school in Brookline, MA and the remaining 10 children were recruited from another kindergarten classroom at the other end of the school (the two kindergarten classrooms did not interact). The kindergarten recruited children from a broad socioeconomic range. The children were primarily White, although a range of ethnicities was represented. Children participated with the consent of their parent.

Procedure

The procedure was identical to the procedure in Experiment 1. Children participated in *pre-test trials* in which a familiar and an unfamiliar teacher labeled and demonstrated the function of novel objects. Next, they received *accuracy trials* in which one of the two informants consistently labeled four familiar objects accurately and the other informant consistently labeled the objects inaccurately. Finally, children received a *post-test* comprising two sets of *Explicit Judgment questions*, four *post-test trials* in which the two informants labeled novel objects and an *Explanation Probe*.

As in Experiment 1, every film shown to the children featured the same two female kindergarten teachers. The two female teachers were similar in age and appearance and were recruited from a school in Brookline, MA. Teacher 1 was familiar to the children in the first classroom (Teacher 2 was unfamiliar) and Teacher 2 was familiar to the children in the second classroom (Teacher 1 was unfamiliar). The two female teachers wore differently colored shirts and were seated at a table. To introduce the task, the experimenter pointed to a still frame from the film and said, 'Do you know who this is? That's right, that's your teacher X and she's wearing a green shirt. Do you know who this is? That's Y and she's a different kindergarten teacher and she's wearing a pink shirt.'

Since the Student–Teacher Relationship Scale had not identified a link between selective trust and children's relationship with their teachers, this scale was not included in Experiment 2.

Results

As in Experiment 1, we first examine pre-test trials to check whether 5-year-olds prefer to ask for and endorse information from the more familiar teacher within each of the two trial sets (novel object labels and novel object functions). We also report on the accuracy of children's naming during the accuracy trials. Next, we examine children's performance on the two sets of Explicit

Judgment questions and the Explanation Probe. We then analyze to what extent children preferred the more familiar informant in post-trials as compared to pre-test trials. Finally, we provide a statistical analysis of the findings across Experiments 1 and 2.

Pre-test

Comparisons to chance on the novel object label trials. The proportion of times that children chose the more familiar teacher for the Ask and Endorse questions is shown in Table 2, together with comparisons to chance via *t*-tests. Five-year-olds performed above chance in preferring the more familiar teacher on both *Ask* and *Endorse* questions.

Comparisons to chance on the novel object function trials. The proportion of times that children chose the more familiar teacher for the Ask and Endorse questions is found in the right-hand column of Table 2. As in the novel object label trials, 5-year-olds performed above chance in asking and endorsing the more familiar teacher.

Name checks during accuracy trials

Every 5-year-old accurately chose the correct label for the familiar objects in all four accuracy trials. Thus, children's naming was unaffected by the incorrect names supplied by one of the two teachers, irrespective of whether she was familiar.

Post-test

Explicit Judgment performance. The proportion of times that children responded correctly to the first (EJ1) and second (EJ2) set of Explicit Judgment questions is shown in the right-hand column of Table 3. Inspection of Table 3 shows that children almost always replied correctly, irrespective of condition and question set. As expected, a two-way ANOVA with condition (familiar 100% correct, familiar 0% correct) as the between-subjects variable and EJ question (EJ1, EJ2) as the within-subjects variable produced no significant main effects or interactions, confirming that 5-year-olds' identification of the more accurate informant was consistently good.

In the *Explanation Probe*, when the familiar informant had been 0% correct, 50% of 5-year-olds said that she 'didn't know' the names of the familiar objects and the remaining 50% of children said that she was 'just pretending'. When the unfamiliar informant had been 0% correct, 70% of 5-year-olds said that she 'didn't know' the names of the familiar objects and the remaining 30% of children said that she was 'just pretending'. Thus, as in Experiment 1, a greater proportion of children attributed ignorance to the unfamiliar informant. A Chi-square test confirmed that a marginally greater proportion of children (collapsed across Experiments 1 and 2) said that the unfamiliar, inaccurate informant did not know as compared to the familiar, inaccurate informant ($\chi^2(1)$ 3.41, $p = .06$).

Comparison of children's overall performance on pre-test and post-test trials. As in Experiment 1, we asked how often children selected the more familiar teacher in the post-test as compared to the pre-test trials. The proportion of times that children chose the familiar teacher is shown in the lower panel of Table 4. Inspection of Table 4 reveals that 5-year-olds' preference for the familiar informant persisted, and even intensified, from pre- to post-test trials if the familiar informant had been accurate, whereas they preferred to endorse the unfamiliar (but accurate) informant on post-test trials if the familiar informant had been inaccurate. A three-way ANOVA with Condition (familiar 100% accurate, familiar 0% accurate) as the between-subjects variable and Question Type (ask, endorse) and Phase (pre-test, post-test) as the within-subjects variables was calculated on the number of choices directed at the familiar informant. This confirmed the main effects of Condition ($F(1, 18) = 86.28$, $p < .001$, $\eta^2 = .83$) and Phase ($F(1, 18) = 66.78$, $p < .001$, $\eta^2 = .79$) together with the interaction of Condition × Phase ($F(1, 18) = 142.64$, $p < .001$, $\eta^2 = .88$).

To interpret this interaction, the simple effect of Phase was calculated for each condition. Five-year-olds revealed a similar preference for the familiar informant across pre- and post-test trials in the 100% accurate condition ($F(1, 36) = 1.88$, *ns*), but sharply reduced their preference for the familiar informant on post-test trials in the 0% accurate condition ($F(1, 36) = 53.33$, $p < .001$).

In conclusion, prior to any accuracy information, 5-year-olds were more likely to seek and endorse information from a familiar rather than an unfamiliar teacher. However, this pattern of trust was significantly affected by information about the relative accuracy of the informants. Five-year-olds appropriately identified which informant had been more accurate and preferred to ask and endorse that informant, regardless of their familiarity with her. Thus, in post-test trials, 5-year-olds' initial preference for the familiar informant was replaced by a preference for the unfamiliar informant if she had proved to be the more accurate.

Comparison of children's post-test performance across Experiments 1 and 2. The proportion of times that children chose the familiar informant during the post-test of Experiments 1 and 2 is shown in Figure 1 as a function of Age and Condition. Inspection of Figure 1 shows that differentiation between the two accuracy conditions increased with age. To check this conclusion, a three-way ANOVA with Age (3, 4, 5) and Condition (familiar 100% accurate, familiar 0% accurate) as the between-subjects variables and Question Type (ask, endorse) as the within-subjects variable was calculated on the number of times that children chose the familiar informant. Main effects of Age ($F(2, 55) = 7.89$, $p < .001$, $\eta^2 = .22$) and Condition ($F(1, 55) = 123.71$, $p < .001$, $\eta^2 = .69$) were found. As

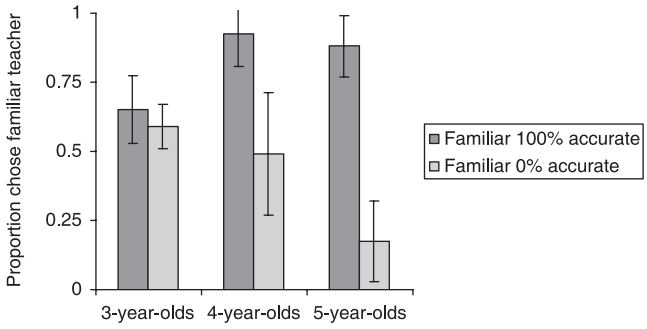

Figure 1 *Proportion of times children chose the familiar informant by age group and condition in Experiment 1 (3- and 4-year-olds) and Experiment 2 (5-year-olds).*

expected, a two-way Age × Condition interaction also emerged ($F(2, 55) = 26.54$, $p < .001$, $\eta^2 = .49$). This interaction is displayed in Figure 1.

To clarify the Age × Condition interaction, the simple effect of Condition was calculated for each age group. Three-year-olds did not show any effect of condition on the strength of their preference for the familiar teacher ($F(1, 114) = .02$, *ns*). However, both 4- and 5-year-olds asked and endorsed the familiar teacher more often when she had been 100% accurate, rather than 0% accurate (4-year-olds: $F(1, 114) = 19.21$, $p < .001$; 5-year-olds: $F(1, 114) = 78.25$, $p < .001$). Thus, unlike 3-year-olds, 4-year-olds and particularly 5-year-olds modified their preference for the familiar teacher in the wake of accuracy information.

Children's performance on Explicit Judgment questions and post-test trials. In order to explore whether children's ability to identify the more accurate informant (Explicit Judgment performance) affected post-test preference for the familiar informant, we repeated the above three-way analysis of Age, Condition, and Question type but included EJ1 performance as a covariate. We found no main effect of EJ1 ($F(1, 53) = .19$, *ns*). Nevertheless, we retained the main effects of Age ($F(2, 53) = 4.31$, $p < .05$, $\eta^2 = .09$) and Condition ($F(1, 53) = 15.12$, $p < .001$, $\eta^2 = .30$) as well as the interaction of Age × Condition ($F(2, 53) = 15.56$, $p < .001$, $\eta^2 = .30$) found in the previous ANOVA.

Discussion

Experiment 2 extends the results of Experiment 1 to an older age group. We asked if 5-year-olds, like 3- and 4-year-olds, prefer a familiar to an unfamiliar informant in the absence of any other cues. We also asked if such a preference for a familiar informant is altered by accuracy information. Five-year-olds displayed a strong preference for the familiar informant both when asking about novel objects and functions and in endorsing the claims made by the familiar informant.

Five-year-olds' initial preference for the familiar informant was clearly affected by accuracy information. They identified the more accurate informant in both sets of Explicit Judgment questions. When the familiar informant as opposed to the unfamiliar informant labeled objects accurately, 5-year-olds displayed a continuing preference for the familiar informant. However, when she named objects incorrectly and the unfamiliar informant named them correctly, 5-year-olds appropriately chose to ask for and endorse information from the unfamiliar, but accurate, informant.

General discussion

Taken together, the results of Experiments 1 and 2 support two main conclusions. First, preschool children prefer information from familiar as compared to unfamiliar informants. Second, older preschoolers are more likely to moderate that preference in the wake of information about the relative accuracy of the two informants. We consider each of these conclusions in turn before considering both the limitations and broader implications of the findings.

The preference for familiar as compared to unfamiliar informants that was observed in Experiments 1 and 2 is wide-ranging. It applies to children's information seeking as shown by responses to the Ask probes and it applies to their acceptance of information as shown by responses to the Endorse probes. Moreover, the preference is apparent for both object names and object functions. The preference is also stable across age groups. It emerged among 3-, 4-, and 5-year-olds. Indeed, an omnibus ANOVA (in which data from the two experiments were combined) confirmed that the strength of children's preference for the familiar informant in the pre-test phase did not vary with age for children in either condition.

Preference for a familiar informant might be interpreted as shyness or wariness about asking questions of a stranger. However, as just noted, a similar pattern of results emerged for Endorse as well as for Ask probes. Although children preferred to direct their questions to the familiar informant, recall that once both informants had volunteered information regarding the name of the novel object or its function the experimenter re-stated their claims (e.g. 'C. in the pink shirt said it's a *snegg* and S. in the black shirt said it's a *hoon*. What do you think it's called, a *snegg* or a *hoon*?'). Children's selective endorsement of new information cannot be readily attributed to shyness or wariness because the two names and the two demonstrations were equally novel and the experimenter repeated them. Accordingly, it is reasonable to interpret children's selectivity in terms of differential trust in the two informants rather than in terms of stranger anxiety or a desire to interact with a known teacher.

On what basis might children come to seek out and trust the information provided by a familiar teacher? We may consider four different possibilities. One possibility is that repeated exposure is, in itself, sufficient to increase trust. For example, research with adults has shown

convincingly that when a stimulus is repeatedly presented, liking for that stimulus increases in a relatively automatic fashion, independent of slower-operating, recognition processes (Zajonc, 1980, 2001). It is conceivable that a similar process operates among young children. Mere exposure to a person might increase liking. In future research, this could be tested by showing children a short film of either informant A or informant B and checking whether children subsequently display greater trust in the more familiar informant. However, preliminary evidence against this interpretation has already emerged in ongoing research. Children classified as avoidant at 14 months on the basis of the Strange Situation (Ainsworth, Blehar, Waters & Wall, 1978) did not display preferential trust in their mother as compared to an unfamiliar adult when tested at both 50 and 61 months in a choice procedure comparable to the pre-test trials of Experiments 1 and 2. By contrast, both secure and ambivalent children did display such a preference (Corriveau, Harris & Nelson, 2007). These findings suggest that the familiarity that ensues from repeated exposure is not sufficient to lead to preferential trust because children will ordinarily have repeated exposure to their mother even if they establish an avoidant relationship with her. At the very least, these findings show that if there is an effect of mere exposure, it can be overridden by other aspects of the interaction with the informant.

A second possibility is that children's preference for the familiar informant is based on their experience of her authority and expertise as a teacher. Note that children were told that the unfamiliar informant was a teacher but they had no experience of her in that role. The main weakness of this interpretation is that it misrepresents the everyday role of the familiar teacher, particularly for the 3-year-olds of Study 1. Formal lessons were not part of the preschool curriculum at either of the two sites. Thus, although it is likely that the familiar teacher in both sites had served as an informal model and informant, it is doubtful that younger children construed her as someone with any special epistemic authority or expertise. The 5-year-olds tested in Study 2 did receive some formal instruction and it is plausible that they attributed the expertise and authority that is associated with the role of teacher to the familiar informant. Yet, as noted above, there was no evidence that 5-year-olds showed a stronger preference for the familiar informant as compared to 3- and 4-year-olds.

A third possible interpretation of the preference for a familiar informant is that repeated exposure to a given adult typically ensures that children hear that person produce a large number of true or plausible claims and build up a deep reservoir of trust. Thus, each time that a familiar informant, be it a parent, a daycare provider, or a preschool teacher, makes a claim about an object or event that children can confirm on the basis of first-hand observation or prior knowledge, their trust in that informant might be strengthened if they judge that the claim is accurate – or weakened if they judge that it is inaccurate. Such trust might be especially likely to accumulate in certain types of distinctive interaction. Thus, Gergely and his colleagues have argued that human caregivers are well equipped to cue infants and young children to the fact that they are providing new information (Gergely, Egyed & Király, 2007). In due course, such cumulative, accuracy-based trust might be extended to claims that children cannot check. Such an inductive strategy corresponds to the strategy that Hume (1748/1957) believed to operate among adults. Certainly, there is evidence that young children assert the existence of various entities (e.g. germs, the Tooth Fairy) that they are told about but cannot ordinarily observe (Harris, Pasquini, Duke, Asscher & Pons, 2006). Taken together, however, the findings of Experiments 1 and 2 suggest that even if young children are capable of monitoring for accuracy, their trust in familiar informants is not exclusively grounded in accuracy monitoring. First, recall that 3-year-olds showed a clear preference for the familiar informant in pre-test trials but they did not modify that preference in the face of accuracy information. By implication, preference for familiar informants is not based on accuracy monitoring. Second, accuracy-based trust might be expected to accumulate more rapidly among older preschoolers on the assumption that they receive and process more verbal claims than younger preschoolers. Yet, as noted, preference for the familiar informant was no stronger among older preschoolers.

A final possibility is that repeated exposure to a given adult typically means that children experience numerous friendly or cooperative interactions with that person. The ensuing impression is likely to produce a 'halo' effect: Children come to judge that familiar person more positively on several dimensions – more likeable, more competent, and more trustworthy as compared to a stranger. Indeed, irrespective of age, children's replies to the explanation probe suggested that they were less willing to acknowledge ignorance on the part of the familiar as compared to the unfamiliar informant. This interpretation suggests that children's selective trust in familiar informants is based neither on repeated exposure nor on accuracy monitoring but primarily on the positive emotional quality of repeated interaction. Note that such an interpretation has the advantage of being consistent with the findings for different attachment groups reported above (Corriveau *et al.*, 2007). Thus, it is plausible that avoidant children have experienced a sufficient number of negative interactions for their approach and trust to be undermined. In future research, it should be feasible to introduce preschool children to an unfamiliar person, to vary the type of interaction that children have with him or her and to measure the degree of selective trust that ensues. Preliminary evidence indicates that this type of selective trust can emerge quite rapidly. Mascaro (2006) introduced 3-, 4-, and 5-year-olds to a nice animal puppet that caressed the experimenter and a mean animal puppet who hit him. When the two animal puppets

subsequently made conflicting claims about the identity of a hidden object, all three age groups were more likely to agree with the nice rather than the mean puppet. In summary, of the four interpretations of the familiarity effect observed in Experiments 1 and 2, the most plausible, current interpretation is that repeated, positive interaction with a person renders him or her an attractive source of information. Further research is certainly needed, however, to fully establish this conclusion.

The second major finding is that older children were more likely than younger children to alter their preference for a familiar informant following information about her accuracy. This shift emerged to a similar extent for both ask and endorse probes. Such an age change could be attributed to an age change in children's assessment of whether an informant has made true or false claims – as indexed by their explicit judgments. Alternatively, it could be due to an age change in the tendency to extrapolate from – or weigh – such judgments of prior accuracy information when evaluating informants' subsequent claims. The analyses of children's explicit judgments provide some preliminary support for the first explanation. Recall that 5-year-olds were generally correct in their explicit judgment of the two informants across both conditions and both sets of questions. By contrast, 3- and 4-year-olds were prone to error when the familiar informant had been inaccurate, particularly when asked the second set of Explicit Judgment questions. However, when post-test scores across the two experiments were analyzed with correct replies to the first set of Explicit Judgment questions entered as a covariate, the interaction of Age and Condition still emerged. Thus, the age change in sensitivity to informant accuracy as indexed by responses to the Ask and Endorse probes cannot be explained solely in terms of Explicit Judgment scores. Further support for this conclusion comes from close inspection of children's scores on the first set of Explicit Judgment questions – posed just prior to the four test trials. These were quite high across both conditions and all three age groups.

Given these considerations, we conclude that even when children were able to note and explicitly comment on the differential accuracy of the informants, younger children were less likely than older children to take account of such accuracy information in assessing which informant to trust. We may consider two different interpretations of that age change. One possibility is that younger children rarely, if ever, take accuracy information into account. A second possibility is that younger children do take it into account but only for unfamiliar informants. Thus, in the case of familiar informants they are capable of registering and remembering inaccuracy, but they set it aside or ignore it when deciding whom to trust.

When recent findings are considered, it is evident that even 3-year-olds are able to register, remember, and be guided by inaccuracy in the case of unfamiliar informants, even if they are less prone to do so than older preschoolers (Birch *et al.*, 2008; Pasquini *et al.*, 2007). Indeed, 3-year-olds remember such accuracy information for several days and continue to take it into account when weighing whom to trust (Corriveau & Harris, 2009). By implication, the age change observed in the present study is likely due to a discounting process: like older preschoolers, younger preschoolers can register and remember inaccuracy but unlike older preschoolers they are prone to discount or ignore such information if it pertains to familiar and ordinarily trustworthy informants. Further support for discounting by younger children emerged in the second set of Explicit Judgment questions. Recall that 3- and 4-year-olds, unlike 5-year-olds, often judged that the familiar informant had been good at answering the questions even when she had consistently made mistakes.

Two design features of Experiments 1 and 2 warrant discussion. First, it could be objected that children will rarely, if ever, encounter an informant who makes several false claims in succession. However, it is important to emphasize that children will certainly hear claims that they know or discover to be false. For example, a caregiver may make a mistake about where a toy is located, who is calling on the telephone, or the name of the child's classmate. Indeed, a caregiver may occasionally make a series of apparently false claims. For example, having misidentified which past episode the child is referring to, a caregiver may produce several claims in succession that the child regards as mistaken. Experiments 1 and 2 provided children with an exaggerated version of such inaccuracy. Note that the presentation of such exaggerated or 'super-real' stimuli has proven a useful research strategy in ethology (Lorenz, 1981) even if it has rarely been used in developmental psychology. We make the working assumption that children react to such consistent inaccuracy with a stronger form of the strategy that they apply to less consistent inaccuracy. In line with that assumption, recent findings indicate that 4-year-olds show greater mistrust of an informant who is often – but not consistently – inaccurate as compared to an informant who is only occasionally inaccurate (Pasquini *et al.*, 2007).

The second design feature calling for discussion is the fact that the experimenter invited children to reflect on the accuracy of the two informants. Thus, in both experiments, children were asked to say whether each informant was 'very good or not very good' at answering the questions, and also to say which informant was better. Because the first trio of Explicit Judgment questions was asked before the Ask and Endorse probes, these questions may have prompted children to attend to accuracy information when responding to the probes. Studies in which the Explicit Judgment questions are either included or omitted offer a way to evaluate this possibility. In the meantime, there is emerging evidence that preschoolers do monitor for accuracy even in the absence of Explicit Judgment questions. Birch *et al.* (2008) and Scofield and Miller (2007) each report that preschoolers were more likely to learn a new word from an informant who had proved accurate rather than inaccurate in the past

even when children had not been explicitly asked to judge the accuracy of the two informants. Similarly, Corriveau and Harris (2009) report that both 3- and 4-year-olds trusted an accurate informant more than an inaccurate informant over several days even in the absence of explicit judgment questions.

Finally, we may consider the broader implications of the findings for children's language acquisition and learning about the world. In the last 20 years, a considerable body of research has accumulated showing that children's acquisition of language is not divorced from their skill at social cognition. In particular, when children learn the meaning of new words, they make use of various non-verbal and verbal cues to interpret and weigh a speaker's claims (Baldwin, 1993; Fusaro & Harris, 2008; Jaswal, 2004; Sabbagh & Baldwin, 2001; Tomasello, Carpenter, Call, Behne & Moll, 2005). The present findings also demonstrate a link between children's social cognition and their acquisition of new words. Nevertheless, the thrust of the present research is different. Apparently, young children use their social cognitive skills, not just to decode and weigh a speaker's current claims but also to decide whether to accept or reject the speaker's later claims. Thus, children use their social cognitive skills to make a subsequent choice among their informants and not just to interpret what an informant is currently saying.

It seems likely that children's learning about other, non-linguistic aspects of the world is similarly guided by their selective trust in particular informants. In line with this expectation, two recent studies have shown that children use prior accuracy when choosing between conflicting claims about how to use a tool (Birch *et al.*, 2008; Koenig & Harris, 2005) or the properties of hidden objects (Clément *et al.*, 2004). We anticipate that further research is likely to consolidate the conclusion that children's willingness to learn from others is tempered by careful monitoring of whom they learn from.

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