Children are sociologists
Eva E. Chen, Kathleen H. Corriveau and Paul L. Harris*

Harvard University

Abstract: Recent research has established that young children are quite sensitive to the characteristics of individual informants. They prefer to seek and endorse information from informants with whom they are already familiar or from informants who have proven reliable in the past. We report an elaboration of this line of research in which children's sensitivity to an informant's group status is probed. A consistent finding across various procedures is that when preschool children are presented with conflicting claims, one claim made by two or three people and another made by a single person, they agree with the majority. This form of endorsement is especially apparent when members of the majority belong to the same racial group as the child rather than a different racial group. Moreover, this bias toward the majority is extended to individual members of the majority. For example, when children are presented with conflicting claims by two informants, one who previously belonged to the majority and one who did not, they are inclined to endorse the member of the majority. By implication, young children are astute sociologists. They take careful note of the relationships among individuals, particularly relationships of agreement or disagreement.

Key words: Majority groups; implicit attitudes; children; racial attitudes.

Introduction

A solid body of findings has shown that even before they go to school, young children are not indiscriminate or credulous when they gather information from other people. They prefer to pose their questions to a person with whom they are familiar or to a person who has proven accurate and knowledgeable in the past. Faced with conflicting claims, they are more likely to trust those made by a person that they know as compared to a stranger, or claims made by a person who has proven reliable as opposed to someone who has proven inaccurate or ignorant (Birch, Vauthier & Bloom, 2008; Clément, Koenig & Harris, 2004; Corriveau & Harris, 2009ab; Jaswal & Neely, 2006; Koenig, Clément & Harris, 2004; Pasquini, Corriveau, Koenig & Harris, 2005). Children's ability to be selective in their choice of informant is important because much of what children come to know has to be learned on the basis of what other people tell them rather than via first-hand observation. For example, when learning about domains such as history, science and religion, children must rely on the information provided by others (Harris & Koenig, 2006). Their selective trust in particular informants is likely to provide a useful filter against misleading information – even it is far from infallible.

Here, we focus on a related but distinct set of issues. Any given informant is likely to be part of a group. Other people in that group may or may not agree with what the informant says. Accordingly, we may ask whether children pay attention to such agreement and disagreement among group members when they decide whom to trust. If children are sensitive to an informant’s standing within the group, we can also ask what determines that sensitivity. Are children simply looking for an informant who is part of a consensus – who makes claims that other people endorse? Alternatively, are they especially swayed when an informant belongs to a group with a recognizable profile, as indexed by appearance, mode of speech, or cultural practices?

Agreement and disagreement among informants

Imagine that after a tiring train journey to an unfamiliar city you arrive at the main station. Once outside the station, you ask a pair of passers-by for directions to your hotel. They are obliging but they offer conflicting advice. One confidently suggests that you take a short-cut via some back streets but the other firmly advises a longer route, along the main streets. Another couple, overhearing the debate, joins the conversation. They look dubious as the short-cut is described but nod in agreement at the longer route. What do you do? Chances are you will pick up your suitcase (hopefully not so heavy) and set off on the longer route to your hotel. Without too much conscious reflection, you place more confidence in a majority – effectively composed, in this case, of three people – as opposed to the solitary advocate of short-cuts.
We devised an experiment to check whether young children display a comparable sensitivity to a consensus (Fusaro & Harris, 2008). Each child was introduced to two potential informants – both young women that they had never met before. When the child was presented with an unfamiliar object, the two women proposed different names for it. As they made their suggestions, two bystanders, standing directly behind them, but easily visible to the child, reacted with skepticism toward one woman – they frowned and shook their head – but with apparent agreement toward the other woman – they smiled and nodded. At this point, the experimenter noted the conflict and asked for the child’s adjudication. For example, the experimenter might say: “The one in the red shirt said it’s a feppin but the one in the green shirt said it’s a merval. What do you think it’s called a feppin or a merval?” This procedure was repeated for four different objects, with the bystanders consistently expressing skepticism toward one woman and agreement with the other. The results – obtained with 4-year-olds – were very clear-cut. Children displayed a strong tendency to endorse the same woman as the bystanders – they chose the name that she had proposed on about 90% of the trials.

In the next phase of the experiment, we continued as before with one important change. The two informants offered conflicting information but the two bystanders were no longer present. In other words, children were left to their own devices about whom to agree with. They could either make their own best guess about the conflicting claims that they were offered or they could try to agree with the woman who had previously elicited agreement from the two bystanders. We found that although some children were unsystematic in this phase of the study, others continued to agree with the woman who had previously elicited nods and smiles. Thus, even in the absence of the two bystanders, some 4-year-olds appeared to view the two potential informants differently, regarding one as more trustworthy than the other. Children’s tendency to display selective trust in this phase of the experiment was related to their developing mental state understanding. More specifically, selective trust was shown by 4-year-olds who passed a false belief test.

In a later investigation, we tried to gauge exactly how children had interpreted the bystanders’ reactions. Two interpretations were feasible. First, given that the bystanders expressed apparent approval of the claims made by one of the women – they smiled at her and nodded her head – whereas they expressed apparent disapproval of the other woman – they frowned at her and shook their head – children may have concluded that one woman was more likeable than the other. On this interpretation, children effectively decided to agree with the more likeable of the two women. A second interpretation, much more consistent with the vignette of the weary traveler described above, is that children regarded the reactions of the two bystanders as signs of agreement or disagreement rather than approval or disapproval. On this interpretation, children decided to agree with the woman who elicited nods and smiles because, as part of a consensus, she was more likely to be right.

To check on the plausibility of this second interpretation, we conducted an experiment in which we arranged for adults to display signs of agreement but we eliminated any expressions of approval or liking, such as nods and smiles (Corriveau, Fusaro & Harris, 2009; Study 1). Children faced four adults and on the table between them was a set of three unfamiliar objects. The experimenter asked the adults to point to, for example, “a slod”. From the child’s point of view, all three objects were equally likely candidates to be a slod because they were equally unfamiliar. Three of the adults pointed to the same object but the fourth adult pointed to a different one. Children were then invited to say which object they thought was a slod. On most trials, children chose the object endorsed by the consensus, and not the object endorsed by the lone dissenter or the distractor object. Thus, the pattern of results in this initial phase of the experiment was consistent with what had emerged in the initial phase of the earlier experiment with the two bystanders. Children tended to favor a claim endorsed by a consensus of three adults over a claim made by a single person. Moreover, given the absence of smiles and nods in this experiment, we can plausibly conclude that children go along with the consensus because the people agree with one another and not because any given member of that consensus is regarded as more likeable.

In the second phase of this study, we created a parallel to what had taken place in the earlier experiment with the two bystanders. Two members of the consensus left but one stayed behind – as did the lone dissenter. These two remaining informants then made a further set of conflicting claims and we checked which informant children agreed with. We found that both 3- and 4-year-olds placed more trust in the informant who had belonged to the consensus. They directed more of their questions to her and they endorsed more of the claims that she had made.

How minimal a consensus are children swayed by? In a follow-up experiment, we started by presenting children with three adults rather than four (Corriveau et al., 2009; Study 2). The experiment again fell into two phases. In the initial phase, two of the three adults were in agreement whereas the third was a lone dissenter. In the second phase, one member of the consensus left whereas the other member remained together with the lone dissenter. These latter two adults then made conflicting claims. The results of this study were very similar to the first. In the initial phase, children invested more trust in the consensus of two as opposed to the lone dissenter and this selectivity continued even when one member of the consensus left. Summarizing across these three different studies, we see a consistent pattern. Preschoolers are sensitive to agreement and disagreement among their informants. They regard someone who belongs to a consensus as more trustworthy than someone who makes claims that no-one else agrees with. Moreover, children are surprisingly retentive of information about past agreement and disagreement.
When they are faced with only two individuals—a task they were in the second phase of each of the studies just described—and no visible marker of who had been a member of the consensus, children are nonetheless able to retrieve that information. More specifically, they continue to invest more trust in the individual who formally belonged to a consensus even if the other people who constituted that consensus are no longer visible. Figure 1 provides a graphic overview of the data from 4-year-olds—the age group that was tested in all three studies. It shows the percentage of trials on which 4-year-olds favored information provided by a consensus or by a member of the consensus in the first and second phase of each experiment.

![Figure 1](image)

Inspection of Figure 1 confirms that in both phases of all three experiments, children were sensitive to the presence of a consensus. They favored the consensus view in the first phase and they went on to favor the claim of a member of that pre-existing consensus in the second phase. Thus, informants who form a consensus constitute a relatively enduring group in the sense that even when one of them is encountered in isolation, his or her prior group membership is used as a guide to his or her trustworthiness as an informant. Prior membership of a consensus does not easily rub off. It 'sticks' to a person. In the next section, we examine children's sociological antennae more thoroughly.

**Children's sensitivity to group membership**

In the three studies just described, the adults who served as informants displayed particular characteristics indicating their membership of various social groups. In all three studies, for example, they were women, they were in their 20s, and they were all European American in appearance. We will focus on this latter characteristic. Because most of the children that we tested were also European American, it is conceivable that children went beyond an assessment of whether or not there was a consensus. They may have effectively thought something like the following: "Hmnm—these women belong to the same cultural and racial group as I do. What they do and say is relevant to me. I should observe them carefully in order to identify which of them is representative of my group and which of them is somewhat deviant or marginal." No doubt, such an explicit internal dialogue is quite unlikely. However, recent research in social cognitive development has shown that an implicit intergroup bias emerges quite early in childhood. By the time they are 9 months old, for example, infants show a preference for faces belonging to their own race over those belonging to another race (Kelly, Quinn, Slater, Lee, Ge, & Pascalis, 2007). Moreover, children as early as three years of age exhibit an implicit preference for their own racial group, and this bias persists into and throughout adulthood (Baron & Banaji, 2006; Degner & Wentura, 2010; Dunham, Baron, & Banaji, 2008; Dunham & Banaji, under review). In short, awareness of differences among social groups, as well as a preference for members of one’s own social group, is present even in young children.

Based on these findings, we asked if children attend only to whether the informants form a consensus, or if they consider whether the informants belong to their own social group. In the studies described above, children did not really need to differentiate between these two factors because, as noted, although some of the informants formed a consensus, that consensus was always composed of informants from their own social group. We therefore devised a study in which we could pull these two factors apart. Because much of the research on implicit intergroup bias has been on racial or ethnic groups, we chose to focus on race. Two groups of children were tested. Children of European American descent were tested in Boston, Massachusetts, and children of Taiwanese Chinese descent were tested in Taipei, Taiwan (Chen, 2010).

Approximately half of the children in each location participated in a same-race consensus condition, in which they were tested with a consensus composed of informants from the same race as themselves, thereby replicating the procedure used by Corriveau et al. (2009). Thus, all four of the female adult informants, including the three females who formed a consensus, appeared to be of the same race as the participants themselves. This meant that in Boston all four women were European American in appearance, whereas in Taipei, all four women were East Asian in appearance. The remaining children participated in a different-race consensus condition in which the consensus information was placed in conflict with any ingroup bias that children might have. Thus, in Boston, the consensus was composed of three East Asian women—only the lone dissenter was European American. By contrast, in Taipei the consensus was composed of three European American women—only the lone dissenter was East Asian. Aside from the composition of the set of informants, the procedure was equivalent to that used by Corriveau et al. (2009) in that children witnessed an initial phase where members of the consensus and the lone dissenter disagreed on several trials about which of several objects was, for example, a *tikol*. In the second phase, two of the three members of the consensus withdrew and the remaining member and the lone dissenter then made conflicting claims about a set of unfamiliar objects.

The findings from the first phase were straightforward. Irrespective of whether children were tested in Boston or...
Taipei and irrespective of whether they were in the same or different race condition, children chose the object endorsed by the consensus and not the object endorsed by the lone dissenter (or the distracter object). There was some indication that this tendency was stronger among children in the same race condition, i.e., the children who were presented with a consensus composed of members of their own in-group rather than members of an out-group. Indeed, when children from both Boston and Taipei were grouped together, statistical analysis revealed a significant difference between the two conditions. Thus, children in both the same- and different-race conditions selectively endorsed the information provided by the consensus but this tendency was more pronounced in the same-race condition.

In the subsequent phase, the children who participated in the same-race condition, both in Boston and Taipei, behaved as expected. They invested more trust in the member of the consensus who remained behind, as opposed to the informant who had been the lone dissenter in the first phase. This confirmed the conclusion that we had reached on the basis of the earlier Corriveau et al. (2009) study, namely that preschool children prefer to ‘go with the flow’ by endorsing someone whose opinions are consistent with the majority, as opposed to a lone dissenter.

However, the findings from the children who participated in the different-race condition were different from the pattern in the same-race condition. The children in the different-race condition showed no systematic tendency to either seek or endorse information from the former member of the consensus as opposed to the lone dissenter. They asked for and accepted information from each of the two informants with about the same frequency.

The overall pattern of findings is shown in Figure 2. Inspection of Figure 2 confirms that in the first phase of the experiment, children displayed a preference for the claim made by the consensus. This preference emerged both in Boston and Taipei and it emerged both when the consensus was composed of members of the child’s own group or members of a different group, albeit somewhat more strongly in the former case. However, when children were asked to choose between a member of the consensus and the lone dissenter only children in the same-race condition displayed preferential trust in a member of that consensus. Regardless of location, children in the different-race condition were just as likely to seek and endorse information from the consensus member as from the lone dissenter.

We therefore have the beginnings of an answer to the question of whether or not children attend to ingroup status when determining from whom to learn. In the initial, familiarization phase of all of the studies that have been described, children confer on members of a consensus a kind of authority. They endorse a consensus rather than a dissenter. This appears to be a very robust pattern. It is found whether the consensus is indexed by means of expressive gestures such as nods and smiles or by means of indicative gestures such as ostensive pointing. It is found when the consensus is composed of three adults versus a lone dissenter or when it is composed of two adults versus a lone dissenter. It is found both among European American children and Taiwanese children. It is even found, although somewhat attenuated, when the adult informants who compose the consensus belong to a different racial group from the children themselves, for example when the adult informants are East Asian and the children are European American or vice versa.

However, that conferral of authority may or may not ‘stick’ to individual members of the consensus. Our results suggest that it only sticks if the members of the consensus belong to a group that is familiar to the child, more specifically the child’s own racial group. How should we interpret this pattern? Why is the child not disposed to trust an informant who belongs to any type of consensus, whether it is composed of ingroup or outgroup members?

A lean interpretation might be that children are not able to remember the facial features of outgroup members and thus are unable to track the different-race consensus member as well as they are able to track the same-race consensus member. Indeed, there is some evidence that among both children and adults, memory for same-race faces is stronger than memory for other-race faces (see Meissner & Brigham, 2001, for a review). However, if children were truly unable to remember the consensus member, we might have expected the preference in the second phase of the different-race consensus condition to flip entirely. That is, we might have expected children to selectively prefer the information provided by the same-race dissenter over the other-race consensus member. Yet, children showed no selective preference for the same-race dissenter. They were equally likely to endorse information from the same-race dissenter as they were from the other-race consensus member. In any case, the four informants were also distinguished by shirt-color. Indeed, the experimenter re-identified the two informants for the child at the beginning of the second phase of testing by saying, for example; “The girl in the purple shirt and the girl in the green shirt had to leave, but the girl in the blue shirt and the girl in the red shirt stayed. They’re going to tell you what some funny looking things are called”. Thus, children were not obliged to rely on facial characteristics alone. In both the same race and different race condition, they could re-identify the member of the consensus simply on the basis of shirt color. Taken together, given that children were
able to employ more than one strategy to track the other-
race informant between the two phases of the consensus
paradigm, it is unlikely that the absence of a preference for
the consensus member during the test phase of the differ-
ent-race condition was due to a simple inability to re-identify
that informant.

Moreover, even if children chose to rely on facial charac-
teristics, recent developmental work suggests that discrimi-
nation and memory for faces is driven not just by perceptual
features but also by top-down categorical representations.
Across two studies, European-American preschoolers were
shown faces that were ambiguous in that they could be per-
ceived as black or white. Children were subsequently tested
for their memory of the faces. Preschoolers showed better
memory for these ambiguous faces when they had been
previously presented in the context of a same-race white
“sibling” as opposed to an other-race black “sibling” (Shotts
& Kinzler, 2007). Thus, for young children, any superiority
in the processing of same-race faces is driven by both top-
down as well as bottom-up processes.

Accordingly, we may consider a more refined hypothesis
that includes two assumptions. The first assumption is that
during the initial phase of the experiment children can make
a short-term, local appraisal of the consensus that is evident
on any given trial without having to identify individual
members of the consensus. They can simply conduct a
‘head-count.’ The second assumption is that children can, in
principle, also make a longer-term, more inferential appraisal
of individual members of that consensus. However, in order
to do so they need to engage in a two-step process. They
need to differentiate among those individuals. In addition,
they need to mentally ‘bind’ information about trustworthi-
ness to individual characteristics of members of the consen-
sus – something that may be more easily accomplished for
same race individuals than for different race individuals.

Recent research with adults casts light on this process of
mental binding. When adults are briefly shown a picture of
an unfamiliar person and given information about the per-
son’s behavior, they are able to infer the traits implied by
this behavior and spontaneously ‘bind’ these traits to the
face of the person. Subsequently, when seeing the face again,
information about the traits is retrieved. Such retrieval ap-
ppears to be automatic in the sense that it occurs spontane-
ously even when adults are not probed with questions about
the personality of the individual in question (Todorov, Gob-
bini, Evans & Haxby, 2007). Assuming that a similar process
of automatic retrieval operates among children, we can sup-
pose that during the initial, familiarization period, children
bind information about trustworthiness – as indexed by
membership of the consensus – to a mental schema for the
face of each member of that consensus. We may further
speculate that this binding process is slower or less effective
when the individual in questions belongs to a different racial
group. As a result, in the second phase, the automaticity
with which information about trustworthiness is retrieved
for individual members of the consensus will be greater for
same- as compared to different-race informants.

Combining these two assumptions, we can predict that
children in both the same-race and different-race consensus
groups will make a short-term, local appraisal – a head-count
– of the claims made during familiarizations trials. More
specifically, after observing the consensus surrounding one
of the two conflicting claims they will endorse that claim.
Thus, during the initial familiarization trials, children in both
the same and different race groups display a similar pattern
of responding, namely an endorsement of the consensus. In
addition, however, especially in the same-race condition,
children start to think of the individual members of that
consensus as more trustworthy and they bind that informa-
tion about trustworthiness to their mental representation of
the face of each member of the consensus. Thus, even when
two members of the three person consensus leave, they con-
tinue to trust the remaining member over the dissenter be-
cause information about her trustworthiness is readily rea-
trieved, even in the absence of explicit questions from the
experimenter. A similar process operates in the different-
race condition but the binding process is less efficient. Thus,
during subsequent encounters in the second phase, the re-
trieval of information about trustworthiness is less automatic
and less effective than it is in the case of same race infor-
mants.

The main thrust of this hypothesis is that children are
especially prone to retain, and be guided by, information
about the trustworthiness of informants from their ingroup.
That strategy is likely to be adaptive – even if the reasons are
not immediately obvious. Consider the fact that children
generally receive information from people who belong to
their own group rather than from outgroup members. Con-
sider further the fact that within that ingroup, some people
are more trustworthy and reliable members of the group.
They more accurately represent its norms and beliefs than
other members. Granted these facts, it would be adaptive
for children to use membership of a consensus as an index
of a particular person’s trustworthiness and to retain informa-
tion about that person for use in subsequent encounters
particularly in the case of ingroup members. This is not to
say that children completely ignore a consensus of outgroup
informants – as we have seen they note that consensus dur-
ing the initial, familiarization phase. It is to say, however,
that children more readily adopt the longer term, more indi-
vidualized strategy if the consensus is composed of ingroup
members. In such circumstance, individual members of a
consensus retain their credibility even when they are isolated
from that consensus.

Conclusions
As noted in the introduction, a persuasive set of findings has
shown that young children are sensitive to the individual
characteristics of potential informants. They are likely to
seek out and to accept information from a person who is
familiar or who has provided evidence of their epistemic reliability in the past. The various studies reviewed in this paper point to a further aspect of children’s selectivity among potential informants: their preference for someone whose claims are endorsed by other members of the group, particularly when that group is composed of individuals from the child’s own ingroup.

An intriguing implication of these data is that young children are not simply budding psychologists – as demonstrated by a large body of recent research on the child’s theory of mind (Harris, 2006). Young children are also budding sociologists. They are alert to the fact that individuals can be appraised in terms of the groups to which they belong and the people with whom they agree. Children rapidly note this sociological information, retain it, and subsequently use it to select among informants.

References


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