Selective Social Learning: New Perspectives on Learning From Others

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This special issue was motivated by the recent, wide-ranging interest in the development of children’s selective social learning. Human beings have a far-reaching dependence on others for information, and the focus of this issue is on the processes by which children selectively and intelligently learn from others. It showcases some of the finest current work in this area and also aims to encourage new lines of investigation and new ways of thinking about how children learn from others. This issue also serves to highlight this new direction in basic research for the broader community of researchers, educators, and practitioners. Research on issues related to the facilitation of social learning has clear relevance to early educational contexts. In addition, by bringing together a varied pool of research on the same general topic, developmental scientists can discern the consistencies and themes that emerge from their collective efforts. The work presented here illustrates the breadth of children’s selectivity across ages and domains of development, and it highlights the growing range of methods that can be recruited to investigate selectivity. This new research leads the field to reconsider the various ways in which social information guides learning and calls for novel theoretical accounts of these developments.

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The articles in this special issue pose important questions concerning how children learn from others, what the characteristic signatures of social learning might be, and how this learning changes over time. In a historical sense, much of the work here carries a distinctly Vygotskian spirit, by investigating the means by which children gain information from social partners. Key aspects of cognitive development, such as children’s epistemic evaluations, likely occur first in the realm of social interaction. But the research is also inspired by Piaget, who conceived of the child as an active, self-motivated seeker of knowledge, constrained by their own state of logical thinking. Current research on children’s selective learning lies at the interface of these theoretical perspectives and represent a happy marriage of these two great theorists. As children and adults interact, adults indirectly teach children how to make inferences about behavior, causality, natural categories, and human intentions. However, children do not blindly trust the words of others, and their changing conceptual understanding is often not a simple reflection of what they have been told to believe (or not to believe). New lines of research, many of which appear in the following pages, have led the field to reconsider the ways in which social information is transmitted, the epistemic properties that constrain social learning, as well as the roles played by the learner, speaker, and learning environment in this transmission process.

When Are Children Selective?

Much of what we know comes secondhand, by being told the relevant information by others. In some cases, such as the learning of word meanings, other people are the sole source of information available to us. In some other cases, we rely on others because we lack the knowledge or conceptual understanding needed to gain the relevant information ourselves. The bulk of the literature on our topic to date has played out with respect to how children’s social and conceptual understandings might lead them to be selective in what they learn from what others say, or their “testimony.” For instance, the early work focused on whether children would learn well from speakers who lacked knowledge (e.g., Sabbagh & Baldwin, 2001) or from a speaker who had a history of being inaccurate (Koenig, Clément, & Harris, 2004). Since then, there has been a steady stream of studies focused on mapping out the range of circumstances under which children will show selective learning. Mills (2013) reviews the extant evidence on the question and draws some compelling conclusions about what is known about the character of children’s selective social learning and how it develops in parallel with children’s cognitive and conceptual understandings. It appears that selective social learning is an early emerging feature of children’s learning more generally and that it becomes increasingly refined as children’s understandings of knowledge and the factors that affect its social transmission become more sophisticated.

Several of the articles we have included here represent the next steps in the process of mapping out the extent to which children’s selective social learning is affected by various kinds of specifically epistemic information. Some epistemic properties are carried primarily by the speech act itself (Chen & Waxman, 2013), some are

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inherent in the source (Corriveau, Kinzler, & Harris, 2013; Kushnir, Vredenburgh, & Schneider, 2013; Scofield, Gilpin, Pierucci, & Morgan, 2013), some are signaled by the relation between the statement and the world (Gillis & Nilsen, 2013), and some are implicit in our use of language (Gelman, Ware, Manczak, & Graham, 2013). Some of this research branches out to new explorations of children’s uses of previously unstudied sources of information, such as text (Robinson, Einav, & Fox, 2013) or nonverbal conventional gestures (Fusaro & Harris, 2013). Other studies look at children’s use of remarkably subtle variations in message quality (Gillis & Nilsen, 2013) and formal aspects of language (Sobel & Macris, 2013) that affect older children’s selective learning. Several studies also consider how far children generalize their trust in a given speaker in the domains of causal knowledge (Kushnir et al., 2013), language (Sobel & Macris, 2013), and moral behavior (Doebel & Koenig, 2013). In line with recent findings that children monitor a speaker’s visual access when learning visual information and monitor their expertise when learning object labels (Brosseau-Liard & Birch, 2011), several articles find further support for the idea that children appreciate certain domain-specific connections between the competence of the source and the knowledge to be gained (Fitneva, Lam, & Dunfield, 2013; Kushnir et al., 2013; Sobel & Macris, 2013). When taken together, these findings are changing how we understand the nature of children’s learning from others. By carefully examining the information providers speak as well as the nature of the learner, we are starting to get a sense for the active role that children play in their own conceptual development and knowledge acquisition.

Beyond Epistemic Considerations: Conventions, Social Group Status, and Motives

There is growing recognition that in many of the research paradigms that have been used to measure selective social learning, children may be making judgments about speakers that go beyond categorical epistemic judgments (e.g., knowledgeable vs. ignorant; see, e.g., Lucas & Lewis, 2010, for a review). For instance, in some variations of the paradigm, speakers establish their epistemic reliability in a “history phase” wherein they either correctly or incorrectly label well-known items (i.e., calling a ball a shoe). These inaccurate speakers are many things—they are factually wrong in their statements, they deviate from the conventions of a given language community, they are bizarre in their unmarked expression of an overt naming error, and they violate the cooperative norm of truthfulness that characterizes communication. This leaves the basis for children’s selectivity unclear, and recognition of this has led to investigations that examine the importance of conventional, socially relevant characteristics of speakers. In one set of investigations, Corriveau et al. (2013) examined whether young children might consider a speaker’s nonnative accent as a basis for selective learning, even when that speaker has a history of being reliable. Reyes-Jacquez and Echols (2013) report findings showing that nonepistemic information such as how similar or familiar an informant might be to children can also affect the extent to which children learn from that informant, sometimes independent of the informant’s epistemic status. In Scofield et al. (2013), the authors pull apart the success of the outcome and the conventionality of the means in the action domain. Equally intriguing are findings from Chen and Waxman (2013), who examine whether 14-month-olds’ tendency to imitate an unusual action is affected by whether an adult labels the action or not. These findings are important because they clearly indicate that young children’s selective learning can be shaped not only by epistemic considerations but also by their appeal to cultural beliefs and values.

The exchange of social information almost always involves some interaction of people’s practical interests. Heyman, Fu, and Lee (2013) examine the extent to which school-age children judge positive messages as more credible than negative ones and whether this might vary by age and by culture. This research highlights the idea that as listeners, although our interest may often lie in learning reliable information, our own motives and self-conceptions often influence what we judge to be true. As speakers, our interests are not as easy to describe: We are not aptly characterized as recording devices in the service of providing others with reliable information. Instead, as speakers, we are interested in having the freedom to express our beliefs as we so choose, when we so choose (Mercier & Sperber, 2011). Given that listeners and speakers are not always governed by shared goals, child listeners take the right lead by monitoring situations for evidence of speakers’ goodwill. For example, Liu, Vanderbilt, and Heyman (2013) investigate children’s use of information regarding a speaker’s intention as well as the outcome caused by the message, and Doebel and Koenig (2013) examine the role played by valence in children’s evaluations of morally good and bad agents. Taken together, these findings suggest that children use both positive and negative information when deciding what to believe at the level of the behavior, intention and outcome, and the challenge for researchers is to integrate effects of positivity and negativity in children’s evaluations. For the learner, the optimal approach is one that is efficient at dealing with the most frequent occurrences (e.g., positive messages, accurate statements), but also the most important occurrences (e.g., harmful agents, misinformation). Another implication is that children’s willingness to learn from someone often goes well beyond information conveyed by the statements themselves to incorporate speakers’ moral behavior, the desirability of statements, as well as the more general situations in which they occur.

New Challenges

There remain fundamentally important issues for this relatively young area of research. Though there are many, here are three that we think are particularly pressing. The first concerns being clear about the kinds of general conclusions that we can draw given the experimental paradigms that are being used. For instance, in some paradigms, children are presented with two speakers who differ from one another on a particular relevant dimension (e.g., historically accurate vs. inaccurate, native vs. nonnative accent, etc.). When researchers find evidence for selective learning in these cases, what they typically mean is that children as a group were more likely to endorse one speaker’s information relative to the other. These findings demonstrate clearly children’s sensitivity to the dimension, and it is possible that they do this because the experimenter has emphasized the pragmatic relevance of that contrast. Yet it is important to avoid recasting these findings into generalizations that go beyond claims of sensitivity. For instance, one
should not conclude that children do not learn well from speakers with non-native accents simply because of a preferential endorsement of a native-accented speaker. Of course, single-speaker paradigms in which children’s learning from just one speaker under different between-subjects conditions might be vulnerable to the opposite concern. Positive findings might be strongly interpreted as indicators of circumstances under which children will and will not learn, but null findings should not be taken as evidence of a wholesale insensitivity. With this in mind, we might argue that a complete characterization of children’s selective social learning may require new and multiple methods that take into account the kind of information being scrutinized, the precise research question being posed (e.g., “Are children sensitive to x?”; “How well do children learn?”), as well as children’s ages.

A second set of questions centers on how, from a mechanistic standpoint, children actually instantiate selective social learning. The findings that have mapped out the kinds of situations in which children will show selective social learning bear on the mechanistic question by showing the kinds of conceptual understandings that children take into account when learning from others (see Mills, 2013). Yet, fundamental questions remain regarding at what stage in the learning process children start to show their selectivity. Do they show selectivity at encoding whereby they ignore or otherwise weaken their encoding of the information that comes from speakers they select against? Or, do they show their selectivity at recall whereby they make an online decision involving a careful consideration of both options and ultimately a selection of the one they think is optimal given the situation? Perhaps selective social learning involves some combination of encoding and recall modifications. We are pleased to note that some of the articles we included begin to take these issues seriously by, for instance, examining the extent to which children encode the difference between two speakers, the extent to which they recall and use the information in a learning phase, how they explicitly rate the processing of a native-accented speaker. Of course, single-speaker paradigms in which children’s selectivity might be found in children’s early learning about foods. Learning about food is a social learning domain that children encounter a wide range of information, differing in its support, and this likely effects aspects of both the nature of knowledge and the factors that characterize its transmission. A third difficulty is that the “epistemically adaptive” framework says little about where the motivation comes from. Approaches to this difficult issue might come in two complementary forms. On the one hand, there might be ways in which processes of development and evolution have endowed children with a disposition to learn only from trusted others. For instance, there is some evidence from neuroendocrinology that those in the presence of a loved one experience a surge in oxytocin, which itself has been associated with taking a more trusting stance toward others (see Donaldson & Young, 2008, for a review). On the other hand, some aspects of the selective learning strategy might be acquired with experience. With respect to this second approach, Shutts, Kinzler, and DeJesus (2013) suggest that important insights into the bases of children’s selectivity might be found in children’s early learning about foods. Learning about food is a social learning problem with significant consequences for health and survival. It may be that children’s early reliance on others for information about the sociobiological practice of eating may provide a foundation for selective learning from others in nonfood domains.

Extending the Scope of Selective Social Learning

In putting together this collection of articles, we were consistently struck by a close resonance between the general topic of selective social learning and sociocultural approaches to cognitive development. Sociocultural approaches to cognitive development emphasize the importance of children’s attention to sociocultural norms and practices as a means of acquiring the cognitive and practical skills that are necessary to become a participating member of one’s community (e.g., Rogoff, 2003). Of particular importance in this regard is the role of more knowledgeable others in providing opportunities for learning. Though the role of more knowledgeable others may not be strictly codified (i.e., “teacher”), interactions with more knowledgeable others provide learners with the opportunities to both observe skillfully executed cultural practices and be supervised in their own practice of an emergent skill (Rogoff, Paradise, Arauz, Correa-Chávez, & Angelillo, 2003). The work on children’s selective social learning complements and extends this perspective by showing that children can have sensitive understandings of what makes a more knowledgeable other. Moreover, children use this information when determining whether they should take a given exchange as an opportunity for learning about social-cultural norms and practices (such as story-telling; Tsehliki & Rogoff, 2013).

Beyond what we believe is a natural fit between sociocultural approaches and selective social learning, taking an explicit sociocultural approach to the study of selective social raises questions about the role that cultural experience might play in shaping selective social learning. One article examines the ways in which cultural experience and formal linguistic features within particular languages (i.e., evidential markers) might sensitize people to the epistemic states of information providers (Lucas, Lewis, Pala, Wong, & Berridge, 2013). Another article considers how the typical structure of formal learning opportunities across cultures might be more or less conducive to children’s expressions of doubt.
and skepticism (Chan & Tardif, 2013). This work is illustrative of two facets of the connection between selective social learning and sociocultural approaches to cognitive development. First, as described above, children appear to be adept at identifying more knowledgeable others’ in their social world and using that information to take appropriate opportunities. Second, the extent to which children are willing and able to guide their learning may be shaped at least to some extent by the flexibility with which learning opportunities are structured within a given sociocultural community.

One exciting development from our perspective is that taking a broadly sociocultural approach to selective social learning has led to important novel directions. One direction has been to focus on the experiential factors that might affect underlying expectations about what constitutes “reliable” information. Along these lines, one article examines how individual differences in children’s talk about evidence relates to their parents’ beliefs about the empirical bases of knowledge (Lu, Callanan, & Smilovic, 2013). Another article that was meant to be included in this issue but was accidentally published in advance showed that there are meaningful formal differences in how parents provide generalizable semantic information (i.e., “generics”) about the world as compared with idiosyncratic facts about individuals (Gelman et al., 2013). A second direction has been to consider how cultural experience may direct learners’ attention toward particularly relevant information in their surroundings. For instance, one article explores how individual differences in children’s participation in traditional cultural practices relate to their recall for a folklore in that culture (Tsethlikai & Rogoff, 2013). These new directions are important in that they underscore a general point that there may be aspects of our society that actively instigate and encourage a given pattern of selective learning.

Equally exciting are findings that have important implications for understanding how such learning might play out in more formal educational settings. To the extent that teachers manifest characteristics that the experimental work has shown leads children to select against endorsing or learning information from a given speaker, it is reasonable to expect predictable effects in the classroom. Although not directly investigating this particular question, we have been able to include in this issue studies that investigate how the quality of the relationship between a teacher and child may affect cognitive performance in the classroom (Ahnert et al., 2013) and the role of culture and development on children’s evaluation of critical feedback (Heyman et al., 2013). Finally, we would like to echo Tsethlikai and Rogoff’s (2013) point that taking a sociocultural approach to selective social learning may be instructive in finding ways for Western practices to coexist with non-Western ones in the classroom to promote an expanded repertoire of practices that benefit children’s learning.

**Conclusion**

All models of cognitive and conceptual development, especially those that descend from the general approaches set out by Piaget and Vygotsky, admit a critical role for experience in shaping the content and character of development. Though very different in terms of their characterization of how, specifically, experience affects development, all have in common a relatively idealized model of experiential effects. Children are implicitly viewed as recipients of information that is faithfully provided by some source that is invested in children’s cognitive development. Within this very general model, children are viewed as active insofar as they evaluate the information they receive with respect to their current knowledge of the world or abilities. Those evaluations then shape the extent to which children apply the information they receive to the various jobs of cognitive development, such as the development of abstract causal understandings of how the world works or of how to complete increasingly complex tasks. Of course, this idealized model is likely incomplete in several ways. The work included in this special issue shows that children are active and selective in the extent to which they seek and integrate information from social sources. Whether information gleaned from a social source affects children’s cognitive and conceptual development is shaped by a host of factors related to the nature of knowledge and the fundamentally social processes of transmitted information. It is our hope that the work assembled in this special issue will show what we currently know to be the bases of children’s selective social learning. More broadly, we hope that this work, demonstrating the effects of explicitly social and social cognitive factors on knowledge and skill acquisition, can lead to a greater acknowledgment of the importance of these factors in establishing best practices in both formal and informal educational settings.

**References**


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