



# The Development of Selective Trust: Prospects for a Dual-Process Account

Jonas Hermes, Tanya Behne\*, and Hannes Rakoczy\*

*University of Göttingen and Leibniz Science Campus Primate Cognition*

**ABSTRACT**—*Young children learn selectively from reliable rather than unreliable models. Yet the question of what cognitive processes this early selectivity builds on remains unanswered. One line of research suggests that rational trait reasoning might be the basis of young children's selective trust, while others suggest less sophisticated processes. In this article, we provide an overview of the development of selective trust and introduce a new theoretical framework to explain the seemingly divergent findings. Young children's selective trust can best be explained by assuming two kinds of underlying cognitive processes: one fast, implicit, and heuristic process that provides default judgments, and one systematic, slow, and effortful process that intervenes under specific circumstances. We discuss findings in light of this framework and propose testable predictions for research.*

**KEYWORDS**—*social cognition; selective trust; dual-process account*

In their first years of life, children learn many, if not most, skills and facts from others. However, not all sources of information are equally reliable, so a major challenge for young learners is to decide from whom to learn. Recent developmental research has documented that children do not pick up information

indiscriminately from just anyone but learn selectively from others. For example, 3- and 4-year-olds prefer to learn words and facts from previously accurate rather than inaccurate speakers and from confident rather than uncertain models (1, 2). In this article, we review the literature on early selective learning, highlighting a puzzle regarding its cognitive underpinnings. Then we propose a dual-process account to solve this puzzle and formulate testable predictions for research.

## WHAT ARE THE COGNITIVE FOUNDATIONS AND UNDERPINNINGS OF EARLY SELECTIVE LEARNING?

Although much research has been done on selective social learning in 2- to 5-year-olds (for reviews, see 3–5), the cognitive foundations and underpinnings of such selective learning remain unclear. The findings present a puzzling and seemingly incoherent picture: While some research suggests that early selective trust may reduce to basic and nonsophisticated heuristics and biases, other evidence points to adult-like rational capacities.

### Why Early Selective Trust Appears Unsophisticated

The way young children learn from others often appears to reflect naïve trust rather than sophisticated reasoning: Young children tend to generally trust others, even those who have proven consistently unreliable in the past. For example, when confronted with an adult who constantly provided misinformation about the location of a hidden object, 3-year-olds continued to endorse her cues, even after eight trials of misinformation (6). In similar scenarios, 2- to 4-year-olds kept following the hints of an unreliable informant even when they conflicted with their own experience (7), when they had an incentive to ignore the testimony (8), and when the informant was introduced as a “big liar” (9). These findings have been interpreted as the manifestation of young children's bias to believe everything anyone claims or as the result of their pursuit of social rather than epistemic goals (such as affiliating with informants; 10, 11).

Similarly, when children face a choice between two informants, their decisions often seem to reflect superficial global

Jonas Hermes, Tanya Behne, Hannes Rakoczy, University of Göttingen and Leibniz Science Campus Primate Cognition.

\*Tanya Behne and Hannes Rakoczy share last authorship.

The work reported in this article was supported by the German Science Foundation (DFG) Grant Ra-2155/1-2.

Correspondence concerning this article should be addressed to Jonas Hermes, Department of Developmental Psychology, Institute of Psychology, University of Göttingen, Waldweg 26, D-37073 Göttingen, Germany; e-mail: jonas.hermes@psych.uni-goettingen.de.

© 2018 The Authors

Child Development Perspectives © 2018 The Society for Research in Child Development

DOI: 10.1111/cdep.12274

impressions rather than sophisticated reasoning. For example, 3- to 5-year-olds selectively learn novel words from a strong, rather than a weak, model or from an attractive, rather than an unattractive, model (when, from an adult perspective, such selectivity cannot be justified). Moreover, young children expect nice models to be smart or knowledgeable ones to be nice (12–15). These findings suggest that children's social learning is based on simple heuristics.

### Why Early Selective Trust Appears Sophisticated

However, in other situations, young children show selective social learning that seems to be based on sophisticated rational inferences. When encountering two models that are competent, each in a different area, children from age 3 selectively choose the model with the relevant competence for the tasks at hand (16–19). For example, when children were introduced to someone good at labeling toys and someone good at fixing them, they competently chose the toy labeler to learn what a toy is called and chose the toy fixer to have it repaired (16). Also, when children are provided with information about two characteristics per model (e.g., both the models' prior accuracy and their accent), from ages 4 to 6, children start preferring to learn from the model skilled in the relevant characteristic (20–22). For example, children preferred to learn new words from an accurate–unfamiliar informant rather than from an inaccurate–familiar one (despite generally preferring familiar over unfamiliar models). And children from age 3 competently used prior assumptions about who had what kind of expertise (e.g., addressing questions about food to adults and questions about toys to peers; 23). These findings suggest that children's selective social learning is based on rational inferences about traits: From the observed behavior of potential informants, children infer and ascribe specific competencies and traits, and then choose the informants with the trait most relevant and predictive for a given task.

These two lines of research present a puzzle: The first line suggests that children's selective social learning is based on simple heuristics rather than sophisticated reasoning; the second suggests that children of the same age use adult-like sophisticated rational reasoning. How can we reconcile these seemingly inconsistent findings? What is the real nature of children's selective social learning?

### SOLVING THE PUZZLE: A DUAL-PROCESS ACCOUNT

To our knowledge, no account can explain this puzzle of seemingly diverging findings. In particular, accounts of general cognitive maturation cannot resolve it. According to such views, social learning strategies would become more refined and sophisticated with age and general cognitive development, and more advanced strategies would replace less advanced ones. The empirical data do not match such a simple picture, since children of the same age (or even the same children) use both less and more sophisticated strategies in different kinds of tasks and situations.

We propose that the solution to this puzzle is more complex. While perhaps restricted to simple strategies early in development, at some later point, young children use many different strategies in their selective social learning: At times, they use sophisticated rational processes based on trait reasoning, while at other times, they use much simpler processes. But how do these different processes relate to one another and what determines which cognitive strategies children use in a given situation?

This interplay of cognitive processes might be best described by a dual-process account of selective trust. Many variations of dual-process theories have been proposed in social and cognitive psychology. Their common denominator is a set of assumptions concerning the nature of two qualitatively different processes that underlie human reasoning (24–26). Type I processes operate fast, inflexibly, implicitly, and automatically. They are relatively independent from cognitive resources, are phylogenetically more ancient, and develop relatively early in ontogeny. In contrast, Type II processes are relatively slow, flexible, and explicit. They depend strongly on the availability of knowledge and cognitive resources, and they develop later in phylogeny and ontogeny.

### The Development and Interplay of Type I and Type II Processes

From early in development, Type I processes operate automatically and swiftly, constantly providing heuristic default judgments that enable children to master some kinds of problems (27). However, only some problems can be solved in this way. These limits are overcome later in ontogeny when Type II processes develop. Although initially fragile, these Type II processes enable children, under certain circumstances, to ascribe specific traits to agents and use these trait ascriptions flexibly in deciding what to learn from whom. Once Type II processes have emerged, they do not simply replace Type I processes. Rather, the core idea of dual-process theories (in contrast to general maturation accounts) is that both types of processes continue to coexist in a person's cognitive repertoire (28–30). The complex interplay between Type I and Type II processes can be described in terms of a broad default-interventionist structure (25, 31): Type I processes yield heuristic default judgments that then may either be endorsed for subsequent processing and verbal/behavioral responses or overruled and overwritten by the intervention of more sophisticated Type II processes.

Whether such Type II processes intervene and overwrite depends on various factors. First, Type II processes depend on general cognitive resources, such as working memory and executive function, to operate, and these may not be developed sufficiently in very young children. Second, individuals need to have these resources at their disposal (which is not the case under conditions of cognitive load such as dual tasks). Third, the operation of specific Type II processes requires conceptual background knowledge in a given domain. Fourth, properties of the task may facilitate or hinder the operation of Type II processes. For example, individuals may rely more on Type I processes,

without any intervention of Type II processes, in tasks in which one Type I heuristic applies that yields conclusive solutions without any conflicts with other heuristic judgments.

### Dual-Process Explanations of Findings

An account based on dual-process theories can explain the divergent findings on children's selective trust. Specifically, children's early Type I processes may include at least two main heuristics: First, as proposed by Gilbert (32) and Jaswal, Carrington Croft, Setia, and Cole (6), children have a tendency to generally trust others. This *general-trust heuristic* may explain why children believe an informant regardless of his or her history—especially in situations of only one agent and no potential conflict between different agents' testimonies (e.g., 6).

Second, when confronted with several informants with potentially diverging testimonies, children may apply a *trust-the-better heuristic*. This heuristic distinguishes between agents in evaluative terms, but does so in broad and undifferentiated ways: Depending on their characteristics or track record, agents are seen as evaluatively good or bad without further distinction between the dimensions of success or failure. The trust-the-better heuristic is in line with findings that document children's wide generalizations based on global impressions (e.g., 12, 13). When children perceive that one model outperformed another in one aspect (e.g., strength), they preferred the first for all tasks, even when the competence displayed was irrelevant to the task (e.g., word learning).

However, such Type I processes can be overwritten. In particular, once children have the requisite conceptual background knowledge and general cognitive resources, the type of task matters. When children are confronted with a problem for which their Type I heuristics provide no unique solution, children's more sophisticated Type II processes intervene. For example, when children encounter two informants with a positive track record in different domains, Type II processes may intervene and yield judgments based on inferences about relevant traits rather than global evaluations. This claim fits with findings that from around ages 3 to 5, children can evaluate competence and draw rational inferences in tasks with two agents who are similarly competent but in different domains (e.g., 18, 19).

### More Direct Support for a Dual-Process Account of Selective Trust

Recent studies provide more direct support for the dual-process account. One study tested directly whether the property of the tasks affected the type of process or strategy children applied (33). Children were confronted with two tasks that were structurally similar yet differed in one theoretically crucial respect. In one task, children encountered two models that differed in degree of competence on one dimension (strong vs. weak or accurate vs. inaccurate), and were asked to judge who was good at strength-related problems (e.g., lifting a heavy dumbbell) and who was good at knowledge-related problems (e.g., knowing the

names of novel objects). Across age and irrespective of their general cognitive capacities (e.g., executive function), children chose in line with a trust-the-better-heuristic and preferred the more competent model for all kinds of problems, including those unrelated to the actual competence of the model (choosing the stronger model for knowledge problems or the accurate model for strength problems). In contrast, in a second task, the same children encountered two models that were both highly competent but in different domains (i.e., strong vs. knowledgeable), and again, had to judge who was good at strength and knowledge problems. Since neither model could be evaluated as globally more successful, a trust-the-better-heuristic is inconclusive and predicts chance performance. But in these cases, children rationally selected the model whose specific competence was most relevant for a given problem (i.e., the knowledgeable model for knowledge problems and the strong model for strength problems), suggesting that the children used Type II processes.

Children's decisions in this type of task also showed some of the other signatures associated with Type II processes. First, rational (Type II) inferences about potential models and their specific competencies require conceptual background knowledge about the relevant domains and abilities (34). In line with this, children's rational choice between two models competent in different domains depended on their explicit knowledge about the underlying traits: At the end of the test, children were asked explicit trait questions about the models ("Who is smart?" "Who is strong?"). Only children who answered correctly chose models selectively in line with their relevant attributes, which fits the pattern of Type II responses. In contrast, children who erred on these questions chose models at chance levels, which fits the pattern of Type I responses (19, 33).

Furthermore, Type II (but not Type I) processes develop with age and depend on general cognitive resources (28, 31). In line with this assumption, older children answered rationally more frequently (similar to 35), as did children with more advanced executive functions when the choice was between two models competent in different domains (but not when heuristic answers were conclusive, i.e., when the choice was between two models who differed in competence in one domain; 33). These results cannot be explained by cognitive maturation alone, which would lead rational processes to replace less rational heuristic ones. In fact, the findings show that heuristic and more rational strategies coexist and are used by the same individuals at the same time in different contexts: Even older children and children with advanced executive function who solved some tasks by rational trait-based inferences reverted to heuristic answers in other contexts. Thus, these patterns are in line with a dual-process account.

Relations between children's age and cognitive effort and their rational Type II decisions are also seen in tasks in which children encountered a single, unreliable informant (7, 36) or unreliable hints provided by a mechanical device (a color light signal; 37). In these situations, many children used a general

trust heuristic and endorsed information provided by the unreliable source, despite its history of inaccuracy (Type I process). However, some children succeeded in resisting the bias to trust and disregarded the advice given after the source had repeatedly proven inaccurate, suggesting that Type II process intervened. These successful individuals were children with advanced executive function and older children. Again, these results can be explained by a default-interventionist architecture: Children initially trust others indiscriminately by default, yet this initial bias can be overridden and children can distrust an unreliable informant (32) once the requisite general cognitive resources (e.g., executive function) are available.

### PREDICTIONS AND QUESTIONS FOR RESEARCH

In our view, a dual-process account presents a promising framework for describing and explaining the cognitive and developmental foundations of children's selective trust. It may broaden the perspective on selective trust, and reveal connections and parallels to other areas of development, such as theory of mind, in which dual-process theories have advanced the debate (30). This framework also allows us to make predictions about the structure and development of children's and adults' selective trust.

The core idea of dual-process theories is that Type I and Type II processes differ in their representational capacities, with the former having clear signature limits relative to the latter: Some of the problems that can be solved with Type II processes can also be mastered with Type I processes, but others cannot. And the same limits of Type I processes can be observed in different circumstances: either when Type II processes are not (yet) available in principle, or when Type II process are available in principle but acutely blocked from application. For example, a recent dual-process account of theory of mind (30) assumes signature limits such that Type I processes are restricted to Level I perspective-taking tasks, but cannot be applied to Level II tasks. Research suggests that these signature limits apply in similar ways to young children (in principle) and, under certain circumstances of limited cognitive resources, to older children and adults (38, 39).

A dual-process account of selective trust would predict that Type I processes enable individuals to solve some selective trust problems yet reveal clear signature limits that manifest themselves in the same way for the following cases: young children who do not yet have trait-based Type II processes; children who have Type II strategies available in principle, but cannot apply them in a given domain because they lack the requisite conceptual knowledge or general cognitive resources; and adults whose cognitive resources are taxed (e.g., under time pressure or conditions of dual-task performance; see 40, 41). In addition, children's and adults' responses based on simple heuristics should show the general signature characteristic of Type I processes. For example, compared to Type II solutions, individuals should generally give such Type I responses more quickly, but be less

capable of complementing them with explicit justifications and explanations (25, 42).

In other areas of cognitive development, such systematic and interrelated predictions derived from dual-process accounts have led to new research and advances. Similarly, we hope the predictions from the dual-process account we have proposed will help inspire systematic research and further our understanding of the development of selective trust and its cognitive underpinnings.

From a theoretical point of view, a fundamental question for research is how to distinguish Type I and Type II processes more precisely. One possibility is that different kinds of processes map onto categorically distinct and functionally separable cognitive systems that operate independently, as proposed by two-system accounts (30). Another is that the different kinds of processes may reflect complementary strategies that differ in their ontogenetic onset yet operate in parallel in context-sensitive ways across the lifespan, as proposed in overlapping waves theory and related models (43). From a practical point of view, such research may also have important ramifications for the design of educational and other interventions. A deeper understanding of the scopes and limits of Type I processes may inform intervention programs tailored to improve decision making by overcoming the shortcomings and detrimental effects of heuristics in contexts in which they misfire.

### REFERENCES

1. Koenig, M. A., Clement, F., & Harris, P. L. (2004). Trust in testimony—Children's use of true and false statements. *Psychological Science, 15*, 694–698. <https://doi.org/10.1111/j.0956-7976.2004.00742.x>
2. Sabbagh, M. A., & Baldwin, D. A. (2001). Learning words from knowledgeable versus ignorant speakers: Links between preschoolers' theory of mind and semantic development. *Child Development, 72*, 1054–1070. <https://doi.org/10.1111/1467-8624.00334>
3. Harris, P. L. (2012). *Trusting what you're told: How children learn from others*. Cambridge, MA: Belknap Press of Harvard University Press.
4. Mills, C. M. (2013). Knowing when to doubt: Developing a critical stance when learning from others. *Developmental Psychology, 49*, 404–418. <https://doi.org/10.1037/a0029500>
5. Wood, L. A., Kendal, R. L., & Flynn, E. G. (2013). Whom do children copy? Model-based biases in social learning. *Developmental Review, 33*, 341–356. <https://doi.org/10.1016/j.dr.2013.08.002>
6. Jaswal, V. K., Carrington Croft, A., Setia, A. R., & Cole, C. A. (2010). Young children have a specific, highly robust bias to trust testimony. *Psychological Science, 21*, 1541–1547. <https://doi.org/10.1177/0956797610383438>
7. Jaswal, V. K., Pérez-Edgar, K., Konrad, R. L., Palmquist, C. M., Cole, C. A., & Cole, C. E. (2014). Can't stop believing: Inhibitory control and resistance to misleading testimony. *Developmental Science, 17*, 965–976. <https://doi.org/10.1111/desc.12187>
8. Jaswal, V. K. (2010). Believing what you're told: Young children's trust in unexpected testimony about the physical world. *Cognitive Psychology, 61*, 248–272. <https://doi.org/10.1016/j.cogpsych.2010.06.002>

9. Mascaro, O., & Sperber, D. (2009). The moral, epistemic, and mind-reading components of children's vigilance towards deception. *Cognition*, *112*, 367–380. <https://doi.org/10.1016/j.cognition.2009.05.012>
10. Jaswal, V. K., & Kondrad, R. L. (2016). Why children are not always epistemically vigilant: Cognitive limits and social considerations. *Child Development Perspectives*, *10*, 240–244. <https://doi.org/10.1111/cdep.12187>
11. Koenig, M. A., & Sabbagh, M. A. (2013). Selective social learning: New perspectives on learning from others. *Developmental Psychology*, *49*, 399–403. <https://doi.org/10.1037/a0031619>
12. Bascandziev, I., & Harris, P. L. (2014). In beauty we trust: Children prefer information from more attractive informants. *British Journal of Developmental Psychology*, *32*, 94–99. <https://doi.org/10.1111/bjdp.12022>
13. Fusaro, M., Corriveau, K. H., & Harris, P. L. (2011). The good, the strong, and the accurate: Preschoolers' evaluations of informant attributes. *Journal of Experimental Child Psychology*, *110*, 561–574. <https://doi.org/10.1016/j.jecp.2011.06.008>
14. Landrum, A. R., Mills, C. M., & Johnston, A. M. (2013). When do children trust the expert? Benevolence information influences children's trust more than expertise. *Developmental Science*, *16*, 622–638. <https://doi.org/10.1111/desc.12059>
15. Brosseau-Liard, P. E., & Birch, S. A. J. (2010). 'I bet you know more and are nicer too!': What children infer from others' accuracy. *Developmental Science*, *13*, 772–778. <https://doi.org/10.1111/j.1467-7687.2009.00932.x>
16. Kushnir, T., Vredenburg, C., & Schneider, L. A. (2013). "Who can help me fix this toy?" The distinction between causal knowledge and word knowledge guides preschoolers' selective requests for information. *Developmental Psychology*, *49*, 446–453. <https://doi.org/10.1037/a0031649>
17. Lane, J. D., & Harris, P. L. (2015). The roles of intuition and informants' expertise in children's epistemic trust. *Child Development*, *86*, 919–926. <https://doi.org/10.1111/cdev.12324>
18. Lutz, D. J., & Keil, F. C. (2002). Early understanding of the division of cognitive labor. *Child Development*, *73*, 1073–1084. <https://doi.org/10.1111/1467-8624.00458>
19. Hermes, J., Behne, T., & Rakoczy, H. (2015). The role of trait reasoning in young children's selective trust. *Developmental Psychology*, *51*, 1574–1587. <https://doi.org/10.1037/dev0000042>
20. Corriveau, K., & Harris, P. L. (2009). Choosing your informant: Weighing familiarity and recent accuracy. *Developmental Science*, *12*, 426–437. <https://doi.org/10.1111/j.1467-7687.2008.00792.x>
21. Bernard, S., Proust, J., & Clément, F. (2015). Four- to six-year-old children's sensitivity to reliability versus consensus in the endorsement of object labels. *Child Development*, *86*, 1112–1124. <https://doi.org/10.1111/cdev.12366>
22. Corriveau, K. H., Kinzler, K. D., & Harris, P. L. (2013). Accuracy trumps accent in children's endorsement of object labels. *Developmental Psychology*, *49*, 470–479. <https://doi.org/10.1037/a0030604>
23. VanderBorgh, M., & Jaswal, V. K. (2009). Who knows best? Preschoolers sometimes prefer child informants over adult informants. *Infant and Child Development*, *18*, 61–71. <https://doi.org/10.1002/icd.591>
24. Evans, J. S. B. T. (2008). Dual-processing accounts of reasoning, judgment, and social cognition. *Annual Review of Psychology*, *59*, 255–278. <https://doi.org/10.1146/annurev.psych.59.103006.093629>
25. Kahneman, D. (2011). *Thinking, fast and slow*. New York, NY: Farrar, Straus and Giroux.
26. Stanovich, K. E. (1999). *Who is rational?: Studies of individual differences in reasoning*. Mahwah, NJ: Erlbaum.
27. Heyes, C. (2016). Who knows? Metacognitive social learning strategies. *Trends in Cognitive Sciences*, *20*, 204–213. <https://doi.org/10.1016/j.tics.2015.12.007>
28. Jacobs, J. E., & Klaczynski, P. A. (2002). The development of judgment and decision making during childhood and adolescence. *Current Directions in Psychological Science*, *11*, 145–149. <https://doi.org/10.1111/1467-8721.00188>
29. Klaczynski, P. A. (2009). Cognitive and social cognitive development: Dual-process research and theory. In J. S. B. T. Evans & K. Frankish (Eds.), *In two minds: Dual processes and beyond* (pp. 265–292). New York, NY: Oxford University Press.
30. Apperly, I. A., & Butterfill, S. A. (2009). Do humans have two systems to track beliefs and belief-like states? *Psychological Review*, *116*, 953–970. <https://doi.org/10.1037/a0016923>
31. Evans, J. S. B. T., & Stanovich, K. E. (2013). Dual-process theories of higher cognition: Advancing the debate. *Perspectives on Psychological Science*, *8*, 223–241. <https://doi.org/10.1177/1745691612460685>
32. Gilbert, D. T. (1991). How mental systems believe. *American Psychologist*, *46*, 107–119. <https://doi.org/10.1037/0003-066x.46.2.107>
33. Hermes, J., Behne, T., Bich, A. E., Thielert, C., & Rakoczy, H. (2017). Children's selective trust decisions: Rational competence and limiting performance factors. *Developmental Science*. <https://doi.org/10.1111/desc.12527>
34. Sobel, D. M., & Kushnir, T. (2013). Knowledge matters: How children evaluate the reliability of testimony as a process of rational inference. *Psychological Review*, *120*, 779–797. <https://doi.org/10.1037/a0034191>
35. Sobel, D. M., & Corriveau, K. H. (2010). Children monitor individuals' expertise for word learning. *Child Development*, *81*, 669–679. <https://doi.org/10.1111/j.1467-8624.2009.01422.x>
36. Vanderbilt, K. E., Liu, D., & Heyman, G. D. (2011). The development of distrust. *Child Development*, *82*, 1372–1380. <https://doi.org/10.1111/j.1467-8624.2011.01629.x>
37. Heyman, G. D., Sritanyaratana, L., & Vanderbilt, K. E. (2013). Young children's trust in overtly misleading advice. *Cognitive Science*, *37*, 646–667. <https://doi.org/10.1111/cogs.12020>
38. Surtees, A. D. R., Butterfill, S. A., & Apperly, I. A. (2012). Direct and indirect measures of level-2 perspective-taking in children and adults. *British Journal of Developmental Psychology*, *30*, 75–86. <https://doi.org/10.1111/j.2044-835X.2011.02063.x>
39. Low, J., & Watts, J. (2013). Attributing false beliefs about object identity reveals a signature blind spot in humans' efficient mind-reading system. *Psychological Science*, *24*, 305–311. <https://doi.org/10.1177/0956797612451469>
40. De Neys, W. (2006). Dual processing in reasoning: Two systems but one reasoner. *Psychological Science*, *17*, 428–433. <https://doi.org/10.1111/j.1467-9280.2006.01723.x>
41. Evans, J. S. B. T., & Curtis-Holmes, J. (2005). Rapid responding increases belief bias: Evidence for the dual-process theory of reasoning. *Thinking & Reasoning*, *11*, 382–389. <https://doi.org/10.1080/13546780542000005>
42. Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review*, *108*, 814–834. <https://doi.org/10.1037/0033-295X.108.4.814>
43. Siegler, R. S. (1996). *Emerging minds: The process of change in children's thinking*. New York, NY: Oxford University Press.