

Young Children's Understanding of Ownership

Shaylene E. Nancekivell, Julia W. Van de Vondervoort, and Ori Friedman

University of Waterloo

ABSTRACT—*Ownership influences the permissibility of people's use of objects. Understanding ownership is therefore necessary for socially appropriate behavior and is an important part of children's social-cognitive development. Children are sophisticated in their reasoning about ownership early in development. They make a variety of judgments about ownership, including judgments about how ownership is acquired, who owns what, and ownership rights. Understanding how children reason about ownership can also inform broader questions about the nature and origins of ownership.*

KEYWORD—*ownership*

People's behavior and their thoughts about behavior depend on ownership. For example, although collecting seashells lying on a public beach is acceptable, helping yourself to seashells sold at a beachside stand is not. Recognizing and upholding ownership is necessary for socially appropriate behavior.

Concern with ownership is evident in young children. Toddlers identify property that belongs to them, their parents, and others (Brownell, Iesue, Nichols, & Svetlova, 2013; Fasig, 2000), and young children's conflicts are often disputes about property (Ross, 1996; Shantz, 1987). Ownership also affects children's preferences for objects (Gelman, Manczak, & Noles, 2012) and how memorable objects are for children (Cunningham, Vergunst, Macrae, & Turk, 2013).

Young children's reasoning about ownership is striking because ownership is abstract and does not depend on the physical properties of objects. For example, examining the physical

features of a seashell will never reveal how to acquire ownership of it, whether it is already owned, or the rights or privileges conferred to its owner. To reason about ownership, children must have and use different kinds of knowledge, including how ownership is acquired, how to judge who owns an object, and which rights are conferred to owners.

HOW IS OWNERSHIP ACQUIRED?

Knowing how objects become owned drives attempts to acquire ownership. Without such causal knowledge, one might think it equally possible to acquire a new car by purchasing it from a dealership, expressing desire for it, or doing a dance in front of it.

Owned property is typically acquired in transactions where ownership is transferred from one person to another. Means of transferring ownership differentiate legitimate and illegitimate possession. For example, a person who purchases a car is its rightful owner, but a person who steals one is a thief. At age 4, children recognize that ownership is transferred when an item is given as a gift, but not when the item is stolen (Blake & Harris, 2009); 3-year-olds also appreciate that ownership is transferred in gift exchanges, at least when the gift-giving context is highlighted (e.g., the gift is a wrapped present; Friedman & Neary, 2008). By age 4 or 5, children understand that ownership is acquired by a person who purchases an object (Cram & Ng, 1989; Nancekivell & Friedman, in press). Three- and 4-year-olds may also believe that ownership of an object is transferred to someone who works on it (e.g., makes playdough into a duck), though adults do not share this view (Kanngiesser, Gjersoe, & Hood, 2010).

However, people do not acquire property just through the transfer of ownership; they also acquire *new* or *first* ownership over things. Legal and philosophical discussions of ownership touch on two primary methods for establishing first ownership over an object—taking first possession of it (e.g., Epstein, 1978), and laboring or working on it (Locke, 1690/1978). Preschoolers' explanations of ownership suggest that they reason along similar lines. For example, when asked why a certain boy owns a rock, 4- and 5-year-olds often say that he found it, and when asked why a girl

Shaylene E. Nancekivell, Julia W. Van de Vondervoort, and Ori Friedman, Department of Psychology, University of Waterloo.

Correspondence concerning this article should be addressed to Ori Friedman, Department of Psychology, University of Waterloo, 200 University Avenue West, Waterloo, ON, Canada N2L 3G1; e-mail: friedman@uwaterloo.ca.

© 2013 The Authors

Child Development Perspectives © 2013 The Society for Research in Child Development
DOI: 10.1111/cdep.12049



owns a drawing, they explain that she made it (Nancekivell & Friedman, in press); both of these actions (finding, making) have elements of possession and labor, so it is unclear whether the possession or labor account (or both) underlies children's judgments. Three-year-olds do not provide such explanations and it is unknown whether they know how first ownership is established. By age 6, children predict that the first person to possess a non-owned object is its owner, and they also reason similarly about the ownership of ideas and intellectual property. For example, they judge that an idea belongs to the person who first possesses or creates it (Shaw, Li, & Olson, 2012).

Studies examining how children distribute resources may shed light on children's judgments about the acquisition of ownership. In some studies, when two agents work to produce or secure a resource, 3-year-olds consider the relative contributions of the agents when dividing the resource (Baumard, Mascaro, & Chevallier, 2012; Warneken, Lohse, Melis, & Tomasello, 2011; also see Kanngiesser & Warneken, 2012). Although children might only consider principles of fairness in these tasks, they may also reason about ownership. For example, children might judge that a certain agent should receive certain resources because she came to own them through her labor (for a related discussion, see Baumard, André, & Sperber, 2013; Tummolini, Scorolli, & Borghi, 2013).

WHO OWNS WHAT?

Behaving appropriately toward an object requires knowledge about who owns it. If someone mistakenly believed that he owned his neighbor's shovel, he would think he could use it as he pleased—but this would upset his neighbor. People determine who owns an object by relying on their knowledge of how ownership is acquired. For example, in the earlier example, the person can be sure the shovel belongs to his neighbor if he saw her buy it. As we have seen, young children have causal knowledge about how ownership is acquired.

However, people cannot always rely on their causal knowledge because they rarely know how objects were acquired. Although the person saw his neighbor buy her shovel, he did not see her acquire her rake, spade, or shears. Yet he may still know they belong to her based on her verbal testimony—perhaps she told him that the garden tools belong to her. At age 2, and perhaps younger, children use verbal testimony to learn who owns what (e.g., Blake, Ganea, & Harris, 2012; Gelman et al., 2012; also see Saylor, Ganea, & Vasquez, 2011).

Even without verbal testimony, other cues suggest that the neighbor owns the garden tools (e.g., she uses them and keeps them in her garage). This evidence is not guaranteed to yield a correct judgment (e.g., perhaps she is borrowing the spade), so its use is heuristic. Young children use many cues to judge who owns an object. From age 2, they assume that an object belongs to the first person known to possess it (Blake & Harris, 2009; Friedman & Neary, 2008). For instance, on seeing a boy play

with a ball and then a girl play with it, they judge that the ball belongs to the boy because he played with it first (but see Friedman, Van de Vondervoort, Defeyter, & Neary, 2013). At age 3, children base ownership judgments on gender and age stereotypes (Malcolm, Defeyter, & Friedman, in press); they judge that a doll belongs to a girl rather than to a boy and that a computer belongs to an adult rather than to a child. From age 3, children also judge *whether* objects are owned. They view human-made objects as more likely to be owned than natural objects and even expect this when reasoning about unfamiliar objects (Neary, Van de Vondervoort, & Friedman, 2012). Older 3-year-olds also judge that an object belongs to the person who decides whether others can use it (Neary, Friedman, & Burnstein, 2009). And from age 6, children also use this control of permission cue to judge who owns an idea (Shaw et al., 2012).

The Basis of Heuristic Judgments of Ownership

These heuristic judgments of ownership may depend on children's observances of statistical regularities. For example, children may rely on gender stereotypes like "dolls belong to girls" because most dolls they have observed belong to girls. Likewise, they might infer ownership from control of permission because they have observed that objects often belong to people who decide whether others can use them. Alternatively, heuristic judgments may also depend on children's knowledge of ownership principles. For example, sensitivity to control of permission may stem from children's knowledge of ownership rights—owners are entitled to decide who may use their property, and so it is reasonable to conclude that a person who appears to have this right is an object's owner.

Children's first possession bias and their differential expectations regarding the ownership of human-made and natural objects may likewise reflect knowledge that ownership depends on *history*. More specifically, these judgments may reflect children's understanding that current ownership of an object depends on particular events in the object's past (Friedman, Neary, Defeyter, & Malcolm, 2011; Neary & Friedman, in press; Neary et al., 2012; see Gelman et al., 2012, for a related discussion of ownership and object history). For example, children may expect human-made objects to be owned because they recognize that these objects are created by people (e.g., Gelman & Kremer, 1991) and that creation leads to ownership (e.g., Kanngiesser et al., 2010; Nancekivell & Friedman, in press). Such reasoning about history may also lead children to assume that natural objects are not owned because these objects are not made by people.

Definitiveness of Information

Although studies reveal that children use many kinds of information to judge who owns an object, less is known about whether children recognize that some kinds of information are more definitive indicators of ownership than others. In some studies, children give less weight to possession as an ownership

cue than certain competing sources of information. For example, when possession is pitted against testimony about ownership, 3- and 4-year-olds base ownership judgments on testimony, suggesting that they view testimony as the more definitive source of information (Blake et al., 2012; Neary & Friedman, in press, Experiment 2B). Likewise, first possession is trumped by strong age and gender stereotypes, and by information about an object's history (Friedman et al., 2013; Malcolm et al., in press). But it remains unknown whether children appreciate the definitiveness of causally relevant information about how an object was acquired. For example, it is unknown whether children will understand that a doll belongs to a boy who received it as a gift (causal information), even though dolls typically belong to girls (stereotype information).

OWNERSHIP RIGHTS

Behaving appropriately in relation to objects requires a conception of ownership rights—owners' entitlement to control their property. Without an understanding of ownership rights, the person described earlier might acknowledge that the shovel in his neighbor's backyard belongs to his neighbor, but he might still think is acceptable to take it and sell it without her permission. Understanding ownership rights is also crucial to understanding and predicting everyday actions and events. Without an appreciation of ownership rights, the person would have trouble understanding why the neighbor uses her own garden tools rather than using his nicer set.

From a young age, children exert ownership rights over their own property. At age 2, children defend their property by appealing to ownership rights (e.g., "It's mine"; Dunn & Munn, 1987; Hay & Ross, 1982; Ross, 1996, 2012) and from age 2½, children are more likely to maintain possession of an object, and are less likely to share it, if it belongs to them than if it belongs to their class (Eisenberg-Berg, Haake, Hand, & Sadalla, 1979). At age 2, children also protest when a puppet takes their property or threatens to throw it away, although they do not protest when the puppet threatens others' property (Rossano, Rakoczy, & Tomasello, 2011). This finding might suggest that 2-year-olds are aware of their own ownership rights but not those of other people. Alternatively, they might not be sufficiently motivated to intervene when others' rights are violated, much as adults often fail to intervene to help those in need (e.g., Latané & Darley, 1968).

Regardless, from age 3 children do uphold and acknowledge other people's ownership rights. Three-year-olds sometimes protest when an agent violates another person's ownership rights (Rossano et al., 2011). For instance, they will tell a puppet to stop if it tries to steal someone else's hat. Also, when reasoning about ownership disputes, children from age 3 or 4 usually side with owners over nonowners (Kim & Kalish, 2009; Neary & Friedman, in press). For example, in a series of experiments, children and adults were told simple scenarios about ownership

disputes (Neary & Friedman, in press). In one scenario, a girl was using a crayon to make a card for her mother. The crayon belonged to a boy and he wanted the girl to stop using it. When asked how such disputes should be resolved, 3- to 7-year-olds mostly sided with the owner. In fact, they supported owners' rights more strongly than did the adult participants, who either sided against the owner or chose between the characters at chance. However, young children may conceive of ownership rights as permitting a *narrower* range of actions than do adults and older children. For example, 4- and 5-year-olds sometimes deny that owners should modify their property or use it in novel ways, whereas older children and adults grant owners broader control of property (Kim & Kalish, 2009). Broadly consistent with these findings, when 5- and 6-year-olds (and older children) are interviewed about ownership, they refer to owners' right to control their property (Furby, 1978a). Moving from ownership of physical property to ownership of ideas, young children extend ownership rights to intellectual property. From age 5, children negatively evaluate agents who copy others' artwork (Olson & Shaw, 2011).

Are Ownership Rights Specific to Ownership?

These findings suggest that young children have a basic appreciation of ownership rights. However, are the rights associated with ownership specific to ownership? Ownership rights could be a set of rules developed specifically to govern behavior in relation to owned property (e.g., Snare, 1972). Alternatively, they might have a more *general* basis. Many theorists have noted that people's feelings toward their own property may stem from connections between property and their representation of self (e.g., Belk, 1988, 1991; Fasig, 2000; Furby, 1978b; James, 1890; Rochat, 2010, 2011; for an overview, see Pierce, Kostova, & Dirks, 2003). So notions of ownership rights might stem from people's appreciation of personal rights and bodily rights (Humphrey, 1992; Neary & Friedman, in press; also see Locke, 1690/1978). On this view, children's belief that owners are typically entitled to control their own property (ownership rights) might be linked with their awareness that people are typically entitled to control themselves (bodily rights). Hence, children may judge that using a stranger's comb is impermissible for the same reason they would judge it impermissible to touch the stranger's hair. The possibility that children's notion of ownership rights is linked with their notions of bodily rights is also consistent with the possibility that their notions of ownership rights stem from their appreciation of the personal domain—the actions and choices people can decide for themselves, free from regulation by others (Nucci, 1981). However, it is unknown when an appreciation of personal or bodily rights first emerges—this may be achieved in early childhood, though it could also be evident in infants. For example, findings showing that infants prefer agents who help an actor fulfill a goal over agents who interfere with the actor's goal (Hamlin & Wynn, 2011) could reflect an early awareness of bodily rights—the view that agents

ought to be able to control their actions and that others ought not interfere with this control.

Evidence for the view that ownership rights and bodily rights are connected comes from the finding that preschoolers reason similarly when making moral judgments in these two domains. Four-year-olds were presented with scenarios in which an agent acted on the body or property of an evaluator (e.g., a boy touched a girl's hair or touched her doll), or on the agent's own body or property. Children's moral evaluations of the agent's actions were influenced by the evaluator's approval and by whether the target of the action belonged to the actor or the evaluator. However, their evaluations were not influenced by whether the target of the action was an object or body part. Hence, children's evaluations of ownership violations apparently are not based on rules that apply specifically to owned objects (Van de Vondervoort & Friedman, 2013).

Origins of Ownership Rights

A related question concerns the *origins* of ownership rights. Ownership rights could be cultural conventions, inventions of culture and law (e.g., Hobbes, 1651/1985; Kalish & Anderson, 2011; Rakoczy & Schmidt, 2013; Rossano et al., 2011; Searle, 2005). On this view, children begin with no expectations about ownership rights and only come to appreciate ownership rights by learning the ownership rules in their particular culture. Alternatively, ownership rights might have a precultural basis. People's notions of ownership rights could be continuous with animals' territorial behavior (Stake, 2004; also see Brosnan, 2011). Or, as discussed previously, their sense of ownership rights could stem from their appreciation of bodily or personal rights (Humphrey, 1992; Neary & Friedman, in press).

CONCLUSION AND FURTHER QUESTIONS

Ownership is central in people's lives and is a major influence on our thoughts and behavior. Recent studies show that young children make sophisticated judgments about ownership, and researchers have made progress in uncovering the principles on which these judgments are based. Nonetheless, much remains to be learned and questions extend far beyond the topics reviewed here. For example, little is known about how children judge who (and what) can be an owner, or how they decide which kinds of things can be owned (but see Noles & Keil, 2011; Noles, Keil, Bloom, & Gelman, 2012). Likewise, almost nothing is known about similarities and differences in the development of ownership across cultures (but see Furby, 1978a; Rochat, 2011). Investigating these and other topics will help us answer basic questions about the nature and origins of ownership.

REFERENCES

- Baumard, N., André, J. B., & Sperber, D. (2013). A mutualistic approach to morality: The evolution of fairness by partner choice. *Behavioral and Brain Sciences*, 36, 59–78. doi:10.1017/S0140525X11002202
- Baumard, N., Mascaró, O., & Chevallier, C. (2012). Preschoolers are able to take merit into account when distributing goods. *Developmental Psychology*, 48, 492–498. doi:10.1037/a0026598
- Belk, R. W. (1988). Possessions and the extended self. *Journal of Consumer Research*, 15, 139–168. doi:10.1086/209154
- Belk, R. W. (1991). The ineluctable mysteries of possessions. In F. W. Rudmin (Ed.), *To have possessions: A handbook of ownership and property*. *Journal of Social Behavior and Personality*, 6, 17–55.
- Blake, P. R., Ganea, P. A., & Harris, P. L. (2012). Possession is not always the law: With age, preschoolers increasingly use verbal information to identify who owns what. *Journal of Experimental Child Psychology*, 113, 259–272. doi:10.1016/j.jecp.2012.06.008
- Blake, P. R., & Harris, P. L. (2009). Children's understanding of ownership transfers. *Cognitive Development*, 24, 133–145. doi:10.1016/j.cogdev.2009.01.002
- Brosnan, S. F. (2011). Property in nonhuman primates. In H. Ross & O. Friedman (Eds.), *Origins of ownership of property*. *New Directions for Child and Adolescent Development*, 132, 9–22. doi:10.1002/cd.293
- Brownell, C. A., Iesue, S. S., Nichols, S. R., & Svetlova, M. (2013). Mine or yours? Development of sharing in toddlers in relation to ownership understanding. *Child Development*, 84, 906–920. doi:10.1111/cdev.12009
- Cram, F., & Ng, S. H. (1989). Children's endorsement of ownership attributes. *Journal of Economic Psychology*, 10, 63–75. doi:10.1016/0167-4870(89)90057-3
- Cunningham, S. J., Vergunst, F., Macrae, C. N., & Turk, D. J. (2013). Exploring early self-referential memory effects through ownership. *British Journal of Developmental Psychology*, 31, 289–301. doi:10.1111/bjdp.12005
- Dunn, J., & Munn, P. (1987). Development of justification in disputes with mother and sibling. *Developmental Psychology*, 23, 791–798. doi:10.1037/0012-1649.23.6.791
- Eisenberg-Berg, N., Haake, R., Hand, M., & Sadalla, E. (1979). Effects of instructions concerning ownership of a toy on preschoolers' sharing and defensive behaviors. *Developmental Psychology*, 15, 460–461. doi:10.1037/0012-1649.15.4.460
- Epstein, R. A. (1978). Possession as the root of title. *Georgia Law Review*, 13, 1221–1243.
- Fasig, L. G. (2000). Toddlers' understanding of ownership: Implications for self-concept development. *Social Development*, 9, 370–382. doi:10.1111/1467-9507.00131
- Friedman, O., & Neary, K. R. (2008). Determining who owns what: Do children infer ownership from first possession? *Cognition*, 107, 829–849. doi:10.1016/j.cognition.2007.12.002
- Friedman, O., Neary, K. R., Defeyter, M. A., & Malcolm, S. L. (2011). Ownership and object history. In H. Ross & O. Friedman (Eds.), *Origins of ownership of property*. *New Directions for Child and Adolescent Development*, 132, 79–89. doi:10.1002/cd.298
- Friedman, O., Van de Vondervoort, J. W., Defeyter, M. A., & Neary, K. R. (2013). First possession, history, and young children's ownership judgments. *Child Development*, 84, 1519–1525. doi:10.1111/cdev.12080
- Furby, L. (1978a). Possession in humans: An exploratory study of its meaning and motivation. *Social Behavior and Personality*, 6, 49–65.
- Furby, L. (1978b). Possessions: Toward a theory of their meaning and function throughout the life cycle. In P. B. Baltes (Ed.), *Life-span*

- development and behavior* (Vol. 1, pp. 297–336). New York, NY: Academic Press.
- Gelman, S. A., & Kremer, K. E. (1991). Understanding natural cause: Children's explanations of how objects and their properties originate. *Child Development, 62*, 396–414. doi:10.1111/j.1467-8624.1991.tb01540
- Gelman, S. A., Manczak, E. M., & Noles, N. S. (2012). The non-obvious basis of ownership: Preschool children trace the history and value of owned objects. *Child Development, 83*, 1732–1747. doi:10.1111/j.1467-8624.2012.01806.x
- Hamlin, J. K., & Wynn, K. (2011). Young infants prefer prosocial to antisocial others. *Cognitive Development, 26*, 30–39. doi:10.1016/j.cogdev.2010.09.001
- Hay, D. F., & Ross, H. S. (1982). The social nature of early conflict. *Child Development, 53*, 105–113. doi:10.2307/1129642
- Hobbes, T. (1985). *Leviathan*. London, UK: Penguin (Original work published 1651)
- Humphrey, N. (1992). *A history of the mind: Evolution and the birth of consciousness*. New York, NY: Simon & Schuster.
- James, W. (1890). *The principles of psychology*. New York, NY: Holt.
- Kalish, C. W., & Anderson, C. D. (2011). Ownership as a social status. In H. Ross & O. Friedman (Eds), *Origins of ownership of property. New Directions for Child and Adolescent Development, 132*, 65–77. doi:10.1002/cd.297
- Kanngiesser, P., Gjersoe, N. L., & Hood, B. M. (2010). Transfer of property ownership following creative labour in preschool children and adults. *Psychological Science, 21*, 1236–1241. doi:10.1177/0956797610380701
- Kanngiesser, P., & Warneken, F. (2012). Young children consider merit when sharing resources with others. *PLoS ONE, 7*, e43979. doi:10.1371/journal.pone.0043979
- Kim, S., & Kalish, C. W. (2009). Children's ascriptions of property rights with changes of ownership. *Cognitive Development, 24*, 322–336. doi:10.1016/j.cogdev.2009.03.004
- Latané, B., & Darley, J. M. (1968). Group inhibition of bystander intervention in emergencies. *Journal of Personality and Social Psychology, 10*, 215–221.
- Locke, J. (1978). Of property. In C. B. MacPherson (Ed.), *Property: Mainstream and critical positions* (pp. 17–27). Toronto, Canada: University of Toronto Press (Original work published 1690)
- Malcolm, S. L., Defeyter, M. A., & Friedman, O. (in press). Children and adults use gender- and age-stereotypes in ownership judgments. *Journal of Cognition and Development*. doi:10.1080/15248372.2012.728545
- Nancekivell, S. E., & Friedman, O. (in press). Preschoolers selectively infer history when explaining outcomes: Evidence from explanations of ownership, liking, and use. *Child Development*. doi:10.1111/cdev.12170
- Neary, K. R., & Friedman, O. (in press). Young children give priority to ownership when judging who should use an object. *Child Development*. doi:10.1111/cdev.12120
- Neary, K. R., Friedman, O., & Burnstein, C. L. (2009). Preschoolers infer ownership from “control of permission.” *Developmental Psychology, 45*, 873–876. doi:10.1037/a0014088
- Neary, K. R., Van de Vondervoort, J. W., & Friedman, O. (2012). Artifacts and natural kinds: Children's judgments about whether objects are owned. *Developmental Psychology, 48*, 149–158. doi:10.1037/a0025661
- Noles, N. S., & Keil, F. C. (2011). Exploring ownership in a developmental context. In H. Ross & O. Friedman (Eds), *Origins of ownership of property. New Directions for Child and Adolescent Development, 132*, 91–103. doi:10.1002/cd.299
- Noles, N. S., Keil, F. C., Bloom, P., & Gelman, S. A. (2012). Children's and adults' intuitions about who can own things. *Journal of Cognition and Culture, 12*, 265–286. doi:10.1163/15685373-12342076
- Nucci, L. (1981). Conceptions of personal issues: A domain distinct from moral or societal concepts. *Child Development, 52*, 114–121.
- Olson, K. R., & Shaw, A. (2011). “No fair, copycat!”: What children's response to plagiarism tells us about their understanding of ideas. *Developmental Science, 14*, 431–439. doi:10.1111/j.1467-7687.2010.00993.x
- Pierce, J., Kostova, T., & Dirks, K. (2003). The state of psychological ownership: Integrating and extending a century of research. *Review of General Psychology, 7*, 84–107. doi:10.1037/1089-2680.7.1.84
- Rakoczy, H., & Schmidt, M. F. (2013). The early ontogeny of social norms. *Child Development Perspectives, 7*, 17–21. doi:10.1111/cdep.12010
- Rochat, P. (2010). The innate sense of the body develops to become a public affair by 2–3 years. *Neuropsychologia, 48*, 738–745. doi:10.1016/j.neuropsychologia.2009.11.021
- Rochat, P. (2011). Possession and morality in early development. In H. Ross & O. Friedman (Eds), *Origins of ownership of property. New Directions for Child and Adolescent Development, 132*, 23–38. doi:10.1002/cd.294
- Ross, H. S. (1996). Negotiating principles of entitlement in sibling property disputes. *Developmental Psychology, 32*, 90–101. doi:10.1037/0012-1649.32.1.90
- Ross, H. S. (2012). Effects of ownership rights on conflicts between toddler peers. *Infancy, 18*, 256–275. doi:10.1111/j.1532-7078.2012.00121.x
- Rossano, F., Rakoczy, H., & Tomasello, M. (2011). Young children's understanding of violations of property rights. *Cognition, 121*, 219–227. doi:10.1016/j.cognition.2011.06.007
- Saylor, M. M., Ganea, P. A., & Vasquez, M. D. (2011). What's mine is mine: Twelve month-olds use possessive pronouns to identify referents. *Developmental Science, 14*, 859–864. doi:10.1111/j.1467-7687.2010.01034.x
- Searle, J. R. (2005). What is an institution? *Journal of Institutional Economics, 1*, 1–22. doi:10.1017/S1744137405000020
- Shantz, C. U. (1987). Conflicts between children. *Child Development, 58*, 283–305. doi:10.2307/1130507
- Shaw, A., Li, V., & Olson, K. R. (2012). Children apply principles of physical ownership to ideas. *Cognitive Science, 36*, 1383–1403. doi:10.1111/j.1551-6709.2012.01265.x
- Snare, F. (1972). The concept of property. *American Philosophical Quarterly, 9*, 200–206.
- Stake, J. E. (2004). The property “instinct.” *Philosophical Transactions of the Royal Society B: Biological Sciences, 359*, 1763–1774.
- Tummolini, L., Scorolli, C., & Borghi, A. M. (2013). Disentangling the sense of ownership from the sense of fairness. *Behavioral and Brain Sciences, 36*, 101–102. doi:10.1017/S0140525X1200088X
- Van de Vondervoort, J. W., & Friedman, O. (2013). *Parallels in preschoolers' and adults' reasoning about ownership rights and bodily rights*. Manuscript under review.
- Warneken, F., Lohse, K., Melis, A. P., & Tomasello, M. (2011). Young children share the spoils after collaboration. *Psychological Science, 22*, 267–273. doi:10.1177/0956797610395392