Ownership Rights *

Shaylene E. Nancekivell, J. Charles Millar, Pauline C. Summers, and Ori Friedman

Department of Psychology, University of Waterloo

Ownership of property is a major influence on people's thought and behavior. Ownership entitles people to use their own property, and prohibits them from using others' property.

For example, as the owner of your car, you are permitted to drive it to the local supermarket, to race it in a demolition derby, or to sell it. But you would probably not do these things to a stranger's car, and you might face criminal charges if you do. Although such effects of ownership are intuitive, there are many open questions about its nature, and these questions have been addressed by philosophers and legal scholars (for an overview see Waldron 2012) and in recent psychological research (for recent reviews see Blumenthal 2010; Nancekivell, Van de Vondervoort, and Friedman 2013).

This chapter mainly focuses on questions about the nature of ownership rights. It is uncontroversial that owners have rights over their property, and even young children have some grasp of ownership rights. For example, two-year-olds attempt to control their own property, and also protest when their ownership rights are violated (Eisenberg-Berg *et al.* 1997; Ross 1996). From age three, children likewise uphold others' ownership rights (Neary and Friedman 2013; Schmidt, Rakoczy, and Tomasello 2013; Rossano, Rakoczy, and Tomasello 2011; also see Kim and Kalish 2009). From ages five and six, children extend their notions of ownership rights to encompass ideas and intellectual property (Olson and Shaw, 2011; Shaw & Olson, 2015; also see

Nancekivell, S. E., Millar, J. C., Summers, P. C., & Friedman, O. (in press). Ownership rights. In J. Sytsma & J. W. Buckwalter (Eds.), *A companion to experimental philosophy*. Malden, MA: Wiley-Blackwell.

^{*} This is the penultimate draft of the following chapter:

Shaw, Li, and Olson 2012). However, many questions remain about the nature and basis of these rights: Which rights does ownership confer? Are ownership rights specific to ownership, or do they reflect moral principles that apply more broadly? Are ownership rights inventions of law, and culture more generally, or do they have a more natural basis? We review recent studies that help answer these questions.

17.1 Which Rights Does Ownership Confer?

Which rights do owners have? An influential account holds that owners have three primary rights in regards to their property – the rights of Use, Exclusion, and Transfer. In a version of the account formulated by the philosopher Frank Snare (1972), the Right of Use entitles owners to use their property; the Right of Exclusion prohibits nonowners from using owned property without its owner's consent; and the Right of Transfer entitles owners to transfer ownership of property to others. Snare's account has been relatively influential in discussions of the psychological representation of ownership rights (e.g., Bertram 2013; Hook 1993; Jackendoff 1992; Miller and Johnson-Laird 1976).

However, there are alternatives to the tripartite account. One alternative is that people view ownership as conferring *more* than three rights. For instance, people may hold that different uses of objects (e.g., modifying, holding, occupying, destroying) are each made possible through separate rights, rather than all uses being encompassed by a single "Right of Use" as proposed by Snare's tripartite account (e.g., Ross 1996).²

Alternatively, people might conceive of ownership as conferring *fewer* than the three rights outlined by Snare (1972). Some theorists posit that the Right of Exclusion is the primary right of ownership (Cohen 1954; Merrill 1998) and so perhaps people understand ownership to confer this right only. Or people might view ownership as conferring a single right that gives

owners absolute authority to decide what happens to their property (Blumenthal 2010). This "absolutist" view of ownership is often traced to the following quote from the legal theorist William Blackstone (1765–1769/1979): "There is nothing which so generally strikes the imagination, and engages the affections of mankind, as the right of property; or that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe."

A recent study helps discriminate between these three kinds of accounts – tripartite account, many-rights account, single-right account (Nancekivell and Friedman 2014). In a first experiment, preschool-aged children were shown an object and an agent, and were asked to list all the ways the agent could use the object. Children were either told that the agent owned the object, or that the object instead belonged to someone else. As expected, children's responses differed between these two conditions. Children listed many object uses when the agent owned the object, but not when the object belonged to someone else. Instead, children in that condition typically said the agent should return the object to its owner. These findings provide indirect evidence against the possibility that people conceive of ownership as conferring a large set of different rights. If people viewed ownership this way, children might be expected to learn about these rights gradually and in a piecemeal fashion, and so young children might only be aware of a few permissible object uses. Against this prediction, young children listed *many* ways that owned property could be used.

However, the findings are uninformative about whether children's conceptions of ownership are better explained by the tripartite account or the single-right account. Children's responses depended on whether the object belonged to the agent or to someone else. But this difference could result from children basing responses on *both* the Rights of Use and Exclusion,

or from children basing responses on just *one* of these rights, as might be expected if ownership is viewed as conferring only a single right.³ For instance, children might have provided more uses when the object belonged to the agent because they reasoned that the agent was entitled to use the property in many ways (Right of Use); alternatively, they might have provided few uses when the object belonged to someone else because they reasoned that this would restrict the agent from using the object (Right of Exclusion).

To better distinguish between these possibilities, a similar follow-up experiment included a new condition in which the object was nonowned. Adding this condition allows for a more fine-grained test because the Rights of Use and Exclusion do not apply to nonowned object (i.e., they apply only to owned objects). With this new condition in place, it is possible to test a separate prediction about each right. If children's reasoning involves the Right of Use, they should view the agent as more entitled to use the object when it belongs to her compared with when it is nonowned. If children's reasoning involves the Right of Exclusion, they should view the agent as less entitled to use the object when it belongs to someone else compared with when it is nonowned. Of course, both predictions could be met, which would suggest that children view ownership as conferring both rights.

Children listed many object uses when the object belonged to the agent and when it was no one's, but fewer when it belonged to someone else. These findings conflict with the claim that children view ownership as conferring the Right of Use (i.e., because children viewed the agent as equally entitled to use personally owned and ownerless objects). As such, the findings conflict with a basic claim of the tripartite account (i.e., that ownership confers the Right of Use), and also cast doubt on the many-rights account. However, the finding that children offered fewer object uses when the object belonged to someone else than when it was nonowned is consistent

with the possibility that children view ownership as conferring the Right of Exclusion, or some other principle restricting use of other's property. Further evidence for this is that children often remarked that using someone else's property is prohibited. This is striking because children were only asked what the agent could do with the objects, and were not asked to say what the agent could not do. In sum, the findings suggest that children might view ownership as conferring fewer rights than suggested by the tripartite account, and perhaps just a single right.

17.2 Specificity of Ownership Rights

The term "ownership rights" suggests that there are certain rights that are *specific* to owners and their property, and which do not apply to other kinds of things. This specificity is also implied by accounts of ownership rights to the extent that they frame ownership rights as applying to property, rather than applying to other kinds of things also. Such specificity might be expected if ownership is a system of rules developed – either as a cultural invention or as an evolutionary adaptation – to govern and regulate access to objects and resources. If ownership rights exist to regulate owned property, it should be little wonder that they are specific to owned property.

But perhaps this is incorrect. Instead, conceptions of ownership rights might reflect *broader* principles not specific to ownership. Some theories suggest that ownership rights and bodily rights may share a common basis (Locke 1690/1978; Humphrey 1992; Neary and Friedman 2013), and so there may be no difference between the rights that people have over their bodies and the rights they have over their property.⁴ On such accounts, using a stranger's comb is impermissible for the same reason that it is normally impermissible to touch a stranger's hair; likewise people may be entitled to make decisions about their own property for the same reason they are entitled to make decisions about their bodies.

For instance, judgments in both domains (ownership rights; bodily or personal rights) might depend on a common principle that people have *autonomy* over their bodies and property – they are entitled to decide what happens to these things, and others are prohibited from interfering with these things. Similar notions are expressed by claiming that people have a "personal domain," wherein they can make choices free from external regulation (e.g., Nucci 1981 2014; Nucci, Killen and Smetana 1996), at least if this domain is assumed to encompass people's bodies and their property. This "autonomy" account is also broadly consistent with claims that people have a right to be free (Hart 1955) or are conceived as having a single right to determine what happens to their property (Blumenthal 2010). But rather than positing separate rights applying to owned property and body rights, a single right might apply to both.

Other accounts of a common factor underlying ownership rights and bodily rights are also possible. For instance, people can be viewed as having "negative" rights (i.e., rights that protect them from external interference; Berlin 1958), and such rights can be viewed as applying to both bodies and owned property. Indeed, the claim that owners have a Right of Exclusion (Snare 1972) may be tantamount to saying that owners have negative rights over their property (i.e., because this right prohibits property from being used by nonowners).

Regardless of the specific account, findings from three lines of research support are broadly consistent with claims that conceptions of ownership rights depend on principles that also apply to bodies. We review these three lines of research in turn.

17.2.1 Harmless Actions

Harmless actions are typically permissible, but there are obvious exceptions to this. For example, although it is perfectly acceptable to look through your own diary or to comb your own hair, doing these things to a stranger's diary or hair may be unacceptable without permission. Such

examples suggest that similar principles might underlie judgments about the acceptability of harmless actions involving owned property (e.g., the diary) and bodies (e.g., the hair). If this is correct, judgments about both kinds of items might be similarly affected by other variables. A few studies have examined this.

In one study, four-year-olds and adults considered stories in which a boy acted on owned property and body parts (Van de Vondervoort and Friedman 2015). These "targets" of the boy's action either belonged to the boy himself or to a girl. Stories also varied in whether the girl approved of the boy's action or not. For example, in one story version, the boy combed the hair of a doll belonging to the girl, with the girl's approval; in another version, the boy combed his own hair, even though the girl disapproved. Participants at both ages showed the same pattern of findings in evaluating the acceptability of the boy's actions: His actions were always acceptable when the girl approved. However, when she disapproved, participant's judgments varied depending on who the target belonged to – his actions were less acceptable when he acted on the girl's property or body compared with when he acted on his own. Because the same response patterns were found for actions targeting body parts and owned objects, the findings suggest that common (or at least similar) principles apply to both kinds of items.

In three further studies, young children judged whether harmless actions require permission to be acceptable, or whether such actions are impermissible if they occur without permission (Van de Vondervoort, Meinz, and Friedman, under review). These studies found that from age four, these judgments depend on whether actions require physical contact with a target (e.g., touching it, moving it) or do not require contact (e.g., drawing it, thinking about it). Children were more likely to say that actions required permission, and would be unacceptable without it, when the actions required physical contact compared with when they did not. But as

before, this pattern occurred regardless of whether the actions occurred in relation to owned property or body parts. These findings again suggest that common principles underlie judgments about ownership rights and bodily rights, at least in relation to harmless actions.

17.2.2 Harmful Actions

If judgments of ownership rights depend on the same principles as judgments about bodily rights, then people should also make similar judgments for both kinds of items when considering *harmful* actions. For instance, there should be similarities in how people reason about breaking a person's arm or breaking the window of someone's car. One way of investigating this is to examine whether people show similar patterns of moral decision making when considering moral dilemmas involving property damage and dilemmas involving harm to humans.

People's moral decision making is often investigated by having people make judgments on variants of the *trolley problem* (Foot 1967; Thomson 1985). This moral dilemma concerns a situation where an agent can save five people from being crushed by an oncoming trolley by causing the death of a sixth person. In one version of the dilemma, the agent can save the five people by pushing the sixth person into the path of the trolley, stopping the trolley. In another version, the agent can instead save the five by pulling a *switch* to redirect the trolley onto a side track, where it will then kill the sixth person. Although both scenarios feature the same overall trade-off (five people can be saved if a sixth person dies), most people judge sacrificing the sixth person to be more acceptable in the *switch* version of the dilemma than in the *push* dilemma (Cushman, Young, and Hauser 2006; Petrinovich, O'Neill, and Jorgensen 1993). This difference may occur because people have a strong aversion to directly harming someone as a means to an end (e.g., Cushman and Greene 2012; Royzman and Baron 2002). Such harm occurs in the push scenario (i.e., the person is pushed as a means to save the other five people), preventing people

from favoring the overall beneficial trade-off in this scenario. In contrast, this aversion is not triggered in the *switch* scenario, because there the harm occurs indirectly as a side effect (for an overview of explanations of this effect, see Waldmann, Nagel, and Wiegmann 2012).

A recent study examined whether people also have an aversion to harming *property* as a means to an end (Millar, Turri, and Friedman 2014). Because human lives are valuable and cannot be restored, the dilemmas involved highly valuable and irreplaceable property.

Participants considered scenarios where spilled bleach will flow onto five priceless tapestries and destroy them, unless an agent prevents this outcome by sacrificing a sixth tapestry. All six tapestries belonged to different individuals. Participants either read versions of the scenario where the agent could destroy the sixth tapestry as a means to an end (i.e., using it to soak up the bleach before it reached the other five tapestries) or where it could be indirectly destroyed as a side effect (i.e., the bleach could be redirected from the five tapestries, and toward the sixth).

Analogous to judgments regarding harm to people, participants judged it less acceptable to sacrifice the sixth tapestry when it was directly destroyed as a mean than when it was indirectly destroyed as a side effect. This finding suggests that people reason similarly about *harmful* actions involving owned property and bodies, and is therefore consistent with the possibility that common moral principles underlie judgments about ownership rights and bodily rights.

This study also included scenarios in which the sixth tapestry belonged to the agent.

Because it was the agent who decided whether to sacrifice the tapestry, these versions of the scenarios did not involve a potential violation of ownership rights (i.e., agents cannot violate their own ownership rights). In these versions of the dilemmas, participants judged the sacrifice acceptable regardless of whether it occurred as a means or as a side effect. This suggests that for

property damage, the distinction between means and side effects depends on whether property damage occurs in accordance with the owner's will. Similar findings might occur for physical harm to human victims – people might judge it acceptable for a person to sacrifice his own life to save five others, even if he could only accomplish this directly as a means to an end (e.g., by throwing himself in front of a trolley). If so, then judgments in both kinds of dilemmas may depend on a common principle protecting people's property and bodies against direct interference, and harm, from others.

17.2.3 Responsibility

In addition to assigning rights to owners, ownership may have further moral importance by making owners responsible for harm caused by their property. For instance, if an old, termite-infested tree falls into the road and damages a car, people may be more likely to blame the tree's owner than a neighbor. However, such increased responsibility could also arise for other reasons – rather than hinging on ownership, it might instead depend on factors closely associated with it. For example, the owner of a hazardous object is often the person most likely to know the danger it poses, and also the person most able to prevent it. So perhaps these factors, rather than ownership itself, drive ascriptions of responsibility when property causes harm.

Discovering whether responsibility is conferred by ownership (i.e., and not just by factors associated with it) may be informative about whether judgments about bodily rights and ownership rights have a common basis. People are responsible for harm they directly cause (i.e., via their bodies), and so if owned property is viewed similarly, people should likewise be held responsible for harm enacted through the actions of owned property. In contrast, if people conceive of ownership as conferring rights like the *Right of Use* and the *Right of Exclusion*, then there is little reason to expect responsibility to depend on ownership itself (i.e., though

ownership could still be indirectly linked with heightened responsibility because it is associated with factors that might drive ascriptions of responsibility).

Summers and Friedman (in preparation) examined whether responsibility for harm caused by an object depends on ownership or instead only on factors typically associated with ownership (i.e., increased knowledge of the hazard posed by an object; increased opportunity to prevent the harm). Participants read brief vignettes in which an agent did not prevent an object from causing harm, and that object either belonged to the agent or it did not. Participants ascribed more blame to the agent when the agent owned the object. This occurred even when the two versions of the vignette were matched in the agent's knowledge state – both when the agent knew about the hazard posed by the object, and when the agent did not know about the hazard (and could not have easily foreseen it). A further study found that ownership affected blame even when the owner and nonowner were equally permitted to prevent harm (i.e., both were permitted to have a hazardous tree cut down). However, the effect of ownership disappeared, when the agent was not allowed to prevent harm (e.g., a law prohibited anyone, including owners, from cutting down hazardous trees). This restriction on the ability of owners to determine what happens to their property may have diminished the sense that the agent actually owned the object. So this finding is consistent with the conclusion that ownership instills responsibility for property's actions.

These findings suggest that ownership confers responsibility for harm caused by objects, and that this responsibility does not just follow from factors that typically co-occur with ownership (greater knowledge; greater entitlement to intervene on object). Even when nonowners were matched with owners in knowledge and the ability to prevent harm, owners were ascribed more blame for harm caused by objects. These findings are consistent with the

view that people reason similarly about moral events involving people's bodies and their property (though direct comparisons are needed), a view that follows from the claim that common principles underlie people's judgments about ownership rights and bodily rights. All of these findings might be explained if people are viewed as having autonomy over their bodies and property: An owner may be judged more blameworthy because the object is perceived as acting on the owner's behalf, or enacting the owner's will, making the outcome appear more deliberate or direct. To the extent that the owner's autonomy encompasses the property's actions, the blame for the outcome is transferred from the property back onto the owner. Although there has not yet been a direct comparison of people's judgments of responsibility for these two kinds of items, the findings from these studies on responsibility provide converging evidence that people's intuitive moral theories about ownership may be based in notions of autonomy.

17.3 The Origins of Ownership

So far we have considered which rights owners have, and the specificity of these rights to property ownership. The final question we consider concerns the *origins* of ownership, both in human history and in individual development. On one view, ownership is a product of human culture and law, (e.g., Bentham 1802/1911; Hobbes 1651/1985; Searle 2005), perhaps invented to regulate the use of objects and resources and to minimize conflicts over them. This view of ownership likewise has implications about how children come to understand ownership. If ownership is a cultural invention then children can only learn about it through cultural transmission – by interacting with, and learning from, others who have already acquired their culture's ownership rules.

Alternatively, ownership could have a more natural, pre-cultural, basis (e.g., Nozick 1974). This account also makes predictions about how children come to understand ownership. If

ownership has a pre-cultural basis then cultural input should not suffice to explain how children come to understand ownership. Nativist versions of this account suggest that notions of ownership are the products of evolution, and might be continuous or analogous with territorial behavior in animals (e.g., Ellis 1985; Stake 2004). However, non-nativist accounts holding that ownership is "natural" are also possible. For example, children's notions of ownership might develop through their negotiations over objects with their peers (i.e., even if their peers were also initially ignorant of ownership) (Ross, Conant, and Vickar 2011). Likewise, children could come to beliefs about ownership by extending their notions of bodily rights to owned property – this assumes that children's notions of bodily rights are more basic than their notions of ownership rights.

It is difficult to discover whether ownership is a cultural invention, and whether cultural transmission is chiefly responsible for children's understanding of ownership rights.
Nonetheless, several findings give reason to doubt it is a cultural invention, though none provides anywhere near conclusive evidence. One reason to doubt that cultural transmission suffices to explain children's understanding of ownership is that in disputes over property, young children give ownership rights more weight than do adults. When siblings aged two and four years fight over a toy, the owner typically prevails, even though parents only support the owner at chance levels, and are equally likely to instead side with a nonowner who happens to already be playing with the toy (Ross 1996). These findings are mirrored when children and adults make judgments about fictional disputes over owned property (i.e., disputes in which they are not actually involved). Children again judge that owners should get to use their property, whereas adults often side with nonowners who are using the property to complete a goal. Such findings are opposite to what should be expected if children's appreciation of ownership rights and their

importance primarily stem from adult input (see Bertram 2013, p. 420 for related discussion). Instead, such input would be expected to lead children to give ownership rights less weight in disputes, and to give more weight to other principles of entitlement (e.g., entitlement to use an object to complete a goal). Admittedly, such findings are inconclusive because there are many other ways that this information about ownership could be culturally transmitted to children (i.e., besides learning from parental interventions in property disputes).

Further findings casting doubt on the view that ownership is a cultural invention come from some of the studies discussed. If ownership were a cultural invention, it might be expected that ownership rights would be a series of rules outlining what can be done with property.

Instead, we reported evidence suggesting that children represent ownership rights using just a few broad principles. Similarly, if ownership were a cultural invention, it might be expected that ownership rights would be specific to ownership. Opposite to this, we reviewed findings suggesting that ownership rights depend on more general moral principles that also apply to bodies. This said, such findings could be accommodated by an account holding that ownership rights are a cultural invention. For example, the rules or principles invented to govern people's behavior in relation to objects (in our culture at least), could have been closely based on existing principles underlying notions of bodily rights.

17.4 Conclusion

We reviewed evidence regarding how people conceive of ownership rights by examining three questions. First, we asked which rights ownership is assumed to confer, and suggested that people may view ownership as conferring just a single right (or at least fewer rights than claimed by the tripartite account of ownership rights; Snare 1972). Second, we asked whether ownership rights reflect rules or principles specific to ownership, and suggested that these rights might

instead be more general – they might reflect rules and principles that also apply to people's bodies. Third, we asked about the origins of ownership rights, and suggested that rather than being a cultural invention, ownership rights might have a more natural basis. Although these three conclusions can be viewed as separate from one another, they can also be united, because all three are broadly consistent with the possibility that people's notions of ownership stem from the belief that individuals are entitled to make decisions about what happens to themselves and their property.

Notes

¹ These findings mainly come from studies of people in Western cultures, as do the remaining findings we review in this chapter. As such, there is no guarantee that the findings would extend to people from other cultures. This acknowledged, the few studies examining reasoning about ownership cross-culturally have typically found correspondences across cultures (Kanngiesser, Itakura, and Hood 2014; Rochat *et al.* 2014; Yang *et al.* 2014), though some cultural differences have also emerged.

² This fractionated way of viewing ownership rights is broadly consistent with "bundle of rights" accounts of ownership, which are the dominant view of ownership rights in property law. These accounts posit that ownership confers a variety of different rights, many of which permit very specific kinds of use (e.g., Alchian and Demsetz 1973; Blumenthal 2010; Honoré 1961). However, it is unlikely that people's views of ownership fit with some of the other claims of these accounts. For example, such accounts posit that no right is more essential to ownership than any other, and that because different rights to a single thing can be held by different people or institutions, it is senseless to identify any single party as the owner.

³ We do not discuss the *Right of Transfer* here because children rarely gave responses that clearly implied that the owner could transfer ownership of the object. For example, when children said the agent could give the object to someone else, it is difficult to know whether they meant that ownership would be transferred (i.e., instead they might mean that the agent can let someone borrow the item). See Blake and Harris 2009 and Friedman and Neary 2008 for studies on children's appreciation that owners can transfer property.

⁴ Various nuanced versions of this claim are possible. For example, people might have many different rights in regards to their bodies, and some subset of these rights might also apply to their property.

⁵ See Bertram 2013 for an excellent overview of the debate about the origins of ownership.

References

Alchian, Armen A., and Harold Demsetz. 1973. The Property Right Paradigm. *The Journal of Economic History*, 33: 16–27. DOI: 10.1017/s0022050700076403.

Bentham, Jeremy. 1911. Objects of the Civil Law. In *Theory of Legislation*, translated by Jeremy Bentham and R. Hildreth, 93–157. London, England: Kegan Paul, Trench, Trubner & Company. (Original work published in 1802).

Berlin, Isaiah. 1969. Two Concepts of Liberty. In *Four Essays on Liberty*, 118-172. London: Oxford University Press

Bertram, Christopher. 2013. Property in the Moral Life of Human Beings. *Social Philosophy and Policy* 30: 404–424. DOI: 10.1017/s0265052513000198.

Blackstone, William. 1979. Commentaries on the Laws of England, Volume 2. A Facsimile of the First Edition of 1765-1769. Chicago: University of Chicago Press. (Original work published 1765-1769).

Blake, Peter R., and Paul L. Harris. 2009. Children's Understanding of Ownership Transfers. Cognitive Development 24: 133–145. DOI: 10.1016/j.cogdev.2009.01.002 Blumenthal, Jeremy. A. 2010. Property Law: A Cognitive Turn. *Psychonomic Bulletin & Review* 17: 186–191. DOI: 10.3758/pbr.17.2.186

Cohen, Felix. 1954. Dialogue on Private Property. Rutgers Law Review 9: 357–387.

Cushman, Fiery, and Joshua D. Greene. 2012. Finding Faults: How Moral Dilemmas Illuminate Cognitive Structure. *Social Neuroscience* 7: 269–279. DOI: 10.1080/17470919.2011.614000.

Cushman, Fiery, Liane Young, and Marc Hauser. 2006. The Role of Conscious Reasoning and Intuition in Moral Judgment Testing Three Principles of Harm. *Psychological Science* 17: 1082–1089. DOI: 10.1111/j.1467-9280.2006.01834.x.

Eisenberg-Berg, N., Robert Haake, Michael Hand, and Edward Sadalla. 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.

Ellis, Lee. 1985. On the Rudiments of Possessions and Property. *Social Science Information* 24: 113–143. DOI: 10.1177/053901885024001006.

Friedman, Ori, and Karen R. Neary. 2008. Determining Who Owns What: Do Children Infer Ownership from First Possession? *Cognition* 107: 829–849. DOI: 10.1016/j.cognition.2007.12.002.

Foot, Philippa. 1967. The Problem of Abortion and the Doctrine of Double Effect. *Oxford Review* 5: 5–15. DOI: 10.1093/0199252866.003.0002.

Hart, Herbert. L. A. 1955. Are There Any Natural Rights? *The Philosophical Review* 64: 175–191.

Hobbes, Thomas. 1985. Leviathan. London: Penguin. (Original work published in 1651).

Honoré, Anthony M. 1961. Ownership. Oxford Essays in Jurisprudence 107: 107–147.

Hook, Jay. 1993. Judgments about the Right to Property from Preschool to Adulthood. *Law and Human Behavior* 17: 135–146. DOI: 10.1007/bf01044542.

Humphrey, Nicholas. 1992. A History of the Mind: Evolution and the Birth of Consciousness. New York: Simon & Schuster.

Jackendoff, Ray. S. 1992. Languages of the Mind. Cambridge, MA: MIT Press.

Kanngiesser, Patricia, Shoji Itakura, and Bruce M. Hood. 2014. The Effect of Labour on Ownership Decisions in Two Cultures: Developmental Evidence from Japan and the United Kingdom. *British Journal of Developmental Psychology* 32: 320–329. DOI: 10.1111/bjdp.12043.

Kim, Sunae, and Charles W. Kalish. 2009. Children's Ascriptions of Property Rights with Changes of Ownership. *Cognitive Development* 24: 322–336. DOI: 10.1016/j.cogdev.2009.03.004.

Locke, John. 1978. Of Property. In *Property: Mainstream and Critical Positions*, edited by C.B. MacPherson, 17–27. Toronto: University of Toronto Press. (Original work published in 1690).

Merrill, Thomas W. 1998. Property and the Right to Exclude. *Nebraska Law Review* 77: 730–755.

Millar, J. Charles, John Turri, and Ori Friedman. 2014. For the Greater Goods? Ownership Rights and Utilitarian Moral Judgment. *Cognition* 133: 79–84. DOI: 10.1016/j.cognition.2014.05.018.

Miller, George A., and Philip N. Johnson-Laird. 1976. *Language and Perception*. Cambridge, MA: Harvard University Press.

Nancekivell, Shaylene E., andOri Friedman. 2014. Mine, Yours, No-one's: Children's Understanding of How Ownership Affects Object Use. *Developmental Psychology* 50: 1845–1853. DOI: 10.1037/a0036971.

Nancekivell, Shaylene E., Julia. W. Vondervoort, and Ori Friedman. 2013. Young Children's Understanding of Ownership. *Child Development Perspectives* 7: 243–247. DOI: 10.1016/j.cogdev.2013.09.003.

Neary, Karen R., and Ori Friedman. 2013. The Origin of Children's Appreciation of Ownership Rights. In *Navigating the Social World: What Infants, Children, and Other Species Can Teach Us*, edited by Mahzarin R. Banaji and Susan A. Gelman, 356–360. New York: Oxford University Press.

Nozick, Robert. 1974. Anarchy, State, and Utopia. New York: Basic Books.

Nucci, Larry. 1981. Conceptions of Personal Issues: A Domain Distinct from Moral or Societal Concepts. *Child Development* 52: 114–121. DOI: 10.2307/1129220.

Nucci, Larry. 2014. The Personal and the Moral. In *Handbook of Moral Development*, 2nd edition, edited by Melanie Killen and Judith G. Smetana, 538–558. New York: Psychology Press.

Nucci, Larry, P., Melanie Killen, and Judith. G. Smetana. 1996. Autonomy and the Personal: Negotiation and Social Reciprocity in Adult-Child Social Exchanges. *New Directions for Child and Adolescent Development* 73: 7–24. DOI: 10.1002/cd.23219967303.

Olson, Kristina R., and Alex Shaw. 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.

Petrinovich, Lewis, Patricia O'Neill, andMatthew Jorgensen. 1993. An Empirical Study of Moral Intuitions: Toward an Evolutionary Ethics. *Journal of Personality and Social Psychology* 64: 467–478. DOI: 10.1037//0022-3514.64.3.467.

Rochat, Philippe, Erin Robbins, Claudia Passos-Ferreira, Angelo D. Oliva, M. D. Dias, and L. Guo. 2014. Ownership Reasoning in Children across Cultures. *Cognition* 132: 471–484. DOI: 10.1016/j.cognition.2014.04.014.

Ross, Hildy 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., Cheryl Conant, and Marcia Vickar. (2011). Property Rights and the Resolution of Social Conflict. *New Directions for Child and Adolescent Development* 132: 53-64. DOI: 10.1002/cd.296

Rossano, Federico, Hannes Rakoczy, and Michael Tomasello. 2011. Young Children's Understanding of Violations of Property Rights. *Cognition* 121: 219–227. DOI: 10.1016/j.cognition.2011.06.007.

Royzman, Edward B., and Jonathon Baron. 2002. The Preference for Indirect Harm. *Social Justice Research* 15: 165–184. DOI: 10.1023/A:1019923923537.

Schmidt, Marco F.H., Hannes Rakoczy, and Michael Tomasello. 2013. Young Children Understand and Defend the Entitlements of Others. *Journal of Experimental Child Psychology* 116: 930–944. DOI: 10.1016/j.jecp.2013.06.013.

Searle, John R. 2005. What Is an Institution? *Journal of Institutional Economics* 1: 1-22. DOI: 10.1017/S1744137405000020.

Shaw, Alex, Li, Vivian, and Kristina R. Olson. 2012. Children Apply Principles of Physical Ownership to Ideas. *Cognitive Science* 36: 1383–1403. DOI: 10.1111/j.1551-6709.2012.01265.x.

Shaw, Alex, and Kristina R. Olson. (2015). Whose Idea Is It Anyway? The Importance of Reputation in Acknowledgement. *Developmental Science* 18: 502-509. DOI: 10.1111/desc.12234.

Snare, Frank. 1972. The Concept of Property. *American Philosophical Quarterly*, 9: 200–206.

Stake, Jeffrey E. 2004. The Property "Instinct." *Philosophical Transactions of the Royal Society B: Biological Sciences* 359: 1763–1774. DOI: 10.1098/rstb.2004.1551.

Summers, Pauline C., and Ori Friedman. (in preparation). Beyond Ownership Rights: Owners Are Blamed for Harm Caused by Their Property.

Thomson, Judith, J. 1985. The Trolley Problem. Yale Law Journal 94: 1395–1415.

Van de Vondervoort, Julia, W., Paul Meinz, andOri Friedman. (under review). How Young Children Judge Whether Harmless Actions Are Acceptable.

Van de Vondervoort, J. W., and O. Friedman (2015). Parallels in Preschoolers' and Adults' Judgments about Ownership Rights and Bodily Rights. *Cognitive Science* 39: 184-198:. DOI: 10.1111/cogs.12154.

Waldmann, Michael R., John Nagel, and Alex Wiegmann. (2012). Moral Judgment. In *The Oxford Handbook of Thinking and Reasoning*, edited by Keith J. Holyoak and Robert G. Morrison, 364–389. New York: Oxford University Press.

Waldron, Jeremy. (2012). Property and Ownership. In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta. Accessed April 8 2014.

http://plato.stanford.edu/archives/spr2012/entries/property/

Yang, F., Shaw, A., E. Garduno, and K. R. Olson. 2014. No One Likes A Copycat: A Cross-Cultural Investigation of Children's Response to Plagiarism. *Journal of Experimental Child Psychology* 121: 111–119. DOI:10.1016/j.jecp.2013.11.008.