

## People's Judgments About Classic Property Law Cases

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**Abstract** People's judgments about property shape how they relate to other people with respect to resources. Property law cases can provide a valuable window into ownership judgments because disputants often use conflicting rules for ownership, offering opportunities to distinguish these basic rules. Here we report a series of ten studies investigating people's judgments about classic property law cases dealing with found objects. The cases address a range of issues, including the relativity of ownership, finder versus landowner rights, object location, objects below- versus above-ground, mislaid versus lost objects, contracts between landowners and finders, and the distinction between public and private space. The results show nuanced patterns in ownership judgments that are not well-explained by previous psychological theories. Also, people's judgments often conflict with court decisions and legal principles. These empirical patterns can be used to generate and test novel hypotheses about the intuitive logic of ownership.

**Keywords** Property · Ownership · Property law · Property disputes · Finders

Deciding who owns what can be complicated. Consider a person who walks into a shop and finds an envelope full of cash on the floor. Despite the person's best efforts, the original owner cannot be located. The finder wants to keep the money but the shopkeeper thinks it belongs to them. Who is the owner—the finder or the shopkeeper? Would the decision be different if the money was found on a countertop instead of the floor?

Legal professionals rely on principles and precedents to resolve these conflicts. However, little is known about how people outside of the legal profession make decisions about property disputes. Here we report a series of studies looking at people's

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judgments about ten classic property law cases. We focus on cases involving found objects and finder-landowner disputes. Our aim is to produce a descriptive dataset to document patterns in ownership judgments that require psychological explanation.

## The Ownership Strategy

The concept of ownership plays a key role in human social life. In many non-human animals, an individual's access to resources depends primarily on their physical ability to take and defend valuable goods (Arnott and Elwood 2009). In human communities, people's access to resources depends not only on power but also on the group's recognition that particular people own particular objects. It is this striking departure from "might makes right" that poses longstanding philosophical questions about ownership (Hobbes 1651; Hume 1740; Locke 1689). By undermining power, the concept of property shapes how resources are allocated in human societies. Moreover, property rules vary across different societies, and this causes cultural variation in how wealth is distributed (Alchian and Demsetz 1973; De Soto 2000; Demsetz 1967; Ellickson 1991; North 1981; Ostrom 1990).

Researchers have uncovered a variety of psychological mechanisms underlying the notion of property. People value the objects they own more than identical objects owned by other people, showing an *endowment effect* (Kahneman et al. 1991; Jones and Brosnan 2008). People also remember objects that they own better than other people's objects (Cunningham et al. 2008, 2010; van den Bos et al. 2010). People use inference rules to determine ownership, such as first possession (Friedman 2008; Friedman and Neary 2008), investment of labor (Hook 1993; Kanngiesser et al. 2010), and giving permission to use the item (Neary et al. 2009). Research has also shown systematic intuitions in adults and children about property transfers, such as buying, borrowing, and gift-giving (Blake and Harris 2009; Kim and Kalish 2009; Olson and Shaw 2011; Weisbord and DeScioli 2010). Finally, experiments using economic games show that people spontaneously create property conventions that are critical for specialization and trade (Kimbrough 2011; Kimbrough et al. 2008, 2010).

Theories about the functions of ownership help explain these empirical observations. Several researchers have proposed that ownership can be understood as a strategy for minimizing the costs of disputes over resources (Gintis 2007; Krier 2009; Stake 2004). These accounts draw on a classic theory from evolutionary biology that shows how evolution can favor individuals who respect property conventions, such as prior possession (Maynard Smith 1982). Maynard Smith demonstrated that the *bourgeois strategy*, in which animals fight when they are the first to arrive at a resource and flee when they arrive second, can be stable relative to alternative strategies such as always fighting or always fleeing. This model shows that individuals can gain an advantage by respecting property conventions, even if those conventions are independent of physical power. Empirical evidence for this strategy has been found in a variety of non-human animals (reviewed in Kokko et al. 2006). The model has also been tested in humans using an economic game in which participants compete for monetary rewards, and the results show that people spontaneously create property rules to resolve potentially costly fights (DeScioli and Wilson 2011).

Although the ownership strategy occurs in some non-human animals, humans have more complex ownership conventions (Brosnan 2011). Humans exploit a diversity of resources across different ecologies and also create a wide variety of tools and artifacts. This multiplicity of resources might have caused humans to evolve the ability not only to use property conventions but also to create novel conventions for managing new resource disputes. These cognitive systems could include a mental toolbox of property conventions, such as rules based on first possession, labor, maintenance, or trade. When new resource disputes arise, these systems apply the most relevant rule. This flexibility might explain the diversity of property rules across cultures as well as the occurrence of property disputes between individuals.

## Ownership Disputes

People usually agree on who owns what despite the vast number of objects embedded in society. Yet sometimes people strongly disagree about ownership. To return to the opening example, some people think that a finder should keep money left in a shop but other people think the money belongs to the shopkeeper (see Study 2). From a psychological perspective, what explains how different individuals presented with the same events can come to different conclusions about ownership?

We suggest that people apply multiple criteria to determine ownership, and these different rules can come into conflict. As discussed above, people might have a mental toolbox of basic property rules that allows them to apply ownership strategies to novel resources. Each property rule generates a distinct ownership intuition—an unconscious inference that assigns an object to an owner. This is analogous to other psychological systems, such as those involved in vision (Purves and Lotto 2003), language (Pinker 1994), or moral cognition (DeScioli and Kurzban 2009a, 2013; Haidt 2001), in which people experience the output of the information-processing mechanisms (e.g., the color red or a judgment of moral wrongness) with limited or no access to the underlying inference rules that cause these experiences. Importantly, if these basic property rules are not mutually exclusive, then property dilemmas can arise in unusual cases in which two or more property rules yield opposing ownership conclusions.

This account of property disputes points to an empirical approach for understanding ownership intuitions. It suggests that for any given property dispute there are at least two conflicting ownership intuitions. Hence, by investigating property dilemmas, researchers can uncover the basic set of property rules underlying the human sense of ownership. A complete psychological theory of ownership will posit a set of basic rules that can account for the different types of property disputes observed in human societies.

Property law can offer a valuable source of empirical observations about ownership disputes. Legal records provide a catalogue of common and persistent disagreements about ownership. Classic property law cases offer a set of property dilemmas that can be used as stimuli for psychological testing. However, few previous studies have examined judgments about property law cases. Friedman (2008, 2010) studied people's judgments concerning *Pierson v. Post*, a case in which Post was hunting a fox when Pierson killed it. Most participants judged that Pierson was the owner of the fox, consistent with the legal rationale that pursuit is not sufficient to establish property rights.

## The Need for Description in the Psychology of Property Dilemmas

A critical first step in understanding property judgments is descriptive: documenting patterns in ownership judgments that require explanation. Rozin (2001) argued that description is particularly important in new research areas but is often neglected in social psychology—more so than in other sciences such as biology and physics in which description is highly valued (e.g., decoding the genome, mapping extrasolar planets). Rozin quoted Asch: “Before we inquire into origins and functional relations, it is necessary to know the thing we are trying to explain” (quoted in Rozin 2001:2).

Indeed, description has proved particularly valuable in research at the intersection of psychology and law. For example, Robinson and Darley (1995) examined lay people’s judgments about principles in criminal law surrounding issues such as force, causation, insanity, duress, and repeated offenses. This research created a foundation for subsequent theory development and hypothesis testing (e.g., Robinson et al. 2007).

We take a similar approach by describing judgments for ten real-world property cases. We expect the dataset to provide a foundation for subsequent efforts to generate and test hypotheses about property judgments.

### A Corpus of Ten Finders Cases

We investigate people’s judgments about classic cases in a core area of property law—disputes over found objects. We offer a set of ten cases as a corpus of finders disputes (Table 1). We selected these cases from property law textbooks (Cribbet et al. 2007; Dukeminier et al. 2006; see also Aigler 1923; Cohen 1970; Goodhart 1928; Pollack and Wright 1888). In each case there is an ownership dispute over found property and the original owner (if there was one) cannot be located. We present a brief overview of the ten cases before reporting the studies.

In *Armory v. Delamirie*, Armory found a ring in the street and brought it to a goldsmith to be appraised. The goldsmith removed the jewel from the ring and refused to return it. The court ruled that the finder was more entitled to the ring than anyone

**Table 1** Corpus of ten finders cases listed in chronological order

	Case	Legal citation
1	<i>Armory v. Delamirie</i>	Armory v. Delamirie, 1 Sess. Cas. K.B. 505 (1722)
2	<i>Bridges v. Hawkesworth</i>	Bridges v. Hawkesworth, 21 L.J. Q.B. 75 (1851)
3	<i>McAvoy v. Medina</i>	McAvoy v. Medina, 87 Am. Dec. 733 (1866)
4	<i>Durfee v. Jones</i>	Durfee v. Jones, 11 R. I. 588 (1877)
5	<i>Elwes v. Brigg Gas Co.</i>	Elwes v. Brigg Gas Co., 33 Ch D 562 (1886)
6	<i>Goddard v. Winchell</i>	Goddard v. Winchell, N.W. 1124 (1892)
7	<i>Ford v. Sharman</i>	South Staffordshire Water Co. v. Sharman, 2 Q.B. 44 (1896)
8	<i>Danielson v. Roberts</i>	Danielson v. Roberts, 44 Ore. 10S, 74 Pac. 913, 914 (1904)
9	<i>Ferguson v. Ray</i>	Ferguson v. Ray, 44 Ore. 557, 77 Pac. 600 (1904)
10	<i>Hannah v. Peel</i>	Hannah v. Peel, K.B. 509 (1945)

except the original owner. In *Bridges v. Hawkesworth*, Bridges found an envelope full of cash on the floor of Hawkesworth's shop. The court ruled that the finder was entitled to the money rather than the shopkeeper. In *McAvoy v. Medina*, McAvoy found a wallet with cash on a countertop in Medina's barbershop. The judge ruled that the landowner Medina was entitled to the wallet, arguing that because the wallet was mislaid rather than lost, it belonged to the barber rather than the finder. In *Durfee v. Jones*, Jones found money behind the interior wall of a safe owned by Durfee. The judge supported the finder against the safe owner, arguing that the money appeared to have been lost rather than mislaid in the safe.

In *Elwes v. Brigg Gas Co.*, Elwes found an ancient boat buried underground in land that he rented from Brigg. The judge ruled that Brigg owned the boat, arguing that a landowner owns everything buried in their land whether or not they are aware of it. Similarly, in *Goddard v. Winchell*, the court ruled that a meteorite buried in the ground belonged to the landowner rather than the finder. In *South Staffordshire Water Co. v. Sharman*, Sharman was hired to clean a pool and he found two gold rings at the bottom of the pool. The judge ruled that the landowner was entitled to the rings rather than the finder because the rings were at the bottom of the pool and hence similar to buried objects.

In *Danielson v. Roberts*, two boys hired to clean a henhouse found gold coins buried in the ground. The judge decided that the finders were entitled to the coins, arguing that it did not matter whether the coins were found above ground or underground. In *Ferguson v. Ray*, Ferguson found gold buried in land that he rented from Ray. The judge ruled that the gold belonged to the landowner, arguing that it had been mislaid and forgotten rather than lost or abandoned. In *Hannah v. Peel*, Hannah was stationed by the military in a house owned by Peel when Hannah found jewelry on a window frame in a bedroom. The judge ruled that the finder was entitled to the jewelry because it was lost and was not under or attached to the land.

## Previous Property Theories Applied to Finders Cases

Few theories make predictions about people's judgments concerning finders cases. The legal opinions provided by the courts offer one source of hypotheses. Although these legal principles were not intended as psychological hypotheses, they can nonetheless provide a starting point for descriptive theories. For each of the ten cases examined below, we highlight property rules mentioned in the associated legal opinions.

From the psychological literature, Friedman (2010) found evidence for a relevant principle: the owner is whoever was necessary for possession of the object, even if that individual was not the first possessor. For instance, in one study of a hypothetical case, a person threw a rock to dislodge a gem from a cliff and someone else retrieved the gem. Most participants (90%) judged that the person who threw the rock was the owner rather than the first possessor.

Applied to finders cases, the necessary-for-possession principle predicts that people will be more likely to assign ownership to finders when the object was difficult to find. For instance, this idea predicts that people will favor finders when the object was hidden or buried (e.g., *Durfee v. Jones*, *Elwes v. Brigg Gas Co.*, *Goddard v. Winchell*, *South Staffordshire Water Co. v. Sharman*, *Danielson v. Roberts*, *Ferguson v. Ray*) and they will be less likely to favor finders when the object was found in plain sight (e.g.,

*Armory vs. Delamirie, Bridges v. Hawkesworth, McAvoy v. Medina, Hannah v. Peel*). Interestingly, only three of these ten predictions (*Durfee v. Jones, Ferguson vs. Ray, and McAvoy v. Medina*) are consistent with the courts' actual decisions (see above). This suggests a potential gap between psychological theories and court decisions.

## The Present Studies

We present participants with scenarios based on each of the ten finders cases and ask who they think owns the object. We ask participants to make their decisions based on their own opinion rather than their knowledge about the law. We examine whether participants significantly favor one side over the other. We also compare the results to court rulings and the legal principles used to justify legal decisions about finders cases.

### Study 1: *Armory v. Delamirie*

In *Armory v. Delamirie* (1722), Armory found a ring with a valuable jewel. He asked the goldsmith Delamirie to appraise the ring's value, and afterwards, Delamirie refused to return the jewel. The judge decided that "The finder of a jewel, though he does not by such finding acquire an absolute property or ownership, yet he has such a property as will enable him to keep it against all but the rightful owner."

The decision in *Armory v. Delamirie* illustrates the legal concept that property is not a relationship between a person and an object, but rather a relationship between people with respect to objects (Dukeminier et al. 2006). Ownership is relative because the original owner is more entitled to the jewel than the finder, but the finder is more entitled to it than everyone else. We present participants with a scenario based on this original case and ask who they think owns the jewel. In order to test the relativity of ownership, we also present participants with a hypothetical follow-up in which the original owner returns for the jewel.

## Methods

We recruited 56 participants to complete a short (<5 min) online study for a small payment (\$ 0.20). Participants were recruited using Amazon's Mechanical Turk website, an online marketplace in which participants receive payment for completing online tasks (DeScioli and Kurzban 2009b; Buhrmester et al. 2011). Participants' mean age was 37 (SD=13) years. (Gender information is unavailable for Study 1 due to a programming error.)

Participants viewed the instructions asking them to read a scenario and answer questions. In order to focus on ownership intuitions rather than knowledge of the law, participants were instructed: "Please make your decisions based on your own opinion and not on outside sources such as legal, economic, or political considerations."

Participants then read a scenario based on the case:

A young man named Armory was walking down the road when he found a ring with a jewel. He went to a goldsmith named Delamirie to see how much the ring

was worth. He told Delamirie that he found a ring on the road and wanted to know its value. Delamirie took the ring into the back room to examine it. When Delamirie returned with a value estimate, the jewel was missing from the ring. Armory asked for the jewel, but Delamirie refused to return it. Armory and Delamirie continued to dispute who should keep the jewel.

Next, participants answered the forced-choice question “In your opinion, who owns the jewel?” by choosing either Armory or Delamirie. We also created a continuous measure of ownership by asking participants “How strongly do you feel about who owns the jewel?” Participants responded on a seven-point scale (*very strongly Armory, strongly Armory, somewhat strongly Armory, neutral, somewhat strongly Delamirie, strongly Delamirie, very strongly Delamirie*). Participants then responded to an open-ended question: “Please describe how you made your ownership decisions.”

Next, for this study we also included a second part with the following hypothetical:

Now imagine the following happened: The original owner of the ring, named Oscar, found Armory and Delamirie disputing over the jewel. Oscar claimed that he should get the jewel back but the others disagree and now all three people are disputing over the jewel.

Then participants answered the question “In your opinion, who owns the jewel?” by choosing Armory, Delamirie, or Oscar. Next, they answered the question “How strongly do you feel about who owns the jewel?” They responded on a four-point scale (*neutral, somewhat strongly, strongly, very strongly*). Participants then responded to an open-ended question about how they made their decision.

At the end of the study, participants answered a comprehension question to ensure that they had read the scenario carefully, and any incorrect answers excluded them from the study. Finally, participants entered their demographic information.

## Results

In part one of the study, participants chose the finder Armory (100%) more often than the goldsmith (0%) as the owner of the jewel (binomial test,  $p < 0.001$ ; Table 2). For the seven-point ownership scale, we assigned each category a numerical value with positive values for the finder and negative values for their opponent: values ranged from *very strongly Armory*=3 to *very strongly Delamirie*=−3 (*neutral*=0). Participants’ ownership ratings were  $M=1.04$ ,  $SD=1.14$ , which significantly differed from the neutral value of zero and favored the finder, Armory,  $t_{55}=6.78$ ,  $p < 0.001$ .

In part two of the survey, participants chose the original owner Oscar (84%) more frequently than the finder Armory (13%) and Delamirie (4%) combined (binomial test,  $p < 0.001$ ). To analyze the ownership ratings, Oscar’s ratings were given a positive value and ratings for both Armory and Delamirie (or “not-Oscar”) were given a negative value (multiplying by −1). Participants’ ownership ratings were  $M=1.64$ ,  $SD=1.77$ , significantly favoring Oscar,  $t_{55}=6.93$ ,  $p < 0.001$ .

A few themes were observed in participants’ explanations, including Armory’s finding of the jewel, Delamirie’s responsibility to his customer, and Oscar’s original ownership.



**Table 2** Ownership judgments about finders

Case	Object	<i>n</i>	Forced choice		Ratings			Consistent with law?
			%	<i>p</i>	<i>M</i>	<i>SD</i>	<i>p</i>	
<i>Armory v. Delamirie</i>	jewel	56	100	<.001	1.04	1.14	<.001	Y
<i>Bridges v. Hawkesworth</i>	cash	60	75	<.001	0.95	1.77	<.001	Y
<i>McAvoy v. Medina</i>	wallet	59	56	<i>ns</i>	0.34	1.75	<i>ns</i>	N <sup>a</sup>
<i>Durfee v. Jones</i>	cash	59	20	<.001	-0.56	1.59	.009	N
<i>Elwes v. Brigg Gas Co.</i>	boat	57	19	<.001	-0.70	1.66	.002	Y
<i>Goddard v. Winchell</i>	meteorite	60	38	<i>ns</i>	-0.22	2.11	<i>ns</i>	N <sup>a</sup>
<i>Ford v. Sharman</i>	rings	60	8	<.001	-0.95	1.62	<.001	Y
<i>Danielson v. Roberts</i>	coins	58	9	<.001	-1.41	1.59	<.001	N
<i>Ferguson v. Ray</i>	gold	59	36	.02	-0.69	1.98	.007	Y
<i>Hannah v. Peel</i>	jewelry	59	2	<.001	-1.66	1.11	<.001	N

Participants' ownership judgments in Studies 1–10. The forced-choice results show the percentage of participants who selected the finder as the owner of the object and the significance value for a binomial test of the difference from 50%. The ratings results show the mean (*SD*) values on a seven-point ownership scale ranging from +3 for the finder to -3 for the landowner (or another opponent), and significance reflects a *t* test of the difference from zero (neutral value on the scale)

<sup>a</sup> Weakly inconsistent because judgments did not significantly favor either side

## Discussion

The results from the first part of the study show that participants thought the finder was entitled to the jewel over the goldsmith. This observation is consistent with the court ruling that granted property rights to the finder. The second part of the study further showed that people thought that the original owner had greater claim to the jewel than the finder. This result is consistent with the legal concept that ownership is relative: The original owner Oscar owns the jewel with respect to the finder Armory, but the finder owns the jewel with respect to everyone else.

### Study 2: *Bridges v. Hawkesworth*

In *Bridges v. Hawkesworth* (1851), a customer named Bridges found an envelope of cash lying on the floor in a shop owned by Hawkesworth, and the original owner could not be determined. Bridges and Hawkesworth disputed over who should keep the money. The court recognized the finder's right to lost property and held that the location of finding did not matter. Reversing a previous ruling, the judge stated, "The finder of an article is entitled to it against all parties except the real owner, and we think that that rule must prevail, and that learned judge was mistaken in holding that the place in which they were found makes any legal difference." The judge referred to *Armory v. Delamirie* as a precedent establishing the finder's right to lost items.

This case raises a key question about whether the location of finding affects ownership judgments. The lower court held that the location of the envelope in the



store implied that the shopkeeper owned it, but the higher court disagreed and reversed the decision. We refer to the legal principle created in this case as the “location-irrelevance principle.” In addition to a legal principle, this idea can also serve as a hypothesis about ownership psychology. In this and subsequent studies, we observe how well this principle describes people’s ownership judgments.

## Methods

The procedure for this study and all subsequent studies was the same as for Study 1, unless otherwise noted. We recruited 60 participants online with a mean age of 35 ( $SD=13$ ). (Gender information is unavailable due to a programming error.) Participants read a scenario based on the case:

A man named Mr. Bridges found an envelope full of money on the floor of a small shop owned by Mr. Hawkesworth. Mr. Bridges asked Mr. Hawkesworth to hold onto the envelope and to return it to whoever lost it, if they came back. After a few years had passed, and it was clear that the original owner was not going to return, Mr. Bridges asked to have the envelope back. However, Mr. Hawkesworth refused and said he was going to keep the money. Mr. Bridges and Mr. Hawkesworth continued to dispute who should keep the envelope of money.

Participants indicated who they thought owned the envelope, how strongly they felt about who owns the object (seven-point scale: *very strongly Bridges* to *very strongly Hawkesworth*), and how they made their decision. Then, participants answered comprehension and demographic items.

## Results

Participants chose the finder Bridges (75%) more often than the shopkeeper Hawkesworth (25%) as the owner of the envelope of money (binomial test,  $p<0.001$ ). On the seven-point ownership scale, we assigned the finder Bridges to positive values and the landowner Hawkesworth to negative values (3=*very strongly Bridges*,  $-3$ =*very strongly Hawkesworth*). Participants’ ownership ratings were  $M=0.95$ ,  $SD=1.77$ , significantly favoring the finder,  $t_{59}=4.16$ ,  $p<0.001$ . We note that 15% of participants chose a rating of zero to indicate neutrality on ownership.

Participants’ justifications for supporting the finder referred to finder’s rights, an implied agreement between the parties, and the finder’s honest effort to return the money to the original owner. Supporters of the landowner referred to the location of the object in the store and the duration of time that had passed.

## Discussion

The results show that participants supported the finder over the shopkeeper. This observation is consistent with the court ruling. The results are also broadly consistent with the location-irrelevance principle because people chose the finder as the owner despite the fact that the object was located inside the landowner’s store.

### Study 3: *McAvoy v. Medina*

In *McAvoy v. Medina* (1866), a customer named McAvoy found a wallet on a countertop in a barbershop owned by Medina. The original owner could not be identified and the two men disputed about who would keep the wallet. The judge ruled that the barber was entitled to the wallet rather than the finder. This contrasts with a previous decision in *Bridges v. Hawkesworth*, in which the finder was judged the owner in a similar situation. The judge in *McAvoy v. Medina* reasoned that the wallet was not “lost” but rather was “misplaced” because someone intentionally placed the wallet on the counter and then forgot to retrieve it. For misplaced items, the judge reasoned that the landowner has the responsibility for care and safekeeping of the item on behalf of the original owner. In this case, the court made a critical distinction between lost and misplaced objects, which subsequently influenced future court decisions. In this study, we test whether people think the wallet is owned by the landowner or the finder.

### Methods

We recruited 59 participants (62% female) online with a mean age of 33 (SD=12). Participants read a scenario based on the case:

Mr. McAvoy found a wallet on a table in Mr. Medina’s barbershop. He gave the wallet to Mr. Medina and asked him to return it to the original owner if they came back. However, the original owner never returned and Mr. McAvoy asked for the wallet back. Mr. Medina refused and said he would keep the wallet. They continued to argue about who should keep the wallet.

Participants indicated who they thought owned the item, how strongly they felt about who owns the object (seven-point scale: *very strongly McAvoy* to *very strongly Medina*), and how they made their decisions.

An additional question was also added: “If these two individuals could divide the value of the property, what percentage of the value should go to each individual?” Participants indicated a percentage for each person.

### Results

Participants chose the finder McAvoy 56% of the time and the shop-owner Medina 44% of the time, showing no significant difference (binomial test, n.s.). On the seven-point ownership scale, we assigned the finder McAvoy to positive values and the landowner Medina to negative values (3=*very strongly McAvoy*, -3=*very strongly Medina*). Participants’ ownership ratings were  $M=0.34$ ,  $SD=1.75$ , which did not significantly differ from the neutral value of zero,  $t_{58}=1.49$ , n.s. We note that 20% of participants chose a rating of zero to indicate neutrality about ownership. In their decisions to divide the item’s value, participants thought the finder should receive  $M=57\%$ ,  $SD=25\%$  of the item’s value, significantly favoring the finder (compared with a neutral division of 50%),  $t_{58}=2.02$ ,  $p<0.05$ .

In their explanations, participants who supported McAvoy referred to finders’ rights. Participants who supported Medina referred to the location of the item in the shop,

Medina's responsibility to hold the item for the original owner, and the finder's transfer of the item to Medina.

## Discussion

Participants were divided about ownership and were not significantly more likely to choose the finder or the landowner. This observation is *weakly* inconsistent with the court ruling because participants did not assert the property rights of the landowner, but neither did they assert the rights of the finder.

We can also compare these results to *Bridges v. Hawkesworth* (Study 2). Participants were significantly more likely to choose the finder in *Bridges v. Hawkesworth* (75%) than in *McAvoy v. Medina* (56%),  $\chi^2_{1, 119}=4.79, p<0.05$ . This observation contradicts the location-irrelevance principle and suggests that even a subtle difference in location between the floor and a countertop can influence ownership judgments. Further, this observation is consistent with the lost-mislaid distinction because people were less likely to choose the finder when the object was mislaid on the countertop rather than lost on the floor. However, this comparison is suggestive but not definitive because these cases might differ in other important respects.

## Study 4: *Durfee v. Jones*

In *Durfee v. Jones* (1877), Durfee let Jones temporarily use a safe and Jones found money stuck behind the interior wall of the safe. The court decided that the finder was entitled to the money. The judge said that the money seemed to be lost in the safe rather than mislaid and forgotten. He reasoned that this implied that the case was not under the precedent of *McAvoy v. Medina*, which supported the landowner, but rather should conform to *Bridges v. Hawkesworth*, which supported the finder. The judge also discussed the agreement between Durfee and Jones about the use of the safe and the judge reasoned that Jones found the money while using the safe in accordance with their agreement. The judge applied the location-irrelevance principle by stating that “the finder of lost property is entitled to it as against all the world except the real owner and that ordinarily the place where it is found does not make any difference.”

## Methods

We recruited 59 participants (71% female) online with a mean age of 35 (SD=12). Participants read a scenario based on the case:

Mr. Durfee bought an old safe and tried to sell it to the blacksmith, Mr. Jones. Mr. Jones turned down the offer. Mr. Durfee said Mr. Jones could keep the safe in his shop until someone wanted to buy it. Later, Mr. Jones found a roll of money hidden in the lining of the safe. When Mr. Durfee found out, he demanded the return of the safe and the money. Mr. Jones returned the safe but said he was going to keep the money. They continued to dispute who should keep the money.

Participants indicated who they thought owned the item, how strongly they felt about who owns the object (seven-point scale: *very strongly Jones* to *very strongly Durfee*), how they would divide the item's value, and how they made their decisions. Then, participants answered comprehension and demographic items.

## Results

Participants chose the finder Jones (20%) less often than the owner of the safe Durfee (80%) as the owner of the money (binomial test,  $p < 0.001$ ). On the seven-point ownership scale, we assigned the finder Jones to positive values and the safe owner Durfee to negative values (3=*very strongly Jones*, -3=*very strongly Durfee*). Participants' ownership ratings were  $M = -0.56$ ,  $SD = 1.59$ , significantly favoring the safe owner,  $t_{58} = 2.70$ ,  $p = 0.009$ . Participants thought the finder should receive  $M = 21\%$ ,  $SD = 25\%$  of the monetary value, significantly less than half,  $t_{58} = 8.88$ ,  $p < 0.001$ . We note that 32% of participants thought Durfee, the owner of the safe, should receive 100% of the value.

In their explanations, participants who supported Jones referred to finders' rights, the finder's possession of the safe at the time of finding, and the labor that led to uncovering the money. Participants who supported Durfee referred to the location of the money in his safe, Jones's previous lack of interest in purchasing the safe, and Jones's temporary possession of the safe.

## Discussion

Participants in this study chose the safe owner over the finder. This observation is at odds with the court ruling, which favored the finder. Similar to Study 3, the results violate the location-irrelevance principle and suggest instead that the location of the money inside the safe was enough to establish the safe owner's property rights for the money.

### Study 5: *Elwes v. Brigg Gas Co.*

In *Elwes v. Brigg Gas Co.* (1886), Elwes leased his land to a tenant with an agreement that the tenant could build a gas container on the premises. While digging to build the container, the tenant found a valuable ancient boat buried underground. The court decided that the landowner was entitled to the boat rather than the finder. The judge cited a Latin legal principle that "whatever is affixed to the soil belongs to the soil." The judge further reasoned that the landowner "was in possession of the ground, not merely of the surface, but of everything that lay beneath the surface down to the centre of the earth, and consequently in possession of the boat."

This court decision is at odds with *Bridges v. Hawkesworth* and the location-irrelevance principle. In *Elwes v. Brigg Gas Co.*, the judge reasoned that the location of found objects matters: namely, objects found under or attached to the land belong to the landowner. We refer to this concept as the "under-or-attached" principle. This principle was also cited in subsequent cases (see below).

## Methods

We recruited 57 participants (67% female) online with a mean age of 33 (SD=12). Participants read a scenario based on the case:

Mr. Elwes rented out a plot of land to Mr. Brigg. The lease allowed Mr. Brigg to build a large container to hold gasoline for Mr. Brigg's gas company. While building the gas container, Mr. Brigg found a prehistoric boat that was buried six feet underground. The boat was very valuable due to its historic significance, but no one previously knew that the ancient boat was buried there. When Mr. Elwes learned the boat was found, he demanded that Mr. Brigg turn it over. Mr. Brigg refused, and they continued to dispute who should keep the ancient boat.

Participants indicated who they thought owned the item, how strongly they felt about who owns the object (seven-point scale: *very strongly Brigg* to *very strongly Elwes*), how they would divide the item's value, and how they made their decisions. Then, participants answered comprehension and demographic items.

## Results

Participants chose the finder Brigg (19%) less often than the landowner Elwes (81%) as the owner of the boat (binomial test,  $p < 0.001$ ). On the seven-point ownership scale, we assigned the finder Brigg to positive values and the landowner Elwes to negative values (3=*very strongly Brigg*, -3=*very strongly Elwes*). Participants' ownership ratings were  $M = -0.70$ ,  $SD = 1.66$ , significantly favoring the landowner,  $t_{56} = 3.19$ ,  $p = 0.002$ . Participants thought the finder should receive  $M = 25\%$ ,  $SD = 28\%$  of the item's value, significantly less than half,  $t_{56} = 6.78$ ,  $p < 0.001$ .

In their explanations, participants who supported the finder referred to the work involved in discovering and digging out the boat, the finder's rental of the land, and the landowner's lack of knowledge about the boat. Participants who supported the landowner referred to the location of the object buried in the ground and to the finder's limited rights on rented land.

## Discussion

These results show that participants chose the landowner over the finder as the owner of the ancient boat. This observation violates the location-irrelevance principle, which favors the finder regardless of location. Participants' judgments also broadly support the under-or-attached principle, which holds that the landowner is entitled to objects found buried in their land.

## Study 6: *Goddard v. Winchell*

In *Goddard v. Winchell* (1892), the landowner Goddard leased a pasture to a tenant who found a meteorite buried in the ground and sold it to Winchell. The court ruled that the landowner rather than the finder had property rights over the meteorite. The judge

reasoned that the meteorite was not “lost” but rather was buried in the ground by a natural process. Hence, it was part of the ground and was the property of the landowner. Because it was not lost, it did not fall under the precedent of *Bridges v. Hawkesworth*. The judge also discussed movable versus immovable objects and considered the buried meteorite to be immovable. The judge applied the under-or-attached principle by claiming that “whatever is affixed to the soil belongs to the soil.”

## Methods

We recruited 60 participants (60% female) online with a mean age of 35 (SD=12). Participants read a scenario based on the case:

Mr. Goddard owned a plot of land that he rented to a farmer. One day a meteorite fell from the sky and landed on the farm. The impact buried the meteorite three feet in the ground. A neighbor went with the farmer to dig up the 66 pound meteorite. The neighbor sold the meteorite to Mr. Winchell for \$2,500. When Mr. Goddard found out, he demanded the meteorite from Mr. Winchell. Mr. Winchell refused, and they continued to argue about who should have the meteorite.

Participants indicated who they thought owned the item, how strongly they felt about who owns the object (seven-point scale: *very strongly Winchell* to *very strongly Goddard*), how they would divide the item’s value, and how they made their decisions. Then, participants answered comprehension and demographic items.

## Results

Participants chose the buyer Winchell 38% of the time and the landowner Goddard 62% of the time, which are not significantly different (binomial test, n.s.). On the seven-point ownership scale, we assigned the buyer Winchell to positive values and the landowner Goddard to negative values (3=*very strongly Winchell*, -3=*very strongly Goddard*). Participants’ ownership ratings were  $M=-0.22$ ,  $SD=2.11$ , which did not significantly differ from a neutral value of zero,  $t_{59}=0.80$ , n.s. Participants thought the finder should receive  $M=45\%$ ,  $SD=37\%$  of the monetary value, which did not significantly differ from 50%,  $t_{59}=1.02$ , n.s.

In their explanations, participants who supported the landowner referred to the location of the item on his land, which negated the finder’s right to sell the item. Participants who supported the buyer referred to Winchell’s payment for the item and the finder’s work in digging up the meteorite, which conferred the right to sell it.

## Discussion

Participants did not significantly favor the buyer or the landowner in this case. This observation is weakly inconsistent with the location-irrelevance principle (favors buyer), the under-or-attached principle (favors landowner), and the court ruling (which found for the landowner).

The purchase and sale of the found object poses an additional complication. It potentially creates conflict between the principle that people own what they buy and the

principle that landowners are entitled to what is buried in their land. This issue could be examined by modifying the scenario to remove the trade aspect to test whether this shifts perceptions of ownership in favor of the landowner.

Another distinctive feature of *Goddard v. Winchell* is that the object fell from the sky. The landowner's perceived ownership might be diminished by the meteorite's origin in a natural process rather than from a previous human owner. Moreover, falling from space might confer even less property rights than other natural processes more closely connected to the owned land, such as rivers or erosion.

### Study 7: *Ford v. Sharman*

In *South Staffordshire Water Co. v. Sharman* (1896), Sharman was hired to clean a pool and he found two gold rings at the bottom of the pool. The court ruled in favor of the landowner over the finder. We abbreviated the plaintiff to “Ford” for the study scenario and reporting the results.

The court based the decision on the under-or-attached principle, quoting an essay claiming that “The possession of land carries with it in general, by our law, possession of everything which is attached to or under that land.” The court used this principle to distinguish this case from *Bridges v. Hawkesworth* (which supported the finder) in which the object was found unattached and on the surface of the ground.

The court opinion also denied the relevance of the contractual relationship between landowner and finder: “where a person has possession of house or land . . . if something is found on that land, whether by an employee of the owner or by a stranger, the presumption is that the possession of that thing is in the owner of the locus in quo.” The opinion also mentioned the relevance of public versus private space, stating about *Bridges v. Hawkesworth*, “The shop was open to the public . . . the notes [money], being dropped in the public part of the shop, were never in the custody of the shopkeeper.” In this study, we test whether these differences from *Bridges v. Hawkesworth* cause participants to make different ownership judgments.

### Methods

We recruited 60 participants (60% female) online with a mean age of 36 (SD=12). Participants read a scenario based on the case:

Mr. Ford hired Mr. Sharman to clean the pool in his backyard. While cleaning, Mr. Sharman found two gold rings in the mud at the bottom of the pool. Mr. Ford asked for the rings, but Mr. Sharman brought the rings to the police instead. The police were unable to find the owners, so they returned the rings to Mr. Sharman. Mr. Ford demanded to have the rings, but Mr. Sharman refused. Mr. Ford and Mr. Sharman continued to argue about who should keep the rings.

Participants indicated who they thought owned the item, how strongly they felt about who owns the object (seven-point scale: *very strongly Sharman* to *very strongly Ford*), how they would divide the item's value, and how they made their decisions. Then, participants answered comprehension and demographic items.



## Results

Participants chose the finder Sharman (8%) less often than the landowner Ford (92%) as the owner of the rings (binomial test,  $p < 0.001$ ). On the seven-point ownership scale, we assigned the finder Sharman to positive values and the landowner Ford to negative values (3=*very strongly Sharman*, -3=*very strongly Ford*). Participants' ownership ratings were  $M = -0.95$ ,  $SD = 1.62$ , significantly favoring the landowner,  $t_{59} = 4.54$ ,  $p < 0.001$ . Participants thought the finder should receive  $M = 17\%$ ,  $SD = 25\%$  of the item's value, significantly less than half,  $t_{59} = 10.21$ ,  $p < 0.001$ . We note that 49% of participants thought the landowner Ford should receive 100% of the value.

In their explanations, participants who supported Sharman referred to the rights of finders, the landowner's lack of previous knowledge of the rings, and the decision by the police to return the rings to Sharman. Participants who supported the landowner referred to the location of the rings on Ford's land as a determining factor.

## Discussion

These results show that participants favored the landowner over the finder as the owner of the rings. This observation contrasts with judgments for *Bridges v. Hawkesworth* (Study 2), which favored the finder. The results are broadly consistent with the under-or-attached principle, the distinction between public and private space, and the idea that a contractual relationship between landowner and finder favors the landowner. These observations are inconsistent with the location-irrelevance principle, which always prioritizes the finder over the landowner.

The stark difference from *Bridges v. Hawkesworth* poses a critical question about which variables can explain the difference in judgments. Future work can address this issue by varying the scenarios to isolate the key variables.

### Study 8: *Danielson v. Roberts*

In *Danielson v. Roberts* (1904), two boys hired by the landowner Roberts to clean a henhouse found a tin can full of gold coins buried inside. The court decided in favor of the finders. The judge cited as precedents *Armory v. Delamirie*, *Bridges v. Hawkesworth*, and *Durfee v. Jones*, all of which supported the finder. The judge denied the importance of the under-or-attached principle: "The reason of the rule giving the finder of lost property the right to retain it against all persons except the true owner applies with equal force and reason to money found hidden or secreted in the earth as to property found on the surface." The judge further applied the location-irrelevance principle and denied the relevance of a contractual relationship between landowner and finder: "The fact that the money was found on the premises of the defendants [landowners], or that the plaintiffs [finders] were in their service at the time, can in no way affect the plaintiffs' right to possession." In this study, we test whether participants think the finder or the landowner is entitled to the gold coins.

## Methods

We recruited 58 participants (62% female) online with a mean age of 36 (SD=11). Participants read a scenario based on the case:

Two boys were hired by Mr. Roberts to clean out a henhouse. While cleaning, the boys found an old rusted tin can with \$7,000 worth of gold coins. The boys showed Mr. Roberts who took the gold, gave the boys five cents, and asked them not to tell anyone. Later, the boys returned and asked Mr. Roberts to give them the gold. The boys and Mr. Roberts argued about who should keep the gold.

Participants indicated who they thought owned the item, how strongly they felt about who owns the object (seven-point scale: *very strongly the boys* to *very strongly Roberts*), how they would divide the item's value, and how they made their decisions. Then, participants answered comprehension and demographic items.

## Results

Participants chose the finders (boys, 9%) less often than the landowner Roberts (91%) as the owner of the coins (binomial test,  $p < 0.001$ ).

On the seven-point ownership scale, we assigned the finders (the boys) to positive values and the landowner Roberts to negative values (3=*very strongly the boys*, -3=*very strongly Roberts*). Participants' ownership ratings were  $M = -1.41$ ,  $SD = 1.59$ , significantly favoring the landowner,  $t_{57} = 6.77$ ,  $p < 0.001$ . Participants thought the finder should receive  $M = 22\%$ ,  $SD = 20\%$  of the item's value, significantly less than half,  $t_{57} = 10.68$ ,  $p < 0.001$ .

In their explanations, participants who supported the finder referred to the rights of finders as well as the landowner's lack of previous knowledge of the gold. Participants who supported the landowner referred the location of the gold on the landowner's property and to the fact that the landowner hired the finders to clean the henhouse.

## Discussion

Participants favored the landowner over the finder as the owner of the coins. This observation conflicts with the court ruling in this case, which favored the finder. The results are inconsistent with the location-irrelevance principle, but they are consistent with the under-or-attached principle, the importance of a contractual relationship between finder and landowner, and the distinction between public and private space. In future work, these factors can be varied to determine their relative influences.

## Study 9: *Ferguson v. Ray*

In the case *Ferguson v. Ray* (1904), Ray rented land to the tenant Ferguson, who found gold-bearing quartz in a rotten bag buried in the land. The court ruled that the gold belonged to the landowner rather than the finder. The judge reasoned that the gold was mislaid rather than lost or abandoned. The ruling in this case was the opposite of the

decision in *Danielson v. Roberts* (Study 8) despite their similarities and the fact that both cases were tried in the Supreme Court of Oregon.

The judge reasoned that to be “lost” an object must be involuntarily deposited, citing the court opinion from *Danielson v. Roberts* (Study 8). The judge claimed that the location of the gold-bearing quartz underground in a rotten bag showed that it was placed there intentionally with effort, rather than being lost or abandoned. According to the judge, this invoked the principle that mislaid property belongs to the landowner, and he cited *McAvoy v. Medina* (Study 3) and *Durfee v. Jones* (Study 4) as relevant precedents showing the importance of the lost-mislaid distinction.

Having claimed that the gold was neither lost nor abandoned, the judge then invoked the precedent of *South Staffordshire Water Co. v. Sharman* to argue that objects in the ground belong to the landowner—the under-or-attached principle. The judge similarly cited *Elwes v. Brigg Gas Co.* as a precedent granting landowners property rights over buried objects. Based on this reasoning, the judge reversed a previous decision and granted property rights to the landowner. In this study, we examine whether participants view the finder or the landowner as the rightful owner of the gold.

## Methods

We recruited 59 participants (59% female) online with a mean age of 36 (SD=12). Participants read a scenario based on the case:

Mr. Ferguson rented a plot of land from Mr. Ray, who owned the land. Mr. Ferguson was cutting wood one day when he found a bag of gold buried in the ground next to a marked tree. The bag of gold must have been buried there for a very long time because the bag had mostly rotted away. When Mr. Ray found out, he demanded the gold from Mr. Ferguson. Mr. Ferguson and Mr. Ray argued about who should keep the gold.

Participants indicated who they thought owned the item, how strongly they felt about who owns the object (seven-point scale: *very strongly Ferguson* to *very strongly Ray*), how they would divide the item’s value, and how they made their decisions. Then, participants answered comprehension and demographic items.

## Results

Participants chose the finder Ferguson (36%) less often than the landowner Ray (64%) as the owner of the gold (binomial test,  $p=0.018$ ). On the seven-point ownership scale, we assigned the finder Ferguson to positive values and the landowner Ray to negative values (3=*very strongly Ferguson*, -3=*very strongly Ray*). Participants’ ownership ratings were  $M=-0.69$ ,  $SD=1.98$ , significantly favoring the landowner,  $t_{58}=2.70$ ,  $p=0.009$ . Participants thought the finder should receive  $M=40\%$ ,  $SD=27\%$  of the item’s value, significantly less than half,  $t_{58}=2.79$ ,  $p=0.007$ .

In their explanations, participants who supported the finder referred to the rights of finders and the landowner’s lack of previous knowledge of the gold. Participants who supported the landowner referred to the location of the gold on the landowner’s property.

## Discussion

Participants favored the landowner over the finder as the owner of the gold. This observation is in agreement with the court ruling. The results are consistent with the under-or-attached principle and the lost-mislaid distinction, whereas they are inconsistent with the location-irrelevance principle.

### Study 10: *Hannah v. Peel*

In *Hannah v. Peel* (1945), Peel owned an unoccupied house and Hannah was stationed there by the military when he found some jewelry on top of a window frame in a bedroom. The court decided that the finder rather than the landowner was entitled to the jewelry. The judge discussed and dismissed the relevance of *South Staffordshire Water Co. v. Sharman*, arguing that the decision in this case was based on the contractual relationship between the landowner and the finder (although the judge in *South Staffordshire Water Co. v. Sharman* explicitly stated the opposite; see [Study 7](#)). The judge further cited the under-or-attached principle, concluding that because the jewelry was found on a surface (on a window frame) rather than underground, it belongs to the finder. In this study, we examine whether people think the jewelry is owned by the finder or the landowner.

## Methods

We recruited 59 participants (64% female) online with a mean age of 36 (SD=12). Participants read a scenario based on the case:

Mr. Peel bought a house but never moved in. Two years later, his country's military used the house as part of their operations. Mr. Hannah was a soldier stationed in the house. Mr. Hannah found jewelry in the house, and he turned it over to the police. The police could not find the original owner so they gave the jewelry to Mr. Peel, who sold it for \$1,500. Mr. Hannah said that he should have the money instead. Mr. Peel disagreed, and they continued to dispute who should keep the money from the jewelry.

Participants indicated who they thought owned the item, how strongly they felt about who owns the object (seven-point scale: *very strongly Hannah* to *very strongly Peel*), how they would divide the item's value, and how they made their decisions. Then, participants answered comprehension and demographic items.

## Results

Participants chose the finder Hannah (2%) less often than the landowner Peel (98%) as the owner of the jewelry (binomial test,  $p < 0.001$ ). On the seven-point ownership scale, we assigned the finder Hannah to positive values and the landowner Peel to negative values (3=*very strongly Hannah*, -3=*very strongly Peel*). Participants' ownership ratings were  $M = -1.66$ ,  $SD = 1.11$ , significantly favoring the landowner,  $t_{58} = 11.51$ ,

$p < 0.001$ . Participants thought the finder should receive  $M = 15\%$ ,  $SD = 16\%$  of the item's value, significantly less than half,  $t_{58} = 17.16$ ,  $p < 0.001$ .

In their explanations, participants who supported the finder referred to the landowner's lack of previous knowledge of the jewelry and the finder's honest attempt to find the original owner. Participants who supported the landowner referred to the location of the jewelry inside the house owned by Peel.

## Discussion

These results show that participants strongly favored the landowner over the finder as the owner of the jewelry. This observation conflicts with the court ruling. The results are consistent with the lost-mislaid distinction and the public-private space distinction, whereas they are inconsistent with the location-irrelevance principle and the under-or-attached principle.

## General Discussion

These studies show a textured pattern of ownership judgments across ten classic cases from property law. Table 2 summarizes the results. These findings suggest that people do not use a simple rule such as “finders, keepers” to make ownership decisions. Instead, multiple variables can attenuate or enhance the finder's entitlement to found objects. The results also show that people frequently disagree with court decisions. In some cases, such as *Hannah v. Peel* and *Danielson v. Roberts*, nearly all participants disagreed with the court ruling.

In Study 1, participants thought that the finder (Armory) owned the jewel with respect to the goldsmith (Delamirie), but not with respect to the original owner. This observation is consistent with the legal concept that ownership is relative—Armory can own a jewel with respect to Delamirie, even though Oscar owns the jewel with respect to Armory. In Study 2, participants thought that Bridges owned the money he found on the floor in Hawkesworth's store. This observation is consistent with the court ruling supporting the finder. In Study 3, participants were divided about whether the finder (McAvoy) of a wallet on a countertop was more entitled to it than the barber (Medina) who owned the shop. This finding shows mixed support for the legal principle that mislaid objects belong to the landowner: People did not significantly favor the landowner, but they were significantly more likely to choose the landowner than they were in Study 2, when the object was lost. This comparison also contradicts the location-irrelevance principle by showing that a subtle difference in location between the floor and countertop influences ownership decisions. In Study 4, participants thought that the safe owner (Durfee) rather than the finder (Jones) was entitled to the money found behind an interior wall of the safe. This observation conflicts with the court ruling, which favored the finder.

In Study 5, participants thought that the landowner (Elwes) was entitled to the ancient boat that the tenant found buried in the ground. This observation is consistent with the court ruling and the under-or-attached principle, and it violates the location-irrelevance principle. In Study 6, participants were divided about whether the landowner (Goddard) was entitled to the meteorite buried in the ground or if it belonged to

the finder and subsequent buyer. This observation is weakly inconsistent with the under-or-attached principle because the underground location was not sufficient to favor the landowner. In Study 7, participants thought that the landowner (Ford) was entitled to two gold rings found by Sharman, who was hired to clean the pool. This observation again contradicts the location-irrelevance principle and is consistent with the under-or-attached principle, the public-private space distinction, and the idea that a contract between landowner and finder favors the landowner.

In Study 8, participants thought that the landowner (Roberts) was entitled to the can of coins found in the henhouse. This observation conflicts with the legal ruling, which favored the finders, and more generally contradicts the location-irrelevance principle. It is consistent with the under-or-attached principle, the lost-mislaid distinction, the private-public space distinction, and the importance of finder-landowner contracts. In Study 9, participants thought that the landowner (Ray) was entitled to the gold-bearing quartz found by the tenant (Ferguson). This is consistent with the court ruling favoring the landowner and with the under-or-attached principle and the mislaid-lost distinction. In Study 10, participants thought that the homeowner (Peel) was entitled to the jewelry found by the soldier (Hannah) stationed at the house. This observation contradicts the court ruling for the case.

These studies offer a descriptive dataset about people's property judgments. They document variation in ownership judgments that requires explanation. These observations provide evidence for testing ownership principles from the law and previous psychological theories, as well as providing a foundation for generating and testing new theories about how people think about found objects.

### Testing Ownership Principles from the Law

The legal opinions from the corpus of finders cases offer an initial set of principles for psychological testing (Table 3). First, the location-irrelevance principle assigns property rights to the finder regardless of the location of the found object (see the opinion for *Bridges v. Hawkesworth*). The data reported here show that this principle holds little explanatory power. Indeed, it is violated in the majority of cases, indicating that the location of a found object critically influences ownership judgments. Second, the lost-mislaid principle holds that mislaid items belong to the landowner (see the opinion for *McAvoy v. Medina*). This principle received mixed support in Study 3 (*McAvoy v. Medina*) because participants did not significantly favor the landowner, but they were more likely to choose the landowner in Study 3 than in Study 2 (*Bridges v. Hawkesworth*) when the object was lost rather than mislaid. Third, the under-or-attached principle holds that objects found under or attached to the land belong to the landowner (see the opinion for *Elwes v. Brigg Gas Co.*). This principle also received mixed support, possibly favoring the landowner in Study 5 (*Elwes v. Brigg Gas Co.*) and Study 9 (*Ferguson v. Ray*), although participants did not grant property rights to the purchaser of an object found underground in Study 6 (*Goddard v. Winchell*). Fourth, the public-private principle holds that objects found in a private space belong to the landowner (see the opinion in *South Staffordshire Water Co. v. Sharman*). This idea is consistent with participants' judgments favoring the landowner in studies 7, 8, and 10 (*Ford v. Sharman*, *Danielson v. Roberts*, and *Hannah v. Peel*), although it is contradicted by the fact that people did not significantly favor the finder in Study 3

(*McAvoy v. Medina*) despite the location being a public place. Fifth, the contract principle holds that when the landowner has a contract to hire the finder, the landowner is entitled to the found object. This is consistent with participants' judgments for cases such as *Ford v. Sharman* and *Danielson v. Roberts*. It is unclear whether this principle should also be extended to landlord-tenant contracts, but if so, then Study 5 (*Elwes v. Brigg Gas Co.*) and Study 9 (*Ferguson v. Ray*) are also consistent with the contract principle.

### Testing Ownership Principles from Psychology

These results can also be used to test principles from psychological research on property intuitions. Friedman (2010) found that participants' ownership judgments were influenced not by first possession, but by who was necessary for possession (see [Previous Property Theories Applied to Finders Cases](#)). The necessary-for-possession principle predicts that people will favor finders when the object was difficult to discover and landowners when the object was easy to discover. In the present context, Study 5 (*Elwes v. Brigg Gas Co.*) offers a good test case for this principle because it is unlikely that the landowner would have found the ancient boat if the tenants did not dig into the soil to build a gas tank. However, participants judged that the landowner, not the finder, was the owner of the boat, contradicting the necessary-for-possession principle. In fact, the necessary-for-possession principle seems to be violated by all of the present studies except for Study 10 (*Hannah v. Peel*), in which the object was in plain view and participants favored the landowner. One possibility is that the necessary-for-possession principle is dominated by other property rules in the present finders cases.

Another way to reconcile the present data with the necessary-for-possession principle is to include as a necessary condition the landlord's decision to permit special access to the land, such as contractual hiring or renting of the land. This idea implies that the landowner played a necessary role in cases such as *Elwes v. Brigg Gas Co.*, but

**Table 3** Consistency between participants' judgments and property principles

Case	Participants	Lost-Mislaid	Under-or-Attached	Public-Private	Contract
<i>Armory v. Delamirie</i>	finder	lost <sup>F</sup>	above <sup>F</sup>	public <sup>F</sup>	none <sup>F</sup>
<i>Bridges v. Hawkesworth</i>	finder	lost <sup>F</sup>	above <sup>F</sup>	public <sup>F</sup>	none <sup>F</sup>
<i>McAvoy v. Medina</i>	mixed	mislaid <sup>L</sup>	above <sup>F</sup>	public <sup>F</sup>	none <sup>F</sup>
<i>Durfee v. Jones</i>	safe owner	lost <sup>F</sup>	above <sup>F</sup>	private <sup>L</sup>	loan <sup>L</sup>
<i>Elwes v. Brigg Gas Co.</i>	landowner	lost <sup>F</sup>	under <sup>L</sup>	private <sup>L</sup>	tenant <sup>L</sup>
<i>Goddard v. Winchell</i>	mixed	unowned <sup>F</sup>	under <sup>L</sup>	private <sup>L</sup>	tenant <sup>L</sup>
<i>Ford v. Sharman</i>	landowner	lost <sup>F</sup>	under <sup>L</sup>	private <sup>L</sup>	hired <sup>L</sup>
<i>Danielson v. Roberts</i>	landowner	mislaid <sup>L</sup>	under <sup>L</sup>	private <sup>L</sup>	hired <sup>L</sup>
<i>Ferguson v. Ray</i>	landowner	mislaid <sup>L</sup>	under <sup>L</sup>	private <sup>L</sup>	tenant <sup>L</sup>
<i>Hannah v. Peel</i>	landowner	mislaid <sup>L</sup>	above <sup>F</sup>	private <sup>L</sup>	none <sup>F</sup>

The table shows the participants' judgment and whether each property principle assigns ownership to the finder (<sup>F</sup>) or the landowner (<sup>L</sup>)



was not necessary when the space was public and accessed without special permission such as *Bridges v. Hawkesworth*. However, this proposal stretches the concept of a “necessary” condition and raises questions about how to identify the relevant necessary conditions. Including contracts as necessary conditions provides a better fit to the current data, but it still leaves some observations unexplained. For instance, in Study 3 (*McAvoy v. Medina*), the object was easy to find and the space was public but participants did not significantly favor the finder over the landowner.

### Future Research on Property Dilemmas

Future research can use experiments to isolate the effects of different ownership principles, similar to experiments on culpability for crimes (e.g., Shen et al. 2011). Future research can also extend beyond finder-landowner cases to other areas of property law such as inventions, adverse possession, trade, and gifts (Dukeminier et al. 2006; Weisbord and DeScioli 2010).

One approach is to focus on cases with the most disagreement about ownership. In the present studies, participants did not significantly favor the finder or the landowner in two cases, *McAvoy v. Medina* and *Goddard v. Winchell*. For *McAvoy v. Medina*, several property rules favor the finder (Table 3) whereas only the lost-mislaid principle favors the landowner. Comparing this scenario to *Bridge v. Hawkesworth* suggests that if the wallet was lost rather than mislaid, people would favor the finder; further, comparing this case to *Hannah v. Peel* suggests that if the location was private rather than public, people would favor the landowner. Thus, one possible explanation is that disagreement about *McAvoy v. Medina* derives from a conflict between a landowner’s rights to mislaid property and a finder’s rights to items found in a public space. Turning to *Goddard v. Winchell*, several factors appear to favor the landowner. However, a key complication was that the finder sold the meteorite to Winchell. This potentially sets the property rights of the landowner against the property rights of a buyer derived from purchasing the item. Perhaps this explains why there was more disagreement about this case than about otherwise similar cases, such as *Elwes v. Brigg Gas Co.*

### Property Law and Psychology

Theories about the psychological and biological roots of ownership can offer insight into property law and legal history (Jones and Goldsmith 2005). The present studies offer a possible example. Out of all of the finder-landowner cases (Studies 2–10), participants favored the finder in only one case, *Bridges v. Hawkesworth*. Interestingly, this case happened to occur first chronologically, thus setting a precedent for subsequent cases. This could account for much of the observed disagreement between participants’ judgments and court rulings. In four of the ten cases, the courts favored the finder but participants did not (*Durfee v. Jones*, *Goddard v. Winchell*, *Danielson v. Roberts*, *Hannah v. Peel*). The court’s ruling for *Bridges v. Hawkesworth* is consistent with lay people’s judgments, but the judge construed this decision as a general principle that always favors finders. This precedent might have constrained subsequent courts and caused them to make decisions that conflict with people’s intuitions. Even when the courts did diverge, they might have been pressured to create new distinctions to justify their departure from prior rulings, leading to additional legal rules. We speculate that if

a different case occurred earlier, such as *South Staffordshire Water Co. v. Sharman*, then the initial precedent might have favored the landowner rather than the finder. Based on the results reported here, this precedent could have led to greater consistency between people's judgments and the law. Also, the resulting legal decisions might have been simpler, with fewer exceptions and distinctions.

An important limitation in comparing the present studies to court decisions is that participants read a one-paragraph summary rather than the full case materials. It is possible that information was missing from the study scenarios that would affect participants' agreement with court decisions. We argue that this is both a limitation and an advantage of laboratory studies. Presenting cases in reduced form might diminish external validity but it also increases experimenter control by narrowing the variables affecting decisions. Critically, laboratory studies can be modified and repeated to test alternative hypotheses. If researchers suspect that an important variable from the original case is missing, then this alternative hypothesis can be tested by modifying the stimuli and measuring the effects. A key advantage of laboratory methods is that counterfactuals can be immediately tested whereas court decisions cannot be repeated with isolated changes.

Of course, the law does not necessarily aim to agree with people's judgments. However, legal professionals can consider agreement with public opinion as one important factor among others, such as public welfare and economic efficiency. One reason is that people are more likely to accept and obey laws that they find understandable and intuitive (Darley 2001). Further, legal professionals can be guided by their own intuitions on ownership, even when they think their judgments are based on explicit analysis (e.g., Haidt 2001). Psychological research can reveal these hidden inferences to help achieve greater clarity and consistency in the law.

In conclusion, the present studies show that people's judgments about property law cases offer insight into the psychology of ownership. We observed a nuanced pattern of ownership judgments that is not well-explained by previous property rules from legal opinions or psychological theories. Future research can modify and expand the present corpus of property dilemmas to isolate the influence of key variables and to map the intuitive logic of ownership.

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