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The Possession Heuristic

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1. Introduction

A heuristic, as Daniel Kahneman (2011: 98) observes, "is a simple procedure that helps find adequate, though often imperfect, answers to difficult questions." Kahneman is a psychologist, one of a handful of scholars who have brought heuristics to the attention of a general audience, thanks in large part to several books (Kahneman, Slovic and Tversky 1982; Gilovich, Driffin and Kahneman 2002). Just as Thomas Kuhn's (1962) ideas about paradigms in the history of science are fodder for academics in all sorts of fields (this for better or worse), so too for Kahneman and company's ideas about heuristics, and legal academics are among the wide audience of consumers. Witness a host of articles and several books, including the recently published *Heuristics and the Law* (Gigerenzer and Engel 2006; see also, e.g., Lewinsohn-Zamir [chapter in this book]; Sunstein 2000; Kelman 2011).

We join the crowd here, examining the role of possession as a heuristic in the law of property. While heuristics-and-the-law is the subject of a considerable literature, much of the work is mainly about heuristics, drawing in selected examples from the law. Examples from property law in general, let alone possession in particular, usually figure very little. Thus we have found in the literature no mention heretofore of a *possession heuristic* – except in

connection with witches![1] But here we are talking about property law, particularly the role it assigns to possession. Our discussion of possession as a heuristic is informed more by theories of possession than by theories of heuristics, and our aim is a contribution to the former, not the latter. We take heuristics in the sense suggested by Kahneman. They are simple decision making strategies devised to solve complex problems. Since the law of property is essentially the law of belongings, its first task is to determine to whom things belong. There are all sorts of complicated inquiries that could be undertaken to figure out and justify an incredible range of answers to this question. Alternatively, there is a simple inquiry that provides a simple answer: A thing belongs to its possessor.

This is the possession heuristic.

2. Evolution and the Possession Heuristic[2]

2.1. Regarding Animals (Other than Humans)

Evolutionary game theory suggests why there might be a possession heuristic. Consider an account by John Maynard Smith (1982). His model supposes two animals of the same species, each of which aims to occupy a particular breeding site. The value of that site to its occupant is the gain it promises in reproductive fitness as compared to the next best alternative site. The probability that either of the two animals will be the first to occupy the site is given as equal, and either animal might be either an aggressive Hawk or a passive Dove. Hawks fight over territory until one is injured and retreats, and in a Hawk-Hawk contest each competitor has an equal chance of winning or losing. Losing carries the cost of reduced reproductive fitness. Doves do not fight; they avoid injury by giving in to Hawks or by sharing with other Doves. On these

[1] See Huskinson and Schmidt (2010:5), discussing a heuristic used to distinguish between the state of being in a trance and the state of being possessed.

[2] The discussion here is drawn from Krier (2009), which itself relies heavily on the literature referred to in this section.

assumptions, Maynard Smith argues, natural selection will lead the species to evolve in the direction of a Hawk-Dove hybrid, a "Bourgeois" type that acts as a Hawk when in possession but as a Dove when not – this because the Bourgeois strategy (whereby animals protect what they possess but defer to what others possess) is better than any alternative. Bourgeois types "avoid more damaging encounters than the pure Hawks and win more encounters than pure doves" (Krier 2009: 153). Bourgeois strategy is said to be evolutionarily stable, meaning that once it is established, natural selection forecloses invasion by any mutant strategy.

Two points must be noted: First, the outcome described above depends on a stock of breeding sites of sufficient number that the value of sites is less than the cost of fighting over them.[3] Second, and more pertinent for our purposes, the outcome depends on the asymmetry of occupant and latecomer, which signals to a contestant the role (Hawk or Dove) likely to be played by an opponent. Where this asymmetry holds, a behavioral pattern (a "norm") of deference to possessors can develop spontaneously and persist simply as the consequence of self-interested individual action.[4]

2.2. Regarding Human Animals

The late Jack Hirshleifer, though skeptical to some degree of the Hawk-Dove-Bourgeois account, conceded that "[o]n the human level, a corresponding environmental situation might be expected to lead to a 'social ethic' supporting a system of property rights" (Hirschleifer 1982: 23). Robert Sugden (2004 [1986]) pursues that line of thought in a book published a few years

[3] Notice the contrast with Demsetz's (1967) argument that property rights develop in response to resource scarcity. See also Ellickson (2013: 9 n.41) for the suggestion that increasing scarcity might be accompanied by heightened defense of resources, increasing the costs of fighting to the point that they remain larger than the value of the resources in question.

[4] That the behavioral pattern can develop does not mean that it will, and it is a fact that there seem to be few examples of species known to defer to possession. This could mean that the underlying model is not developed in a sufficiently discriminating fashion, or it could mean that appearances are not what they might at first seem.

after Hirshleifer's remark. Sugden alters Maynard Smith's (1980) model to fit the human context by substituting utility for reproductive fitness, and by assuming that effective strategies develop through imitation and learning as opposed to biological natural selection. Having done so, he reaches conclusions much like those of Maynard Smith: Repeated play would likely lead to a convention – a de facto rule – of deference to possessors. His argument, he notes, had long ago been anticipated by David Hume.[5]

Of particular interest to us is Sugden's discussion of possession as the crucial asymmetry. Given any number of asymmetries (the difference between a strong contestant and a weak one, an attractive contestant and an ugly one, a loud contestant and a quiet one, a greedy contestant and a generous one, a rich contestant and a needy one, and so on), why settle on possession as the decisive factor? Sugden's answer begins with the observation that the purpose of a convention is to guide behavior. To perform that function, the asymmetry underlying the convention must be prominently apparent. Hume thought possession worked well in this respect (its salience led people to converge on it), and Sugden agrees. The idea is to find a simple strategy for assigning objects to people, and there is "a natural prominence to solutions that base the assignment on some pre-existing relation between persons and objects," namely possession, which, because it is usually unambiguous, provides a clear indication of the status of any claimant (Sugden 2004 [1986]: 95–107).

The norm of deference to possession, in its simplest form, did not amount to much in terms of what it provided; it would have been "problematic in the case of land . . . and also when attention switches from the acquisition to the maintenance of possession" (Posner 2000: 545-46).

[5] Unlike Thomas Hobbes and John Locke, who imagined modes of governance reached by group agreement or imposed by central authorities, Hume argued that decisions made by self-interested individuals each choosing on his own could lead to successful strategies for cooperation and coordination; Hume called these strategies "conventions" (Hume 1978 [1740]: bk. 3, pt. 2, §2).

As to land, the norm would seem to protect only what the possessor physically occupies, and even then only so long as the possessor is actually there. As to chattels, one can actually possess only a few. In both cases, then, ongoing vigilance and control could be relaxed only at the peril of losing what one had managed to obtain. This fault was fixed by extending the essence of possession to include *constructive* possession evidenced by prominent signals that identified things as subject to a standing claim – branding and such in the case of chattels; building, fencing, and tilling in the case of land. Actual physical occupation was no longer necessary to trigger the possession heuristic, meaning the security it provided was "permanent" rather than "transient" (Blackstone 1765-69: *3-7).

3. Possession, Priority, and Ownership[6]

The foregoing suggests how early humans arrived at a de facto norm of deference to possession (eventually including constructive possession) well before the appearance of formal legal systems. We can be confident that adherence to the norm was hardly perfect. Probably deference was most regular among small, close-knit groups (Ellickson 1991: 177-78), the members of which we might liken to conspecifics in the case of nonhuman animals. And probably group members differentiated between insiders and outsiders, deferring to possessors in their clan, but not to those in other clans.[7] Hence conflict could co-exist with cooperation, thanks in particular to the invention of constructive possession. Simply picture the situation where a possessor is temporarily absent, and another person comes along and takes possession,

[6] See also Epstein (1979; 2006: 147-49); Rose (1985).

[7] A striking example is the taking of North America by European settlers. Deference to possession was standard practice on the continent (put aside the occasional war), but not when it came to dealings with such primitives as the Native Americans. The settlers rested their claim to America on discovery (a conventional means by which to acquire property), notwithstanding that the discovered land was already inhabited by natives. This was unproblematic for the settlers, who reasoned that the natives were mere occupants, not possessors, and that move spelled end game. The settlers were entitled, if necessary, to enforce their rights of possession by conquest. It was left to Chief Justice Marshall to explain (and apologize) in Johnson v. M'Intosh, 21 U.S. (8 Wheat.) 543 (1823)..

whether because of misunderstanding or bad intentions. In either event, the result is a new possessor who might claim the right to what in fact is already (constructively) possessed by another. The resolution is plain: If constructive possession is to mean anything, it must mean that as between the two contestants, the first possessor should prevail**.**

We do not know how this principle was put into operation in de facto regimes that had developed a norm of deference but not yet arrived at something like a "government" to resolve disputes of the sort described. What is clear, however, is that de facto became de jure with the gradual emergence of governing authorities (in other words, of states), and formal property regimes have regularly adopted as legal rules what primitives had adopted as customs. Those legal rules protect possession, including constructive possession, and formalize a principle of priority to resolve contests arising from sequential possession. Exactly as we should expect, the principle considers the claim of the prior possessor to be superior to the claim of the subsequent possessor. The superior claimant is said to have "title" to the thing in question – relative, at least, to the second possessor, and absent a voluntary transfer by the former to the latter.[8]

This doctrine of relative title is sometimes said to give a possessor "title good as against all but the true owner," but that is misleading: the "true owner" is no one but the prior possessor relative to the subsequent possessor. If we put context aside, "true owner" simply designates the person whose possession is subsequent to no one's. As Holmes put the point, rights acquired by possession "continue to prevail against all the world but one, until something has happened sufficient to divest ownership" (Holmes 1831/1938: 238). Holmes saw where his observation led. "The consequences attached to possession are substantially those attached to ownership," at

[8] This conclusion holds even where the prior possessor had acquired the item in question by earlier stealing it from a third party, a point discussed more fully in Section 4.2.

least according to the common law (Holmes 1831/1938: 241).[9] We venture to say, however, that the proposition holds more or less in the case of virtually any property regime, formal or informal; it is a cultural universal. Possession kick starts property.

So what is "property"? To put the question in terms like Holmes's, what are "the rights acquired by possession," the "consequences . . . attached to ownership"? Conventionally, they are three: the right to exclude, the right to use, and the right to transfer (the last two rights would seem to follow necessarily from the first) (Merrill 1998). None of these rights is without limitation,[10] but each is extensive, and all are backed by the force of the state.[11] The package of rights can be justified, or on the other hand criticized, on various grounds, but we leave those matters to our concluding section.

4. Applications, Problems, and Fixes

Here we consider some examples of the possession heuristic at work in the common law of property, look at some problems to which the heuristic gives rise, and consider some fixes. By and large, our examples are drawn from relatively simple situations, because they are the most illustrative. The examples are drawn from four doctrinal categories, and each category tends to put its own particular light on the possession heuristic. With respect to all of the categories, however, we see the courts more or less taking the possession heuristic as it developed de facto

[9] Throughout this chapter, we focus our discussion on the common law, as opposed to the civil law of many countries. For comparative discussions of possession in the common and civil law, see, e.g., Holmes 1938: 206-46; Posner 2000: 535-67; Gordley and Mattei 1996: 293-334; Chang and Smith 2012; [Chang chapter in this book].

[10] For example, the right to exclude is limited by rules privileging trespass in the event of necessity, and by prohibitions against racial discrimination in certain circumstances; the right to use is limited by the law of waste and the law of nuisance; the right to transfer is limited by (again) prohibitions against racial discrimination, and by rules against restrictions on alienability.

[11] The rights could exist, of course, yet not be backed by the state, but instead by self-help explicitly or implicitly allowed by the state.

and applying it de jure.[12] The courts, in short, made the heuristic their own to a considerable degree. Perhaps they thought it wise to inform the law by looking to lay intuitions and norms; perhaps they considered the heuristic to be, in any event, an apt means to resolve the conflicts that came before them; or perhaps for both of these reasons, or for other reasons not apparent to us.

4.1. Capture[13]

Under the common law, and consistent with the possession heuristic, landowners have possession (or constructive possession) of any resources on, over, and under their parcels. Notice the incentives that result. Since any landowner reaps all the gains from using his parcel wisely, and bears all the losses from neglect, we expect he will manage his belongings wisely, if for no reason other than a self-interested aim to maximize their value to him. This is a neat picture from the standpoint of efficiency, but it frays at the edges. Even the most diligent landowners will find it difficult or impossible to manage all that they possess, because land parcels often have on them some resources which, unlike the land itself, are not fixed in place; hence they can escape an owner's possession. Who owns them, once they absent the land?

The answer is provided by the rule of capture, the domain of which is so-called fugitive resources like wild animals, water, oil, and gas. Provided such resources are captured off a

[12] De jure adoption by courts of a de facto heuristic used by ordinary people in everyday affairs has figured at least a little in the heuristics literature. A "group report" on the subject (Haidt 2006) supposes, as have we, that common law courts might have relied considerably on informal lay heuristics in carrying out their formal legal work, because the lay heuristics are simple and often work in practice to achieve what the courts saw as desirable ends, although normative constraints limit to some degree what courts may and should do.

[13] The discussion in this and later sections takes a lesson from the arguments in Section 3 above, and thus uses the term "owner" to designate the person with the relatively best title in the circumstances under examination. Moreover, we regard the owner as having *individual* (not shared) ownership of a particular parcel of land or other resource. At the other extreme is the open-access or universal commons, open to all; this is not really a property regime since no one has the right to exclude. In between the extremes is the limited-access commons, on which see Section 4.3 below.

landowner's parcel, they belong to the capturer as first possessor. We will modify this statement shortly, but first observe its consequences. Once resources move off an owner's land, they change status from the owner's private property to everybody's common property (the default rule of common property is that anyone may take and use the resources free of interference by anyone else). This changes incentives for the worse, because anyone who exploits a common resource gets all the gains therefrom, yet (unlike the situation of an individual owner) bears only a fraction of the losses, since they are spread over all the commoners. The predictable consequence is socially wasteful overconsumption.

Whether or not the common law courts fully appreciated this disturbing feature of the possession heuristic, they acted as if they did, developing rules that helped counter the problems presented by fugitive resources. As one might expect, these adaptive new rules usually operated by extending the idea of constructive possession. The rules were nice but also limited fixes, and they were sometimes applied in clumsy and unsatisfactory ways. We can illustrate both observations by looking first at some examples regarding wild animals, and then considering oil and gas (with a glance at water, another fugitive resource).

Suppose an owner of a large parcel of land frequented by deer. The deer, while on that parcel, are in the constructive possession of the landowner, as we have seen. But suppose further that the landowner has granted permission to various hunters to hunt for the deer on this land, and that one of those hunters has snared a deer and taken it home alive, hoping eventually to build a small herd of deer to be corralled on his, the hunter's, own land. That hunter who first captured the deer becomes its owner by virtue of the possession heuristic. It matters not that some other hunters had also tried to capture the deer in question – had, indeed, begun their efforts before the successful hunter had begun his. The common law rule, illustrated by the

famous case of Pierson v. Post,[14] is that the animal goes to the first to capture it, whether by kill, mortal wound, or trap. The dissenting judge in the case was of a different mind, arguing that the first hunter to chase with a reasonable prospect of capture should be entitled to the animal if his efforts ultimately succeed. He reasoned (incorrectly) that otherwise no one would hunt.[15] The majority (correctly) thought otherwise, and in any event believed that the dissenting judge's rule would be too difficult to apply. It chose the first-to-capture rule "for the sake of certainty," noting that the alternative rule of first-to-pursue "would prove a fertile source of quarrels and litigation." (This statement illustrates an important feature of the possession heuristic already noted: a claim based on possession is relatively cheat-proof, difficult to feign, as compared to claims based on who was first to pursue, who was most likely to capture, and so on.)[16]

Back to our hunter who snared a deer. His hopes of building a herd eventually are realized. His deer reproduce, and they develop a comfortable attachment to the corral that is their home. Matters reach the point where the hunter can let his deer out during the day to graze wherever they like, because they return habitually in the evening. They have acquired, as the law speaks of it, the *animus revertendi*. They have been domesticated.

But a domestic species of animal (such as a cow) is one thing, and a domestic individual of a wild species another.[17] Suppose a person hunting for deer under just the circumstances of our original situation comes upon one of the domestic deer and captures it, only to have his possession challenged by the hunter who built the herd and kept it corralled each night. Now the

[14] 3 Cai. R. 175, 2 Am. Dec. 264 (1805).
[15] The idea that no one would hunt calls to mind Yogi Berra's idea that nobody eats at a certain restaurant because it is too busy. In point of fact, the rule of capture generally has led not to inactivity but rather to over-exploitation and over-investment in capture technology in any number of documented instances.
[16] Consider also the rule of increase, according to which the owner of a female animal also owns her offspring, no matter who owned the male animal. The rule so holds, in part, because it is easier to determine the female source of the offspring than it is the male source.
[17] For an evolutionary account of the domestication of animals, see, e.g., Ellickson 2013: 1-25.

rule is that, because the deer in question had the *animus revertendi*, it belongs still to the owner of the herd. This is a considerable extension of constructive possession; it lets an owner of domesticated animals secure his possession of them with a very long but entirely invisible leash. The doctrine of *animus revertendi* is untroubling in the case of domestic species (cows again), because it is reasonable to attribute to hunters knowledge that certain animals are not wild and up for grabs. The doctrine is also untroubling in instances where the domesticated individual of a wild species is clearly marked in a way that suggests its status – a bell on a collar around its neck, a prominent brand on its side. In both of these instances, the existence of a prior possessor is apparent – an important feature in the development and application of the possession heuristic. Yet the courts seem not always to insist on such measures, nor commentators to criticize their failure to do so. Probably they accept *animus revertendi* as a suitable means to reach a productive end, namely domestication of animals. Yet when so clumsily applied, the rule results in uncertainty the costs of which can be most cheaply avoided by the owners of the animals in question.

A related example of the possession heuristic in the case of animals has to do with a wild animal that has no habit of return and is taken by a hunter out of the animal's native territory. The animal has escaped the clutches of an owner keeping it and its type for commercial purposes. The owner shows up to claim the animal from the hunter, and the question boils down to whether the animal's status as a foreigner put the hunter on notice that it belongs to someone, and also forecloses the hunter's objection that it has returned to its natural state. The answer is easy and obvious in the case of a hunter who shoots a giraffe grazing in an Iowa cornfield. It is more difficult in the case of a silver fox native to Canada, owned by a fur rancher in Colorado, and captured by a trapper in the latter state. Our sense of the cases is that courts have some

interest in protecting important local industries, so the Colorado trapper might well lose to the Colorado rancher. And perhaps it is right to suppose that trappers should know whereof they seek, just as we expect fishermen to be aware of the difference between a largemouth bass regulated by one set of fishing rules and a smallmouth bass regulated by another.

Legislative and administrative regulation is the chief means by which the legal system aims to alleviate an undesirable consequence of the rule of capture in the case of wild animals – overhunting. If anything, the common law rules have worked as much to provoke undue consumption as to limit it, as can be seen by considering judge-made rules regarding interference with capture. Allegations of interference with capture are bound to arise from the very nature of the rule of capture itself. A hunter is after wild game, and just as he readies for the kill an interloper appears and kills first. Or a hunter is after wild game, as just as he readies for the kill an interloper scares the animal off. The difference between the two cases has been important to the courts, which tend to rule that in the first case the interloper wins, whereas in the second the hunter has a remedy, say in damages equal to the value of the lost opportunity. The point of the set of rulings is clear: In the first case there is a successful capture, whereas in the second there is not, and since capture seems to be the purpose in mind (after all, hunting laws license the activity), the courts are happy to judge in light of the consequences. If the outcome of a contest is that, despite the interference, one person or another has managed to make the kill, all to the good; but if, thanks to the interference, neither has, all to the bad.[18] Unless, of course, the resource in question is scarce, in which case conservation, as opposed to capture, might be the better social end. Yet common law courts have been reluctant to take scarcity into account in applying their rules about interference with capture. In short, judges were content to invent the rule of capture in regimes of abundance that made it sensible, yet unwilling to change their

[18] See Keeble v. Hickeringill, 103 Eng. Rep. 1127 (1707); Krier (1997).

minds when the foundations of the rule of capture began to crumble, and thanks in part to the judges' invention!

A response, of course, is that legislatures *have* intervened in various respects (hunting regulations, conservation laws to protect endangered species, and so forth), but the effective reach of these measures is limited in that legislative jurisdiction has an insufficient reach in some important instances. The best example, perhaps, is ocean fisheries, productive management of which calls for international cooperation of a sort difficult to realize. And so we witness overfishing, and overinvestment in fishing capital, each a predictable consequence of the rule of capture.

Now consider the rule of capture as applied to oil and gas resources. The story here is much the same as that for wild game, so our account can be brief. Oil and gas resources were discovered to be a useful resource long after the basic rules of capture of wild animals were laid down, but their fugitive nature led the courts to treat them in the same fashion. So in an early case the court reasoned that oil and gas were, after all, just like foxes and deer – resources *ferae naturae* – in that "they have the power and the tendency to escape without the volition of the owners." What followed from the analogy (which the court hoped was "not too fanciful") was plain:

> [Oil and gas] belong to the owner of the land, and are part of it, so long as they are on and in it, and are subject to his control; but when they escape, and go into other land, or come under another's control, the title of the former owner is gone. Possession of the land, therefore, is not necessarily possession of the gas [and oil]. If an adjoining, or

> even a distant, owner drills his own land, and taps your gas [or oil], so that it comes into his well and under his control, it is no longer yours, but his.[19]

From the standpoint of efficient use, this extension of the rule of capture was not always problematic. If the pool of oil or gas happened to be located entirely within the boundaries of an owner's land (which boundaries are said, with some hyperbole, to stretch up to the heavens and down to the center of the earth), then, as noted in section 3, we could expect productive management. But usually oil and gas are found in vast common pools that lie under many parcels of land belonging to many individual owners. The rule of capture as applied by the court in *Westmoreland* turned these common pools into common property, thus inviting the sorts of ills we considered earlier in connection with wild animals. Drillers could be expected to capture as much as they could before others did so; and, as part of that aim, to overinvest in capture technology, drilling multiple wells where a single owner would use fewer; they could, to be sure, store what they captured in tanks to save the resources for another day, but an owner of a private pool could store more economically by leaving the resources in the ground until demand justified extraction.

The ills of common ownership were in principle avoidable, though perhaps at the cost of undue concentrations of wealth in lucky drillers. The courts could have said that the first to tap into a pool owns all of its contents, whatever their reach – in short, that the first to drill successfully had captured not just the flow from the pool, but the stock of the pool itself (Lueck 1995: 396–97, 422).[20] But given the state of the relevant sciences in the nineteenth century, this

[19] Westmoreland & Cambria Natural Gas Company v. DeWitt, 18 A. 724, 725 (Pa. 1889).

[20] Compare underground caves that extend beneath many parcels of land. On one view, the cave belongs in common to all owners of the overlying land. On another view, the entire cave belongs as a stock to the owner of the land on which sits the entrance to the cave, or to the first land owner to discover the cave and opens it to access. See Edwards v. Sims, 24 S.W.2d 619 (Ky. 1929); Edwards v. Lee's Admr., 96 S.W.2d 1028 (Ky. 1936).

approach would have been difficult if not impossible in practice. There was no reliable means to identify the boundaries of any given pool, and thus to differentiate one stock from another.

Courts did do what little they could to privatize common pools, primarily by way of the so-called bottoming rule. A landowner (or his licensee) could drill down only through his own parcel, never crossing over into the subterranean territory of neighbors (who had the right to exclude). Assuming one could accurately monitor the angle of a well (and it seems the courts thought this possible), the bottoming rule helped avoid common-pool problems. The rule protected pools that were in fact private (located entirely under a single parcel of land) from lateral drilling, and the rule turned de jure common pools into de facto private ones in instances where drilling was not practical on neighboring land perched over a common pool, say because of natural barriers such as impenetrable rock. So the bottoming rule helped alleviate common-pool problems, but did not overcome them entirely. Observing this, at least a few courts aimed at a fuller remedy, limiting excessive drilling into and extraction from what could be identified as common pools. Eventually, however, and as with wild animals, legislative bodies stepped in to regulate extraction, primarily by unitization of oil and gas fields. Unitization aims to achieve efficient management of common pools by forcing multiple owners to act, in essence, like a single owner would.[21]

4.2. Finders

The folk-saying is "finders keepers, losers weepers," and no doubt this is often the reality. The law, however, runs to the contrary. Early in the eighteenth century an English court announced the rule that has prevailed ever since: A finder does not have "absolute property or ownership, yet he has such a property as will enable him to keep it against all but the rightful

[21] For a discussion of similar problems and responses in the case of ground and surface waters, see Dukeminier, Krier, Alexander and Schill (2010: 37–38).

owner . . . ."[22] We noted in Section 3 that this statement is misleading, if not flat out wrong, as the law of finders illustrates. Suppose that *A* is "the rightful owner" of an item and loses it, that *B* finds the lost item and takes possession but then loses it, and that *C* then finds it. *B* learns of *C*'s find and sues to recover the item. The statement from the *Armory* case clearly holds that *B* wins against *C*, but it also clearly holds that *C* wins against *B*. Each of them, after all, is a finder, and neither of them is "the rightful owner"! The absurd result is avoided by stating the rule correctly: A finder wins as against all but prior possessors. So *B* prevails over *C,* and *A* over *B*, this according to the doctrine of relative title discussed in Section 3.

It is interesting to note that the doctrine of relative title holds even if a person in the chain of title is a thief, provided the theft was not committed against the person making a claim.[23] If, in our example above, *C* in the suit by *B* wishes to show that *B* had stolen the item in question from *A*, the evidence will not be heard, and for good reason. If *C* were allowed to show that *B* had stolen the item, it would follow that *B* should be allowed to show that *A* had stolen it as well, from *X*, and *A* to show that *X* had stolen it also, from *Y*, and so on. Efforts to disallow protection of a thief's prior possession could result in an endless enterprise.

This is why courts hold, in a suit by a prior possessor against a subsequent possessor, that the latter may not use a *jus tertii* defense in support of his own possessory title by showing that his adversary's title is in fact in some third party (*jus tertii* means "a right of a third party"). Yet even astute observers seem to overlook the point of this sensible rule. So Judge Richard Posner asks whether a "wrongful possessor" should prevail over a subsequent lawful finder, and answers, "Presumably not; depriving him of possession is the only feasible sanction for his initial wrongful act, and the prospect of such deprivation may be the only feasible deterrent against

[22] Armory v. Delamirie, 1 Strange 505 (1722).
[23] Chang [Chapter in this book] offers a different view of wrongful possession, and sees no reason to protect prior wrongful possessors.

wrongful takings." (Posner 2000: 557.) But how does Posner know that the "wrongful possessor" was indeed wrongful? He knows only because he asks in his example for us to "suppose" this! Hypothetic problems make life so much simpler than reality, as judges should well understand. (In any event, how does Posner know that the wrongful possessor did not get possession by finding what had been lost by another wrongful possessor? He doesn't.)

A particularly interesting feature of finders cases is that "the rightful owner" (the most prior of all possessors) is seldom on the scene. There are few reported finders cases arising from suits by "rightful owners," no doubt in part because their claims are indisputable and thus not litigated. Most commonly the cases involve a series of possessors each claiming not to own but only to have rights of possession relatively better than their adversaries, by virtue of being prior in time. And usually, but not always, this means lawsuits between a finder and the owner of the locus where an item was found. The English common law judges made a proper spectacle of themselves as they struggled to determine who, as between locus owner and finder, was the prior possessor of the item in question, for it always came down to that, to prior possession. (Unhappily, their mode of answering spread like a virus to the new land.) Was it the locus owner by virtue of constructive possession, or the finder by virtue of actual possession? Might it matter (it might) whether the found item was attached to or under the ground, on the one hand, or lying on the surface, on the other? Was the locus a private place, or a public one, or somewhere in between? (The intentions of the locus owner, judges thought, might vary as a function of this, although sometimes they said it was irrelevant.) Was the find by a servant of the locus owner, and, if so, was the servant in the course of service, or outside it? Did the locus owner know of the thing found? (Sometimes this mattered and sometimes not, judging from various opinions.) Did it appear that the found item had been abandoned, meaning there was no "true owner"?

These questions, and the various and often contradictory answers courts developed in response, are bewildering. Consider the plight of the judge in Hannah v. Peel, an English case.[24] His job was to determine whether it was the finder, or rather the locus owner, who was the prior possessor of a broach found by the former in the home of the latter. After working dutifully through the precedents, he concluded with a startling but perfectly understandable observation: "A discussion of the merits," he said, "does not seem to help"!

And what, exactly, are the merits? One answer, incontestable so far as we can see, is that the great first principle of the law of finders is to protect the rights of "true owners," which is to say, in this instance, the person who lost possession of the item in question. We presume that the common law rules of finders developed with this end in mind, yet no one (we include ourselves) has been able to see or to show how the design of the rules reflects or advances that ambition. The conventional law – at least, the common law rules, as opposed to various legislative measures – displays a formalistic architecture, as opposed to an instrumental or functional one. At least a few courts have noted this and chosen to design alternative rules by self-consciously and transparently reasoning from desired ends to suitable means.

An example of the instrumental approach is McAvoy v. Medina,[25] which involved a wallet found on a table by a customer in a barber shop. The judge noted the usual rule "that the finder of lost property has a valid claim to the same against all the world but the true owner." But here, the judge observed, the wallet was not lost but *mislaid*, having been voluntarily placed on the table by its owner. Accordingly, the finder was not entitled to take the wallet from the shop; rather, the barber had a duty to hold it safely until its owner returned. "We accept this," the judge concluded, "as the better rule, and especially as one better adapted to secure the rights of

[24] [1945] K.B. 509.
[25] 93 Mass. (11 Allen) 548 (1866).

the true owner." The reasoning is clear: the real owner, realizing the absence of his wallet, will retrace his steps and find it where he left it.

That does seem plain on first glance, but it doesn't stand up to closer observation. Instrumental reasoning is fine if it is informed by careful attention to how people actually think and behave under the constraints of legal rules, but the judges who created the *mislaid* rule were careless in these respects. Consider:

First, the *mislaid* rule requires a judge to determine whether a found item was lost, or rather was mislaid, a task easy enough on the facts of *McAvoy* but not in a host of other cases that might arise (a woman's purse under the chair where she sat in a restaurant; a small package found under the seat in a theater, and so on).

Second, there is no reason to engage in costly musing over ambiguous facts when the purpose behind the mislaid rule shows it to be unnecessary: Whether found items were mislaid or lost, surely their owners would try to retrace their steps. Owners who have mislaid might be more likely to succeed in the venture than owners who have lost, but owners who have lost are *way* more likely to find their items if they remain where they were lost than if they do not! Hence the *McAvoy* rule should be applied regardless.

Third, perhaps it should not be applied at all. Courts commonly read the rule to hold that "a finder of property acquires no rights in mislaid property."[26] If the owner retraces, the property is his; if he does not, it remains where it was mislaid. The owner of the locus gets to keep it forever. Hence finders announce their find at their peril, which hardly gives them incentives to disclose, and disclosure is the crucial first step in protecting the rights of owners who have lost or mislaid their goods.

[26] See, e.g., Michael v. First Chicago Corp., 487 N.E.2d 403, 409 (Ill. App. 1985).

So we would say that the *McAvoy* case is that rare thing, a perfectly incorrect decision. This hasn't stopped learned authorities from agreeing with it. The late Walter Wheeler Cook (1935:524) considered it "obvious [note the confidence!] that from the point of view of social policy the shopkeeper ought to be preferred to the customer, as in that event the article would be more likely to get back into the possession of the real owners."[27] Judge Posner (2000: 556) also seems to endorse the lost-mislaid distinction to some degree, although he wonders why the finder of a mislaid item could not just leave his name and address so that the owner of the item can track him down. But that could well be done in cases of lost goods also, a point Posner leaves unmentioned, perhaps because he takes "lost" to mean "that the owner doesn't realize the property is missing," and so "is unlikely to search for it." Posner has a strange definition of lost, and an odd sense of how losers act.

Since protection of the possessory interests of those who lose or mislay belongings depends on disclosure by finders, we have to consider their incentives to disclose. They might be inclined to disclose on pain of being charged with theft, but the probability of such charges will in most cases be almost zero; or they might be inclined to disclose on pain of feeling guilty, which depends on how well they have been socialized. In any event, the law puts finders in a double bind: They are cheaters if they don't disclose and fools if they do. Finders would have heightened incentives to disclose if owners were required to pay a reward in order to reclaim possession. Some civil law countries do this, but the common law requires no reward unless one had been promised. One could argue also that finders are encouraged to disclose by the fact that they will win in the end, guilt free, if no true owner shows up (which is probably often the case). The problem is that even in those circumstances there is no guarantee, since found items might

[27] Cook should have known better. After all, he had both legal and scientific training (mathematics and physics) and was a specialist in the application of scientific methods to the study of law. He taught at such august law schools as those of Chicago, Columbia, and Yale.

be awarded to locus owners instead, either because the items are judged mislaid, or because the owner of the locus is judged to be the prior possessor. One could escape the latter difficulty by barring claims by locus owners, but doing so would dash the justified expectations of people who figure, usually with good reason, that what is on their land belongs to them, at least as against mere finders.

The possession heuristic as conventionally applied by the courts leaves them incapable of resolving the dilemmas of finders law, and for a very simple reason. The courts see possession as all or nothing: either the finder is the prior possessor and thus prevails, or the locus owner is the prior possessor and thus prevails, period. The consequence of this formalistic viewpoint is that it forecloses what would almost always be the best outcome – that each party has a claim to half as between themselves, and ultimately as to the so-called true owner of the item if he does not appear to make a claim within a reasonable time; if the true owner does show up within that time, we would require that he pay a reasonable reward, itself to be divided between the finder and the owner of the locus. In the meanwhile, found items, whether deemed lost or mislaid, should be held either in a public repository, or in the place where they were found. This is plain common sense, on any number of grounds. It is the way we would expect well-socialized individuals to resolve the matter on their own. It would increase the incentives of finders to disclose. It would acknowledge the expectations of locus owners. It would provide closure.[28]

4.3. Shared Possession

The case we just made for sharing between finders and locus owners rests on purely instrumental reasoning. Some commentators, looking for a doctrinal hook on which to hang the approach, find it in "the concept of joint finding." (Helmholtz 1983: 324) However expressed,

[28] For a similar proposal, see Helmholtz (1983).

the result is (at least for a time) a regime of shared possessory rights, a kind of concurrent ownership.

Concurrent ownership is a regular feature of property law as to both land and personal property (bank accounts, for example). It appears in several forms in the common law system – the most ordinary being tenancy in common and joint tenancy – but the distinctions between the two are not important to our discussion. The important feature is that both forms involve shared possession, and it should be apparent from our discussion in Section 4.1 that concurrent ownership (as with so-called common property generally) can be problematic from the standpoint of efficient resource management: Good management requires concurrent owners to cooperate – to act, in essence, as would a single owner – but this can be difficult to achieve, especially when there are many individuals sharing possession, but also when there are few.[29]

The common law contains some default rules presumably designed to cope with this problem. The underlying principle is that the possessory rights of co-owners are undivided, meaning each is entitled to use all of the property subject only to the exact same entitlement in the others. Regularly, though, one co-owner's use necessarily conflicts with another co-owner's use, yet the principle provides no guidance whatsoever on the question of who should prevail.[30] This is probably why the default rules developed to animate the principle are confusing, inconsistent, and unpredictable in their application, meaning co-owners would be well-advised to sidestep the rules by making agreements among themselves. If they cannot agree, then – happily – the law leaves a way out. Every joint tenant or tenant in common has a unilateral right to exit

[29] This is not to say that co-owners of a limited-access commons (open to members only) never manage to coordinate, even when there is a considerable number of them. See, e.g., Ostrom (1990). Nor should it be taken to suggest that such commons do not have considerable virtues, such as economies of scale, risk spreading, and the pleasures of working in consort.

[30] The same difficulty arises from the central (and useless) principle of nuisance law, that one should use one's own property in such a way as not to injure the property of another.

by partition, which results in divided ownership in severalty.[31] This is one of the great default rules of the common law.

Concurrent ownership is a productive regime provided the owners are people who tend to get along well together. If the messy default rules of the common law have a virtue, it is that they nudge uncooperative types to get out of the co-owner game altogether.

4.4. Adverse Possession

Adverse possession doctrine holds that an owner can lose his land to a subsequent possessor who enters without the owner's permission, provided the entry is actual, apparent, hostile, and continuous for a period set by a statute of limitations.[32] The result is, effectively, a forced transfer, seemingly inconsistent with the possession heuristic and its set of rights. Actually, the contrary is the case. It is true that adverse possession doctrine compromises security of possession, but it is equally true that it also enhances security of possession – namely in all cases where the claim to some belonging happens to trace back to the actions of a distant dispossessor. The aim of the doctrine – of statutes of limitations generally – is closure, and for good reasons. With the passage of time and the accompanying deterioration of relevant evidence, the actual facts of the status quo ante become increasingly difficult to determine. Moreover, during that same time various transactions in the property will usually have been made in reliance on appearances. Reversing these, especially given uncertainty about what really occurred back at the outset, would usually be unsettling, and in the case of land, particularly so. Hence, adverse

[31] Some states recognize tenancy by the entireties, a form of co-ownership available only to husband and wife. In a tenancy by the entireties, neither husband nor wife may act unilaterally with respect to the property. Perhaps this encourages cooperation, but if it fails in this respect, partition is not an option unless both spouses agree. During their joint lives, the only unilateral move available to either is divorce.

[32] We should mention that constructive possession also comes into play in adverse possession law. Under the "color of title" doctrine, one who actually enters just a portion of land, under a deed or other instrument which purports to convey all the land but happens to be ineffective, is nevertheless said to possess all the land that is described in the instrument, subject to various limitations.

possession helps more than it hurts, once the social benefits of quieting title are taken into account. Adverse possession is not an indispensable means to achieving closure (see, e.g., Stake 2001), but it is a useful one.

Still, the doctrine does work forced transfers, and this has moved its defenders to develop several other justifications for adverse possession over the years, each of them aiming to show that the transfers are a good thing of themselves, without regard to the aim of quieting title.[33] One such argument is that an erstwhile owner has no grounds to complain, having left his land idle while he slept on his rights. A second argument looks at the other side of the matter, holding that the adverse possessor has earned his reward by putting the land to productive use.[34] These views – sometimes called the "sleeping" and "earning" theories, respectively – have introduced undesirable distractions into the American law of adverse possession. For example, and probably thanks to both theories, judicial decisions and legislative requirements commonly reflect the view (at times only implicit) that active use of land is especially meritorious, when in fact leaving land undeveloped is often the more efficient course. Beyond that, the earning theory in particular has led some jurisdictions to require good faith as an element of adverse possession,[35] and to require privity among a series of adverse possessors in order for them to tack

[33] The forced transfers lead critics, especially lay critics, to complain that adverse possession amounts to "legalized theft." The complaint overlooks the fact that theft itself is legalized theft once the running of a statute of limitations forecloses criminal prosecution for theft and civil actions for conversion of the item in question. Yet it seems that only when the item in question is land do people get their backs up.

[34] A third (and more recent) argument (in two variations, both offering interpretations of Holmes (1897: 476-77) asserts that, given the passage of time, the adverse possessor likely gains more utility in keeping the land than the former owner loses in having to give it up (Posner 2011: 98; Ellickson 1989: 39; see also Stake 2001: 2455-71).

[35] In odd contrast, some jurisdictions insist on bad faith on the part of adverse possessors, requiring them to prove that they knew the land in question did not belong to them when they entered it. In our view (and that of many courts), any inquiry into the subjective mental state of adverse possessors is undesirable, since it is usually impossible to assess what was the actual state of mind of the adverse possessor at the time of entry; and, in any event, there was a cause of action against the entrant no matter his mental state, so the statute of limitations should begin to run.

together their periods of "earning" ultimate title. The English law does neither, because it wisely views adverse possession as a means to quiet title, and nothing more.

5. Possession and Property

As we noted in our Introduction, the law of property is the law of belongings, and its first task is to determine to whom things belong. The possession heuristic provides the answer: a thing belongs to its possessor.[36] That person, being an owner in the sense described in our discussion, has rights that necessarily accompany the status of owner—to exclude, to use, and to transfer. A virtue of the possession heuristic (of any heuristic) is its simplicity. It calls for no attention whatsoever to any number of considerations that could be thought relevant to determining who in society is entitled to what—who in any particular instance might justly deserve the entitlement, or have the greatest need for it, or attach the highest value to it, or make the most efficient use of it. That the possession heuristic ignores these factors does not mean that it serves nothing but convenience. Quite to the contrary, the rules on possession and the rights that accompany it (to exclude, use, and transfer) are commonly justified in terms of desert (e.g., Sugden 2004: 99–101); efficiency (e.g. Posner 2011: 41), individual autonomy (e.g., Friedman 1962: ch. 1) and human flourishing generally (e.g. Alexander 2009a). In particular instances where applying the possession heuristic seems unjustified from the viewpoint of any of those terms, modifications can be (and regularly are) made, whether by courts or legislatures.

In the language of the heuristics literature, the modifications are usually products of a switch from one system of problem solving to another, the two being referred to as System 1 and System 2 (see, e.g. Kahneman 2011:20-21). S1 refers to problem solving by means of heuristics, whereas S2 is characterized by self-conscious attention to a variety of considerations. S1, then,

[36] For discussions in the same vein, though not cast in terms of heuristics, see Epstein (1979) and Rose (1985).

is simple, and S2 is complex. The law of property, writ large, employs both systems, meaning property amounts to more than just possession and its default incidents.

Discussions of S1 and S2 run throughout the heuristics literature, but it is best for our purposes to focus instead on an ongoing debate among property theorists about the comparative advantages and disadvantages of the two systems. The debate is not framed in terms of S1 and S2, but it could as well be. The debate, as we see it, is about simplicity versus complexity, and how to realize the virtues of each. Here we present the contending views in a brief and somewhat stylized account, drawing on some of the work of Tom Merrill and Henry Smith, who favor S1, and Gregory Alexander and Hanoch Dagan, who favor S2.[37] For convenience, we to the two camps as M&S and A&D, respectively.

M&S begin with the in rem nature of property rights. The rights are good against the world, and this requires that their substantive content be readily accessible and intelligible to third parties, so as to guide them in their behavior and expectations – in particular, to inform them what belongs to them and what does not, and with what consequences. M&S construct an entire theory of property based on this observation, a theory with both descriptive and normative elements. For example, they have argued, on the basis of many examples, that the law of estates is designed to limit the forms of ownership to a short and conventional list this in order to minimize the information costs that would arise if owners and others had to deal with a large collection of novelties (Merrill and Smith 2000: 8). They claim elsewhere that this constraint is rooted in morality. "Property can function as property only if the vast preponderance of persons recognize that property is a moral right . . . [and] the morality upon which it rests must be simple and accessible to all members of the community" (Merrill and Smith 2007: 1850). While few

[37] Alexander (2009a); Dagan (2007); Merrill and Smith (2003; 2000); Smith (2012; 2009).

would characterize the law of estates as "simple" or "accessible to the community," their central insight is persuasive: property's moral and practical force depends on its overall intelligibility.

A&D, on the other hand, consider property to be a complex and context-dependent set of rights and obligations intended to promote "human flourishing" (Alexander 2009a: 760). They build on the legal realists, who characterized property as a "bundle of sticks," a set of relational interests that might be personal and not solely in rem. For example, property usually includes the right to exclude, but need not always do so if exclusion is inconsistent with larger social concerns. So the court in State v. Shack[38] was justified in thwarting the wishes of a land owner who wanted to exclude social workers seeking to speak with migrants laboring on his land. And property can (and, they argue, does) entail, as a "social obligation," an affirmative duty to preserve open space or to share resources that are sufficiently important to the community (Dagan 1999: 768-78; Alexander and Peñalver 2009: 148). The content and normative underpinnings of these claims are well developed in the literature, so we need not rehearse them here (Serkin 2013). It is plain that their method of resolving conflicting property claims can sometimes involve far more complex analysis than does the method of M&S, who usually rely on a simple right of exclusion.[39]

Notice that each point of view has some key elements. M&S object to the relational approach (in personam as opposed to in rem) at least in part because it is neither easy to apply nor easy to discern. The approach uses uncertain standards that make property rights contingent and relatively uninformative for everyday purposes. Usually it is better to use simple rules to govern behavior and avoid disputes. A&D object to the narrow-mindedness of the foregoing;

[38] 277 A.2d 369 (N.J. 1971).

[39] Merrill and Smith both separately acknowledge the important role of complexity in legal systems, but reject it for the possession and the creation of bare property rights (Merrill, [this book]; Smith 2012: 1694).

they are willing to tolerate more complexity in the content and specification of property rights, in order to take account of social-welfare considerations too often ignored by simple rules.

Actually, the differences between the debaters are not as stark as our outline suggests, nor as the protagonists claim to believe. Their arguments (and it is worth noting that each side tends to caricature the views of the other side) are cast in the form of deep ontological disagreement about the very nature of property, about its "core" versus its "periphery." Framing the debate in such high-stakes terms is a distraction. The reality is that property, in form and practice, is a mixed system, as both sides acknowledge.[40] Merrill expands this very point in his contribution to this volume, offering an information-cost account of the relationship between property and possession (Merrill, [this book]). Property reflects no singular ideological commitment. Methodologically, it reflects a division of labor between S1 and S2 problem solving. It is, to be sure, more rule-bound than most of the common law, and no doubt for the reasons M&S suggest. Yet it resorts to standards repeatedly, as any property scholar knows. Sometimes the switch from bright-line rules to more vague standards occurs precisely where S1 thinking breaks down.[41] We speculate that careful investigation would show that S1 dominates some substantive areas of property law (such as the law of capture and finders), and S2 others (the law of servitudes comes to mind). We also speculate that observed patterns of dominance could usefully be explained by reference to the very ideas brought out in the work of M&S and H&D alike (see, e.g., Sterk 2013).

[40] For example, M&S concede there are occasional limitations on the right to exclude (e.g., Smith 2009: 971), and A&D acknowledge the ongoing relevance of a general right to exclude in most cases (e.g., Alexander 2009b: 1063-69). Moreover, A&D's examples of "affirmative obligations" usually are not affirmative at all; rather they take the form of additional limitations on the right to exclude, regarding which recall the discussion in footnote 10.

[41] It is possible—as one of us has argued—that bright-line protection for existing uses, as opposed to the ad hoc protection of prospective uses, is best justified by similar behavioral intuitions (Serkin 2009: 1267-70).

To our mind, the interesting question is the degree to which the two different approaches to resolving property disputes can be accommodated in a manner that compromises the central concerns of neither. The sort of property system envisioned by M&S – a system that relies considerably on the S1 methodology, is robust. It works well most of the time, meaning that a switch to the S2 methodology called for by H&D would seldom be thought necessary. Adding occasional complexity to the core understanding of property hardly undermines its utility as a simple and instructive system. Even decisions based on S2 methodology can fit themselves into the basic S1 system: In particular categories of cases, standards can be applied in a manner so regular and consistent as to become in essence rules, such that the ex post approach evolves into ex ante rules, while still leaving some flex in the system.

An interesting feature of the property debate sketched in this section is that the contending parties both present a view based not just on normative but also on positive theory. Each side, that is, claims to be *describing* how our present property system actually works. And each side is correct. If property law required people in all their interactions to depend on S2 reasoning instead of S1 intuitions, the friction in the system would soon become unbearable, but so too if the situation were turned the other way around. But the study of heuristics demonstrates that there is be a role for both methods, simultaneously, and our property system works all the better for it.

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