The Titling Role of Possession

Benito Arruñada[*]

This version: January 14, 2014

Abstract

This paper proposes two hypotheses on the publicity requirement and the limitations of possession to provide information for legal titling. It then tests these hypotheses by examining how legal systems deal with possession in movable and immovable property, and comparing actual and documentary possession. It concludes that exercise of possession is effective as a titling mechanism when it is observed by independent parties, thus providing publicity and verifiability of titling-relevant elements. However, given that possession is only effective to inform about a single *in rem* right, direct and automatic reliance on possession for titling requires that all other rights be diluted to *in personam* status or be burdened by the possessory *in rem* right. In any case, public knowledge of possession, either in its delivery and/or its exercise, is essential for possession to play a public titling function. Similarly, documentary possession is only effective as a public titling mechanism in the absence of multiple rights *in rem*.

Keywords: property rights, enforcement, transaction costs, registries.

JEL: D23, G38, K11, K12, L85, O17, P48.

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[*] Pompeu Fabra University and Barcelona GSE. E-mail: benito.arrunada@upf.edu. This work has benefitted from exchanges with Avi Bell, Daniel Klerman, Yun-chien Chang, Thomas Merrill, Pedro Pernas, Georg von Wangenheim and other participants at the 5th Law and Economic Analysis Conference, Academia Sinica (Taipei), and the 2013 annual meeting of the German Law & Economic Association (Bozen). Usual disclaimers apply. It presents an original application to possession of the framework developed in Arruñada (2012), from which it borrows some examples and applications. It received support from the Spanish Ministry of the Economy and Competitiveness, through grant ECO2011-29445.

1. A general theory of impersonal exchange

1.1. Possession and property in economics and law

Distinguishing ownership from possession, or control, is essential to understand the institutions supporting property, and to be effective when creating and reforming them. In property law, "ownership is pre-eminently a right. Possession, on the other hand, expresses the physical relation of control exercised by a person over a thing" (Holdsworth 1927:123). Separation of ownership and possession has also been the subject of economic analysis since at least Adam Smith, who studied separation of ownership and control not only in corporations but also in land (Smith 1776:391–92). However, until recently, not much attention has been paid to possession in the economic analysis of institutions. In fact, even prominent authors in the economics of so-called property rights identify possession with ownership (for example, North 1990:33; Demsetz 1998:144).[2]

This lack of attention is unsurprising. Economic analysis has mainly focused on the political aspects of property. As emphasized by North and his coauthors, a well-organized polity will preclude violence and confiscation, and subject owners' expropriation to strict conditions, including proper compensation.[3] Moreover, as analyzed by many works influenced by Coase (1960), the law and, to a large extent, government and politics set the initial allocation of rights, which enables parties to easily transact in the market and thus achieve better allocation of resources. Many of these economic analyses focus on how political failures lead to bad

[2] With respect to economics, Steiger even claims that "the fundamental flaw in New Institutional Economics [is] missing the distinction between possession and property" (2006:194). It has also been claimed that possession has lost the prominence it had in legal scholarship during the last part of the nineteenth century (Epstein 1988). This may well be so in developed economies; however, squatting is still a major issue in developing economies.

[3] See mainly North and Thomas (1973), North (1981, 1990), and North, Wallis, and Weingast (2009).

institutions.[4] Their central concern is that property may be endangered by political failure because most governments not only prove unable to allocate "property rights" clearly, and to preclude violence and defend private rights against private encroachment: they are also prone to confiscating their citizens' property.

Property law, instead, focuses on private aspects. In particular, it is mainly concerned with the fact that property can also be endangered by market failure, when individuals misuse market transactions to grab the property of others. This may happen because most owners acquire their property from someone else and will, at some point and especially in a modern economy, transfer it to others. But transfers pose risks to both owners and acquirers, so that owners will fear being dispossessed of their rights and acquirers will fear being cheated on their acquisition. To prevent their mutual fears and encourage them to invest, specialize and trade, a market economy requires institutions providing more than initial allocation of rights and a non-confiscatory State. Institutions must also achieve an efficient mix of property enforcement and transaction costs, as I explain below.

1.2. The conflict between property enforcement and transaction costs

In many economic analyses, property enforcement is often simplified as making sure that rights to property are not taken by force, either unimpeded or exerted by a failed polity. Consequently, they neglect the basic conflict arising between property enforcement and transaction costs when one considers that rights can also be taken as a result of market actions. They fail to provide a productive foundation for analyzing the institutions of property law that make it possible to solve such conflict. In particular, they fail to consider the central feature of property enforcement: the distinction between remedies *in rem* and *in personam*, between the two basic types of rights: contract rights and property rights. (Their use of the term "property rights" only adds to the confusion).

A fruitful economic analysis of the institutions of property must therefore start by considering these concepts, by understanding how property is actually enforced. In principle,

[4] These economic analyses have helped illuminate a wide variety of important issues (see some examples in Arruñada 2012:236 n. 13).

given that property rights are the foundation of economic incentives and prosperity, one may think that they should be enforced strictly, so that, in case of conflict with acquirers, goods are always returned to their owners unless they had granted their consent—treating them as rights *in rem*. However, such strict enforcement would increase transaction costs by worsening the information asymmetry suffered by acquirers of all sorts of rights, who would always have to gather the consent of the previous owners without even knowing who they are. Strictly enforcing property rights would therefore endanger trade. Moreover, it would also endanger specialization, because specialization is often based on having agents acting as owners' representatives, and, with universal strict enforcement, acquirers would have reasons to doubt the legal authority of sellers.

Economic growth therefore requires this conflict between property enforcement and transaction costs to be optimized, so that both current owners and acquirers are efficiently protected. Protecting owners' property rights encourages investment, and reducing the transaction costs faced by acquirers encourages them to trade impersonally and thus improves the allocation and specialization of resources. Owners' consent must be preserved but enforced in a way that makes trade possible. And current owners have an interest in tackling the conflict, not only because they are potential sellers but because, being acquirers with respect to the previous owners, they could eventually lose their title.

The nature of the problem can be clarified by considering that most economic transactions are interrelated sequentially, as most transactions legally interact with previous transactions. In the most simple sequence, with only two transactions, one or several "economic principals"—such as owners, employers, shareholders, creditors, and the like—voluntarily contract first with one or several economic "agents"—possessors, employees, company directors, and managers—in an "originative" transaction. Second, the agent then contracts "subsequent" transactions with third parties.[5] Understandably, it is necessary to optimize the total costs of transacting, considering both originative and subsequent transactions.

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[5] This use of "agency" language for describing property cases may puzzle readers familiar with the legal concept of agency. However, it is convenient to generalize the argument, encompassing all types of transactions. The agency structure is clearer for those business transactions for which there is an explicit agency or employment relationship. In contrast, for property transactions, which party plays the role of

Sequential exchange is necessary to specialize the tasks of principals and agents—between landowners and farmers, employers and employees, shareholders and managers, and so on in the originative contract. But it also gives rise to substantial transaction costs, because, when third parties contract with the agent in the subsequent contract, they suffer information asymmetry regarding not only the material quality of the goods or services being transacted but also the legal effects of the previous originative contract. In particular, third parties are often unaware if they are dealing with a principal or an agent, or if the agent has sufficient title or legal power to commit the principal.

Moreover, principals face a commitment problem when trying to avoid this asymmetry because their incentives change after the third party has entered the subsequent contract. In an agency setup, before contracting, principals have an interest in third parties being convinced that agents have proper authority. However, if the business turns out badly and there are no further incentives in place, principals will be inclined to deny such authority.[6] The typical dispute triggered by the sequential nature of transactions is one in which the principal tries to elude obligations assumed by the agent in the principal's name, whether the agent had legal authority or not.

In principle, judges may adjudicate in such disputes in favor of the principal or the third party. I will refer to favoring the third party as enforcing "contract rules," as opposed to the

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agent or of principal even depends on the type of potential deception considered. But the agency structure is also present in all property transactions. Observe, for instance, that in a second sale the seller is acting as an economic agent for the first buyer, even if this use of the agency concept is unconventional in legal terms, since the first buyer does not intend the seller to act in this capacity and the seller does not portray herself as an agent of the buyer. In addition to making a more general argument, talking of principals and agents avoids the confusing labeling of some claimants (usually the first in some contractual event) as "legal" or "true" rightholders, without them necessarily being the ones held as such by the law.

[6] This is easy to grasp in a legal agency setup as, e.g., when contemplating the relationship between a shareholder (principal), a corporate representative (agent) and a corporate lender (third party). A typical property conflict is that between a first buyer (principal), a seller (agent) and a second buyer (third party). In such a case, the commitment refers to the seller's promise not to sell twice. Ex ante, she is interested in committing herself, in order to encourage the buyer to buy; but her incentives change after the sale. The text could therefore read: Before the originative sale contract, sellers (i.e., agents) have an interest in buyers (i.e., principals) being convinced that they will not cheat through a subsequent transaction (e.g., a second sale), but their incentives change after the first sale.

seemingly more natural "property rules" that favor the principal.[7] The effects of these rules are clear. Take the simple case in which an agent exceeds his legal powers when selling a good to an innocent third party (i.e., a good-faith party who is uninformed about the matter in question). When applying the "property rule" that no one can transfer what he does not have, judges have the sold good returned to the previous owner, who is therefore granted a right *in rem*, and give the innocent third party a mere claim *in personam* against the agent. Conversely, judges may apply an indemnity or "contract rule" so that the sold good stays with the acquiring third party and the owner-principal only wins a personal claim against the agent.

The difference in the value of these legal remedies—real or personal— is substantial because the enforceability of these two types of right is often markedly different. While rights *in personam* are only valid against specific persons, *inter partes*, rights *in rem* are valid against all individuals, *erga omnes*. The latter, therefore, provide the strongest possible enforcement: without the consent of the rightholder, rights *in rem* remain unaffected. When the thing is a parcel of land, the difference in value often ranges from full value for the party being adjudicated the land, to zero value for the party being given a claim to be indemnified by an insolvent person. (Similar differences arise in business and corporate contexts, where a parallel distinction is often made, but framed in more general terms: not in terms of rights but in terms of legal priority.)

If judges apply a property rule, maximizing property enforcement, owners will feel secure with respect to future acquisitions but all potential acquirers will suffer greater information asymmetry with respect to legal title, endangering trade. Conversely, if judges apply a contract

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[7] These labels parallel the legal origin of the dichotomy and should avoid confusion with related but drastically different concepts. In particular, the rules are similar but distinct from the "property" and "liability" rules defined in the influential work by Calabresi and Melamed (1972) because, instead of a taking that affects only two parties, here the rules are defined in the context of a three-party sequence of two transactions. Moreover, my analysis focuses on the role played by the parties in each transaction, disregarding that current third parties will often act as principals in a future sequence of transactions. Consequently, when good-faith third parties win a dispute over their acquisitive transaction (i.e., when they are given a property right), they do not win as a consequence of applying a property rule, which—by definition—would have given the good to the original owner. In such a case, the third party does not pay any monetary damages to the original owner, as in Calabresi and Melamed's liability rule. A final difference is that Calabresi and Melamed's property rule is weaker, referring only to the ability to force a

rule, minimizing information asymmetry for potential acquirers, they weaken property enforcement, making owners feel insecure, endangering investment and specialization. The choice of rule therefore involves a conflict between property enforcement and transaction costs—more generally, a conflict between the transaction costs of originative and subsequent contracts.

This paper examines how legal systems rely on possession for solving this conflict. In the rest of the paper, I first outline a theory on the efficacy and limitations of possession as evidence for property titling and propose a taxonomy of the roles played by possession and two hypotheses about how it works (section 2). I then analyze in sections 3 to 5 three partly overlapping areas in which possession plays relevant but diverse roles: those of (1) movable and (2) immovable property, as well as (3) documentary possession. The purpose of this analysis is, if not to test the hypotheses, at least to explore their consistency in the main types of institutional solutions. What emerges is a nuanced view of the titling function of possession, which depends on the availability of institutions (mainly, registries), the type of asset (movable versus immovable), the type of transaction (commercial versus noncommercial) and the multiplicity of rights.[8]

2. Hypotheses on reliance on possession as evidence for titling

To overcome the conflict between *in rem* property enforcement and transaction costs, expanding the set of viable contractual opportunities with minimal damage to property rights, different solutions will be appropriate, depending on the circumstances of each type of right and

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would-be taker to bargain for a consensual transfer similar to specific performance, which thus arguably has little to do with a right *in rem* (Merrill and Smith 2001a).

[8] This titling function of possession does not tie in with stark separations of possession and ownership, such as the view expressed in the first five sections of Merrill (forthcoming). To the extent that the exercise or delivery of possession plays a titling function—either directly, with respect to third-party good-faith acquirers; as a consequence of *usucapio* and other forms of acquisitive prescription; or through the publicizing element of delivery—, possession becomes highly relevant even for the "audience" interested in exchanging property rights.

transaction. The legal system may directly choose to enforce some rights in a certain way or, more generally, give freedom to rightholders about which rule to apply. However, when rightholders are free to choose, the legal system must guarantee their commitment, which in some cases is automatic as a byproduct of market interactions but in others requires costly formal institutions such as public registers.

In general, for judges to apply property rules, which favor owners, owners must have publicized their claims or their rights, which should protect acquirers. That is, owners can opt for a property rule to make their rights stronger, but, thanks to publicity, acquirers suffer little information asymmetry. Conversely, for judges to apply contract rules, which favor acquirers, owners must have granted their consent, which should protect them. That is, when it is in the owners' interest to reduce transaction costs, they choose a contract rule, so that acquirers' rights are stronger, whereas owners' rights are weaker. This weakening of property is safeguarded by the fact that it is owners—in general terms, principals—who choose e.g. the agent to whom they entrust possession or appoint as their representative, this being the same moment when they implicitly opt for a contract rule. However, commitment to their choice is also necessary.

Smooth operation of this conditional application of rules poses varying degrees of difficulty for different transactions. The difficulty is relatively minor when the originative transaction produces verifiable facts, such as the physical possession of movable goods by a merchant or a house by a lessee. For these cases, judges can base their decisions on this public information, which is produced without any explicit formal intervention. What judges or legislatures have to do is only to clearly define the rules to be applied.

The difficulty is greater when the originative transaction produces less verifiable facts, making private (i.e., contractual, as opposed to institutional) solutions harder to apply. Such private solutions may even be impossible if all the information on the transaction remains hidden and its consequences are not verifiable. Consider, for example, the difficulties for using land as collateral when hidden mortgages are enforced on the basis of contractual documents. Given the possibility of antedating mortgage deeds, judges would be basing their decisions on unreliable information, and lenders would be reluctant to contract for fear of previous mortgages emerging. In such a context, rules alone are not enough because applying them requires verifiable information on the titling-relevant elements of originative contracts. To produce such

information, it is necessary to enforce only those mortgages that have been made public, usually by entering them into a public register.

As illustrated in Table 1, possession produces varying levels of publicity and verifiability in different circumstances, as it is present in four different strategies, based on public knowledge that possession is being exercised or has been transferred, or on delivery and possession of documentary representations of property rights.[9]

Table 1. Main types and examples of reliance on possession

Action	*Possession of goods*	*Possession of documents*
Exercise of possession	Commercial trade, overriding lease, Roman *usucapio* (acquisitive prescription)	Money, negotiable instruments, powers of attorney, property deeds
Delivery of possession	Livery of seisin, demonstration of boundaries in Roman conveyance by *mancipatio*	Granting of powers of attorney, property deeds, etc.

The actual exercise of physical possession (i.e., the mere control or holding of the good, sometimes referred to as "detention") can act as a titling mechanism when some key circumstances of their possession or use are publicly observed in a verifiable manner. This is, for example, the case of movables being sold by merchants, as well as some rights on immovables, such as all rights connected to use or occupation (such as real property leases and rights of way). In these cases, the exercise of possession by the agent of the originative contract informs observers about the titling-relevant elements of such an originative contract. It becomes one of those "publicly observable states of fact" (Merrill and Smith 2001b:803) effective in communicating information about potentially affected parties. If needed, judges verify possession (and, crucially for movables, that the seller is a merchant) and use it as evidence on

titling-relevant consequences of the originative transaction when adjudicating property rights in a conflict triggered by a subsequent transaction. Consequently, if rules about the titling consequences of originative contracts are clear, as possession is also observable by potential parties, they can use it as a basis for their contractual decisions. Therefore,

Publicity hypothesis: *Exercise of possession is effective as a titling mechanism when it is observed by independent parties, thus providing publicity and verifiability of the titling-relevant elements contained in originative contracts*.

The exercise of physical possession can only inform about who holds the particular right being exercised: "It can support only a single form of ownership that encompasses all useful rights in the object—a simple unitary property right" (Hansmann and Kraakman 2002:385). Such information may affect acquiring third parties positively or negatively. For example, possession of movable goods by a merchant usually informs that the merchant has legal authority to transfer ownership to an innocent third party acquirer (positive information). On the contrary, in many jurisdictions, buyers of residential real estate are burdened with the possessory rights of tenants even if unregistered. In both cases, possession informs about a single right: multiple rights may exist but either they are *in personam* rights (the right held by the merchandise owner) or they are *in rem* rights burdened by the possessory right (the right of the real property subject to the lease). In the first case, previous *in rem* rights were made *in personam* to facilitate trade. The price of using possession positively (ensuring the full and *in rem* nature of the rights that innocent third parties acquire) is to dilute property rights in contractual rights. In the second case, the opposite happens: the *in personam* tenant's right is made *in rem* to ensure enforcement. The price of using possession negatively is to increase the transaction costs of acquirers, who are obliged to search for such potentially contradictory possessory rights. Therefore,

Dilution hypothesis: *Given that possession is only effective to inform about a single* in rem *right, direct and automatic reliance on the exercise of possession for titling requires that all other rights be diluted to* in personam *status or be burdened by the possessory* in rem *right*.

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[9] I will mostly be dealing with possession as a fact. For possession as a right, see, e.g., Chang (forthcoming) and Kelly (forthcoming).

Given its informational limitations, when the exercise of possession is used as a basis for titling, all other *in rem* rights are either transformed into *in personam* rights or burdened with the possessory right. Consequently, when it is optimal to enforce multiple rights *in rem*, legal systems rely on more elaborate titling solutions, in many of which either the public transfer and/or the public exercise of possession is a key element. For instance, in order to guarantee publicity and verifiability, it has been common in many legal cultures to rely on formal ceremonies for land transactions, such as, for example, those of the *mancipatio* in classic Roman law, the *livery of seisin* of medieval England. In essence, these ceremonies produce a public conveyance which is separate from the private contract, the two-step contracting process characteristic of property, as emphasized by Arruñada (2003a). The public step plays at least two major roles. First, it triggers the start of a prescription period that can also be understood as a purging procedure. Contradictory *in rem* rights are downgraded to *in personam* status unless rightholders oppose the intended transaction either during the ceremony or within the prescription period. Second, it provides the basis for future legal procedures, as the law usually grants substantial procedural advantages to possessors against other claimants. Therefore, in a context of multiple rights,

Corollary I: *Public knowledge of the delivery of possession is required for possession to play a public titling function*.

When property rights are embodied in contractual documents such as property deeds or negotiable instruments, possession of these documents can have similar legal effects to those of possession of goods. It offers the advantage that delivering possession is easier for documents than for goods. For instance, documents can be delivered far from the goods, which should facilitate trade. However, given that, in principle, contractual documents are kept by one of the parties, they are subject to possible manipulation and contradictory documents may therefore easily emerge. Consequently, they are more reliable when held by the party in need of protection. This limits its usefulness to documents reflecting only a single *in rem* right, such as negotiable instruments and powers of attorney; and leads to serious difficulties in the presence of multiple and hidden rights, as illustrated by the chain of title deeds in real property. Therefore,

Corollary II: *Documentary possession is only effective as a public titling mechanism in the absence of multiple rights* in rem.

3. The informational value of physical possession in commercial exchange

Contract rules protecting innocent third parties are applied in the main type of business exchange, when transferring the ownership of movable property. When you buy a new computer in a store, you do not check whether the salesperson has the legal power to sell it; and, when you pay for it, you do not worry that the salesperson might keep the money instead of giving it to the store or that the store might not pay the manufacturer. Even if the employees or the store fail to comply with their duties, you know that you will keep the computer. The store would have to recover the money from the salesperson and the manufacturer from the store. But you would keep the computer; thus for you the relationships among the salesperson, the store, and the manufacturer are almost irrelevant. In fact, many other possible relationships are also irrelevant. For instance, most stores are now part of corporations, legal entities that simplify a complex web of legal relationships. When you contract with their representatives, such as managers and salespersons, all these relationships are also irrelevant. These simplifications greatly facilitate exchange and, in particular, impersonal exchange: as a customer, you can focus on the physical quality of the computer, because proper legal institutions make sure that you are able to buy a property right on it, a right *in rem*.

You are protected because in most business contexts, the law enforces contract rules, granting *in rem* rights to innocent third parties and greatly facilitating impersonal exchange. This protection of acquiring third parties dilutes current or previous owners' property rights, but this dilution is controlled by owners' decisions: it is owners who select and monitor the agents whose conduct might trigger the economic consequences of dilution. In the example, it is the computer manufacturer that selects its distributors, and it is the store owner that selects its agents and salespersons.

This is so in most commercial contexts, in which the judge will confirm ownership for an innocent third party who bought the good from a "merchant" (in practice, now a business firm) who had been entrusted with possession. For example, the Uniform Commercial Code (UCC) in the United States, adopted by almost all states, establishes that "any entrusting of possession of goods to a merchant who deals in goods of that kind gives him power to transfer all rights of the

entruster to a buyer in ordinary course of business" (UCC §2–403[2]). Something similar happens in civil law jurisdictions.[10] This means that the former legal owner will only hold a personal indemnity claim on the selling merchant and will not recover the good bought for value and in good faith by the third party.

In this context, contract rules are generally efficient because the enforcement advantage that would be provided by alternative property rules is less valuable than the cost of the information asymmetry they cause. Therefore, owners are willing to dilute their claims in order to reduce the acquirers' information asymmetry and obtain higher prices. This is highlighted by the specific nuances and exceptions used when enforcing the rule. In particular, legal systems tend to attribute the property right to the good-faith purchaser only *when the owner is a merchant*. This makes sense because application of one rule or the other alters purchasers' incentives to determine the true legal ownership, as well as owners' incentives to protect their property. And both the cost and the effectiveness of these activities of information and ownership protection change depending on whether the owner is a merchant.[11] Thus, when the owner is a merchant not only the cost of searching title is high but the merchant-owner faces a comparatively low cost of protecting her property. First, if the owner is a merchant, it is usually more difficult for the purchaser to search the ownership of the good, because in most cases there will have been a whole chain of transactions, such as those between manufacturers and wholesale and retail distributors.[12] Second, merchants are better able to protect their ownership because owners who

[10] Compare, e.g., for Germany, the German Civil Code or *Bürgerliches Gesetzbuch* (BGB), §§932 and 935, with the German Commercial Code or *Handelsgesetzbuch* (HGB), §366.

[11] Therefore, the argument considers the effects of allocation rules on both property enforcement and transaction costs. These two effects have been extensively analyzed in the literature on good-faith purchasers (see, e.g., Medina [2003, 344] for an introduction), often under extreme and opposite assumptions minimizing one of the two effects. For instance, many works assume that third parties' willingness to pay remains unaffected by the choice of legal rule since they will also become principals and thus will be affected by both rules. This assumption seems particularly inadequate for situations of voluntary agency (instead of a fraud or theft), as it is principals' decisions that trigger rule switching and it is therefore principals' performance in, for instance, selecting agents that defines the costs they will bear.

[12] As asserted by Sauveplanne, "the rapid circulation of movables makes it difficult, if not impossible, to trace their legal origin. If every purchaser were compelled to investigate his predecessor's title, the circulation of movable property would be seriously hampered" (1965:652).

are merchants are in a good position to choose reliable sellers.[13] Therefore, retaining a property right over the goods would be less valuable to them than to owners who are not merchants. The key element is not only possession of goods is public as that the merchant nature of the seller is also public. [14]

Exceptions to application of the contract rule in commercial contexts confirm the argument. In many countries, a property rule is applied to some transactions with merchants, including sometimes the obligation for the owner to compensate the purchaser for the price paid by the latter to the seller. Such exceptions are commonly applied to transactions in which the selling merchant's supplier—usually the owner of the good—is an individual and not another merchant, as in used goods stores, art galleries, and auction or pawnshops. As a result, even innocent purchasers lose ownership of the goods they have acquired in such establishments when a prior owner appears whose right had been violated. For example, when defining whether a purchaser acts "in ordinary course of business," UCC §1–201(9) requires the seller, in addition to good faith and lack of knowledge, to be "in the business of selling goods of that kind." And its mention of pawnbrokers was interpreted as creating an exception (Baird and Jackson 1984:307 n. 22), an interpretation that was later confirmed by the revision of the UCC. Moreover, purchases in art galleries are generally treated in the United States in the same way as those in auction houses and pawnbrokers, so that a good-faith purchaser of a stolen work of art will probably have to relinquish it if the prior owner appears.[15] Certainly, in many countries, the prior

[13] As argued, e.g., by Weinberg (1980:588–91), for cases in which there is fraud and the owner's agent behaves incorrectly.

[14] The rationale for applying a contract rule in commercial transactions on movable property depends on the commercial nature of the owner of the good, although the legal formulation for its application is often approximated in terms of the commercial or noncommercial nature of the seller or of the transaction, thus using subjective or objective criteria (Tallon 1983). Considering that delivering possession switches the applicable legal rule, clearly defining who is a merchant is essential. Fortunately, this is now easy even without registration (Arruñada 2012:86). See also Klerman (forthcoming) for a discussion on the property disputes on stolen arts.

[15] See, e.g., Caruso (2000), as well as Landes and Posner (1996), for a defense of application of the property rule, and Merryman (2008), who argues in favor of granting legal entity status to the register of lost works of art.

owner is entitled to restitution but only after refunding the price paid for the good by the good-faith purchaser.[16]

Other typical exceptions violate basic assumptions of the general problem under analysis. This happens in particular for the good faith and knowledge exceptions, which relate to the breakdown of the information asymmetry assumption; and the theft case, which violates the assumption of voluntary agency. Understandably, many jurisdictions, including most of the United States, apply the property rule to commercial purchases of stolen goods, but the contract rule to goods that have been separated through fraud, deceit, or coercion, where a voluntary, though imperfect, element is present. Similarly, some business transactions rely on registers but are not commercial or not about movables. Corporate and secured transactions affect the relative position of the merchant's creditors but are less relevant for the rights of third parties acquiring merchandise from the merchant. Finally, registries for high-value identifiable assets such as cars, ships and airplanes are sometimes used during their distribution to reduce transaction costs and lower the cost of financing inventories (Fernández del Pozo 2004:105–78).[17] They provide an interesting borderline case with immovable property both with respect to the nature of the assets and the costs and benefits of preserving *in rem* rights in them.

Overall, the standard practice for commercial transactions in movable goods is consistent with both the publicity and dilution hypotheses: public knowledge of who is a merchant makes it possible for possession to play a titling function, protecting innocent acquirers, even if at the price that all conflicting rights are implicitly diluted to *in personam* status. In a sense, the key element is not possession itself but the merchant nature of the possessor.

[16] This applies for lost or stolen movables that have been purchased in a public sale, as well as those bought from authorized pawnbrokers. For example, Article 464 of the Spanish Civil Code, partially amended by Article 61.1 of Law 7/1996 on the organization of retail trade.

[17] Not by chance these assets, together with land, come close to including what classical Roman law considered *res mancipi* and therefore required a formal conveyancer by *mancipatio* or *in iure cessio*. The Roman solutions are further analyzed in Arruñada (2013).

4. The informational value of possession in real property exchange

In the standard commercial transaction on movable goods, the *exercise* of physical possession by a merchant suffices to trigger the application of a contract rule that benefits the innocent third party acquirer. However, all conflicting rights are diluted to *in personam* rights. For real property, such general dilution would usually be inefficient; therefore, possession plays more nuanced roles: (1) Delivery of legal possession is usually part of public conveyancing processes, with or without judicial intervention, which publicize the intended transaction and provide an opportunity to defend and purge conflicting rights. (2) Possession serves to define the type of legal actions available to the different types of claimants and to grant ownership after a certain period (the Roman *usucapio*, a form of acquisitive prescription or adverse possession). And (3) the exercise of physical possession provides sufficient notice to acquirers on negative *in rem* interests, as happens with some overriding interests for registered land.

4.1. Publicity in the delivery of possession

Delivery of possession has been a key element in traditional conveyancing and titling procedures. Since 1066, English conveyances followed the continental practice of delivering possession through a ritual known as "livery of seisin." In essence, the seller gave the buyer a clod of earth from the land, a twig, or a key, and loudly said that he was conveying the estate. In the Roman *mancipatio*, the seller and the acquirer appeared upon the property before a person holding a scale and five witnesses. The acquirer then boasted that he declared the property to be his, stroke a token coin against the scales and handed it to the seller, who said nothing. It seems that "in England an actual livery of vacant seisin was required… partly [because] it helped to promote publicity of conveyance and thus to prevent the frauds which secrecy of conveyance renders possible" (Holdsworth 1927:112–13). In contrast, *mancipatio* did not in principle require delivery of possession (Buckland 1912:95–96; Gaius 170:IV.131). However, rights on provincial land were conveyed by delivering possession and, even for Italic land, the transferor had a duty to deliver possession (Honoré 1989:139). Moreover, if the transferee did not obtain possession publicly, it was not protected against dispossessors by possessory interdicts, a speedy procedure

by which the judge would adjudicate on possession without looking at title, forcing possible owners to rely on a more cumbersome action, *vindicatio* (Nicholas 1962:108–109). Similarly, in English law, since the twelfth century the action for *novel disseisin* (i.e., recent dispossession) opted for possession: even though owners could rely on another action, called *writ of right*, this was more costly and allowed parties to present all sorts of evidence to support their claims (Simpson 1986:39). Both Roman and medieval law also provided safer access to ownership through judicial procedures such as the *in iure cessio* and *fine*, in which delivery of possession was an essential step. For instance, conveyance by *fine* "was the most secure of all medieval conveyances… [because] so long as one of the parties was seised of the lands no one could dispute the fine after a period of a year and a day from the execution of it, except those under some disability," as well as, if accompanied by proclamations, strangers after five years (Simpson 1986:124).

These ceremonies had a titling function as they publicized conveyances,[18] but also served to gather the consents of affected rightholders and therefore purge conflicting claims either at once or after a certain period. Numerous witnesses were required, and this "was probably needed not so much to prove that the act had taken place as to give it publicity so that any defect of title (which in a small society would be likely to be known to the witness) could be investigated immediately" (Nicholas 1962:256).[19] In contrast, creating rights *in personam* by formal *stipulatio* did not require any witnesses (Nicholas 1962:104). A key element for purging were boundary disputes. For this, in Rome, "though not a legal requirement, it was standard practice to call the neighbours to witness a conveyance by delivery. This allowed the transferee to verify that the transferor and his neighbours agreed on the boundaries, or, if they did not, to pinpoint the area/s of dispute. If the dispute was not settled at the time, the conveyance could be confined to the agreed area, or if necessary postponed" (Honoré 1989:139). This customary practice of boundary demonstration in the presence of neighbors may have become formally required after

[18] "The delivery of seisin must be an actual delivery of vacant possession and not a mere symbolic delivery alone… It is obvious that this mode of conveyance gave to dealings in land a notoriety which no symbolic delivery or delivery of a deed could ever give" (Simpson 1986:118).

[19] "These *testes* or *superstites*, as they were called, were not witnesses in our sense, expected later to testify to what they had seen or read, but judges, expected to stop an act at the time of its making if the performance were flawed" (Meyer 2004:118).

the reforms enacted by Constantine in 313–23 (Honoré 1989:142–49). The purging potential is also clearer in the livery of seisin, as witnesses originally had to be neighboring, and therefore potentially affected, rightholders (Blackstone, 1765-1769:315–16). Their presence was likely playing a similar function to the "secondary sellers" found in old land transactions in Babylonia (Silver 1995:122–27) and was reminiscent of the custom of paying so-called witnesses, found in other transactions in some primitive tribes (Diamond 1951:259). Lastly, the requirements of repeated proclamations and waiting periods for the conveyance to reach *in rem* effects cannot be explained as mere providers of contractual proof to transactors. This was clear in the practices followed in other European regions, where laws mandated sophisticated procedures of publicity "before the church" and "at the gate of town walls" for rural and urban land, respectively, as well as some judicial registration (Patault 1989:205–8, Oliver y Esteller 1892). Historical evidence on similar forms of publicity dates back to the ancient societies of the Middle East, around 2500 BC (Ellickson and Thorland 1995:383–84).

Public ceremonial conveyances therefore served for providing publicity, gathering consents and purging property rights. However, they probably became less efficient with economic development, as I will analyze in section 6.[20] First, their cost becomes higher as parties move more and may need to purchase from a distance. Second, they are more effective in local markets, where transactions take place between neighbors, as was common in rural societies, than in wider markets: e.g., "the six participants in the *mancipatio* though adequate enough for a small community, could constitute no hindrance to secrecy in so a vast a society as the imperial Rome" (Nicholas 1962:104). Indeed, for neighbors, it is easy to notice announcements and public deals, especially for the kinds of rights common in rural societies, many of which are linked to family matters. Probably less so for non-neighbors. This conjecture is consistent with the existence of rules that granted lesser effects to these and similar procedures for strangers and disabled parties (e.g., in the English *fine*, according to Simpson 1986:124). Similarly the effect of

[20] Moreover, two other factors may be present, at least in the short term. On the one hand, there is a permanent demand for privacy by economic agents, because of reputational concerns and tax avoidance, a demand that could be uncorrelated to economic growth. As argued by Nicholas, "there was a similar struggle to achieve secret conveyancing in English law, culminating early in the seventeenth century in the recognition of the device of a bargain and sale for a term followed by a release" (1962:104 n. 3). On

publicity "before the church" and "at the gate of town walls," was immediate for the rightholders who were present but was delayed for one year and one day for those absent (Patault 1989:205–8, Oliver y Esteller 1892). Costlier knowledge was apparently balanced with longer time, suggesting that these systems could hardly support more distant and impersonal trade.

4.2. Exercise of possession as access to ownership: the Roman *usucapio*

To the extent that the exercise of possession has observable consequences, it provides the basis for titling by having it upgraded to ownership with the lapse of time—by acquisitive prescription or *usucapio*.[21] For Romans, undisturbed possession of land and other capital goods for only two years (one year for other movables) led to ownership if acquired in good faith and based on proper cause, even if conveyed by simple *traditio* (i.e., delivery of possession) without *mancipatio*.[22] Furthermore, during the late Republic the Praetor enhanced the protection enjoyed by the good faith possessor on the way to *usucapio* by granting him an action that ensured he succeeded even against the formal owner (if the possessor's title was formally defective: a recipient of land by informal delivery or *traditio* instead of formal *mancipatio*) or against everyone but the owner (if the title was substantively defective because, e.g., he had bought from a non-owner). As a consequence, "the recipient of a *res mancipi* by *traditio* was for nearly all practical purposes in the position of an owner" (Nicholas 1962:127). It is believed that, thereafter, informal delivery by *traditio* replaced formal *mancipatio*.[23]

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the other hand, conveyancers—mainly lawyers—may have an interest in privacy solutions to the extent that they increase the demand for their professional services.

[21] This provides a solution in very different contexts. A modern application of this solution is the registration of possessory rights, a standard procedure commonly used when introducing land registration that allows possessors to file their claims, which, if unchallenged, become conclusive after a certain period (Arruñada 2003b).

[22] With the only exception of goods stolen or taken by force. It must be kept in mind, however, that Romans defined possession narrowly to exclude those who hold on behalf of the owner—e.g., borrowers, depositees, hirers, lessees—, so that, e.g., landlords held possession even while their tenants held what modern writers refer to as "detention" (Nicholas 1962:112–15).

[23] In fact, for the Roman case, it has been argued that *mancipatio* was retained longer for land, at least until the fifth century, because it did not require the presence of the parties on the spot (Buckland 1912:73). However, it is likely that the *mancipatio* term appearing in later Roman documents really means conveyance (Nicholas 1962:117).

A key element for *usucapio* to work is that the exercise of possession provides claimants with the information they need to litigate and protect any property rights infringed by the intended transaction (e.g., Rose 1985:78–81). It therefore implicitly provides the basis to start a selective purge and acquirers need to check only if the seller has effectively been in possession for the prescription period. In this context, doubts about the information provided by possession may easily emerge, especially if the delivery of possession is unobservable. For instance, in Roman law, *traditio* was increasingly made without any visible transfer of the good. This, together with the decreasing use and limited efficacy of *mancipatio* in a vast economy, leads some authors to think the Roman publicity was ineffective (e.g., Nicholas 1962:104). However, this critique may have been unwarranted because, for existing rights to be protected under *usucapio*, possession only needs to inform affected rightholders with sufficient time for them to take action. And owners can always make their possession public if, foreseeing a possible sale, they want to convince future acquirers that they will be protected by the *usucapio* of the seller.

It is consistent with this argument that the time for *usucapio* increased when the information provided by publicity might have taken longer to process. E.g., in Rome, *usucapio* of provincial land by *longi temporis praescriptio* took ten or twenty years when parties were or were not in the same district. It also became longer in the last centuries of the Empire, when the possibility of multiple adverse rights probably arose because of the less peaceful environment. At the time of Justinian, three years were required for *usucapio* of movables; and *longi temporis praescriptio* became the only *usucapio* for land (Nicholas 1962:128).

4.3. The exercise of possessory detention as a source of publicity in real property

For land and other capital goods, many deliveries of possession are not intended to facilitate transfers of ownership but to facilitate productive specialization, by separating ownership and productive use. Unlike movables, land is not meant to be traded by the detentor, who is usually a farmer, not a merchant. In contrast to merchants, who are interested in diluting their *in rem* right, land owners prefer keeping their property as fully *in rem* ownership. Therefore, the use of physical possession (i.e., mere detention) as the basis for establishing ownership is a poor solution for most capital goods, such as land. Relying on detention to establish ownership would make it easier for detentors to fraudulently use their position to acquire ownership for themselves

or to convey owners' rights to third parties. In such cases, owners would often end up holding a mere *in personam* right, against the detentor committing the fraud. Understandably, under such conditions, owners would be reluctant to cede detention, for fear of losing their property.

In contrast to the limitations of possession to inform on ownership or at least on the lack of *in rem* rights that may be burdening ownership, simple detention may provide reliable information on single individual rights. This may be used by the legal system to protect these rights *in rem* on the basis of such information. For example, some modern legal systems enforce residential lessees' rights *in rem* (whatever the formal definition of these rights) even when such leases remain out of the public record. One can infer that, for such "overriding interests," the law assumes that acquirers can obtain enough information by inspecting the land. This solution is not necessarily efficient, especially now that a growing number of investors cross borders and may want to acquire without ever seeing their purchases. In fact, these interests have often been enacted almost surreptitiously through consumer or housing regulations, without formally asserting the *in rem* nature of the rights, and, at least until the recent economic crisis, there was a tendency to eliminate their *in rem* protection (e.g., as the English Land Registration Act did in 2002).

In sum, considering the three areas I have just analyzed, when land titling mechanisms rely on possession an element of independent publicity is present, as proposed by the publicity hypothesis and its corollary: public delivery of possession as part of conveyancing ceremonies, public exercise of possession within the process of acquisitive prescription, and public exercise of possessory rights leading to these possessory rights being enforced *in rem* against acquirers.

5. The informational value of documentary possession

The limitations of conveyancing ceremonies and the exercise of possession to inform interested parties lead to complementary and alternative solutions with a common characteristic: reliance on a symbolic expression of property rights. These symbols can take three different

forms: they can be fixed to the asset, embodied in the contractual documents kept by some of the parties or incorporated in a parties-independent public register.

The practice of physically marking assets illustrates the limitations of possession when multiple rights exist on the same asset, as it is perhaps the simplest way of publicizing hidden abstract *in rem* rights. This explains why it has been used extensively for announcing ownership in the absence of possession, as with valuable movables such as livestock, automobiles, computers and books. It has also even been used for spouses, with wedding rings being only a pale remnant of the variety of devices traditionally used to "give notice" of marital status. In classical Athens, it was also used to disclose security interests in land: a slab, known as *horos*, was posted on the parcel, to be removed only by releasing the encumbrance (Finley 1952). This system was one of the first to make an hypotheca possible—namely, the use of land as collateral without temporarily transferring ownership or possession to the lender. Similarly, posting of notices and advertisements was also used to claim land in the US West (Anderson and Hill 2002:500). All these systems have serious limitations because it is difficult to make the brand indelible. More relevantly, they often rely on public registries, of either persons or brands—e.g., even cattlemen in the US West had to rely on government intervention to make cattle branding effective.[24]

5.1. The use of the chain of title deeds in real property

As we have discussed, conveyances in classical Rome became more private as *mancipatio* ceased to be required and *traditio* became less visible. Eventually, "in the late Roman law, as in developed English law, a conveyance was often, like a contract, nothing more than a document drawn up between the parties" (Nicholas 1962:104). As mentioned by Nicholas, a similar process took place in medieval England, with delivery of deeds replacing delivery of land (Kolbert and Mackay 1977:238–39).

The difficulties incurred when possession has to cope with multiple rights *in rem* can be alleviated by embodying abstract rights, such as ownership and liens, and even complementary

[24] See, e.g., Anderson and Hill (2004:139–41 and 149–51) on the evolution and regulations of the branding of cattle in the US West.

consents in the conveying contracts,[25] which then form a series or "chain" of title documents or deeds ("chain of deeds"). The content of the deeds provides the relevant evidence of ownership and all other rights embodied in them, and title experts can examine the history of transactions going back to a "root of title." This should allow ownership to be separated from control (i.e., possession in the sense of detention) without posing the risk that possessors may supplant owners. Similarly, the chain of deeds can also be used to enforce a security, by pledging the deeds with the lender, a practice found in Mesopotamia during the second millennium BCE (Silver 1995:123–24).

But relying on the chain of deeds is also problematic. Above all, new possibilities for destruction, error and fraudulent conveyance appear. In medieval England, "the security of conveyances executed by feoffment accompanied by charter was a continuous source of worry to landowners, for both theft of charters and forgery of them were common" (Simpson 1986:121). Centuries later, the most egregious cases were perhaps those involving counter-deeds, well-described for centuries in modern continental literature (e.g., Alemán 1604, Balzac 1830). Even without forgeries or fraud, the system often gave rise to multiple chains of title, which left prospective acquirers facing a serious risk: they might find the title of the seller in his chain of deeds, acquire and be eventually defeated by the title of an unknown claimant based on an alternative chain of deeds. Title deeds may be even less effective than possession in reducing the asymmetry of acquirers, as possession is observable but adverse chains of title remain hidden to the acquirer, who can only examine the chain of deeds offered to him by the seller. This risk is also run by mortgagees, who may find out that their collateral is not owned by the mortgagor or is subject to a previous mortgage. In addition, pledging the titles with the lender poses similar difficulties to the Roman *fiducia* or English medieval *mortgage*: it subjects the debtor to the lender's moral hazards (e.g., the lender could impede a sale or even fraudulently sell) and causes switching costs that make mortgage subrogation difficult. Nor does it lend support easily to the possibility of contracting second mortgages with different lenders.

[25] This solution has also been used for a long time. For example, in the Demotic titles used in Ptolemaic Egypt between 650 and 30 BCE, the consent of affected rightholders (usually the wife and coheirs of the vendor) was stated in a specific clause (Manning 1995:254–55).

Despite these difficulties, transactions on land in England heavily relied on the chain of deeds up until the last decades of the twentieth century. Typically, possession was used in conjunction with the chain of deeds to prove ownership, and mortgages were formalized by pledging the deeds with the lender (Sparkes 1999:76–77, 479–82).[26] The potential flaws of the system were palliated by having conveyancing services provided by professionals. It seems natural to impose stricter requirements on the production of deeds when their effects are stronger, and guaranteeing professionals' quality provides a ready argument for restraining entry into the profession and regulating its practices. This seems to have happened in England from the very beginning.[27] Whatever the effects on the quality of service, this will usually entail costs in terms of monopolization and technological delay.

5.2. Effective titling documents: negotiable instruments and powers of attorney

In general, multiple rights are hard to implement reliably through the chain of deeds. The absence of multiple rights is precisely what makes documentary formalization viable for powers of attorney and negotiable instruments, such as bills of exchange.

Negotiable instruments, such as promissory notes and bills of exchange, and those governed by similar rules (e.g., securities, letters of credit, bills of lading, and IOUs) also facilitate impersonal market transactions: assigning rights in such a way that the third party's information

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[26] There is also some evidence in the Roman Digest that real securities might have been reinforced by pledging the deeds with the creditor (Scaevola D. 13.7.43).

[27] Holdsworth explains how the interest of lawyers was already behind the Statute of Uses in 1535 (1927:153). At the time, they impeded the enactment of a "well-considered scheme for the registration of conveyances" and then evaded the Statute of Enrolments by relying on subterfuge: a bargain and sale for a term of years followed by a release (153–59). The end results were "a secret method of conveyance… [and] large amount of complication in the law…, making dealings in land expensive, because the whole history of the property must, on the occasion of each purchase, be critically examined by an expert" (165). Conveyance by bargain and sale for a term of years followed by a common law release was the general mode of conveyance until the nineteenth century (292). The conveyancing profession thereafter became a tight monopoly, as lawyers practicing conveyancing became specialists. "At the beginning of the nineteenth century, an intimate knowledge of the law of real property was almost confined to a comparatively small number of eminent conveyancers; and that the majority of lawyers—barristers as well as judges—depended for their information upon the opinion and writings of these conveyancers… It is not surprising to find that, from the beginning of the eighteenth century onwards, the practice and

asymmetry becomes irrelevant. In general, the third party who acquires a credit formalized in this type of instrument is safe against defenses that the debtor (who acts as the "principal" in my framework) could plead against the "agent." For example, in bills of exchange and promissory notes, the obligation to pay is separated from the underlying transaction, such as the sale in regard to which the bill was issued, unless the instrument returns to the agent. Therefore, a third party who has acquired the instrument in good faith has an unconditional right to be paid by the maker, even if the maker has a valid defense against the original payee (Méndez González 2007).

This is achieved without making the originative contract—that is, the instrument—public. Principals' commitment to the originative contract is ensured by a simpler solution: transferring possession of the instrument, once it has been signed by the principal, first to the agent and then to the third party, when the agent cedes it. Consequently, the principal cannot cheat the third party by manipulating it. This solution, despite lacking publicity, is viable because the instrument involves only one obligatory right (that of being paid). So, there are none of the usual difficulties arising from the existence of multiple *in rem* rights on the same asset as, for instance, with mortgages, when pledging the deeds with the lender. Nor are there several third parties who might be interested in possessing the instrument to protect their rights, with potentially damaging consequences for all others. (Note that, consistent with the legal nature of the right involved, such instruments are used for personal transactions safeguarded by knowledge of the debtor's solvency). Significantly, modern forms of secured finance that allow multiple rights on the same movable assets (including accounts receivable) and thus need to prioritize such rights rely on registries, such as the one established by Article 9 of UCC on secured transactions.[28]

Similarly, in spite of the privacy maintained in documentary proxies and the dependent relationship of the authenticators, representation of individuals and legal persons is largely based on documentary proxies in which representation figures in a document but there is neither notoriety nor the need for registration, with the principal's commitment being ensured by similar means to those used for bills of exchange. On the one hand, the third party checks the proxy and retains, if not the proxy, at least documentary and often (at least in civil law countries)

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opinions of these conveyancers have been appealed to as the best evidence of the existing state of the law upon many questions connected with the land law" (299).

[28] See Baird and Jackson (1983), as well as Kötz (1992:96–97) for an international comparison.

authenticated evidence. On the other hand, a revoked proxy continues to commit the grantor toward good faith third parties, as it is understood to generate an appearance of representation that third parties can trust. This efficacy of revoked proxies avoids the main risk for the third party, that of opportunistic behavior by the principal who may renege on the agent's act if such reneging suits him. In the terms used above, when granting a proxy, the principal accepts being committed by the agent not only during the validity of the proxy but also afterward, until such time as the power is taken back. Therefore, here again, the viability of this documentary solution depends on the existence of a single right (that of acting in representation of the principal). Revocation poses a problem that is to some degree equivalent to dispossession for a bill holder. But the solution is simpler than what is required for the latter, because of the personal nature of representation, in contrast to the real nature of the relation between the holder and the bill.

However, the efficacy of revoked proxies only transfers the risk to the grantor. In particular, the grantor is in a difficult position if, after revoking the proxy, the agent does not give it back. In such cases it will be hard for the grantor to destroy the appearance of representation power that the proxy may still give to innocent third parties, which may harm the grantor. Avoiding such consequences may be easier for special proxies that authorize representation in a single transaction. This helps to explain why registration is often required of powers of attorney for general representation (i.e., those in which proxies remain in force after being used) and organic representation of companies. In addition to saving costs in repeated uses of proxies, registration provides a reliable way of revoking them. Without registration, grantors would tend to rely less on proxies, hindering specialization.

All in all, the difficulties faced by powers of attorney and negotiable instruments are of a different order of magnitude than those suffered by the chain of title deeds, which seems related to the fact that both powers of attorney and negotiable instruments involve single rights where third parties can retain the contractual evidence, which prevents possible manipulation of originative contracts by principals. This is consistent with the dilution hypothesis and its corollary, which propose that documentary possession is only effective as a titling solution in the presence of single *in rem* rights.

6. References

Alemán, Mateo. 1604. *Segunda parte de la vida de Guzmán de Alfarache, atalaya de la vida humana*. Lisbon: Pedro Craasbeck.

Anderson, Terry L., and Peter J. Hill. 2002. "Cowboys and Contracts." *Journal of Legal Studies* (issue 2, part 2) 31:S489–S514.

Anderson, Terry L., and Peter J. Hill. 2004. *The Not So Wild, Wild West: Property Rights on the Frontier*. Stanford: Stanford University Press.

Arruñada, Benito. 2003a. "Property Enforcement as Organized Consent." *Journal of Law, Economics, and Organization* 19:401–44.

Arruñada, Benito. 2003b. "Vías de acceso al Registro de la Propiedad: La experiencia española." *Revista Crítica de Derecho Inmobiliario* 79:3271–89.

Arruñada, Benito. 2012. *Institutional foundations of impersonal exchange: Theory and policy of contractual registries*. Chicago and London: University of Chicago Press.

Arruñada, Benito. 2013. "Personal and Impersonal Exchange in Classical Rome." Paper presented at the 9th Annual Conference of the Italian Society of Law and Economics, Universià della Svizzera Italiana, Lugano, December 13. (Forthcoming in Giuseppe Dari-Mattiacci, ed., *Roman Law and Economics*).

Baird, Douglas G., and Thomas H. Jackson. 1983. "Possession and Ownership: An Examination of the Scope of Article 9." *Stanford Law Review* 35:175–212.

Baird, Douglas G., and Thomas H. Jackson. 1984. "Information, Uncertainty, and the Transfer of Property." *Journal of Legal Studies* 13:299–320.

Balzac, Honoré de. 1830. *Gobseck*. Paris: Mame-Delaunay (under the title *Les dangers de l'inconduite*).

Blackstone, W. 1765-1769. *Commentaries on the Laws of England*. Oxford: Clarendon Press.

Buckland, William Warwick. 1912. *Elementary Principles of the Roman Private Law*. Cambridge: Cambridge University Press.

Calabresi, Guido, and A. Douglas Melamed. 1972. "Property Rules, Liability Rules, and Inalienability: One View of the Cathedral." *Harvard Law Review* 85:1089–128.

Caruso, Peter J., II. 2000. "To Buy or Not to Buy: Protecting Yourself from Stolen Art." *Arts Editor*, August (artseditor.com, accessed July 13, 2013).

Chang, Yun-chien. Forthcoming. "The Economy of Concept and Possession." In Yun-chien Chang, ed., *The Law and Economics of Possession*. Cambridge: Cambridge University Press.

Coase, Ronald H. 1960. "The Problem of Social Cost." *Journal of Law and Economics* 3:1–44.

Demsetz, Harold. 1998. "Property Rights." In Peter Newman, ed., *The New Palgrave Dictionary of Economics and the Law*, 3:144–55. London: Macmillan.

Diamond, Arthur S. [1951] 1975. *The Evolution of Law and Order*. Westport: Greenwood Press.

Epstein, Richard A. 1998. "Possession." In Peter Newman, ed., *The New Palgrave Dictionary of Economics and the Law*, 3:62–68. London: Macmillan.

Fernández del Pozo, Luis. 2004. *El registro de bienes muebles: Los bienes muebles y la preferencia registral de los derechos inscritos*. Madrid: Marcial Pons.

Gaius. 170. *The Institutes of Gaius*. Translation, Edward Poste. Revision, E.A. Whittuck. Oxford: Clarendon Press, 1904.

Hansmann, Henry, and Reinier Kraakman. 2002. “Property, Contract, and Verification: The *Numerus Clausus* Problem and the Divisibility of Rights.” *Journal of Legal Studies* 31:S373–S420.

Holdsworth, William S. [1927] 1977. *An Historical Introduction to the Land Law*. Aalen: Scientia.

Honoré, Anthony Maurice. 1989. “Conveyances of Land and Professional Standards in the Later Empire.” In Peter Goodwin Birks, ed., *New Perspectives in the Roman Law of Property: Essays for Barry Nicholas*,137–52. Oxford: Clarendon Press.

Kelly, Daniel B. Forthcoming. “Dividing Possessory Rights.” In Yun-chien Chang, ed., *The Law and Economics of Possession*. Cambridge: Cambridge University Press.

Klerman, Daniel. Forthcoming. “Jurisdiction, Choice of Law and Property.” In Yun-chien Chang, ed., *The Law and Economics of Possession*. Cambridge: Cambridge University Press.

Kötz, Hein. 1992. “Rights of Third Parties: Third Party Beneficiaries and Assignment.” In Arthur von Mehren, chief ed., *Contracts in General*, chap. 13. Vol. 7 in *International Encyclopedia of Comparative Law*. Tubingen: Mohr Siebeck.

Landes, William M., and Richard A. Posner. 1996. “The Economics of Legal Disputes Over the Ownership of Works of Art and Other Collectibles.” In Victor A. Ginsburgh and Pierre-Michel Menger, eds., *Economics of the Arts: Selected Essays*, 177–220. Amsterdam: North Holland.

Manning, Joe G. 1995. “Demotic Egyptian Instruments of Transfer as Evidence for Private Ownership of Real Property.” *Chicago-Kent Law Review* 71:237–68.

Medina, Barak. 2003. “Augmenting the Value of Ownership By Protecting It Only Partially: The ‘Market-Overt’ Rule Revisited.” *Journal of Law, Economics, and Organization* 19:343–72.

Méndez González, Fernando P. 2007. “La inscripción como título valor o el valor de la inscripción como título.” *Revista Crítica de Derecho Inmobiliario* 83:2059–164.

Merrill, Thomas W. Forthcoming. “Ownership and Possession.” In Yun-chien Chang, ed., *The Law and Economics of Possession*. Cambridge: Cambridge University Press.

Merrill, Thomas W., and Henry E. Smith. 2001a. “What Happened to Property in Law and Economics?” *Yale Law Journal* 111:357–98.

Merrill, Thomas W., and Henry E. Smith. 2001b. “The Property/Contract Interface.” *Columbia Law Review* 101:773–852.

Merryman, John Henry. 2008. “The Good Faith Acquisition of Stolen Art.” In John Jackson, Maximo Langer, and Peter Tillers, eds., *Crime, Procedure and Evidence in a Comparative Context: Essays in Honour of Professor Mirjan Damaska*, 275–94. Oxford: Hart Publishing.

Meyer, Elizabeth A. 2004. *Legitimacy and Law in the Roman World:* Tabulae *in Roman Belief and Practice*. Cambridge: Cambridge University Press.

Nicholas, Barry. [1962] 2010. *An Introduction to Roman Law*. Oxford: Oxford University Press.

North, Douglass C. 1981. *Structure and Change in Economic History*. New York: Norton.

North, Douglass C. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.

North, Douglass C., and Robert P. Thomas. 1973. *The Rise of the Western World: A New Economic History*. Cambridge: Cambridge University Press.

North, Douglass C., John Joseph Wallis, and Barry R. Weingast. 2009. *Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History*. Cambridge: Cambridge University Press.
Oliver y Esteller, Bienvenido. 1892. *Derecho inmobiliario español: Exposición fundamental y sistemática de la Ley Hipotecaria*, Vol. 1. Madrid: Sucesores de Rivadeneyra.
Patault, Anne-Marie. 1989. *Introduction historique au droit des biens*. Paris: Presses Universitaires de France.
Rose, Carol M. 1985. "Possession as the Origin of Property." *University of Chicago Law Review* 52:73–88.
Sauveplanne, Jean-Georges. 1965. "The Protection of the Bona Fide Purchaser of Corporeal Movables in Comparative Law." *Rabels Zeitschrift* 29:651–93.
Silver, Morris. 1995. *Economic Structures of Antiquity*, Contributions in Economics and Economic History 159. Westport: Greenwood Press.
Simpson, Alfred William Brian. 1986. *A History of the Land Law*. 2d rev. ed. Oxford: Clarendon Press.
Smith, Adam. [1776] 1981. *An Inquiry into the Nature and Causes of the Wealth of Nations*. Indianapolis: Oxford University Press/Liberty Press.
Steiger, Otto. 2006. "Property Economics versus New Institutional Economics: Alternative Foundations of How to Trigger Economic Development." *Journal of Economic Issues* 40:183–208.
Tallon, Denis. 1983. "Civil Law and Commercial Law." In Konrad Zweigert, chief ed., *Specific Contracts*, chap. 2. Vol. 8 in *International Encyclopedia of Comparative Law*. Tubingen: Mohr Siebeck.
Weinberg, Harold R. 1980. "Sales Law, Economics, and the Negotiability of Goods." *Journal of Legal Studies* 9:569–92.