God Damn: The Law and Economics of Monastic Malediction*

Peter T. Leeson[†]

Abstract

Today monks are known for turning the other cheek, honoring saints, and blessing humanity with brotherly love. But for centuries they were known equally for fulminating their foes, humiliating saints, and casting calamitous curses at persons who crossed them. Clerics called these curses "maledictions." This paper argues that medieval communities of monks and canons used maledictions to protect their property against predators where government and physical self-help were unavailable to them. To explain how they did this, I develop a theory of cursing with rational agents. I show that curses capable of improving property protection when cursors and their targets are rational must satisfy three conditions. They must be grounded in targets' existing beliefs, monopolized by cursors, and unfalsifiable. Malediction satisfied these conditions, making it an effective institutional substitute for conventional institutions of clerical property protection.

^{*}I thank Chris Coyne and Dave Hebert for helpful comments and suggestions. This paper is indebted to Lester Little's (1993) work, which brought malediction to my attention and is the basis of my historical discussion of clerical cursing.

 $^{^\}dagger Email:$ PLeeson@GMU.edu. Address: George Mason University, Department of Economics, MS 3G4, Fairfax, VA 22030.

"Whoever wishes to know what the male diction is really like should read . . . divine law and find out for certain how terrible and horrible and frightening that male diction is."

—Council of Aachen to Pepin of Aquitaine, 837 AD¹

1 Introduction

Today monks are known for turning the other cheek, honoring saints, and blessing humanity with brotherly love. But for centuries they were known equally for fulminating their foes, humiliating saints, and casting calamitous curses at persons who crossed them. Clerics called these curses "maledictions."²

This paper investigates malediction. To do so it uses the theory of rational choice. I argue that medieval communities of monks and canons used maledictions to protect their property against predators where government and physical self-help were unavailable to them. To explain how they did this, I develop a theory of cursing with rational agents.

A curse is an appeal to a supernatural power to physically, emotionally, spiritually, or otherwise bring harm to another person. I show that curses capable of improving property protection when cursors and their targets are rational must satisfy three conditions. They must be grounded in targets' existing beliefs, monopolized by cursors, and unfalsifiable. Malediction satisfied these conditions, making it an effective institutional substitute for conventional institutions of clerical property protection.

Historians of the Middle Ages discovered medieval monks' reliance on cursing to protect their property rights long ago (see, for instance, Geary 1979, 1991, 1995; Rosenwein, Head, and Farmer 1991; Little 1975, 1979, 1993, 1998; Bitel 2000). The idea that hocus pocus might influence people's behavior is older still. What no one has explained is how hocus pocus could accomplish this when cursors and their targets are rational. My paper does that.

¹Quoted in Little (1993: 105).

²This paper abuses the term "malediction" in the sense that it considers various forms of clerical cursing under this title. In fact, as I discuss below, "malediction" technically refers to a specific kind of clerical curse, the liturgical *maledictio* rather than to the variety of clerical curse-type forms I consider. Since my analysis deals with clerical curses, I use the term "malediction" to encompass all of these forms and to distinguish them from other kinds of curses one can envisage, which aren't the province of ecclesiastics.

Economists have said nothing about monastic malediction. But they have considered ecclesiastics in economic terms. Most closely connected to my analysis is Ekelund, Hébert, and Tollison's (1989, 2002, 2006), Ekelund et al.'s (1996), and Leeson's (2011a) work.

Ekelund, Hébert, and Tollison demonstrate how rational clerics used supernatural sanctions to protect the Church's spiritual monopoly against heretical competitors in late medieval and early modern Europe. Leeson demonstrates how rational clerics used "animal trials"—the legal prosecution of insects and rodents—to manufacture belief in those sanctions as a means of improving tithe compliance in Renaissance France, Italy, and Switzerland. My study contributes to this literature by demonstrating how rational clerics used malediction to improve their property protection against equally rational predators in high medieval France.³

More generally, my analysis is connected to the literature that examines the "law and economics of superstition." That literature explores the role that objectively false beliefs play in the legal systems of rational people. For example, Posner (1980) considers the role of witch beliefs in primitive societies' legal systems. Leeson and Coyne (2011) consider the role of magic in contemporary Liberia's criminal justice system. Leeson (2010a) studies superstition's role in medieval judicial ordeals of fire and water. And Leeson (2010b) examines superstition's role in Gypsy institutions of law and order. My paper contributes to this literature by illuminating the role that citizens' beliefs in execrations played in supporting clerical property rights in the Middle Ages.

Finally, this paper is connected to the growing literature that examines self-governance and private institutions of property protection. For example, Friedman (1979) examines private institutions of property protection in medieval Iceland. Benson (1990) considers the evolution of self-governance in medieval international trade. Ellickson (1991) studies private governance arrangements in contemporary Shasta County, CA. Anderson and Hill (2004) study private institutions of law and order in the American West. And Skarbek (2010) explores private institutions of property protection among prison gangs.⁴ My analysis

³Like all economic analyses of criminal decision making, mine too is founded in the seminal contribution of Becker (1968).

⁴See also, Leeson (2007a, 2008, 2009) who investigates private institutions of property protection among Caribbean pirates, precolonial African communities, and the inhabitants of the medieval Anglo-Scottish border.

contributes to this literature by analyzing how medieval clerics used cursing to protect their property rights where government was effectively absent. God damn.

2 A Simple Theory of Cursing

The theory of cursing when cursors and their targets are rational is simple. Consider a world without government inhabited by two persons, i and j. i and j each possess a piece of property they commonly value at x > 0. Information in this world is perfect and complete.

j is physically strong. His strength gives him two choices. He may physically attack i or leave i in peace.

i is physically weak—so weak that he's unable to physically attack j and unable to defend himself against j's physical attacks. Because of his weakness, i has no decision to make. He sits and hopes that j chooses to leave him in peace.

If j attacks i, i loses his property and j gains it. But attacking i is costly. If j does so, he incurs a fixed cost, c > 0. If j leaves i in peace, they both earn zero. Figure 1 depicts the situation that i and j confront.

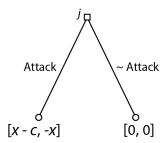


Figure 1. Unprotected Property Rights

Whether j attacks i depends on the relationship between the value of i's property and j's cost of stealing it. When x < c, j leaves i in peace. When $x \ge c$, j attacks i and plunders his property.

This result describes what we would expect in a world without government inhabited by persons with dramatically different physical strengths.⁵ The only protection i's property receives is from j's cost of attacking him. Where c is low, that's not much protection at all.

⁵Though, for a discussion of how physically weak persons confronting this problem in precolonial Africa mitigated the threat to their property that physically stronger persons posed, see Leeson (2007b).

2.1 The Option to Curse

Cursing alters the situation that i and j confront. It has the power to improve i's property protection. To see how, consider the case where j's cost of attacking i is insufficient to protect i's property against j's plunder—i.e., x < c.

Suppose that if j attacks i, i can curse him. Cursing involves only performative utterances ("May you writhe in hell's flames covered in boils!", accompanied by a waive of the hand). Thus cursing is costless.

i's curses threaten j with terrible afflictions. If j is certain that i's curses are genuine, those afflictions impose a cost on j, z, where z > x. But j needn't be certain that i's curses are genuine. He may even be certain they're bogus. If j is certain that i's curses are bogus, they impose no cost on j.

 $p \in [0, 1]$ measures the strength of j's belief in the genuineness of i's curses. p is the probability j assigns to the possibility that i's curses are real. 1 - p is the probability he assigns to the possibility that those curses are bogus.

Cursing has defensive power only. If i attempts to curse j offensively—i.e., when j hasn't attacked him first—i believes his curses will "boomerang." Instead of hitting j, i's curses will inflict the harm intended for j on i. Thus i only curses j when j has attacked him first.

In addition to j, i now has a choice. If j attacks him, i chooses whether or not to curse j. Introducing the possibility of cursing extends the decision tree in Figure 1 to the one in Figure 2.

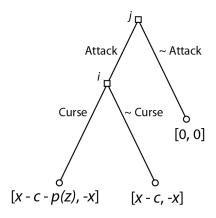


Figure 2. Improving Property Protection through Cursing

This game is dynamic. Its solution concept is subgame perfection (SGP). I solve it using backward induction.

The game in Figure 2 has three SGP equilibria. There are two reasons for this multiplicity of equilibria. The first reason is that, once j has attacked i, i's payoff is the same whether he responds by cursing j or not. If j attacks him, i loses his property. Cursing can impose a magical expected cost on j. But it can't magically bring i's property back to him. Thus i is indifferent between cursing and not cursing j if j attacks him.

For now assume that i's indifference means that he's equally likely to play either of these strategies if j attacks him. Later I'll consider why it may make more sense to think that i will always curse j when j attacks him if the game in Figure 2 is repeated.

When i doesn't curse j if j attacks him, j finds it profitable to attack i. This is the first possible equilibrium in Figure 2. In this case i doesn't exercise his ability to curse j when j attacks him. So introducing cursing does nothing to improve i's property protection compared to the situation in Figure 1 where he's unable to curse j.

In the other two equilibria in Figure 2 i chooses to curse j when j attacks him. Examining Figure 2 under this branch of the decision tree reveals the second reason for the multiplicity of equilibria in this game. It imposes no restrictions on j's expected payoff of being cursed. x-c-p(z) may be less than, greater than, or equal to zero. Since x < z, j's expected payoff of being cursed depends on the strength of his belief that i's curses are real: p.

If p > (x - c)/z, j's expected payoff of attacking i and then being cursed is negative. This yields the second possible equilibrium in Figure 2. i curses j if j attacks him. So j leaves i in peace. In this case i exercises his ability to curse j when j attacks him. Cursing improves i's property protection compared to when he's unable to curse j.

If $p \leq (x-c)/z$, j's expected payoff of attacking i and then being cursed is positive. This yields the final possible equilibrium in Figure 2. i curses j if j attacks him. But j attacks i anyway. Here i exercises his ability to curse j when j attacks him. But because j's belief in the genuineness of i's curses is weak, cursing fails to improve i's property protection compared to when he's unable to curse j.

These three possible outcomes of the game in Figure 2 highlight the first condition for effective cursing.

Condition 1 Curses must be grounded in their targets' existing beliefs.

Compared to when i is unable to curse, when he has the ability to do so his property is protected more often. In the situation in Figure 1 j always plunders i when x < c. In contrast, in the game in Figure 2, sometimes j doesn't plunder i when x < c.

However, this is only true when p > (x - c)/z. Since (x - c)/z > 0, j's belief in the genuineness of i's curses can only satisfy this inequality if p > 0. And in order for p > 0, j must see i's curses as at least potentially legitimate.

j will only see i's curses as potentially legitimate if i's curses are compatible with, or "grounded in," j's existing beliefs that support the possible genuineness of those curses. For example, j may believe in the ability of particular persons to wield supernatural power. He may believe in the ability of persons to wield such power for particular purposes. Or he may believe in that ability when magical incantations have a particular substance or form. These beliefs may stem from recognized folk-histories of curses' genuineness, secular or spiritual authorities' certification of such curses' power, or widely accepted precedents for the genuineness of related magical incantations, such as healing spells, love potions, good-luck charms, bad-luck talismans, and the like.

If i's curses are grounded in and thus reflect j's existing beliefs along these dimensions, j will see those curses as potentially legitimate—i.e., p > 0. If i's curses aren't grounded in and thus conflict with j's existing beliefs along these dimensions, j will see those curses as illegitimate—i.e., p = 0.

Of course j may not have any existing beliefs that could support any curses i can conjure up. In this case i's curses won't be grounded in j's existing beliefs and so will fail. Further, even if j does have existing beliefs suitable for i to ground his curses in, while this ensures that p > 0, j's skepticism means it may still be the case that p < (x - c)/z. Grounding curses in targets' existing beliefs is necessary but not sufficient for cursing to be effective.

Above I assumed that i's indifference between cursing and not cursing j when j attacks him means that i is equally likely to play either of these strategies if j attacks him. But examining the equilibrium outcomes in these two cases leads to a peculiar result: i sometimes chooses not to curse j after j attacks him even though, if i committed to always cursing j after j attacks him, his property would be protected more often.

It doesn't cost i anything to curse j. So there's no impediment to credibly committing to such a strategy. Especially if i and j play the game in Figure 2 repeatedly, i would benefit by adopting the following policy: when cursing and not cursing yield the same payoff, curse.

In this case, too, cursing doesn't protect i's property perfectly. It may still be the case that for j, p < (x - c)/z. But a "curse commitment" does the most to improve i's property protection compared to when he doesn't have the ability to curse.

2.2 Permitting both Parties to Curse

In the game in Figure 2 only i can choose to curse. What happens to cursing's ability to improve i's property protection if j can curse too?

To see what happens, consider the case where p > (x - c)/z—i.e., j's belief in the genuineness of i's curses is strong enough to make j's expected payoff of attacking and being cursed less than his payoff of leaving i in peace.

Suppose that j has the ability to hurl the same curses at i that i can hurl at j. Those curses threaten i with the same afflictions that i's curses threaten j with. Thus they threaten to impose the same cost on i that i's curses threaten to impose on j: z.

i and j share the same p. Further, just like i, j can only curse "defensively." Thus j can't initiate an attack on i with curses. He can only curse i if i curses him first. The resulting game is an extension of the one in Figure 2. Consider Figure 3.

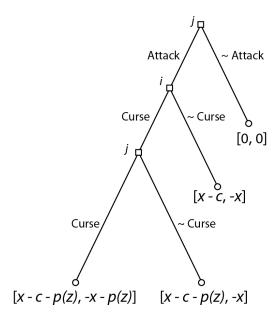


Figure 3. Weakened Property Protection when Anyone Can Curse

This game has three SGP equilibria. As in Figure 2, here too, if j attacks i, i's payoff is the same whether he curses j or not. Similarly, if j attacks i and i curses j, j's expected payoff is the same whether he responds by counter-cursing i or not.

First consider the case when j counter-curses i if i curses him. Here we find this game's first possible equilibrium. If j attacks i and i curses j, j counter-curses i, leading i to earn his lowest possible payoff. Thus i chooses not to curse j when j attacks him. That makes it profitable for j to attack i. So he does. j's ability to curse i if i curses him prevents cursing from improving i's property protection as it does in the game in Figure 2 where i has a monopoly on cursing.

Next consider the case when j doesn't counter-curse i if i curses him. Here we find this game's second possible equilibrium. When j attacks, i curses him. But j doesn't respond. j's expected payoff is lower than if he leaves i in peace. So j does that. Despite the fact that both persons can curse, cursing improves i's property protection compared to when i is unable to curse j.

Finally consider the case when i doesn't curse j if j attacks him. This case yields Figure 3's final possible equilibrium. Since i doesn't exercise his ability to curse j when j attacks him, the situation is the same as when i doesn't exercise that ability in the game in Figure 2. j attacks i, leaving i's property in the same state it's in Figure 1: unprotected.

These three possible outcomes of the game in Figure 3 highlight the second condition for effective cursing.

Condition 2 Cursors must have a monopoly on cursing.

Compared to when i has a monopoly on cursing, i's property is protected less frequently when he lacks such a monopoly. In the game in Figure 2 j never plunders i when p > (x-c)/z and i curses him following his attack. In the game in Figure 3 j sometimes plunders i even when j's belief in the genuineness of i's curses satisfies this inequality and i curses him following his attack. i's property protection is stronger when both he and j can curse compared to when neither of them can. But i's ability to use cursing to improve his property protection when j can curse too is weaker than when he alone can curse.

As in the game in Figure 2, in this game too, it may be sensible, especially if interaction is repeated, to permit i to follow a rule according to which, when he's indifferent between cursing and not cursing, he curses. On the same grounds it's sensible to permit j to follow such a rule.

If both persons follow such a rule, i regains his ability to use cursing to support the same level of property protection he enjoys when he has a monopoly on cursing. When i can credibly promise to curse j if j attacks him, and j can credibly promise to counter-curse i in return, j's expected payoff of leaving i in peace is higher than if he attacks i.

Still, i can render cursing a more effective means of improving his property protection if he can monopolize it. Consider the possibility of "trembling hands." If j makes a move on i's property under the belief that he's not attacking i because, say, he believes that the property in question is truly his, but j is mistaken, i, seeing j's move as an attack, will curse j. This will lead j to curse i. As a result i will earn his lowest payoff possible: -x - p(z). i can prevent the cost of j's trembling hands if he monopolizes cursing.

Of course, whether i also has trembling hands or not, j also wants to monopolize cursing. If he can do this, he deprives i of i's only protection against his predation when x < c. However, because of j's superior physical strength, j's ability to protect his property (as opposed to plundering i's) doesn't depend on his ability to monopolize cursing. In contrast, i's inferior physical strength requires that he monopolize cursing to maximize its ability to

improve his property protection.

2.3 The Problem of Eroding Belief

Condition 1 for effective cursing identifies the need for curses to be grounded in targets' existing beliefs. A sufficiently high p is required for cursing to improve i's property protection. The foregoing discussion, which focused on one-shot interaction, treated p as fixed. But when interaction may be repeated or, what's similar, there's more than one potential aggressor against i's property rights and the outcome of i and j's interaction is common knowledge, p may change as a consequence of cursing.

For example, if i curses j with the following fulmination—"May hyenas eat you alive tomorrow at noon!"—tomorrow at noon passes, and j hasn't been devoured by hyenas, j and other potential aggressors who learn of this outcome will downgrade the probability they assign to the possibility that i's curses are genuine. On the other hand, if tomorrow at noon comes and j is indeed eaten alive by hyenas, j, if he survives, and other potential aggressors if he doesn't, will upgrade the probability they assign to the possibility that i's curses are genuine. In a theory of cursing with rational agents, j and other potential aggressors are Bayesian updaters.

From i's perspective the ideal situation is one in which he curses j and those curses manifestly come true. This would supply evidence of his curses' genuineness, leading j and/or other potential aggressors to strengthen their belief in his power to imprecate. That, in turn, would strengthen i's ability to use cursing to protect his property rights.

The worst situation from i's perspective is one in which he curses j and those curses manifestly don't come true. This would supply evidence of his curses' bogusness, leading j and/or other potential aggressors to weaken their belief in his power to imprecate. That, in turn, would weaken i's ability to use cursing to protect his property rights.

Unfortunately for i, his curses are bogus. Thus there's no way for him to produce the effects his imprecations threaten. If he curses j with devouring hyenas, odds are, the hyenas won't appear.

i therefore faces a tricky situation with respect to cursing. Unless he's careful, belief in his curses' genuineness will quickly erode. Even if j's or other aggressors' prior belief that

i's curses are genuine is high, it takes only a single contradictory event to drive their belief below the threshold required to permit i to use cursing to improve his property protection.

To see this, suppose that i curses j to be eaten alive by hyenas tomorrow at noon. j's prior belief in the genuineness of i's curses is strong. He assigns a probability of 0.9 to the possibility that those curses are real and a probability of only 0.1 to the possibility that they're bogus.

If i's curses are genuine, there's a 100 percent chance that tomorrow at noon hyenas will devour j. If i's curses are bogus, there's a 1/100,000 chance that tomorrow at noon hyenas will devour j. Man-eating hyenas are exceedingly rare. But they exist.

Tomorrow at noon rolls around and the man-eating hyenas are nowhere to be seen. j's posterior probability that i's curses are genuine becomes [0(0.9)]/[0(0.9) + 0.99999(0.1)] = 0. i's man-eating hyena curse has destroyed all faith in his curses' genuineness and undermined his ability to use cursing to protect his property in the future.

This problem highlights the final condition for effective cursing.

Condition 3 Curses must be unfalsifiable.

An unfalsifiable curse is one whose genuineness can be reconciled with all states of the world. For example, the curse—"May you be miserable and die!"—is unfalsifiable. At some point in his life after being imprecated by this curse, the curse's target will be miserable and will die. This curse's vagueness means that when these events happen there's no way to know whether they happened because of the cursor's curse or because they would've happened anyway.

Another, closely related, way to make a curse unfalsifiable is to make it comprehensive: "May you suffer pain when you're waking or when you're sleeping!" The vagueness of suffering pain, which is sure to be the case at some point, coupled with the fact that this curse covers all possible times in which you may suffer pain—when you're awake and when you're not awake—renders is unfalsifiable too.

Yet another way to make a curse unfalsifiable is to curse a target with unobservable afflictions, for example afflictions in another world, such as the afterlife: "May vicious goblins saw your limbs with rusty tree-trimmers in the Underworld!" There's no way for living

persons to tell whether such a curse has come true or not, no matter how specific it may be. So this kind of curse is unfalsifiable too.

Contrast these kinds of curses with the man-eating hyena at noon kind. The latter is readily falsifiable. It's specificity of harm and time, circumscribed effects, and worldliness render it easily confirmed or, much more likely, contradicted by its target or other observers.

Absent the power to actually bring their curses to fruition, unfalsifiability is key to cursors' ability to use cursing to improve their property protection because it ensures that curses don't undermine their own effectiveness. To see why this is so, consider how an unfalsifiable curse affects—or rather doesn't affect—Bayesians' belief updating.

Suppose that instead of cursing j with man-eating hyenas at noon, i curses j with the second imprecation from above: "May you be miserable and die!" j's prior belief that i's curses are genuine is the same as before: 0.9. But now both the curse-is-genuine and the curse-is-bogus states of the world are observationally equivalent. If i's curses are genuine, there's a 100 percent chance that j will suffer misery and die on account of i's curse. However, even if those curses are bogus, there's a 100 percent chance that j will at some point suffer misery and die.

Whether a particular misery j suffers at some point is the result of i's curse and wouldn't have occurred without it, and j's eventual death is the result of i's curse and premature compared to if he hadn't been cursed, or instead j's misery and eventual death reflect "the natural course of things," isn't something j observes. All he observes is feeling bad at some point and dying at perhaps another.

Following i's curse, j's posterior belief in the genuineness of i's curses is therefore [1(0.9)]/[1(0.9) + 1(0.1)] = 0.9: exactly equal to his prior belief. The unfalsifiability of i's curse confounds j's ability to update his belief in the genuineness of i's curses in one direction or another after i imprecates him. i can't achieve his ideal—cursing in a way that improves j's belief in the genuineness of his imprecations. But by rendering his curse unfalsifiable, i can at least preserve j's belief in the genuineness of those imprecations, preventing his curses from eroding j's faith that they're real.

3 Cursing Monks

Medieval monastic communities in West Francia—the territory encompassing most of modern-day France—put the theory of cursing developed above to good use. "Maledictions were part of the stock-in-trade of monastic defense programs" (Rosenwein, Head, and Farmer 1991: 771). Indeed, it wasn't only monastic communities that used maledictions to defend property. Other communities clerics, such as canons, did too.⁶

Contrary to contemporary images of monks and canons, which see these churchmen as paupers, medieval communities of monks and canons in West Francia were wealthy (see, for instance, Geary 1990: 20). Their most valuable possessions were by far their vast land holdings and the appurtenances that came with them. In much of West Francia, communities of clerics were the largest land owners in the kingdom (see, for instance, Little 1993: 208).

Between the 10th and 12th centuries these communities' significant wealth confronted great insecurity. Under the Carolingian dynasty a system of royal justice—king-appointed counts and, failing them, the king himself—protected monks' and canons' property rights. But beginning with the reign of the last Carolingian king, Louis the Pious, that system began to degrade.

Aided by the Viking incursions of the 9th century that did much to disrupt the previous pattern of governance, in the 10th century the Carolingian system of royal justice broke down. First, comital authority became hereditary instead of dependent on royal discretion. This rendered counts largely independent of the central government's control. Not long after, counts lost their public authority too. Local strongmen fortified in castles, or "castellans," replaced independent counts as the basic unit of governance. The result was a system of petty fieldoms headed by strongmen accountable to no one but strongmen stronger than themselves.

⁶Maledictions weren't the only method communities of monks and canons resorted to to improve their property protection. But they were a major one. For a discussion of some of their other methods, see Rosenwein, Head, and Farmer (1991).

⁷The degraded state of public law and order in the equivalent of modern-day France in the 10th through 12th centuries has been discussed at length by historians of the Middle Ages. See, for instance, Duby (1977), Dunbabin (1985), Bisson (1994), and Geary (1995). However, the breakdown of public law and order should not be taken to imply that no courts at all functioned, for example. At the level of individual landholders, private courts with some semblance of authority often did exist. The problem was that courts with the formal authority to adjudicate and enforce decisions regarding disputes between persons from different lords did not.

This system has been dubbed "feudal anarchy." Many medieval scholars now eschew this term. But it provides a good sense of the decrepit state that public institutions of property protection were in between the 10th and 12th centuries in the equivalent of modern-day France.

Castellans were capable of providing communities of monks and canons property protection. But these strongmen were precisely the persons those communities' property was threatened by. Monks and canons could expect no protection from their plunderers.

The situation might not have been so dire for these communities if they had the physical strength—the military means—of self-protection. But most didn't. A "monastery did not directly command the physical or military means to defend its own properties" (Little 1993: 53). Monks and canons surrendered arms, horses, and other means of self-protection when they gave up their lives as laypersons and took up the cloth. Their communities' extensive properties were like sitting ducks for unscrupulous, secular strongmen who, as a group, enjoyed a monopoly on the means of physical coercion.

It was in this context that clerical communities began to rely on maledictions—divine curses—to improve their property protection. Monks and canons used several kinds of maledictions to deal with persons who threatened their property rights. Lester Little (1993) has translated and compiled many of these curses. I draw from his work to illustrate their forms below.

The first kind of malediction monks and canons used to improve their property protection against castellan plunder was the liturgical *maledictio*. Liturgical benedictions are divine blessings following prescribed forms that clerics bestow on persons they want to venerate at times of community worship, such as mass. Benedictionals are the books containing clerical formulas for these blessings.

Medieval clerics had no "maledictionals." But they did have liturgical maledictions: divine curses following prescribed forms that they leveled at persons they wanted to damn at times of community worship. Consider the following malediction formula from the Abbey of Féfchamp circa the late 10th century (Little 1993: 9):

The years following Carolingian justice breakdown were not anarchic in the sense of lacking all governance. Indeed, as the case of cursing this paper considers suggests, private governance did exist. Rather, those years were anarchic in the sense that widespread public justice was lacking.

[W]e curse them and we separate them from the company of the holy mother church and of all faithful Christians, unless they change their ways and give back what they unjustly took away May their bodies be cursed. May they be cursed in the head and the brain. May they be cursed in their eyes and their foreheads. May they be cursed in their ears and their noses. May they be cursed in fields and in pastures. May they be cursed in the mouth and the throat, cursed in the chest and the heart, cursed in the stomach, cursed in the blood, cursed in the hands and feet and in each of their members. May they be cursed in towns and in castles. May they be cursed in streets and squares. May they be cursed when sleeping and when awake, when going out and returning, when eating and drinking, when speaking and being silent. May they be cursed in all places at all times.

The second kind of malediction clerics used to improve their property protection was called a "clamor." Clamors weren't technically curses. But clerics could use them to invoke curse-like effects and sometimes did so in tandem with proper maledictions.

To clamor is to make a vigorous appeal. That's precisely what monks and canons did when they used clamors to curse. Clamoring clerics appealed to God and to other holy figures, such as apostles, confessors and, most frequently, saints.

Clerical communities were officially the property of the saints in whose name they were established. According to popular belief, it was those saints' duty to protect their communities. Thus, when monks' or canons' property rights came under attack, it was only natural for them to clamor their patron saints to thwart their oppressors.⁸

Sometimes clamors were simply public supplications to saints or other holy figures for this purpose. Other times they were more severe. In these cases clerics didn't just supplicate their supernatural overseers. They publicly humiliated them.

Clerics humiliated holy figures by moving those figures' remains (relics) or related corporeal extensions (crucifixes and holy texts) from their traditional places of exaltation to the ground. There, clerics covered them with brush or thorns. Similarly, clamoring clerics sometimes humiliated themselves—God's servants—by lying prostrate on the floor.

Clerics' logic was that humiliating holy figures (or themselves) would, in the eyes of their plunderers, provoke those figures, who expected to be venerated rather than denigrated. So

⁸Technically, clamoring clerics clamored only God directly. Other holy figures, such as humiliated saints, clamored God on clerics' behalf together with clerics. However, it could be the wrath of God or saints (or both) that offending persons, who prompted the clamor, were supposed to fear as a consequence of the ritual.

provoked, supernatural overseers would turn their displeasure on the plunderers prompting clerics' rude call.⁹ Consider the following clamor instructions from the Abbey of Farfa copied in 1020 (Little 1993: 28):

An ecclesiastical clamor to God should be made in this way. At the principal mass, after the Lord's Prayer, the ministers of the church cover the pavement before the alter with a coarse cloth, and on this they place the crucifix, the text of the Gospels, and the bodies of the saints. And each cleric lies prostrate on the floor singing silently Psalm 73. Meanwhile two bells are rung by the church's custodians. The priest alone stands before the newly consecrated body and blood of the Lord and in front of the aforementioned relics of the saints, and in a loud voice he begins to say this clamor.

Then followed a prayer, such as this one (Little 1993: 25):

To you, Lord Jesus, we come; to you, prostrate, we clamor, because iniquitous and proud men, emboldened by their own followers, invade, plunder, and lay waste to the lands of this your sanctuary and of other churches subject to it . . . And our belongings as well, by which we are supposed to live and which blessed souls bequeathed to this place for their own salvation, they seize and violently take away from us.

If clerics combined the clamor and humiliation with a proper malediction, next came the cursing, such as this (Little 1993: 23):

May their lot and inheritance be perpetual flames with Dathan and Abiron, Judas and Pilate, Simon and Niro.

To this monks might add further fulminations, cursing property violators in the field and in the city, in their bones and in their barns, and so on, as in the liturgical *maledictio* from above.

The third kind of malediction medieval clerical communities used to improve their property protection is the most familiar: excommunication and anathema.¹⁰ Excommunication

⁹Persons who prompted clerical clamors weren't only supposed to fear divine wrath for their offenses. They were supposed to, as a consequence of the clamor, face pressure from their neighbors, family members, and so on, to change their ways and make restitution for their offense as well. This role is in fact common to all the kinds of malediction this paper discusses. By making offending persons' offenses public and pressuring those close to them to encourage them to change their ways, for instance because they fear for their cursed friends, family members, and so on, maledictions operated not only to deter property violations directly but to do so indirectly in the ways described above as well.

¹⁰On excommunication in the Middle Ages, see Vodola (1986).

and anothema were predominantly the province of popes and bishops. But sometimes these higher-ranking ecclesiastics "licensed" lower-level clerics to excommunicate and anothematize the violators of Church property too.

Excommunication came in varying degrees that ranged from cutting one off from the sacraments to cutting him off from all members of the Holy Mother Church. Anathema was a kind of excommunication with gusto. It was a more dramatic excommunication reserved for contumacious excommunicants that often involved a ceremony of snuffing out candles, or stomping them on the floor, to symbolize the anathema's effect on the target's soul.

Though not properly an excommunication, clerics weren't averse to throwing in some curses against major excommunicants/anathematized persons when excommunicating or anathematizing them either—especially when their property was threatened. In these cases the lines between excommunication and malediction became blurred. Excommunication and anathema became a kind of malediction. Consider the following excommunication Pope Benedict VIII launched against some persons violating the property rights of the Abbey of Saint-Gilles in 1014 (Little 1993: 43):

May they be cursed in the four corners of the earth. May they be cursed in the East, disinherited in the West, interdicted in the North, and excommunicated in the South. May they be cursed in the day and excommunicated at night. May they be cursed at home and excommunicated while away, cursed in standing and excommunicated in sitting, cursed in eating, drinking, and sleeping, excommunicated in waking, cursed when they work and excommunicated when they rest. May they be cursed in the spring and excommunicated in the summer, cursed in the autumn and excommunicated in the winter.

The final form of malediction clerics used to improve their property protection isn't so much a different kind of malediction as it's a different use for it: contract cursing. Besides imprecating strongmen who sought to violently seize their land and possessions, clerics threatened to imprecate persons who violated their land contracts.

A common way that clerical communities came to possess property was for lay benefactors to gift it to them. A not infrequent occurrence was that some person might give land to, say, a monastic community, only to have his lord, his lord's heirs, or his heirs, challenge the community's property right to that land in the future. In an attempt to prevent this, a gifting layperson's lord, heirs, or both were often asked to make their consent to the gift

explicit. Their consent was then recorded in a charter remembering the gift and held by the receiving clerics.¹¹

To strengthen the enforcement of these persons' promises, clerics commonly included "curse clauses" in their charters. Those clauses threatened to imprecate any persons who in the future might try to violate their charter-identified property rights. Consider the following "curse clause" from a 12th-century charter recording a land grant from a layperson to the Church (Little 1993: 56):

And if any wish to destroy this charter, may God strike their names from the book of life and toss their flesh to the birds of the air and the beasts of the earth. May the Lord send them to an abominable death and banish them quickly from this world. May they have the curses of the three patriarchs, Abraham, Isaac, and Jacob; and of the four evangelists, Mark and Matthew, Luke and John; and of the twelve apostles and of the sixteen prophets and of the twenty-four elders and of the 318 holy fathers who deliberated on the canons and Nicea; and may they have the curse of the 144,000 martyrs who died for the Lord; and may they have the curse of the cherubim and the seraphim, who hold the throne of God, and of all the saints of God. Amen, amen. So be it, so be it.

Excluding the entire army of saints, which was undoubtedly large, this charter invokes the curses of no fewer than 144,380 people to be brought down upon the head of anyone who might try to violate it. That's a lot of curses.

4 Malediction Effectiveness

Quantitative data that could shed light on the extent to which maledictions permitted clerics to improve their communities' property protection don't exist. However, narrative sources suggest that maledictions were often effective in this purpose. The fact that clerical communities used maledictions to defend their property for three centuries suggests that they must have been at least somewhat effective too. Commenting on the invocation of saintly interventions in particular, one historian of the Middle Ages notes that, "In general, they seemed to have worked quite well, or at least better than anything else available" for the protection of clerical communities' property (Geary 1991: 20).

¹¹On the problems that consent rules created in Norman England and the peculiar legal system they gave rise to, see Leeson (2011b).

The at least partial effectiveness of monastic and canonical cursing in improving their communities' property protection is relatable to the theory of cursing developed in Section 2. Maledictions satisfied each of the three conditions that theory identifies as necessary for effective cursing.

4.1 Grounding Maledictions in Targets' Existing Beliefs

According to the first condition for effective cursing from Section 2, curses must be grounded in their targets' existing beliefs. This ensures that p > 0, which is required for cursing to add anything to potential property violators' expected cost of property violation. Liturgical malediction, clamoring, and the rest satisfied this condition by grounding their curses explicitly in a centrally important book that prescribed and reflected prevailing medieval belief: the Bible.

Like medieval clerics themselves, the Bible is a curious mix of brotherly love and frightful wrath. It contains numerous curses. Consider this sampling from Deuteronomy 28:

[I]f you do not obey the Lord your God and do not carefully follow all his commands and decrees I am giving you today, all these curses will come on you and overtake you:

You will be cursed in the city and cursed in the country.

Your basket and your kneading trough will be cursed.

The fruit of your womb will be cursed, and the crops of your land, and the calves of your herds and the lambs of your flocks.

You will be cursed when you come in and cursed when you go out

The Lord will plague you with diseases until he has destroyed you from the land you are entering to possess. The Lord will strike you with wasting disease, with fever and inflammation, with scorching heat and drought, with blight and mildew, which will plague you until you perish. The sky over your head will be bronze, the ground beneath you iron

Your carcasses will be food for all the birds and the wild animals, and there will be no one to frighten them away. The Lord will afflict you with the boils of Egypt and with tumors, festering sores and the itch, from which you cannot be cured. The Lord will afflict you with madness, blindness and confusion of mind

You will be pledged to be married to a woman, but another will take her and rape her. You will build a house, but you will not live in it. You will plant a vineyard, but you will not even begin to enjoy its fruit. Your ox will be slaughtered before your eyes, but you will eat none of it. Your donkey will be forcibly taken from you and will not be returned. Your sheep will be given

to your enemies, and no one will rescue them. Your sons and daughters will be given to another nation, and you will wear out your eyes watching for them day after day, powerless to lift a hand. A people that you do not know will eat what your land and labor produce, and you will have nothing but cruel oppression all your days. The sights you see will drive you mad. The Lord will afflict your knees and legs with painful boils that cannot be cured, spreading from the soles of your feet to the top of your head

You will sow much seed in the field but you will harvest little, because locusts will devour it. You will plant vineyards and cultivate them but you will not drink the wine or gather the grapes, because worms will eat them Swarms of locusts will take over all your trees and the crops of your land

All these curses will come on you.¹²

These curses should sound familiar. They're the same ones that graced liturgical maledictions, clamors, excommunications, and charters. Compare the curses elaborated in Deuteronomy 28 with the following liturgical malediction from the Abbey of Saint-Martial of Limoges circa the late 10th century (Little 1993: 60-61):

We hereby inform you, brothers, that certain evil men are devastating the land of our lord Martial May the curse of all the saints of God come upon them.... May they be cursed in town. May they be cursed in the fields. May they be cursed inside their houses and outside their houses. May they be cursed standing and sitting. May they be cursed lying down and walking. May they be cursed when asleep and when awake. May they be cursed while eating and while drinking. May they be cursed in castles and villages. May they be cursed in forests and in waters. May their wives and their children and all who associate with them be cursed. May their cellars be cursed, as well as their casks and all the vessels from which they drink and eat. May their vineyards and their crops and their forests be cursed May all their cattle and their work animals, both inside and outside the stables, be cursed. May the Lord send over them hunger and thirst, pestilence and death, until they are wiped off the earth. May the Lord strike them with heat and cold. May the sky above them be brass and the earth they walk on iron. May the Lord toss their bodies as bait to the birds of the sky and beasts of the land. May the Lord strike them from the bottoms of their feet to the tops of their heads. May their homes be deserted and may no one inhabit them. May they lose what they have, and may they not acquire what they do not have. May the sword devastate them on the outside and fear on the inside. If they sow seeds in the earth may they reap little, and if they plant vines may they not drink wine from them. May the Lord send great plagues upon them, and the worst, most relentless illnesses, unless they change their ways.

 $^{^{12}}$ The Book of Psalms is another hotbed of biblical cursing. See, for instance, Psalms 35:6; 35:8; 55:15; 69:22; 69:23; 69:25; 69:28; 83:17; 109:8; 109:9; 109:10; 199:11; 109:12; 109:13; and 140:10. On Psalm maledictions, see Curraoin (1963).

But if they are not willing to change, then let them accept from God and Saint Martial damnation with the devil and his angels in hell, and may they burn in eternal fires, with Dathan and Abrion. Amen, Amen. Thus may all memory of them be extinguished for ever and ever.

Medieval clerics didn't pull the maledictions they used to improve their property protection out of thin air. They grounded them firmly in their targets' existing beliefs. Since targets were Christians, grounding maledictions in "biblical curse traditions" achieved precisely that (Geary 1995: 96).

4.2 Monopolizing Malediction

According to the second condition for effective cursing from Section 2, curses must be monopolized by cursors. A cursing monopoly prevents counter-cursing, which can undermine cursing's ability to improve physically weak cursors' property protection. Medieval clerics secured a monopoly on cursing through their religious monopoly.

Clerics' religious monopoly gave them exclusive authority to call on God and his holy helpers (saints, patriarchs, confessors, and so on) to sanction others supernaturally. This authority went hand-in-hand with malediction's grounding in Christian beliefs, discussed above.

Christian doctrine held that only clerics could conduct the rites and rituals of the Christian faith. Only they could perform baptisms, administer communion, hear confessions, prescribe penance, and so on. Naturally, among clerics' monopoly powers over the performance of these rites and rituals was communicating with God and his supernatural assistants and invoking their supernatural intervention. In this way "monks' authority to curse as well as their capacity for doing so effectively were part of their virtual monopoly on all forms of prayer" (Little 1998: 33).

The evolution of ecclesiastical thinking about cursing leading up to the 13th century came to hold that cursing was only legitimate, and thus only capable of being successful, when performed for appropriate purposes by appropriate persons. The former of course included only efforts for the preservation of the Holy Mother Church, such as protecting its property. The latter course included only clerics. "[T]he monopoly this caste held on spiritual power,

itself parallel to the monopoly on military power held by the warrior class, gave it the only access to divine authority and the only means of communication between the living and the dead" (Little 1993: 195). That monopoly in turn gave it the only access to the power to curse successfully.

The effect of clerics' cursing monopoly was two-fold. First, by presenting themselves as uniquely capable of cursing successfully, clerics undermined the idea that others might be able to curse successfully too. Second, and equally important, to the extent that clerics truly believed that only they could curse successfully, they undermined the potential power of non-clerics' imprecations to impose any costs on them if such persons tried, and in doing so undermined the potential power of non-clerics' imprecations to weaken clerics' ability to use cursing to improve their property protection.

4.3 Preventing Eroding Belief in Maledictions

According to the final condition for effective cursing from Section 2, curses must be unfalsifiable. If a curse can be easily falsified, it can undermine cursing's ability to improve cursors' property protection. Curses that can't be falsified prevent themselves from eroding the belief in their genuineness that makes them effective.

Recall that there are at least three, closely related ways to make a curse unfalsifiable: make if vague; make if comprehensive; and make it afflict the target in unobservable ways. Medieval clerics used each of these methods to make maledictions unfalsifiable.

Consider the following curse clause in a clerical charter from Conques circa 910 (Little 1993: 56):

If anyone presume to contradict this charter, let him be excommunicated and cursed as well as damned forever with Judas the traitor and with the devil.

This malediction actually combines two methods for making curses unfalsifiable: vagueness and other-worldly affliction. I'll discuss the latter below. Here the important item to
notice is the first part of this curse which, quite literally, imprecates would-be charter violators via the spell: "let . . . him be cursed." This curse is exceptionally vague. Indeed, it
couldn't be any vaguer. Something bad was going to happen the target. But what, exactly,

could be just about anything.¹³

As the examples considered in Section 3 and earlier in this section demonstrate, clerics also cursed their malediction targets comprehensively—in all places, at all times, doing all things, in all ways. In a single malediction targets could be cursed in the fields and in the towns; while eating and while drinking; standing and lying down; when talking and when being quiet; in the fall, the winter, the summer, and spring. Similarly, in a single malediction targets could be cursed with physical afflictions and emotional ones; afflictions of their heads and of their feet; with illnesses and plagues; with afflictions of theirs parents and of their children; and so on.

These particulars lent the appearance of specificity to clerical curses. But this appearance is no more than that. By covering all, or nearly all, possible contexts, those curses were in fact completely general. In one of the maledictions recounted above, targets are literally "cursed in all places at all times." No matter what bad thing may happen to a malediction target after being imprecated, or where he may be, it fell under the purview of some malady issued by the curse.

Finally, clerics commonly cursed malediction targets with unobservable afflictions. Consider again the examples in Section 3. Maledicting clerics cursed targets to hell; to burn in eternal fires after they die; and to spend forever with traitors to God. Malediction targets have their "lights are extinguished in eternity" and their names "striked from the book of life."

Did any of these curses come true? We'll never know. And, at least while they were alive, neither did the persons they were leveled at or other potential predators of clerical property.

¹³Some maledictions came closer to being truly specific—to being the kind of curse that might in principle be falsified. One excommunication curse fulminates, "May they drain out through their bowels, like the faithless and unhappy Arius." Another declares, "May they be buried with dogs and asses; may rapacious wolves devour their cadavers" (Little 1993: 36; 47). But these, too, are left too vague to be falsified in practice. When are the targets' bowels supposed to drain out? When are rapacious wolves supposed to devour their cadavers? What's more, these more-specific curses are mixed in with the typical host of clearly unfalsifiable kinds discussed below.

5 Concluding Remarks

Modern persons commonly curse in God's name. "God damns" resonate through office places and schools, congressional committees and business boardrooms—anywhere that people can be found—with the same frequency of the irksome events that evoke them. Yet rarely, if ever, do the persons announcing their displeasure through "God damns" stop to think about what they're doing. They're asking God to use His divine power to damn, i.e., curse, the object of their ire—figuratively, of course.

In contrast, medieval communities of monks and canons were both literal and deliberate in their "God damns." They understood perfectly well that they were asking God to curse the objects of their ire. That was their intention.

In the 10th though 12th centuries clerics in the equivalent of modern-day France confronted great property insecurity. Unable to rely on government or physical self-help to improve their property protection, they turned to supernatural self-help through maledictions. Historians have long-recognized that monks and other clerics resorted to divine cursing for this purpose. But no one has explained how, exactly, cursing could improve cursors' property protection when cursors and their targets are rational.

The theory of cursing this paper developed explains how. That theory finds that to be effective, curses must satisfy three conditions. They must be grounded in targets' existing beliefs, monopolized by cursors, and unfalsifiable.

These conditions are necessary but not sufficient for cursing to improve cursors' property protection. For example, if targets' existing beliefs have only very weak foundations for curses' genuineness, even when curses are grounded in those beliefs, cursing may remain unable to impose a sufficiently high expected cost on would-be property violators to deter them from plunder.

To render the conditions for effective cursing my theory identifies sufficient ones for improving cursors' property protection, Condition 1 must be modified to include grounding curses in targets' existing beliefs and those beliefs having a strong enough foundation for curses' potential genuineness such that belief-grounded execrations satisfy the threshold p > (x - c)/z.

My analysis finds that monastic maledictions satisfied the conditions required for effective cursing. Further, given medieval citizens' strong, existing religious beliefs, which provided a firm foundation for the genuineness of clerical curses, for at least some citizens the belief threshold indicated above was satisfied as well. Because of this, medieval clerics were able to use malediction as an effective, albeit imperfect, institutional substitute for conventional institutions of property protection.

In the 13th century monks and canons put away their malediction formulas. Two reasons stand out as particularly important for clerical cursing's decline. First, even in malediction's heyday, justifying clerical cursing required considerable contortion and hoop jumping by ecclesiastic elites.

In addition to containing numerous instances of divine cursing, the Bible contains numerous passages that seem to condemn cursing. These had to be explained away. This was accomplished by parsing seeming Biblical prohibitions on cursing in a way that prohibited "illegitimate" cursing, leveled malevolently or for private purposes, but recognized scope for "legitimate" cursing, leveled without malevolence and for the preservation of the Church.

This parsing solved the cursing dilemma that ecclesiastic intellectuals clearly saw. But it did so in a rather strained way. When the opportunity to safely abandon divine cursing came along, it was therefore easy for clerics to do so.

That opportunity was provided by the second reason driving clerics' abandonment of malediction in the 13th century: the resurrection of public institutions of property protection under King Philip II (aka Philip Augustus). Perhaps most important for property protection among Philip's reforms was the establishment of a system for the regular administration of royal justice throughout France. Philip achieved this by appointing salaried baillis who held monthly judicial forums at which they heard and handled property complaints across the realm. The result was a marked improvement in government-supplied property protection compared to the previous state of affairs in which justice, to the extent that it was administered at all, was administered by independent, powerful lords.

Besides enabling clerics to let go of the awkward justification behind malediction, the (re)emergence of functional institutions of state-supplied justice permitted clerics a more reliable way to enforce their property rights. Unlike execrations, conventional and very much

worldly institutions of property protection don't depend significantly on whether would-be property transgressors believe their victims wield magical power or not. Those institutions of property protection work equally well no matter what citizens' spiritual beliefs may be.

It's unsurprising, then, that in the early 13th century communities of monks and canons substituted away from malediction and back to reliance on functionaries of the state. When more effective, public alternatives for property protection became available, clerics said goodbye to "God damns."

My analysis of the law and economics of cursing leads to several conclusions. First, it explains why cursing is more prominent in "primitive" societies than in advanced ones. Citizens in the former aren't necessarily more rational than those in the latter. Rather, they face greater obstacles to relying on conventional, external means of property protection.

For example, in developed countries, police and formal court systems exist, are easily accessible, and are highly functional. Even if the beliefs necessary to ground curses existed in these countries, it would make little sense for citizens to rely on cursing to protect their property rights when they can rely on still more effective formal institutions. In contrast, in some Least Developed Countries, such as Liberia and Sierra Leone, police and formal court systems are often absent and, where they exist, they're often inaccessible and highly dysfunctional, plagued by inadequate resources and corruption (see, for instance, Leeson and Williamson 2009; Lubkemann, Isser, and Banks 2011). In these countries it makes good sense for citizens to rely more heavily on cursing and related magical means to protect their property rights. So they do.

Citizens in LDCs aren't less rational than citizens' in developed, western nations. They simply face different constraints that render cursing a more efficient institution of property protection. Indeed, in certain communities within developed countries that can't rely on state institutions of property protection and have the belief foundations required to ground effective cursing, such as Gypsies, cursing remains prominent (Leeson 2011b).

Second, and closely related, my analysis suggests that cursing can be consistent with rationality. Rationality imposes no constraints on individuals' priors. It does, however, require them to update their beliefs appropriately when new evidence appears. If curses satisfy the handful of basic conditions discussed above, including unfalsifiability, they're consistent

with rational decision making even in the face of such updating since an unfalsifiable curse confounds the updating process. Curses invoke mysterious powers. But they needn't be relegated analytically to the mysterious black box of irrationality.

Finally, my analysis of the law and economics of cursing suggests that superstition can be socially productive. Objectively false beliefs are objectively false. But that doesn't mean they can't be useful. Medieval, monastic malediction demonstrates this fact. Without the superstition that underlaid popular, medieval Christianity, communities of monks and canons would've been nearly powerless to enforce their property rights against strongmen tempted to plunder them. Because of that superstition, clerics' property protection was improved. God damn.

References

- [1] Anderson, Terry L., and Peter J. Hill. 2004. The Not So Wild, Wild West: Property Rights on the Frontier. Stanford: Stanford University Press.
- [2] Becker, Gary S. 1968. "Crime and Punishment: An Economic Approach." *Journal of Political Economy* 76: 169-217.
- [3] Benson, Bruce L. 1989. "The Spontaneous Evolution of Commercial Law." Southern Economic Journal 55: 644-661.
- [4] Bisson, T.N. 1994. "Feudal Revolution." Past and Present 142: 6-42.
- [5] Bitel, Lisa M. 2000. "Saints and Angry Neighbors: The Politics of Cursing in Irish Hagiography." In Sharon Farmer and Barbara H. Rosenwein, eds., *Monks and Nuns, Saints and Outcasts: Religion in Medieval Society*. Ithaca: Cornell University Press.
- [6] Curraoin, Tomás Ó. 1963. "The Maledictions in the Psalms." Furrow 14: 421-429.
- [7] Duby, Georges. 1977. *The Chivalrous Society*. Cynthia Postan, trans. Berkeley: University of California Press.
- [8] Dunbabin, Jean. 1985. France in the Making, 843-1180. Oxford: Oxford University Press.
- [9] Ekelund, Robert B. Jr., Robert F. Hébert, and Robert D. Tollison. 1989. "An Economic Model of the Medieval Church." *Journal of Law, Economics, and Organization* 5: 307-331.
- [10] Ekelund, Robert B. Jr., Robert F. Hébert, and Robert D. Tollison. 2002. "An Economic Analysis of the Protestant Reformation." *Journal of Political Economy* 110: 646-671.
- [11] Ekelund, Robert B. Jr., Robert F. Hébert, and Robert D. Tollison. 2006. *The Market-place of Christianity*. Cambridge: MIT Press.
- [12] Ekelund, Robert B. Jr., Robert F. Hébert, Robert D. Tollison, Gary M. Anderson, and Audrey B. Davidson. 1996. Sacred Trust: The Medieval Church as an Economic Firm. New York: Oxford University Press.
- [13] Ellickson, Robert C. 1991. Order without Law: How Neighbors Settle Disputes. Cambridge: Harvard University Press.
- [14] Friedman, David. 1979. "Private Creation and Enforcement of Law: A Historical Case." Journal of Legal Studies 8: 399-415.
- [15] Geary, Patrick J. 1979. "L'humiliation des saints." Annales 34: 27-42.
- [16] Geary, Patrick J. 1991. Furta Sacra: Thefts of Relics in the Central Middle Ages. Princeton: Princeton University Press.

- [17] Geary, Patrick J. 1995. Living with the Dead in the Middle Ages. Ithaca: Cornell University Press.
- [18] Leeson, Peter T. 2007a. "An-arrgh-chy: The Law and Economics of Pirate Organization." *Journal of Political Economy* 115: 1049-1094.
- [19] Leeson, Peter T. 2007b. "Trading with Bandits." Journal of Law and Economics 50: 303-321.
- [20] Leeson, Peter T. 2008. "Social Distance and Self-Enforcing Exchange." *Journal of Legal Studies* 37: 161-188.
- [21] Leeson, Peter T. 2009. "The Laws of Lawlessness." Journal of Legal Studies 38: 471-503.
- [22] Leeson, Peter T. 2010a. "Ordeals." Mimeo.
- [23] Leeson, Peter T. 2011b. "Gypsies." Mimeo.
- [24] Leeson, Peter T. 2011a. "Animal Trials." Mimeo.
- [25] Leeson, Peter T. 2011b. "Trial by Battle." Journal of Legal Analysis, forthcoming.
- [26] Leeson, Peter T., and Christopher J. Coyne. 2011. "Sassywood." Mimeo.
- [27] Leeson, Peter T., and Claudia R. Williamson. 2009. "Anarchy and Development: An Application of the Theory of Second Best." Law and Development Review 2: 77-96.
- [28] Little, Lester K. 1975. "Formules monastiques de malédiction au IX^e et X^e siècles." Revue Mabillon 58: 377-399.
- [29] Little, Lester K. 1979. "La morphologie des malédictions monastiques." Annales 34: 43-60.
- [30] Little, Lester K. 1993. Benedictine Maledictions: Liturgical Cursing in Romanesque France. Ithaca: Cornell University Press.
- [31] Lubkemann, Stephen C., Deborah H. Isser, and Philip A.Z. Banks III. 2011. "Justice in a Vacuum: The Unintended Consequences of the Constraint of Customary Justice in Post-Conflict Liberia." In Deborah H. Isser, ed.: Customary Justice and the Rule of Law in War-Torn Societies. Washington, DC: USIP Press, forthcoming.
- [32] Little, Lester K. 1998. "Anger in Monastic Curses." In Barbara H. Rosenwein, ed., Anger's Past: The Social Uses of an Emotion in the Middle Ages. Ithaca: Cornell University Press.
- [33] Posner, Richard A. 1980. "A Theory of Primitive Society, with Special Reference to the Law." *Journal of Law and Economics* 23: 1-53.
- [34] Rosenwein, Barbara H., Thomas Head, and Sharon Farmer 1991. "Monks and their Enemies." *Speculum* 66: 764-796.

- [35] Skarbek, David. 2010. "Putting the 'Con' into Constitutions: The Economics of Prison Gangs." *Journal of Law, Economics, and Organization* 26: 183-211.
- [36] Vodola, Elizabeth. 1986. Excommunication in the Middle Ages. Berkeley: University of California Press.