



Sassywood ☆

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ABSTRACT

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This paper analyzes trial by poison ingestion, or “sassywood,” as an institution of criminal justice in contemporary Liberia. We argue that effective criminal justice institutions must satisfy three conditions: they must be accessible to citizens, incentivize judicial administrators to pursue justice instead of private ends, and generate useful information about accused criminals’ guilt or innocence. Liberia’s formal criminal justice institutions fail to satisfy these conditions. Sassywood does a better job of fulfilling them. Sassywood is more accessible than Liberia’s formal criminal justice institutions. It provides judicial administrators stronger incentives to pursue justice. And, unexpectedly, it is capable of generating useful information about criminal defendants’ guilt or innocence where Liberia’s formal criminal justice institutions didn’t. The theory this paper provides offers a plausible explanation of why sassywood is a sensible institutional substitute for formal Liberian criminal justice. *Journal of Comparative Economics* 40 (4) (2012) 608–620. George Mason University, MS 3G4, Fairfax, VA 22030, USA.

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1. Introduction

“[T]he Chiefs gave the signal, every thing now being ready for the beginning of the most essential and serious part of the water ordeal . . . the man, who was appointed to administer the water . . . took a large Calabash measuring about a pint filled it quite full with the prepared water . . . He then filled another . . . till [the accused] had consumed five, then [the accused] wished for some respite, which being granted, he directly began to puke and threw up a great deal of water” (Afzerlius, 1967, p. 28).

This scene describes a judicial ordeal—that peculiar and astonishing form of criminal trial made famous by Dark Age-era Europeans. But this ordeal didn’t take place in Dark Age Europe. It took place in early modern Sierra Leone. The accused, on trial for murder, guzzled poison. His death, or near death, would have indicated his guilt. His expulsion of the poison indicated his innocence. This ordeal played a central role in early modern African criminal justice systems. People called it “sassywood.”

Judicial ordeals have a long and impressive history. As Blackstone remarked, trial by “ordeal seems to have been very ancient and very universal in the times of superstitious barbarity” (Blackstone, 1872, p. 342). The second-oldest extant legal code—that of Hammurabi—prescribed judicial ordeals for certain criminal cases. Sophocles describes judicial ordeals’ use

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among the ancient Greeks. Judicial ordeals were used in medieval Europe, in parts of the early modern world and, as this paper considers, are still used in parts of Africa today.

Judicial ordeals' geographic and cultural expanse is equally impressive. Hindus in India found a significant place for them. Christians from England did too, as did continental Europeans from France all the way to Russia. Americans in Salem resorted to ordeals to try accusations of witchcraft. And in ages past, some Middle Eastern peoples used trials by ordeal too.

In most of the world judicial ordeals died long ago. Europeans cast them aside nearly 800 years ago. It is surprising then to find trials by ordeal in the form of sassywood being used in late 18th-century Africa. Still more surprising is the fact that sassywood remains an important criminal justice institution in some African countries today. What explains judicial ordeals' persistence in these countries?

This paper addresses that question. It does so by investigating sassywood where its contemporary use is most prevalent: Liberia. To develop an answer we use the theory of rational choice.

On its surface sassywood is preposterous. Trial by poison ingestion is the very picture of primitive barbarism. It hardly seems like a sensible foundation for criminal justice. On the contrary, sassywood seems like the foundation for assured criminal injustice. This impression has led the international community to decry sassywood's use in Liberia as an unconscionable violation of human rights (see, for instance, United Nations Mission in Liberia, 2007, 2008). At the international community's urging, the Liberian government recently banned the ordeal.

This ban may have come at considerable cost. According to recent fieldwork, "The vast majority of Liberians . . . raised very serious concerns that the ban on [sassywood's] use is causing significant societal problems—most particularly the inability to control crime" (Isser et al., 2009, p. 5). Some Liberians continue to use sassywood. But these persons do so illegally.

No one in the developed world believes that sassywood is a sensible institution of Liberian criminal justice. The theory this paper provides offers a plausible explanation of why, given the current institutional environment and likely problems of transplanting effective formal institutions in Liberia, sassywood may be just that. We argue that sassywood is a constrained "institutional optimum" for Liberian criminal justice. Sassywood's persistence reflects an institutional response to the Liberian government's failure to produce effective, formal criminal justice. Trial by poison ingestion may be a sensible institutional substitute for that justice.

To be effective, criminal justice institutions must satisfy three conditions: they must be accessible to citizens, incentivize judicial administrators to pursue justice instead of private ends, and generate useful information about accused criminals' guilt or innocence. Liberia's formal criminal justice institutions fail to satisfy these conditions. Sassywood does a better a better job of fulfilling them.

Sassywood is more accessible than Liberia's formal criminal justice institutions. It provides judicial administrators stronger incentives to pursue justice. And, unexpectedly, sassywood is capable of generating useful information about criminal defendants' guilt or innocence where Liberia's formal criminal justice institutions don't.

Though highly imperfect, and far less effective than formal criminal justice institutions in developed countries such as the United States, compared to Liberians' institutional alternative—Liberia's formal criminal justice system—sassywood provides more effective criminal justice. In securing more effective criminal justice, sassywood improves Liberian property security, making Liberians better off.

Economists have said nothing about sassywood. However, they have said much about the importance of institutions that support property rights—including judicial ones—and their relationship to economic development (see, for instance, Hayek, 1960; Acemoglu et al., 2001, 2002; Glaeser and Shleifer, 2002; Djankov et al., 2003; La Porta et al., 2004; Acemoglu and Johnson, 2005; Williamson and Kerekes, forthcoming). Our paper is closely connected to this literature. We contribute to it by analyzing how a key, informal criminal justice institution in Liberia operates to fill the formal institutional vacuum that its dysfunctional government creates, supporting Liberian property rights.

Our paper is also closely connected to the literature that examines unusual legal institutions (see, for instance, Friedman, 1979; Posner, 1980; Leeson, 2007a, 2009a,b, 2011a; Leeson et al., 2011). Most relevant for our study is, Leeson's (2010, 2011b,c,d, forthcoming) work on the "law and economics of superstition." This research considers the role that objectively false beliefs play in the judicial systems of rational people. Especially important for our analysis is Leeson's (forthcoming) examination of judicial ordeals of fire and water in medieval Europe. That examination demonstrates how medieval justice systems leveraged European superstition through judicial ordeals to find fact in criminal cases. We build on Leeson's analysis by considering a related judicial ordeal's operation in contemporary Liberia whose operation is rooted in African superstition: sassywood.

2. Property rights and criminal justice

Adam Smith (1776, p. xliii) identified effective judicial institutions as one of three prerequisites of economic development. As Smith put it, "Little else is requisite to carry a state to the highest degree of opulence from the lowest barbarism but peace, easy taxes, and a tolerable administration of justice." A tolerable administration of justice ensures that citizens' property rights in their persons and possessions are protected against assault and theft by others. Those rights are necessary to incentivize citizens to create wealth rather than to destroy it and provide the foundation for market prices that channel resources into areas where they create social value and away from areas where they reduce it (von Mises, 1949; Hayek, 1960).

2.1. Conditions for effective criminal justice

To be what Smith called “tolerable,” or what we call “effective,” criminal justice institutions must satisfy three conditions. First, they must be widely and easily accessible. If judges and courts are absent or available to only a small part of a country’s population, they cannot provide criminal justice in support of citizens’ property rights.

Judges and courts make the enforcement of laws prohibiting property violating criminal behaviors, such as theft and murder, possible. A citizen who has no judge or court to which he can turn to adjudicate a crime perpetrated against him or, what is similar, must incur great cost to do so, lacks access to criminal justice. When citizens lack access to criminal justice their property rights are insecure. Free from fear of being held accountable for violating others’ property rights, citizens are incentivized to perpetrate crimes against others.

Second, effective criminal justice institutions must provide incentives for judicial administrators to administrate justice honestly—i.e., with an eye to exonerating innocent persons and convicting guilty ones in the service of justice instead of wielding judicial authority for private gain. If judicial administrators are free to sell justice or otherwise use their power for personal benefit at justice’s expense, criminal justice institutions cease to support citizens’ property rights and become tools of property predation.

Finally, effective criminal justice institutions must generate useful information about accused criminals’ guilt or innocence. Accused criminals have private information about their guilt or innocence that judicial institutions must tap into to accurately determine their criminal status. By invoking judicial procedures that find fact, effective criminal justice institutions bring some of this information to light. Such information is the grounds on which a criminal justice system becomes capable of convicting persons guilty of crimes and exonerating persons innocent of them. Without it, criminal justice becomes little more than a crapshoot.

When guilty persons are regularly set free and innocent persons regularly convicted of crimes they didn’t commit, citizens’ incentive to engage in criminal activities grows. Property violators expect to get away with property violations, inducing them to commit more crime. Law-abiding citizens expect to be convicted for violating others’ property, lowering the cost of actually doing so. Both effects undermine property rights.

2.2. The failure of formal criminal justice in Liberia

In developed countries, such as the United States, criminal justice institutions easily satisfy the foregoing conditions for effectiveness. Those institutions are imperfect. But they do an adequate job of protecting citizens’ property rights.

In the United States access to judges and courts varies across the population. But for most Americans, judges and courts are readily available. For demographics for whom access to the criminal justice system may prove more difficult, such as poorer persons, the criminal justice system makes an effort to ease their doing so, for instance by publicly providing criminal defenders.

Similarly, in the United States scope for judicial corruption exists. But that scope is minimized by the presence of public watchdog groups, the presence of professional attorneys trained in the law who are knowledgeable about permissible/impermissible judicial conduct and thus able to spot irregular behavior, and the existence of transparent and effective public channels for challenging judicial administrators’ behavior that can hold corrupt administrators accountable for abuses.

In the United States criminal justice may fail: guilty persons may escape punishment and innocent persons may be wrongly convicted. But institutionalized judicial procedures for finding fact do a good job of generating information about accused criminals’ guilt or innocence, rendering miscarriages of justice exceptional rather than systematic. Professionally trained judges have a strong understanding of how to conduct trials in a manner that maximizes the likelihood that useful evidence of defendants’ guilt or innocence will emerge and minimizes the likelihood of spurious evidence emerging. Professionally trained lawyers, skilled at producing evidence, shed light on the facts of cases. Rules of trial procedure, rules of evidence, and evidence-collecting technologies similarly aid discovering defendants’ criminal status. Significant resources are at attorneys’ and courts’ disposal to assist them in this endeavor.

Persons in the developed world tend to take these features of their countries’ criminal justice institutions for granted. The regularity of effective criminal justice in such countries makes it easy to do so. However, in much of the world, in particular Least Developed Countries, things are very different. Liberia is case a point.

Liberia has a dual justice system. One wing of that system is formal and statutory, based largely on the justice system in the United States. The other wing of Liberia’s justice system is informal and customary, grounded in long-standing Liberian traditions. Liberia’s government recognizes both these wings.

The Ministry of Justice governs the statutory wing of Liberia’s justice system. That wing consists of three layers of courts. At the lowest level are justice of the peace courts, overseen by justices of the peace, and magistrate courts, overseen by stipendiary magistrates who exercise concurrent jurisdiction. Above these are circuit courts, overseen by circuit court judges.¹ At the statutory judicial system’s apex is the Supreme Court, headed by a chief justice. With the senate’s approval the Liberian

¹ Circuit courts, discussed below, have original jurisdiction in cases involving serious crimes. Justices of the peace and magistrates have jurisdiction only in less serious ones. They are supposed to refer cases involving serious crimes to circuit courts. Justices of the peace do not even have authority to render judicial decisions. Their role is to hold preliminary hearings and then to refer cases to circuit courts. In practice, lower courts often ignore these rules.

president appoints all judicial officials who fall under the justice system's statutory wing. Each of the lower courts' decisions may be appealed to the court above them.

The Ministry of Internal Affairs governs the customary wing of Liberia's justice system under Liberia's "Rules and Regulations Governing the Hinterland." This wing of the justice system also consists of several layers. At the lowest level are quarter chiefs. Above these are town chiefs. Above them are clan chiefs. And above these are paramount chiefs. Chiefs hold courts informally, where they adjudicate local civil and criminal cases. Chiefs fall under the purview of Liberia's district commissioners and country superintendents. Their decisions may be appealed to the chief above them and ultimately to these commissioners and superintendents. Final appeals under the customary wing of the justice system are made to the ministry's Office of Tribal Affairs.²

The Liberian government created the customary wing of Liberia's justice system following Liberian independence to provide justice for indigenous (or "traditional") Liberians inhabiting the rural parts of the country's 15 counties. The customary system's courts are charged with administering justice to these people except in cases involving serious crimes, such as burglary or murder. Officially, these crimes are the circuit courts' exclusive purview. However, for reasons we describe below, in practice customary courts sometimes handle cases involving serious crimes nonetheless.

In addition to the state-recognized customary justice system, Liberians rely on customary justice institutions that don't enjoy legal recognition. Indeed, in some cases the law expressly prohibits these unrecognized customary institutions. Adjudication in the customary courts of secret societies, such as the Poro and Sande, is an example of the former. Sassywood, which this paper considers, is an example of the latter.

Between 1989 and 2003 Liberia was embroiled in civil war. That war decimated much of the country. Prior to 1989 Liberia's government was already highly dysfunctional. Rampant corruption plagued its formal justice system. But the civil war did still more damage to that system, leaving Liberia's formal legal institutions in shambles.

While some progress has been made in restoring those institutions, Liberia's customary justice system administers the overwhelming majority of the country's criminal justice. The *International Crisis Group* (2006, p. 6) estimates that this system administers 80 percent of Liberian judicial cases. And this estimate may be low. A more recent study finds that customary authorities administrate nearly 90 percent of judicial cases. According to another, in 2008 Liberians brought only 2 percent of their criminal cases before a formal forum (Lubkemann et al., forthcoming, p. 29, 41).

Liberians' overwhelming reliance on informal justice is a result of the formal system's failure to satisfy the three conditions for effective criminal justice described above. First, and most critically, formal Liberian courts are inaccessible to most Liberians—in particular those who live in the countryside. Such courts don't exist in most rural areas. There are but 20 circuit courts in all of Liberia, 5 of which, as of 2005, were effectively defunct. There are but 350 magistrates in Liberia, only 12 of whom have formal legal training (Rawls, 2011, p. 4). Many magistrates haven't even graduated high school. The situation with justices of the peace is similar. Liberia has but 300 justices of the peace, an estimated 50 to 75 percent of whom are illiterate (*International Crisis Group*, 2006, p. 3).

Where formal courts do exist they remain remote from many Liberians and so are expensive and difficult to reach. According to a study by Oxford University's Center for African Studies that examined court accessibility in 176 Liberian villages, the average village-based Liberian's transportation cost of reaching a formal court is 150 Liberian dollars. Reaching such a court takes 3.5 h. In some cases the nearest formal court is between 500 and 1000 Liberian dollars and 10 to 12 h away. Liberia's countryside suffers a "sheer lack of qualified judges and lawyers, and an absolute lack of any formal court structures or personnel" (Isser et al., 2009, p. 40; 13).

Liberia's formal justice institutions also fail to satisfy the second condition required for effective criminal justice: incentives for judicial administrator honesty. The Liberian government's weakness and indifference toward supporting property rights has created a situation in which Liberian judicial administrators are largely free to wield their authority for the purpose of promoting private gain instead of public justice.

Corruption is rampant in Liberia's formal courts. Formal "judges routinely take bribes and are subject to undue influence . . . [C]orruption . . . pervades all ranks of the justice system." (*International Crisis Group*, 2006, p. 20). "Most Liberians believe that the exertion of naked power in the pursuit of self-interest seems to be one of the most prevalent and predictable principles governing the process of case resolution by officials in formal justice institutions" (Isser et al., 2009, p. 43). And they are right. Judicial administrators' perverse incentives explain the near-universally held belief among Liberians that "the formal justice system" is "one of the most effective mechanisms through which powerful and wealthy social actors are able to perpetrate injustice in service to their own interests" (Isser et al., 2009, p. 3; 39).

Liberia's formal justice system fails to fulfill the third condition required for effective criminal justice too: the generation of useful information about criminal defendants' guilt or innocence. Liberia's formal justice system is based loosely on America's. Thus, theoretically, its criminal justice institutions are capable of administering judicial proceedings in a manner that could reveal helpful information about the facts of criminal cases. But in practice things are different. The practical failure of Liberia's formal judicial institutions to generate useful information in many cases stems from the abysmal inadequacy of most judges' legal knowledge and facilities.

Many formal Liberian courts lack so much as pens and paper with which administrators might record information relevant to, and generated during, criminal cases. Thus record-keeping is rare. So are supporting judicial personnel, such as

² Circuit courts may review judicial decisions rendered under the customary wing. However, this is extremely rare.

clerks, assistants, stenographers, and legal aids. Such support's absence is particularly problematic since, as noted above, virtually no judges have legal training, rendering them ignorant of even basic procedure. Indeed, many judges have little education of any kind. Among at least one class of judges—justices of the peace—only a minority can read and write. The chance that a judicial proceeding administered by such persons in formal courts might generate illuminating information relevant to accused persons' criminal status is slim.

Judge inadequacy might be ameliorated if professionally trained lawyers, with knowledge of the law and proper procedure, were involved in many formal judicial proceedings. But they aren't. In particular for rural Liberians, lawyers are scarce. Many Liberians cannot afford legal counsel. And many of the lawyers that do exist are in a situation similar to that which formal Liberian judicial administrators are in.

A closely related contributor to Liberia's formal legal system's frequent inability to generate useful information about accused persons' guilt or innocence is the dearth of resources available to law-enforcement and other judicial-related officers to collect, preserve, and produce basic evidence. Liberian law-enforcement officers' ability and willingness to preserve crime scenes, track down, obtain, and record relevant information from potential witnesses or other useful parties, let alone to produce, for example, DNA evidence through the assistance of scientific lab technicians, is severely wanting owing to their poor incentives and a simple lack of resources required for such work.

Given these failures it is unsurprising "that for most Liberians the formal justice system is seen as being incapable of providing satisfactory justice" (Isser et al., 2009, p. 51). The formal justice system is incapable of providing satisfactory criminal justice, leaving that task central for property protection to the informal justice system.

3. Trial by poison ingestion

Liberia's informal, customary criminal justice system emerged long before its government produced the "Rules and Regulations Governing the Hinterland" in 1905. The judicial ordeal was a central institution of that system. Judicial ordeals' history in Africa is at least six centuries old (Davies, 1973). A variety of such ordeals emerged over this time. Among the most important was trial by poison ingestion, or "sassywood."³

Liberia's government-enshrined, customary legal system permitted, or at least tolerated, sassywood's use in the customary system until the Supreme Court banned ordeals that could result in death in 1916. In 1940, and again in 2005, Liberia's Supreme Court upheld its 1916 sassywood ban and outlawed all other ordeals, such as oath taking, as well.

Despite these prohibitions, until recently, Liberians who appealed to customary criminal justice continued to rely on sassywood to secure criminal justice. In violation of the Ministry of Justice's order, the Ministry of Internal Affairs permitted the use of non-sassywood ordeals, even licensing the ordeal specialists who administer them. In 2008 the Ministry of Internal Affairs came into congruence with the Ministry of Justice and announced it would no longer permit any ordeal-like judicial procedures. Since 2008, persons who permit or administer sassywood or other trials by ordeal do so illegally.

Today people use the term "sassywood" to describe a variety of judicial ordeals that play a prominent role in the customary criminal justice systems of Liberians, the inhabitants of Sierra Leone, and smaller numbers of people elsewhere in Africa.⁴ However, the sassywood ordeal, which we focus on, takes its name from the poison concoction these systems ask criminal defendants to drink to determine their guilt or innocence. The poisonous part of that concoction is made from the toxic bark of the *Erythrophleum suaveolens*, or sasswood tree.⁵

Sassywood is a "method of invoking the aid of supernatural powers to settle disputes or to test the truth of accusation" to adjudge the accused's guilt or innocence (Kirk-Greene, 1955, p. 44).⁶ Sassywood's particulars vary across time and place.⁷ But its basics are similar. A criminal defendant imbibes a poisonous concoction, sometimes called "red water" (Wilson, 1856, p. 225):

[T]he people who assembled to see [the sassywood] administered form themselves into a circle, and the pots containing the liquid are placed in the center of the enclosed place. The accused comes forward. .. his accusation is announced, he makes a formal acknowledgement of all of the evil deeds of his past life, then invokes the name of God three times, and imprecates his wrath in case he is guilty of the particular crime. .. He then steps forward and drinks freely of the red water.⁸ The defendants' physiological reaction to his consumption of the sassywood concoction decides his guilt or innocence (Afzerlious, 1967, p. 25):⁹

If the drinker by vomiting throws up all the [poison]. .. before the sunrise the following morning or much more if he does it during the very trial then he is innocent and publicly declared not guilty of the crime for which he was accused. But if he should die on the spot [or display signs of intoxication]. .. then he is believed and proclaimed Guilty.¹⁰

³ Sassywood is also known as the "red water ordeal."

⁴ For example, defendants are sometimes asked to place their hand in a pot of boiling oil in a manner similar to the medieval hot water ordeal. Alternatively, defendants may have a heated machete applied to their skin, similar to the medieval hot iron ordeal. See Leeson (2010b).

⁵ The sasswood tree is also called *Erythrophleum guineense*.

⁶ Kirk-Greene's characterization here is made specifically in the context of Nigerian sassywood. But his characterization applies equally to Liberian sassywood.

⁷ For example, in Eastern and Western Africa, citizens sometimes used animals as proxies for defendants in imbibing the poisonous mixture (Davies, 1973: 33). However, in Liberia, which we focus on, the defendants themselves imbibe the poisonous concoction.

⁸ Sassywood may also be used to determine the veracity of falsity of a witness' testimony.

⁹ This description refers to sassywood in Sierra Leone but also characterizes the basics of sassywood in Liberia.

¹⁰ According to Wilson (1856: 225), for example, if imbibing the concoction "causes vertigo and [the accused] loses self-control, it is [also] regarded as evidence of guilt."

Historically, sassywood has typically been reserved for important crimes, such as theft or murder (Davies, 1973, p. 44).¹¹ Similarly, it is reserved for difficult cases—cases in which “ordinary” evidence is inconclusive or lacking and thus traditional means of fact finding have failed. Accused criminals are charged publicly with a crime before their entire community. They can respond to the charge against them by confessing their guilt or proclaiming their innocence. In the latter case they are asked to undergo sassywood.

Sassywood’s use for inconclusive cases explains why Liberians cannot resort to conventional informal justice via chief-led trials under the legally recognized customary wing in lieu of the formal one. In the cases in which sassywood is used, “ordinary” evidence on the basis of which a chief could conventionally reach a decision is lacking or absent. Although many of sassywood’s availability and incentive benefits we describe below also apply to conventional informal justice, the informational benefit of sassywood—its ability to shed light on the criminal status of the accused—doesn’t.

Since they are much closer to their communities, chiefs, for example, likely have stronger incentives to collect helpful evidence relating to accused persons’ guilt or innocence than formal judicial administrators or law-enforcement officials. But chiefs’ access to the resources, such as those needed produce DNA evidence, is equally poor. This leaves a wide range of criminal cases in which chiefs lack “ordinary” evidence on the basis of which they could reach a decision conventionally. Because of this, sassywood remains important for difficult criminal cases, which pose a problem for the conventional informal system.

The logic behind sassywood’s ostensible power to determine accused criminals’ guilt or innocence lies in a widely held Liberian superstition according to which a spirit, or witch, “accompanies the draught, and searches the heart of the suspected individual for his guilt. If he be innocent, the spirit returns with the fluid in the act of ejection, but if guilty, it remains to do more surely the work of destruction” (Hening, 1850, p. 45; see also, Tonkin, 2000, p. 368).

The fact-finding spirit inhabits the draught via the bark of the sasswood tree. Consider how one man tasked with collecting sasswood bark to make the sassywood concoction addressed the tree from which he harvested the poisonous exterior: “You are a tree that never lies, a tree full of power. You give justice to all alike. If you agree that if it is true that the accused. . . is guilty of causing the death of deceased. . . show it to us when the cutlass touches your body” (Harley, 1970, p. 156).

A “sassywood specialist” administers the ordeal *en toto* and acts as the trial’s judge. He mixes the sassywood concoction and oversees the ordeal or chooses someone else to do so. The specialist’s identity varies. But he is always a spiritual “leader”—an individual the community members seeking his assistance see as wielding special spiritual power that gives him authority to perform socio-religious rituals. Such individuals may include “witch doctors”—specialists in “medicines,” poisons, and witchcraft—“zoes,” or secret society leaders, elders with special standing in their communities, and chiefs. Regardless of sassywood specialists’ particular identities, “only the men who know medicine, especially sasswood medicine, well and themselves possess strong medicine can conduct the ordeals” (Davies, 1973, p. 43).

4. Sassywood superiority

Sassywood seems absurd. But it comes closer to satisfying the institutional conditions required for effective criminal justice than Liberia’s formal criminal justice institutions. For reasons we describe below, “most rural Liberians have ready access to customary justice institutions, are far more satisfied with what they identify as a much faster pace with which these institutions reach resolutions, and find the costs involved in the customary system to be not only far more affordable, but also more consistent and predictable, and ultimately far more likely to be fair” (Isser et al., 2009, p. 42). Sassywood is fraught with imperfections that limit its effectiveness. But the features indicated above and described in greater detail below may make it a sensible institutional substitute for formal Liberian justice where the latter is still less effective.

4.1. Accessibility

In contrast to formal judges and courts, sassywood “judges” and “courts” are readily accessible to all Liberians who seek criminal justice’s aid. Whereas “formal courts often don’t even exist at the local level, or are viewed as problematic. . . customary institutions continue to function in all communities and at all levels down to the most local” (Isser et al., 2009, p. 25). Predictably, Liberians who face the most difficulty appealing to formal criminal justice institutions rely on customary institutions most heavily: Liberia’s rural inhabitants.

Sassywood is informal. It can be conducted at any time in any place. All that is needed is a sassywood specialist, which all communities have or can readily obtain, and the sasswood tree’s poisonous bark. Because of this, sassywood-provided criminal justice can be, and is, administered whenever and wherever a Liberian community seeking criminal justice desires it.

However basic the accessibility dimension of sassywood’s superiority over formal justice may be, its importance for effective criminal justice is difficult to overstate. In place of nothing as a potential means of administering criminal justice, sassywood provides something. This is tremendously helpful for supporting property rights. Because of sassywood, would-be criminals expect that, at the very least, there is a reasonable chance they may be held accountable for their socially destructive

¹¹ Accusations of witchcraft—of the use of supernatural means to perpetrate these or similar crimes—are also often adjudicated via sassywood. Such accusations are typically leveled when some crime or socially undesirable event has occurred but the culprit remains mysterious. This is consistent with the idea that sassywood is used to find fact about a criminal’s identity when “ordinary” evidence to that effect is unavailable.

behavior. This is a boon to property protection compared to the alternative world “governed” by typically absent formal justice institutions where there is often virtually no expectation of being held accountable for such behavior.

4.2. *Judicial administrator incentives*

Sassywood provides judicial administrators stronger incentives to wield their judicial authority honestly—i.e., in the interest of justice instead of for private purposes—than formal criminal justice institutions do. As we discuss below, sassywood’s judicial administrators—sassywood specialists—have ample latitude to manipulate ordeal outcomes. Indeed, latitude for sassywood manipulation is crucial to permitting the ordeal to accurately determine defendants’ criminal status. This latitude creates scope for judicial administrator malfeasance under sassywood, such as selling judicial outcomes to the highest bidder, extorting citizens, and unjustly punishing enemies. And some sassywood specialists do, or have done, just that (see, for instance, Johnston 1906, p. 1066; United Nations Mission in Liberia, 2007, p. 20). Still, sassywood judicial administrators’ incentives to conduct criminal trials honestly are significantly stronger than Liberia’s formal judicial administrators’ incentives to do so.

In the pre-war period sassywood specialists came overwhelmingly from inside the communities where they administered justice. In some cases this remains true in the post-war period. However, as we discuss below, in the post-war period sassywood specialists may also come from outside the communities where they administer justice, for instance from Ghana, when a community hires an external specialist for this purpose. We analyze the factors incentivizing judicial administrators to administer justice honestly when sassywood specialists are external to the communities where they administer justice below. First we analyze those factors when sassywood specialists are internal to the communities where they administer justice.

Liberia’s rural communities are small. Internal judicial administrators are known by all, selected by all, and have long-standing relationships with all. The tight-knit relationship between judicial administrators, victims of crime, criminal defendants, and the other members of the population over which a sassywood specialist “presides” when he comes from within the community has several helpful effects on specialists’ incentive to administer justice honestly.

First, community spiritual “leaders” who operate as sassywood specialists face competition from analogous leaders in other communities. Under sassywood, criminal justice is decentralized. Each community of citizens in rural areas has its own internal sassywood specialist(s) or, as we discuss below, secures its own external specialist. If citizens suspect judicial corruption, it is relatively inexpensive for them to move to a neighboring community where judicial administrators have reputations for honesty. Alternatively, since some of these leaders are elected, such as chiefs, citizens who suspect judicial corruption can depose them.¹²

Liberian chiefs, for example, “are cognizant that they must remain highly responsive to the concerns of local communities and their demands for justice in order to maintain a local basis of legitimacy.” As one chief put it, “When you are called chief, you aren’t just a chief that can talk, but you are the one that gives power. Now as a chief, it left with you to hold your people good, if you cannot, then they will impeach you. . . . For example, because of the way I have served my people, I have spent twenty-nine years in power” (Isser et al., 2009, p. 31). In this way a combination of Tiebout-like competition and democratic checks improve judicial administrators’ incentive to administer justice honestly under sassywood.¹³

Second, and closely related, if a sassywood specialist is suspected of abusing his authority, the cost he incurs in the form of corroded credibility, respect, and loyalty is likely to be significant. Since Liberia’s rural communities are small, information about judicial administrators’ behavior travels quickly, easily, and comprehensively among affected citizens. A corrupt specialist’s loss of prestige and position is therefore large, providing an incentive to maintain one’s reputation for honesty and competence.

The persons selected to be sassywood specialists are persons who have demonstrated a concern for such reputations, established them through past behavior, and are so likely to be disciplined by a concern for maintaining them. Thus “the specialist may be a revered elder” (Davies, 1973, p. 43). Or as Afzerlious (1967, p. 25) describes the situation where he visited, “there is always one confident person selected as Headman, who superintends all of the preparations before the Trial and the making of the red water, who makes speeches and who takes care, that everything goes on decently and according to custom during the whole trial.”

Third, criminal justice’s decentralization under sassywood, which makes for small judicial “jurisdictions,” facilitates the ease with which citizens can detect, and thus punish, judicial corruption. Under sassywood, internal judicial administrators live among the citizens they administer justice to. Thus, if, say, a trial exonerates a criminal defendant and citizens notice that all that defendant’s cattle are now grazing the sassywood specialist’s front yard, the specialist’s honesty is likely to be called into question. The small, tight-knit nature of rural Liberian sassywood jurisdictions means citizens have a good idea about other community members’ wealth. This makes bribery easier to detect, or at least limits the size of bribes, strengthening judicial administrators’ incentive to administer justice honestly.

¹² Even when sassywood specialists are not directly elected, they may “elected” indirectly. For example, chiefs who are elected may select an appropriate specialist.

¹³ Chiefs are charged with collecting taxes and providing public goods in their communities. If they lose community members, they may also lose tax revenue, further strengthening their incentive to administer justice fairly. Even if they do not lose residents through judicial corruption, since corruption undermines community property rights, corrupt judicial administration may undermine resident productivity, and thus tax revenues this way.

Fourth, the process by which Liberian communities select sassywood specialists facilitates advantageous selection of judicial administrators. As indicated above, internal specialists are community sanctioned spiritual leaders recognized as such by virtue of the respect they have earned over years of assisting the community and building reputations for wisdom, honesty, fairness, and the ability to harness supernatural forces. The process of relationship building, credibility building, trust building, and so on that ultimately lead one's peers to elevate him above others as a spiritual leader is long and costly. Corrupt, self-serving persons are unlikely to put in the time and resources required to obtain such a position so that, in their golden years, they can defraud their neighbors as judicial administrators. Even if they do, such persons are unlikely to win out over their sincere competitors for such positions. The latter find it cheaper to engage in the trust-building activities required to become a respected spiritual leader who can act as a sassywood specialist.

Fifth, and closely connected, the community based nature of sassywood criminal justice strengthens internal judicial administrators' incentive to use judicial power to serve justice rather than private ends because these administrators have close, long-term personal relationships with the citizens they supply judicial services to. In this environment behaving corruptly may often involve defrauding a citizen the judicial administrator knows well and has personal ties to. This may raise the cost of judicial corruption, encouraging judicial honesty.

Finally, because sassywood jurisdictions are small and internal judicial administrators live inside them, the social cost that a corrupt judicial administrator's corruption imposes on his community—for example, by permitting a thief to go free, or convicting and thus punishing an innocent, productive community member—is borne to a greater extent by the judicial administrator than would be the case if the relevant jurisdiction he presided over were very large.

When sassywood specialists are imported rather than being drawn from the community where they administer justice, a closely related, albeit different, set of factors incentivize judicial administrators to administrate justice honestly. In this case community members may not be able to easily observe whether a judicial administrator is on the take, as they can when the sassywood specialist lives among them. A corrupt specialist bears no higher cost of his corruption in the form of increased crime in his community. And the specialist is unlikely to have the same long-standing, personal relationships with community members that he has when he comes from within the community.

However, the fact that external sassywood specialists are hired gives them strong incentives to administer justice honestly nonetheless. Similar to the way that internally drawn judicial administrators under sassywood can be democratically deposed or abandoned if they are suspected of corruption, externally drawn judicial administrators can be "fired" and suffer a loss of reputation that hampers their ability to conduct future business if they are suspected of corruption. In the case of externally drawn sassywood administrators, financial ties and pressures to administer justice honestly substitute for the socio-political ones described above that exist when sassywood administrators are drawn internally.

The financial sums at stake for sassywood specialists, and thus foregone income they risk by corruption, can be significant. According to one estimate, a specialist may earn up to 2000 Liberian dollars in the capital city, and up to a third of that in rural areas, for administering a single trial (IRIN, 2007). Specialists may also be compensated in nuts and livestock, either to supplement monetary payments or in lieu of them. To provide a sense of these payments, consider the fact that 2000 Liberian dollars equals approximately USD 27. In 2010 Liberia's per capita income was approximately USD 330 (PPP) (World Bank, 2011). This means that a top-paid sassywood specialist could earn 8 percent of the average Liberian's income by overseeing a single trial.¹⁴

The market for external sassywood specialists is especially useful—and especially likely to be relied on by rural communities—when internal specialists have lost their reputation, for instance because they are suspected of corruption, and thus new judicial administrators are needed. Indeed, external sassywood administrators may reflect a justice-enhancing market response to the failure of "political markets" to discipline internal sassywood administrators in certain cases, such as when inter-community migration is prohibitively costly and thus the Tiebout-style mechanisms described above break down.

The emergence of markets for external sassywood specialists in the post-war period supports this notion. Liberia's civil war did much to tear the fabric of intra-community trust in some of its rural communities. This may have rendered internal judicial administrators less reliable in such communities, prompting reliance on external administrators who could be trusted to administer justice honestly. The resulting market for external administrators points to sassywood's ability to incentivize honest judicial administration dynamically.

Judicial administrators' stronger incentive to promote justice under sassywood than under formal institutions of criminal justice helps explain the dissatisfaction many Liberians express concerning their government's sassywood ban. "Through statements such as 'a tree [i.e., sassywood] cannot lie,' Liberians simultaneously express their desire for impartial judgments that cannot be corrupted through unfair influence and their assessment that the social institutions that currently make such judgments are unduly subject to precisely such influences" (Isser et al., 2009, p. 45).

4.3. Information revelation

It is easy to see how sassywood could better fulfill the accessibility and judicial administrator incentive conditions required for effective criminal justice. It is much harder to see how it could fulfill the information revelation condition required for effective criminal justice. The fact that sassywood gives judicial administrators stronger incentives to behave honestly

¹⁴ The payment a specialist receives falls as one away from Liberia's capital toward rural areas. But so does per capita income.

and is more readily available than formal criminal justice institutions is of little value if trial by poison ingestion is incapable of finding fact—i.e., of generating useful information about accused criminals' guilt or innocence.

Perhaps surprisingly, sassywood is capable of generating such information. The logic behind how it is able to do so is suggested by Leeson's (forthcoming) analysis of medieval European judicial ordeals.

According to Leeson, key to understanding ordeals' ability to correctly reveal defendants' criminal status is citizens' *belief* about ordeals' ability to correctly reveal their criminal status. Underlying ordeals' information-revelation properties is a kind of "institutional placebo effect."

To see how this works, consider a case of a similar placebo effect in the context of developed-country criminal justice: polygraph tests. By all scientific accounts polygraph tests are incapable of physiologically measuring whether the persons they are strapped to are lying or telling the truth. On these grounds most courts in the United States bar polygraph results as admissible evidence in judicial proceedings.

But this bar may be too hasty. Although polygraphs cannot actually determine if the persons they are administered to are lying or telling the truth, if those persons *believe* that polygraphs can do this, polygraphs can generate useful information about the veracity or falsity of their statements nonetheless.

Expecting the polygraph to out them, persons who believe that polygraph tests "work" and have something to hide are likely to decline taking polygraph tests. In contrast, persons who believe that polygraph tests "work" and have nothing to hide have nothing to fear by undergoing polygraph tests. Indeed, they are eager to take them to corroborate the statements' truthfulness.

Undergoing the polygraph has different expected costs for the liar and the truth-teller. These different expected costs lead liars and truth-tellers to choose differently when confronted with the specter of taking a lie detector test. Unlike persons' private information about the veracity or falsity of their statements, their choices about whether or not they will undergo the polygraph are observable to polygraph and judicial administrators. Thus polygraph or judicial administrators learn something about the truth or falsity of persons' statements from the choices they make. The polygraph isn't really able to detect lies. But because people believe it is, they unwittingly reveal important information about the honesty of their statements by choosing to take, or not take, the test. The polygraph "sorts" persons by the truth or falsity of their claims.

The same logic explains how sassywood can generate useful information about criminal defendants' guilt or innocence. As we discussed above, sassywood is grounded in a Liberian superstition according to which the poisonous concoction defendants are asked to drink contains a supernatural force that inspects and reports on the status of their "souls." Given this belief, persons confronted with the specter of imbibing deadly poison who are guilty of the crime they stand accused of expect sassywood to reveal their guilt and kill them, or at least to inflict serious pain on them, in the process. In contrast, innocent persons expect to expel the sassywood potion, evidencing their innocence and leaving them unharmed.

Since confessing to his crime and suffering the resulting community stipulated punishment for his misdeed is less costly for a guilty defendant than death (or at least severe pain) and suffering the community stipulated punishment when sassywood reveals his guilt, the guilty criminal defendant prefers to confess to his crime rather than to undergo sassywood. Since being unharmed and exonerated by sassywood is less costly for an innocent defendant than confessing to a crime he hasn't committed and thus suffering the community stipulated punishment for that crime, the innocent criminal defendant prefers to undergo sassywood rather than to confess. Indeed, because innocent defendants expect to be unharmed and exonerated by undergoing sassywood, they may *request* to be subjected to the ordeal to evidence their innocence. This explains why, rather than universally expressing fear at the specter of undergoing trial by ordeal, some Liberians volunteer to do so (Isser et al., 2009, p. 58).

The result in the case of sassywood is similar to the polygraph test. Innocent persons' expected cost of undergoing sassywood is lower than guilty persons' expected cost of doing so. Thus innocent persons are more likely to opt to undergo it.¹⁵ Sassywood specialists—informal Liberian judicial administrators—learn important information about criminal defendants' guilt or innocence by observing how defendants choose when confronted with the specter of undergoing sassywood. In this way sassywood helps find fact in cases when ordinary fact-finding methods are unavailable or unhelpful.

If every Liberian reposes complete faith in sassywood's supernatural power, and every Liberian accused of committing a crime who is threatened with the specter of undergoing sassywood is in fact guilty, no further action is required by specialists to secure criminal justice. Accused criminals will always confess their crimes rather than undergo sassywood and justice will be ensured. Commenting on the use of sassywood in Nigeria, for example, Messenger (1959, p. 66–67) notes that the mere sight of "one of these dreaded specialists is" often "enough to induce" the accused who is holding back "to present additional evidence or alter his statement."

Similarly, Liberians' strong faith in the fairness of customary judicial institutions, such as sassywood, as opposed to formal ones, discussed above, improves sassywood's ability to induce guilty defendants to confess to their crimes. As one group of

¹⁵ As noted above, sassywood is far from the only judicial ordeal that Liberians have historically relied on. A common, non-lethal variant called "cowfur" is a kind of glorified oath taking. A criminal defendant or other person's who judicial testimony is in question may be asked to "swallow his oath," by consuming a clod of dirt or some other harmless substance. The logic here is that if the person is guilty (or lying), spiritual forces inhabiting or result from the oath will punish him. In some cases when even a suspect is lacking for some crime, an entire community may be asked to swallow their oaths. The economic mechanism underlying these judicial ordeal variants is the same basic one described above. Believers who are innocent have nothing to fear by swallowing their oaths and therefore are happy to do so. Believers who are guilty fear the consequences of swallowing their oaths and therefore decline to do so, revealing their guilt.

researchers who conducted field work in Liberia report, “There is considerable evidence in our interviews that confessions often come willingly once a process deemed fair is underway” (Isser et al., 2009, p. 28).

But some Liberians are skeptical of sassywood’s supernatural power. And some Liberians accused of crimes are innocent. We address the problem of skepticism below. First we address the problem of innocent defendants.

When innocent persons are accused, the information that sassywood reveals about their criminal status would be useless for promoting criminal justice if sassywood specialists allowed the ordeal to follow its natural course. Innocent persons who imbibed the poisonous drink would die, or at least suffer severely, pointing to their guilt and thus subjecting them to community stipulated punishment (if they lived).

To prevent this injustice, sassywood specialists rig the ordeal. Thus “far from being the infallible and just ‘judge’ that the people as a whole th[ink] it to be, the sasswood ordeal offer[s] several opportunities for trickery and manipulation” (Harley, 1970, p. 158). Specialists can manipulate the sassywood concoction to ensure that the “poison” criminal defendants drink isn’t poisonous at all or at least that its presence in the concoction is low enough to prevent deleterious effects. Alternatively, specialists can include ingredients in the sassywood potion that induce vomiting, leading the defendant to expel the sasswood toxin (Harley, 1970, p. 159). In these and doubtless other ways, sassywood specialists “can so arrange these tests as to make them produce any result they wish. By weakening or strengthening the decoction of sassy-wood, they can make it innocent or fatal, as interest or inclination may lead” (Hale, 1853, p. 234).¹⁶

Sassywood specialists’ “trade secrets” of ordeal manipulation are kept secret by virtue of their monopoly on making and administering the sassywood mix. Recall that these specialists are spiritual leaders who allegedly have access to supernatural forces only they can wield. The importance of sustaining Liberians’ superstition—their belief that trial by poison ingestion is supernaturally capable of revealing criminal defendants’ guilt or innocence—helps explain why only certain, sanctified persons are permitted to administer sassywood as judicial administrators and helps ensure that only persons knowledgeable about and skilled in the manipulation of sassywood conduct ordeal trials.

Skeptics pose a different kind of problem for sassywood’s ability to find fact. If community members observe that every person who undergoes the ordeal is exonerated, or for some other reason criminals doubt the sassywood poison’s mystical powers, they may begin to question the superstition that supports sassywood’s ability to sort criminal defendants. If skepticism grows strong enough, Liberians may find it profitable to commit crimes in the safety of the knowledge that sassywood will exonerate them if they are caught.

Historically, Liberians’ belief in sassywood’s supernatural power has been strong and sassywood skepticism has been weak. Indeed, according to one observer, “The outcome of the sasswood ordeal was never questioned. It was too highly religious to be challenged. One might challenge the fairness of other ordeals, but never the sasswood” (Harley, 1970, p. 161). As a contemporary Liberian expressed his faith in the ordeal, “When the sassywood is conducted, it clarifies every doubt. If you are involved in the act, it shows you out. And if you aren’t, it doesn’t harm you” (Isser et al., 2009, p. 59). Similarly, according to the Chairman of the National Traditional Council of Liberia, a Liberian chief, “Sassywood . . . is the method we, the traditional people trust.” In Liberians’ eyes it provides “a way of finding out the facts” (The Ministry of Justice et al. 2008, p. 13).

While the superstition that undergirds the sassywood superstition remains strong in Liberia, some potential criminal defendants are undoubtedly skeptical. As one Liberian described his skepticism of the ordeal, “‘Sassywood’ isn’t transparent and fair. It is part of our earlier culture. It is actually like fake magic. Magic is used by the magician to satisfy certain people” (quoted in Isser et al., 2009, p. 62).

To preserve sassywood’s ability to sort criminal defendants and thus generate useful information about their criminal status, judicial administrators need some way to cope with potential skeptics. One way they may do so is by using lengthy pre-sassywood “ordealettes” (Davies, 1973, p. 37). During these ordealettes, sassywood specialists spend additional time with criminal defendants, intensely and privately scrutinizing and evaluating them. This permits specialists to glean some additional private information defendants have about their guilt or innocence, or at least about their skepticism toward sassywood.

Much of the information specialists are likely to glean this way is of the inarticulate variety—impressions based on the defendant’s disposition, “gut” feelings based on spending more time with the defendant, and so on—the kind of “evidence” that is difficult to concretely point to for others. Though, after spending additional time alone with the sassywood specialist who serves to remind the defendant of the physical and spiritual consequences of failing the ordeal, and thinking long and hard about the possibility of death after ingesting potential poison, even the skeptical, guilty defendant may decide that it is best not to take his chances and may confess or divulge new “concrete” information that serves as the basis for his assured guilt.

If despite a defendant’s willingness to undergo sassywood, on the basis of the additional information the ordealette reveals to the specialist, the specialist strongly suspects the defendant is guilty—perhaps because he is a sassywood skeptic and thus is willing to undergo the ordeal—this information permits the specialist to adjust the sassywood potion’s potency to

¹⁶ Our theory of sassywood is consistent with cynical specialists and genuinely believing ones. A genuinely believing specialist may manipulate the poisonous concoction in a manner similar to the way that a believer in the occult manipulates the marker on a Ouija board. He may believe that “spirits” are guiding his actions or have some other internal justification that reconciles his intervention with the ordeal’s supernatural mechanics (see, for instance, Evans-Pritchard, 1937). Whether this is the case or instead sassywood specialists are cynics is a question requiring empirical investigation. However, for our model to “work,” all that is needed is for the sassywood specialist to observe defendants’ decision to undergo the ordeal and, on the basis of that decision, to manipulate the ordeal’s outcome to exonerate him—wittingly or unwittingly.

secure the desired result. This has the dual effect of meting out justice to the guilty defendant and dissuading other skeptics from committing crimes since they observe that sassywood can in fact lead to conviction.

Ordeallettes may be useful to sassywood specialists even when the additional information they glean from defendants comports with defendants' willingness to undergo the ordeal, corroborating their probable innocence. An ordealette enables the specialist to clandestinely permit the accused to "secretly drink the red water to see, whether he could stand public trial" (Afzerlious, 1967, p. 91). It allows the specialist to test the defendant's tolerance, reducing his likelihood of error when administering the ordeal with the aim of exonerating the accused.

Sassywood's ability to find fact is extremely crude. The sorting effect described above may be confounded by some defendants' skepticism. Ordeallettes are an extremely rough way of eliciting additional hidden information that defendants have. And even with poison manipulation and surreptitious tolerance testing, sassywood specialists' control over sassywood outcomes is imperfect. Some persons specialists intend to exonerate are convicted. Some persons they intend to convict are exonerated.¹⁷

Clearly sassywood would make a poor institutional substitute for well-functioning, formal criminal justice institutions, such as those we enjoy in the United States, which (hopefully) produce errors with much lower frequency. But this fact shouldn't cloud our evaluation of the sensibility of sassywood as an institutional substitute for the criminal justice institutions that are Liberians' actual alternative: highly dysfunctional, corrupt, and often entirely absent formal ones.

5. Pick your poison

Our economic analysis of Liberian sassywood leads to several conclusions. First, sassywood's persistence reflects an institutional response to the Liberian government's failure to provide effective, formal criminal justice. Liberia's formal justice institutions aren't accessible to most citizens. They don't provide judicial administrators incentives to wield their authority for the purpose of justice, but instead permit administrators to administer "justice" in the service of private ends. Further, while in principle Liberia's formal criminal justice institutions are capable of generating useful information about defendants' criminal status, in practice those institutions are often prevented from doing so because of woefully inadequate judicial resources and knowledge.

In the face of formal criminal justice failure, Liberians rely on sassywood as a criminal justice substitute. Compared to the formal criminal justice system, sassywood is easily accessible, provides stronger incentives for judicial administrator honesty, and is capable of finding fact in criminal cases. Sassywood appears downright silly at first glance. But closer inspection reveals that it does a better job of fulfilling the institutional conditions for effective criminal justice than Liberia's formal criminal justice system. The theory this paper provides offers a plausible explanation of why sassywood is a sensible institutional substitute for that system, which, by promoting criminal justice better than that alternative, does more to protect property rights and thus improves Liberian prosperity.

In suggesting why many Liberians choose trial by ordeal over trial by judge or jury, our theory has more general implications for future research on the evolution of legal systems. For example, in their analysis of legal origins, Glaeser and Shleifer (2002, p. 1198) note that during the Gregorian Revolution the Church turned responsibility for trials over to local judges who then developed trial by jury and civil law systems. However, they don't consider why trial by jury and judge replaced trial by ordeal. The three conditions for an effective criminal justice system our analysis describes provide a framework for studying this and other changes to legal systems.

Second, although sassywood is indeed based on a "primitive superstition," this doesn't imply that the sassywood institution is itself primitive or nonsensical. On the contrary, trial by poison ingestion is a remarkably clever mechanism of criminal justice for the context it is designed to work in and is capable of furnishing surprisingly useful information about criminal defendants' guilt or innocence to informal judicial administrators that they can use to secure criminal justice. Sassywood works because of, not despite, its superstitious underpinnings. In this sense criminal justice in Liberia, limited though it may be, is largely indebted to Liberians' objectively false beliefs about the presence of mystical spirits in the bark of a poisonous tree.

Finally, and most important, our analysis of Liberian sassywood suggests that the international community's outcry against judicial ordeals, and the Liberian government's recent prohibition of such ordeals in response, may be counterproductive from the perspective of Liberian property protection and thus economic development. Sassywood is highly imperfect. But in a basic sense it "works." Sassywood provides a semblance of criminal justice in an institutional environment in which formal criminal justice is very much defective. Liberia's ordeal ban has done nothing to improve the underlying problem that perpetuates sassywood in the first place. It hasn't provided a more effective criminal justice alternative to sassywood and, by banning the ordeal, has raised the cost of resorting to the most effective criminal justice institution that is available.

¹⁷ As noted above, although for reason we have discussed, sassywood specialists have strong incentives not to abuse their judicial authority, they can, and in some cases have done so in some cases. Our argument is not that bribery is impossible or never occurs under sassywood, only that sassywood specialists' incentive for corruption is considerably weaker than it is in the case of formal judicial administrators. Collecting data that might shed light on how frequently sassywood specialists behave corruptly is the subject of future work. However, the fact that many Liberians choose to use sassywood when formal institutions are available to them and repose greater faith in the honesty of informal judicial administrators than in the honesty of formal ones, which this paper describes, is at least suggestive that sassywood corruption is less problematic than corruption in formal courts.

Because no more effective alternative is available, some Liberians continue to rely on sassywood and related judicial ordeals. However, their government's prohibition has limited sassywood's use. As our analysis predicts, recent evidence suggests that this has led to the undesirable consequence of undermining criminal justice in Liberia, further eroding already weak Liberian property rights. As the authors of one recent study of Liberian justice put it, "State policies aimed at regulating and limiting the customary justice system in order to comply with human rights and international standards are having unintended adverse consequences" (Isser et al., 2009, p. 5).

Liberians argue that criminal activity has increased noticeably since their government banned sassywood. According to one Liberian chief, "The abolition of the sassywood from our traditional people is harming us greatly because people take it as an opportunity to damage others lives. Because precedence isn't being set by our traditional people, so the criminal rate increases greatly." As another chief put it, "Because we aren't allowed to administer sassywood so many take it to be an opportunity to engage into criminal activities ... [W]hen we were allowed to administer sassywood our people weren't dying as the way they are dying presently and there weren't many criminal cases as we have today. A third Liberian chief put the problem this way: "The sassywood as a whole, when there is crime committed and the doer is hidden, the sassywood can bring them out immediately but nowadays some cases remain undone. Whether you steal someone thing and denies there is nothing to clarify it. So at this present moment, we have no means to bring some of these cases out." Or in an ordinary citizen's words, "The period when sassywood was administered was safer than these days" (Isser et al., 2009, p. 55; 60–61; 59).

Of course not every Liberian is unhappy with the government's sassywood ban. Highly skeptical persons who view sassywood as hocus pocus and a means of arbitrary spiritual leader power are pleased with the prohibition. Most notable among such persons are Christians and Muslims—persons who, because of their contrasting religious beliefs, never reposed any faith in the sassywood bark's power to reveal accused criminals' status and thus were never subjected to the ordeal.

Still, in light of the perceived rise in crime Liberians have experienced since sassywood's prohibition, the overwhelming majority of Liberians seek the reinstatement of at least some form of judicial ordeal, even if the not the most dangerous sort present in sassywood. Demand for the peculiar criminal justice institution hasn't abated because of the state's ban. If anything, that demand is felt more strongly now than ever, since, as noted above, in sassywood's absence, traditional Liberians often have no recourse to criminal justice at all.

In concluding we hasten to emphasize that our analysis doesn't suggest that sassywood is a "good" criminal justice institution, if by "good" one means that sassywood reflects a first-best criminal justice system or one that persons in the developed world would be happy to trade their formal criminal justice systems for. Given sassywood's manifest imperfections, clearly it isn't. If the goal is more effective criminal justice and thus property protection, the choice between sassywood and, say, America's formal criminal justice system is clear.

But this isn't the choice policymakers face.¹⁸ Their options are more sobering. At least in the short run, the institutional constraints that Liberia's failed state presents means policymakers must, quite literally, pick their poison: sassywood, or corrupt, dysfunctional, and frequently absent formal criminal justice. Given this choice, sassywood is plausibly superior.

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¹⁸ The importance of comparing *relevant*—i.e., actually available—institutional alternatives, as opposed to comparing a highly imperfect existing institution to an idealized but clearly unavailable one, is often missed in discussions about institutional reform in the developing world. See, for instance, Coyne (2006), Leeson (2007b) and Leeson and Williamson (2009).

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