I. Introduction

One of the major remaining gaps in the research agenda of new institutional economics is the positive analysis of institutional change. A fundamental aspect of this analysis is the interaction between formal and informal institutions. Formal institutions are clearly easier to reform. However, in an environment where informal institutions play a key role in shaping economic interactions between individuals, the welfare effect of this change crucially depends on the effect of the reform in formal rules on the informal institutions. Thus, Opper notes, “even if optimal political and bureaucratic reforms were guaranteed, institutional reforms still pose an immense technical challenge. . . . State-directed institutional reforms are inevitably limited to changes in formal rules. Informal rules, on the other hand, are beyond the reach of the state, hard to change. . . . It would be particularly important to identify the circumstances under which a de-coupling of formal and informal norms may actually cause the emergence of opposition norms. . . . As long as interaction effects between formal and informal institutional elements of organizations . . . are not studied carefully, a theory of organizational change will inevitably suffer from severe indeterminacy” (Opper 2008, 402–3).

In a developing country context, numerous studies actually show that formal institutions (e.g., statutory law) often fail to take root because informal institutions represented by local chieftains do not wish to enforce them, people do not dare appeal to formal courts for the fear of being socially sanctioned, or simply because of the belief that custom is a “natural”
way of regulating community life. This holds especially true in matters of personal status such as marriage, divorce, and inheritance. For instance, in countries where the law forbids brideprice payments (e.g., Côte d’Ivoire, Gabon, Central African Republic, India, among others), people often continue to follow the custom as though this law did not exist (Ntampaka 2004; Nambo 2005; Platteau 2009). The same applies to statutory provisions contained in new Family Codes that aim at protecting women against the practice of early marriages arranged by parents, against the customary practice of abrupt repudiation unaccompanied by the payment of compensation, against the customary rule that prevents women from inheriting land from their parents, or against the customary practice of levirate whereby a widow is married to a brother-in-law upon the death of her husband (Elosegui 1999; Colin 2004; Ellis and ter Haar 2004; Coulibaly 2005; Boshab 2007).

Likewise, state provisions attempting to regulate the allocation of rural lands frequently run counter to traditional informal rules and to the fact that such a prerogative belongs to customary authorities and not to the central state (see, e.g., Downs and Reyna 1988; Bassett and Crummey 1993; Lund 1998; Lund and Hesseling 1999; Platteau 2000; Toulmin and Quan 2000). Thus, laws that have been enacted in several countries of sub-Saharan Africa with the aim of preventing excessive fragmentation of rural lands—either through inheritance or land sale transactions—have never been really enforced. The reason lies not in people’s ignorance of the law but in their widespread belief that it runs counter to deeply entrenched customary principles (such as the right of all male children to receive a portion of the family land) and is therefore unlikely to be followed by others or to be backed by appropriate sanctions (André and Platteau 1998; Ansoms 2010, 109–10). When the government of Kenya, in the wake of reforms initiated by Lord Swynnerton before independence, introduced systematic formal registration of land rights, customary law remained widely in force. In the words of Barrows and Roth (1989, 7), custom, “in fact, continues to govern the way in which most people deal with their land, making tenure rights ambiguous. The land law failed to gain popular understanding or acceptance, individuals continued to convey rights to land according to customary law, and a gap developed between the control of rights as reflected in the land register and control of land rights as recognized by most local communities.”

Conflicts between the modern (written, statutory) law and the customary (unwritten) law go beyond matters of personal status and land tenure. In the sphere of criminal law, blatant discrepancies arise sometimes between
written legal provisions and informal rules. The statute of limitations is thus a fundamental principle that can be invoked by a defendant (e.g., Article 24 of the June 30, 1940, decree of the Criminal Code of the Republic of Congo). Yet, under the customary law, no such statute is admissible because “however long the time elapsed, the author of an offence, as soon as identified, must pay for his (her) infringement which has harmed social cohesion. No amount of time elapsed since the offence was committed can excuse or absolve the offender under the customary system of criminal law” (Boshab 2007, 165–66, our translation). The author of an offense is never considered as a pariah under this system. Because of his (her) act, the erstwhile social equilibrium has been disrupted. It is therefore necessary to restore it not through a mechanism of exclusion but through a process of reconciliation so that nobody loses face and smooth social relationships can be resumed between all the collective entities involved.

The above accounts suggest that whenever a strong system of informal customary institutions guides human behavior, state intervention can remain ineffective. An even worse outcome can be obtained when the rural elite uses their informational advantage and their leverage to maneuver multiple legal frameworks for their own benefit (Moore 1978; Mackenzie 1996; Stamm 1998; Boshab 2007). An example of this manipulation concerns the application of laws concerning formal land rights or titles. Experience with land registration and titling schemes shows that well-informed, powerful, and educated individuals often succeed in manipulating the customary law to claim large tracts of land that they then hasten to register under the freehold system of tenure (Doornbos 1975; Glazier 1985; Barrows and Roth 1989; Berry 1993; Platteau 2000; Jacoby and Minten 2007).

In the light of these difficulties, it is tempting to give up all efforts to suppress unfair customs through counteracting legislation. However, as argued by numerous legal anthropologists and sociologists, the custom is far from being static and continuously evolves under the pressure of a changing environment. But, if customary norms may possibly adjust in an efficiency-enhancing direction (e.g., such as happens when land tenure rules evolve toward increased individualization as land becomes more scarce with population growth and market integration), there is absolutely no guarantee that custom becomes more equitable as time goes by. How then could the state use formal legal instruments to defend the rights of disadvantaged groups when customary norms favor the interests of traditional elites?

This is the central question addressed in this paper. While we disagree with the view that “law is authoritative and capable of changing outcomes irrespective of preexisting conditions” (Pistor, Haldar, and Amirapu [2010,
we want to stress that even if not activated in the form of appeals to the modern court, the formal law can actually pull custom in its direction, thereby causing a progressive evolution of the prevailing mores. We call this mechanism the “magnet effect.” Such a mechanism is highlighted with the help of a simple model and illustrated with the support of case study material.

The rest of the paper is organized as follows. Section II contrasts our approach with the “common law” approach and briefly reviews the scant literature available on the subject. Section III presents the structure of the model and characterizes the equilibrium and then proceeds by discussing the effects of changes in exogenous factors affecting the equilibrium outcome. In Section IV, we address the question of the optimal legal reform from the viewpoint of the disadvantaged sections of the population. It is shown that under some conditions a moderately progressive law may better promote the interests of the marginalized people than a radical law: gradualism is then superior to radicalism. In Section V, we discuss briefly two possible refinements of the model. We then turn, in Section VI, to an empirical approach to the interaction between modern law and custom. This is done through an in-depth case study of the so-called PNDC Law 111 on Intestate Succession in Ghana. Section VII concludes.

II. The Magnet Effect of the Modern Law

There are two main approaches to the question as to how the state can use the statutory law to promote the interests of the disadvantaged in the presence of an adverse custom. The first approach rests on the observation that solutions imposed by legislative fiat tend to have dismal results because they inevitably create misunderstandings, uncertainty, and disputes. This suggests that a more effective way of reforming customary rules is by allowing them to evolve and modernize themselves through the common law process: the law gradually assimilates custom through successive court decisions rather than through one-shot acts of the Parliament. For instance, in the case of Papua New Guinea, Cooter (1991) discusses how the Land Disputes Settlement Act has provided a legal ground and a system of mediators and courts to resolve disputes involving land under customary ownership. The crucial point is that the land courts are bound only by the above act and custom. What Cooter argues is that the evolution of court-made property law is driven by this system because “land disputes requiring the refinement of property rights reach the courts with sufficient frequency to support the common law process” (Cooter 1991, 784). One of the most challenging tasks facing the land courts is to find
general principles behind the diversity of local customary practice and usage and to make explicit authoritative statements on that basis (Cooter 1991, 784–90). In other words, a key problem is not only that the common law process may be quite slow but also that there is no guarantee that it will converge toward these general principles.

In the second approach, by contrast, the modern law is used as an “outside anchor” or a “magnet” pulling the local custom in a direction more favorable to minorities and marginal groups. The underlying mechanism is simple: the new law offers marginalized people an exit option that increases their bargaining power at the level of the community. Such a possibility is illustrated by several observations made by social scientists. For instance, Lavigne Delville writes that “local landholding systems are not the expression of an unchanging ‘traditional law’, but the fruit of a process of social change, which incorporates the effects of national legislation” (Lavigne Delville 2000, 114). Rao (2007) states that legal support effectively adds authority to women’s voices since their land claims are thereby strengthened, even though they do not necessarily resort to the formal court (see also Quisumbing et al. 2001; Davis 2009).

Kevane (2004) observes that in Sahelian countries divorce was not customarily granted to a wife wishing to leave her husband except in the case of proven mistreatment by the latter (Kevane 2004; see also Platteau et al. 1999). Over the recent years, however, women have progressively acquired a de facto right to leave an unhappy union. This, according to him, is partly the effect of administrative pressure “as successive regimes continue to push for explicit legal rules and rights for women in marriage” (Kevane 2004, 75). Finally, studying the effects of Operation Barga, a program designed to implement and enforce the long-dormant agricultural tenancy laws that regulated the rights of sharecroppers in India, Banerjee, Gertler, and Ghatak (2002) have found that a moderate reform of the legal contract succeeded in improving the situation of the tenants. By empowering tenants without giving them full ownership of the land, Operation Barga opened a real way out of the status quo and enabled them to get a higher share of the additional output resulting from investment. The enhanced bargaining power of the tenants came with the new “outside option” provided as a result of the reform of the legal contract.

Unlike the first approach where the modern law evolves from the adaptation of custom within the framework of new institutions devised by the state, the second approach aims at compelling custom to change under the threat of appeals to the modern court by plaintiffs belonging to minorities or marginal groups. When the latter route is followed, interestingly, it is
possible that the statutory law is not actually appealed to and no case comes to the formal court because the potential plaintiffs are satisfied by the judgment obtained in the informal domain under the pressure of the formal legal system. Therefore, one cannot infer from the low activity of modern courts that the statutory law is irrelevant.

In this paper, we focus on the second approach. Using a static model of legal dualism in which an informal judge acts strategically in relation to the statutory law, we show that when this law aims at countering a pro-elite custom, the magnet effect can occur under certain conditions. The statutory law is perfectly known to all individuals, but the outcome of an appeal to the modern court is unpredictable. A third party is available to enforce the statutory law, but the court can act only if a plaintiff has brought a violation of the law to its attention through a due appeal procedure. Yet a plaintiff may hesitate to do that for fear of losing advantages associated with life in the community and because of the cost and risk of resorting to the formal court.

In our setting, custom may thus be seen to evolve “in the shadow of the law.” However, this occurs in a sense very different from that adopted in the broad current of law and economics literature that studies bargaining and contracting between private parties “in the shadow of the law” (see, e.g., Mnookin and Kornhauser 1979; Cooter, Marks, and Mnookin 1982; Jacob 1992; Gennaioli 2006; Stevenson and Wolfers 2006; Cooter and Ulen 2008; Chakravarty and Macleod 2009). In this literature, one way through which the law affects private parties’ economic interactions is via its impact on negotiations and bargaining that occur outside the courtroom (as in Mnookin and Kornhauser 1979; Cooter et al. 1982; Jacob 1992; Stevenson and Wolfers 2006). An important determinant of the bargaining outcome is the particular allocation a court will impose if the parties fail to reach an agreement. Another channel (as in Gennaioli 2006; and Chakravarty and Macleod 2009) is the effect of court rulings on private contracts. Transacting parties take into account future judicial rulings when designing the formal contract, and certain characteristics of the judicial activity (e.g., the extent of judicial discretion) affects ex ante the design of the contracts (e.g., the sophistication and the amount of contingency clauses). What crucially differs in our analysis is an explicit formulation of the behavior of a key player in the legal system of developing countries (and that is absent in all of the previous studies): the informal or customary judge.

In a companion paper (Aldashev et al. 2011), we explore how custom would evolve in a dynamic environment where economic opportunities outside the traditional community change in a stochastic manner and the
customary authority is both strategic and forward-looking regarding these changes. For analytical tractability, the companion paper abstracts away from issues such as transaction costs of accessing the formal court, and strategic behavior and uncertainty within the formal legal system. In the current paper, the static environment provides a simple framework for illustrating the magnet effect, and for highlighting the conditions—in terms of the cost of accessing the formal courts, uncertainty within the formal legal system, and the prestige attached to the role of the traditional judge—under which the magnet effect is at work.

III. Model of Legal Dualism

A. Stylized Framework of Analysis

Our model is to our knowledge the first attempt to formalize the interaction between a formal sector and a customary authority who acts strategically. Our problem is different from a conventional situation of legal pluralism in which several laws coexist (see, e.g., Griffith 1986; Kuran 2004), or in which a statutory law is enacted in the presence of strong social norms that influence the behavior of law enforcers (see, in particular, Kahan 2000). The latter strand of literature, to which we shall return later, does not consider the possibility that social norms are susceptible of adaptation at the behest of agents acting strategically. The most original feature of our theoretical foray is that we explicitly model the behavior of the upholders of social norms depicted as the customary authority. The enforcement means available to this authority—the ability to exclude a deviant individual from a local community good or social game—fundamentally differ from those available to the formal judge—the coercive powers of a modern state. Moreover, the former does not necessarily obey the same incentives as the latter owing to the importance of local status considerations.

Consider a society thus endowed with two laws, the formal statutory law and the informal customary law. Custom is enforced, at the level of the community, by a traditional authority (the informal judge).¹ The judgment pronounced by the informal judge embodies the custom prevailing in the community. This judgment typically aims at maintaining social cohesion while upholding patriarchal norms of respectability, which is why it is often bent toward the interests of the old elite (Davis 2009). Custom then represents the interests of a fraction of the community that we loosely label the “elite.” We define as “commoners” the members of the community who

¹ The traditional authority is not necessarily represented by a single individual but may be a council composed of several members of the community (e.g., elders or lineage heads).
do not belong to the elite and whose interests are ignored by custom. For instance, they might include women and marginal or minority groups, such as low-caste people, outsiders, members of subordinated ethnic groups, and so on. When an elite member and a commoner are involved in a dispute, they consult with the informal judge and hear his judgment. Since the judgment is biased, the commoner will be mostly dissatisfied. She may then either accept the customary decision or reject it by making recourse to the formal court. In deciding to appeal to the formal court, she weighs the expected benefit from a more favorable formal court decision against the cost that includes two components. The first component is the transaction cost of accessing the formal court (administrative expenses and fees, transportation costs, the opportunity cost of time spent in the formal court, the cost of access to information, etc.). The second component is the cost of social exclusion from community life (henceforth designated as a “social exchange”). In other words, everyone who challenges a customary verdict is ostracized by other members of the community. This implies that the benefits from participating in the local network and events will be irremediably lost. Evidence in support of what may appear as a strong assumption can be found mainly in the anthropological literature. The most compelling evidence lies in examples of deviant members of rural communities who choose to migrate with a view to escaping the harshness of punishment inflicted on them in their native area (see Platteau 2000, chap. 5; 2009).

Insofar as the collective benefits of community life are increasing in the number of participants, there is a cost to the community of excluding a member. Why, then, would community members agree to punish the deviant? One plausible explanation is the willingness of the members of the community to maintain the prestige of the local authority on which they depend not only for the resolution of conflicts but also for a variety of other functions, such as representation of the community in negotiations with outside agents. As long as the loss to the community from a weakening of the authority of the informal judge exceeds that of excluding a member of the community, social exclusion will be a credible threat and actually implemented following any appeal to the formal law. Moreover, as we know from experimental economics, people may agree to punish a noncooperative individual even at a positive cost to themselves if they thereby relieve a feeling of outrage or anger (Fehr and Gächter 2000; Fehr and Falk 2002; Fehr, Fischbacher, and Gächter 2002; Fehr and Rockenbach 2003; Fehr and Fischbacher 2004). In some situations, such as when a customary norm is violated, deviants are viewed as mavericks threatening social order and harmony. Emotions then tend to play an important role and override
strictly rational calculations (Frank 1988). Field interviews conducted in Mali attest to the pertinence of this second source of credibility of ostracization threats.²

The statutory law is enforced by a judge who operates in the framework of a court. This formal judge’s verdict is not completely predictable (from the point of view of community members), even assuming that people have sufficient trust in its enforceability. There might be three important sources of such uncertainty. First, there is an obvious verifiability problem since the formal judge may not know the local conditions well (Davis 2009). He then needs to rely on the statements made by disputants and witnesses to gain a proper understanding of the circumstances of the case. Since these statements are likely to be diverging, he will have to exercise his own sense of judgment and the verdict pronounced by him may deviate from the ruling expected by the claimant on the basis of his reading of the statutory law.

Second, the judge may have not one but several bodies of law available to him to ground his decision. This is especially true in countries where religious laws coexist with the civil law, such as when the judge is allowed to refer to the sharia when he deals with a case involving Muslim disputants. In deciding which law should apply to a particular case, the formal judge tends to base his judgment on the “mode of life” of the claimants. Thus, in a number of African countries, when they deal with an issue of inheritance, judges may apply the mode-of-life test whereby the ethnicity and religious affiliation of the heir, as well as the intent of the deceased, are taken into account. Uncertainty is clearly present in such a situation since it is rather easy for claimants to distort information regarding the mode of life of the deceased so as to obtain the most favorable judgment before the formal court (Hilhorst 2000, 187; Ntampaka 2004).

Third, even in cases where there is a unique body of statutory laws, interpretation problems involve the subjectivity of the judge. The flexibility of the formal law can thus be used by the judge to gain privileges for himself or to make it more congruent with his own preferences and values. The former possibility is illustrated by the case of the Forestry Law in Cameroon where the overriding consideration of the bureaucrats in charge of the law is to interpret it in such a way as to vest themselves with power and privilege (Egbe 2002). One example of the latter possibility is the new

² As one village elder in the Koutiala district said, “We know how to bring back to their minds people who dare overstep the village authorities. . . . How we actually do that is our secret” (interview by Jean-Philippe Platteau). In the context of sub-Saharan Africa, this ominous sentence clearly hints at the possibility of resorting to magical intimidation and repression as a threat to dissentors. For a survey of this literature, see Platteau (2000, 2011).
Family Code of Morocco, which contains provisions much more favorable to women than the old code based on a combination of the Islamic and customary laws. Factual evidence nevertheless shows that conservative judges try to avoid a strict application of certain provisions contained in the new code. For example, judges of Tetouan who are conservative by subjective choice assert that polygamy is “a divine right prior to all human legislation” and cannot, therefore, be expected to strictly follow the new law. In practice, they tend to grant a man’s right to polygamy as soon as the husband can prove that he earns sufficient income (Elharras and Serhane 2005, 52–54). In the same vein, Mouaqit (2007) concludes from his interview with a group of 35 Moroccan judges that whenever the terms of the law are not exactly precise, there is a tendency to confuse law and ethic. Another example in the same vein comes from Pakistan where we learn that the judiciary has played an important role in undermining the law regulating honor crimes. More precisely, the judiciary has over the years created its own brand of legal rules to deal with cases of honor crimes, allowing their social biases and personal perceptions of women and their role in society to influence their treatment of perpetrators of honor crimes (Irfan 2010, 170).

B. Setup of the Model

Consider a game involving an informal judge, M, and two individuals, an elite member (E) and a commoner (C). There is a dispute between E and C that is first mediated by the informal judge. Once the informal judge has given his verdict, the disputants face a binary choice: they can accept the verdict of the informal judge or appeal the verdict at a court of formal law. Once the dispute is resolved, the players participate in a social exchange, which gives some benefit to each participant.

Formally, the timing of the game is as follows: (1) M chooses verdict $v^M$; after hearing this verdict, (2) C decides whether to appeal to the formal court; if he chooses to do so, the community excludes him, the social exchange without C occurs, and the payoffs of all parties are determined; otherwise (3) E decides whether to appeal to the formal court; if he chooses it, the community excludes him, the social exchange without E occurs, and the payoffs of all parties are determined; otherwise (4) both parties accept the verdict $v^M$, the social exchange occurs without exclusion, and the payoffs of all parties are determined.3

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3 The timing of events is critical. If the verdict of the informal judge is implemented immediately and he has therefore full discretion over the verdict, his decision cannot be influenced by the
We represent the range of possible verdicts of the case by the interval 
\([0, 1]\), where a verdict of 0 is most favorable to the elite member and 
a verdict of 1 is most favorable to the commoner. The formal law is 
represented by a specific verdict, 
\(v^F \sim U[f - (1/2\phi), f + (1/2\phi)]\), which is 
a stochastic variable with mean \(f\) and concentration parameter \(\phi\) (a higher 
value of \(\phi\) indicates a lower variance of the verdict). We assume that \(f\) and 
\(\phi\) are such that the bounds of the distribution fall strictly within the 
interval 
\([0, 1]\).

When the case is brought to the informal judge, he has to choose a verdict 
\(v^M \in [0, 1]\). Therefore, this interval is his strategy set. The informal judge 
derives positive utility, measured in terms of social status and prestige, 
whenever his verdict is accepted without appeal. Moreover, he has a “preferred” verdict 
\(I \in [0, 1]\), such that his welfare is decreasing in the distance 
between the actual verdict and the preferred verdict.

The social exchange is modeled in the following manner: \(C, E,\) and \(M\) 
jointly produce a club good. All (nonexcluded) players enjoy the full benefit 
of the good, and we assume, for simplicity, that the community fully resolves 
the free-rider problem. Let us denote by \(A\) the full set of players, \(A_E\) the set 
with \(E\) excluded, and \(A_C\) the set with \(C\) excluded. The net benefit of the 
social exchange is noted \(Q(Z)\) where \(Z\) stands for the set of nonexcluded 
players. Obviously, we assume that \(Q(Z) > 0\) for any \(Z\) and any member of 
the community. Moreover, the net benefit from the public good for a stand-
alone player is assumed to be zero. Moreover, the net benefit for the informal 
judge in a larger group is always higher than in a smaller group. Note that 
the latter assumption, according to which the benefit of the club good 
increases with the size of the group, is necessary to avoid strategic renunci-
ation of the case by the informal judge.

Thus, \(M\)'s utility is

\[
\begin{align*}
  u^M(v^M) &= X + Q(A) - g(v^M - I) & \text{if his verdict is accepted}, \\
  &= Q(A_E) & \text{if } E \text{ challenges his verdict}, \\
  &= Q(A_C) & \text{if } C \text{ challenges his verdict},
\end{align*}
\]

where \(X\) is the prestige in utility terms that the judge acquires from having 
his verdict unchallenged, and \(g(v^M - I)\) denotes his loss function from 
choosing a verdict that is different from his preferred one. The utility loss 
of the informal judge is assumed to be increasing and convex in the 
existence of the formal law. However, it is unrealistic to assume that when a formal court exists, 
parties may not appeal to it if they are disappointed by the verdict of the informal judge. Note that 
inverting the order of (2) and (3) in our timing does not affect the results.
deviation of the actual judgment from his preferred one \((g' > 0, g'' > 0)\). Note that \(M\)'s utility does not depend (negatively) on the value of the formal judgment: the more the formal judgment deviates from the informal judge's preferred verdict, the greater his disutility. We have avoided to add this complication because it would not bring new insights: the magnet effect would just be reinforced.\(^4\)

The preferences over possible verdicts are given by \(u^E(1 - v)\) for the elite member, and by \(u^C(v)\) for the commoner, and \(u^E(\cdot)\) and \(u^C(\cdot)\) are increasing and concave. The concavity of the function ensures that the individuals are averse to the uncertainty of the verdict in the formal court. In addition, there is a transaction cost, represented by \(t^E\) and \(t^C\), respectively, for the two types, if either party appeals to the formal court rather than the informal court.

Thus, for the elite member, the expected utility from choosing the formal court equals \(Eu^E(1 - v^F) - t^E\), the utility from choosing the informal court (without \(C\) going to the formal court) equals \(u^E(1 - v^M) + Q(A)\), while the utility from choosing the informal court with \(C\) going to the formal court equals \(Eu^E(1 - v^F) + Q(A_C)\). Similarly, the expected utility of the commoner from choosing the formal court equals \(Eu^C(v^F) - t^C\), the utility from choosing the informal court (without \(E\) going to the formal court) equals \(u^C(v^M) + Q(A)\), while utility from choosing the informal court with \(E\) going to the formal court equals \(Eu^C(v^F) + Q(A_E)\).

C. Characterization of Equilibrium

We can proceed to determine the equilibrium of the game using backward induction. In terms of the timing described above, agent \(E\) appeals to the formal court at step (3) if and only if the following condition holds:

\[
Eu^E(1 - v^F) - t^E \geq u^E(1 - v^M) + Q(A). \tag{1}
\]

Similarly, agent \(C\) would appeal to the formal court at step (2) if and only if the following condition holds:

\[
Eu^C(v^F) - t^C \geq u^C(v^M) + Q(A). \tag{2}
\]

\(^4\) In our context, indeed, if a person challenges the authority of the informal judge, and is consequently expelled from the community, this itself should be an important consideration for the informal judge. And since this person would be expelled from the community, the actual verdict in the formal court may not have much bearing on the future of the custom.
We denote by $\bar{I}$ the value of $v^M$ for which condition (1) is satisfied with equality and similarly by $\underline{I}$ the value for which (2) is satisfied with equality. In words, $\bar{I}$ is the informal judgment that makes the elite member just indifferent between the customary verdict and the expected benefit of going to the modern court, and $\underline{I}$ is the analogous judgment for the commoner. We can then assert that a verdict $v^M$ by the informal judge at step 1 of the game is unopposed by both parties if and only if it falls within the interval $[\underline{I}, \bar{I}]$, which corresponds to the domain where both parties value the informal judgment at least as much as the (expected) formal verdict.

Clearly, if $I \in [\underline{I}, \bar{I}]$, the judge chooses his preferred verdict $I$, since both parties would be content with such a verdict and there will be no further repercussions on the community. However, if $I \notin [\underline{I}, \bar{I}]$, the informal judge faces a choice between returning a different verdict which satisfies both parties but does not correspond to his ideal and allowing appeal to the formal court by the dissatisfied party, and retribution by other community members. There are two possible cases: ($a$) $I < \underline{I}$ and ($b$) $I > \bar{I}$. Since we are interested in situations where custom is favorable to the elite and the law is designed to redress the inequality, we will only focus on case $a$: the preferred judgment of the informal authority (i.e., custom) is so unfavorable to the commoners that, given the alternative option, they are willing to appeal to the modern court and demand the application of the statutory law.

In this case, there exists a critical verdict value at which the informal judge’s benefit from letting the case go to the formal court is just equal to the benefit of keeping the case within the purview of the customary system, which benefit includes the amount of social prestige associated with having a judgment accepted by both disputants without challenge. This critical value, $\tilde{v}$, satisfies the equation

$$X + Q(A) - g(\tilde{v} - I) = Q(A_C). \tag{3}$$

There are now two cases to be considered: $I > \tilde{v}$ and $I < \tilde{v}$. When $I > \tilde{v}$, it is too costly for the informal judge to accommodate the commoner because he would have to opt for a verdict that is too distant from his preferred verdict to do so. Therefore, he abandons the case to the formal court, via an appeal triggered by the commoner. Consequently, the judgment that will prevail is the verdict of the formal judge, $v^F$.

If $I < \tilde{v}$, a region exists wherein both the informal judge and the commoner may agree to be located: the greatest concession this judge is ready to make toward meeting the interests of the commoner exceeds the minimum
judgment value required by the latter to stay within the customary jurisdiction. The informal judge, in this case, chooses the minimum judgment value, \( I \). In other words, he minimizes the concession that he has to make to maintain the case within his own ambit. Yet, by so doing, he actually allows the custom to evolve in a way that takes better account of the interests of the common people in the community: the value of the informal judgment has been raised from \( I \), the erstwhile custom, to \( \bar{I} \).

Summarizing, the (subgame-perfect) Nash equilibria of the game and the corresponding payoffs are:

(i) If \( I \in [I, \bar{I}] \), the informal judge chooses \( I \), and the verdict goes unchallenged. The payoff of the judge is \( u^M(I) = X + Q(A) \). The payoff of the elite is \( u^E(1-I) + Q(A) \). The payoff of the commoner is \( u^C(I) + Q(A) \).

(ii) If \( I < \underline{I} < \bar{v} \), the informal judge chooses \( \underline{I} \), and the verdict goes unchallenged. The payoff of the judge is \( X + Q(A) - g(\underline{I} - I) \). The payoff of the elite is \( u^E(1-\underline{I}) + Q(A) \). The payoff of the commoner is \( u^C(\underline{I}) + Q(A) \).

(iii) If \( \bar{v} < \underline{I} \), the informal judge chooses \( I \), the commoner chooses to appeal to the formal law and the judgment is \( v^F \). The payoff of the judge is \( Q(A_C) \). The payoff of the elite is \( Eu^E(1-v^F) + Q(A_C) \). The payoff of the commoner is \( Eu^C(v^F) - t^C \).

Situation i corresponds to the benchmark state in which custom remains unaltered and the elite members of the community have their own way. The most interesting case for the purpose of this paper is ii, in which the informal judge bends his decision in favor of the commoners under the impact of the formal law, that is, custom shifts in a more equitable direction.

D. Predicting Changes in Custom

We can now analyze comparative statics of the model, that is, how the indifference thresholds \( I \) and \( \bar{I} \) respond to changes in the mean \((f)\) and the dispersion (the inverse of \( \phi \)) of the verdict in the formal court, the costs of accessing the formal court \((t^C \text{ and } t^E)\), and the net benefit of the social exchange \((Q(Z))\).

Enacting a law more favorable to nonelite groups is measured in our model by an increase in the mean value of the verdict returned by the modern judge \((f)\). An increase in its predictability corresponds to a decrease in its variance.
which is measured by an increase in $\phi$. Both changes have the effect of raising the lower threshold $\tilde{I}$. As for the higher threshold $\tilde{I}$, it increases as a result of a higher $f$ and decreases as a result of a higher $\phi$ (see the appendix, sec. I, for the proof).

Different effects can occur depending on the initial situation and the magnitude of the increase in $I$. Let us first consider the case in which custom initially prevails. If the increase in $I$ is relatively small, the preferred judgment, $I$, continues to decrease within the interval $[I, \tilde{I}]$, and, therefore, custom persists. If, on the other hand, this increase is large enough to cause $\tilde{I}$ to overstep $I$, it is clear that the outcome will depend on whether $\tilde{I}$ increases sufficiently so as to exceed the informal judge’s indifference threshold, $\tilde{v}$. If it does not, the informal judge chooses a new value of $I$ (which we denote with $I'$) which is more favorable to the commoners.

If, on the contrary, the lower threshold $\tilde{I}$ exceeds the informal judge’s indifference threshold $\tilde{v}$ (in other words, the modern law represents a sufficiently radical departure from custom), no shift in custom can satisfy both the customary authority and the commoner and, as a result, the commoner appeals to the modern court. In this case, custom remains unchanged (whereas in the case above, it has moved under the magnet effect produced by the statutory law).

Summarizing, there are three different regions. When the formal law does not differ much from custom, custom is unlikely to change and no commoner challenges it. When the formal law represents a moderate move away from custom, custom adjusts to this change and, again, no commoner challenges the (modified) custom: the magnet effect operates. Finally, when the formal law departs radically from custom, the commoners prefer to defend their rights before the formal court and the custom is unchanged: a magnet cannot attract from a great distance.

Let us now examine the effect of a change in the cost of access to the formal court. An increase in $t_C$, the cost of access to the formal court for the commoner, decreases his threshold verdict $\tilde{I}$. Similarly, an increase in $t_E$, the cost of access to the formal court for the elite member, increases his threshold verdict $\tilde{I}$. Clearly, easing access to the formal court for commoners is equivalent to enacting a law more favorable to them: the above reasoning regarding the possible impacts of a higher threshold $I$ therefore applies.

5 An increased predictability of the modern law might occur as a result of the fact that expectations regarding its interpretation are stabilized over time.
Finally, let’s study the effect arising from a change in the net benefit of the social exchange. If this benefit increases, the interval \([I, \bar{I}]\) (in which both parties are satisfied with the verdict of the informal judge) expands. Since a higher benefit of the social exchange implies a higher opportunity cost of appealing to the formal court, the likelihood that decisions by the informal judge rest unchallenged is higher. Contrarily, if benefits from community life diminish, for example, as a result of increased economic and geographical mobility, the interval \([I, \bar{I}]\) shrinks. As a consequence, the threshold value \(\bar{v}\) may no longer be in the interval, increasing the likelihood that commoners go to the modern court. Yet, if the shift in \(\bar{I}\) is such that \(\bar{v}\) is maintained in the interval \([I, \bar{I}]\) but \(I\) is not contained in it, the effect of increased mobility is to trigger a transformation of custom in the direction pointed by the statutory law.

How is the threshold value \(\bar{v}\) affected by changes in \(X\) (the prestige associated with mediating a case within the informal jurisdiction) or in the benefits that the customary authority derives from the participation of the commoners in the social game? An increase in \(X\) or in the net gain for the informal judge of keeping the commoner in the social game, increase \(\bar{v}\), making the informal judge more willing to accommodate the interests of the commoners (see the appendix, sec. II, for the proof).

The intuition behind these results is straightforward. There are two factors that influence the informal judge’s payoff from keeping the case in the informal court. First, the informal judge faces a trade-off between the cost of deviating from his preferred verdict and the loss in terms of prestige from having the case judged in the formal court. When \(X\) is larger, the informal judge is willing to propose a solution further away from his preferred verdict. More precisely, if \(\bar{v} < I\) and \(I < \bar{I}\) in the initial situation, and if the increase in \(X\) is significant enough to cause \(\bar{v}\) to overstep \(\bar{I}\), the informal judge becomes ready to adapt his ruling so as to keep the poor claimant within the customary jurisdiction.

Moreover, there is a loss to the informal judge whenever either party is excluded from the social life of the community. As such a cost of excluding someone from the social game becomes higher, the informal judge is again willing to deviate further from his preferred verdict to avoid this exclusion.

Summarizing, three possibilities arise when a statutory law is enacted with the aim of protecting the rights of the disadvantaged group whose interests are harmed by the customary norms. First, custom may be unaffected and the members of this group stay within the ambit of the community. In this case, the modern legislation produces no impact (case i). Second, custom is
unaffected, yet the commoners make recourse to the formal legal authority. The statutory law is activated and its beneficial effect is apparent (case ii). Third, custom evolves in the direction pointed by the law, which is not activated by plaintiffs belonging to the disadvantaged group. The beneficial effect of the statutory law is less apparent as it operates in an indirect manner: the magnet effect is at work (case iii).

IV. Optimal Legal Reform: Radicalism versus Gradualism

The question of how radical a legislation should be to have significant effects has always been debated hotly among reformists and revolutionaries concerned with improving the lot of the disadvantaged. For instance, toward the beginning of the twentieth century, the reformist ulama Ibnou Zakri stood up against the archaism of rural Islam in Kabylia, denouncing, in particular, the ignorance of the Islamic law of inheritance. Unlike other radical reformers, however, he was convinced that any change in the law had to be at least partly approved by the customary authorities. In the case of Kabylia, this meant that the village zawaya (local council) had to evolve so as to gradually accommodate a more progressive and Islamic approach to women’s rights (Chachoua 2001, 180–87).

Our model suggests that the most radical pro-commoner law is not always the most favorable to the commoners. Under some conditions, a moderate law may better promote their interests because too radical a law may deter a significant proportion of the modern judges from applying it strictly. To formalize this argument, we first need to go beyond the simple conceptualization of the formal verdict as a stochastic variable with mean $f$ and concentration parameter $\phi$. The key idea underlying our description of the modern judge’s behavior is that he is sensitive to both law abidingness and the extent to which his verdict differs from his preferred judgment. More precisely, he earns a positive utility by strictly implementing the law and a negative utility by departing from the judgment most consonant with his values.

Formally, the formal judge has a preferred judgment $Z^F \in [0, 1]$, which is unobservable to the members of the community and to the social planner. We define $\Phi(Z)$ as the probability that $Z^F \leq Z$. Thus $\Phi(Z)$ is the distribution of preferred judgments of those individuals who serve as judges in the formal court system. Therefore $1 - \Phi(Z)$ is the fraction of modern judges whose preferred judgment exceeds $Z$.

If the formal judge gives a verdict of $v^F$, he receives a utility equal to

$$u^F(v^F; f, Z^F) = \sigma I(v^F = f) - |v^F - Z^F|.$$
In words, he receives a utility of \( \sigma \) from following the law to the letter (this is the benefit from law abidingness), but if his verdict deviates from his preferred judgment, he also incurs a disutility proportional to the magnitude of this deviation.

Therefore, a formal judge passes judgments corresponding to the law if and only if

\[
\sigma \geq |f - Z^F|
\]

\[
\Leftrightarrow f - \sigma \leq Z^F \leq f + \sigma.
\]

Otherwise, he follows his preferred judgment \( Z^F \). If the prescribed law is \( f \), the formal judge can then be expected to follow the law with probability \( \Phi(f + \sigma) - \Phi(f - \sigma) \).

Therefore, the expected utility of a commoner from pursuing a case in the formal court equals

\[
[\Phi(f + \sigma) - \Phi(f - \sigma)]u^B(f) + \int_{f-\sigma}^{f+\sigma} u^B(v)d\Phi(v) + \int_{f+\sigma}^1 u^B(v)d\Phi(v). \tag{4}
\]

By differentiating throughout (4) with respect to \( f \) and rearranging, we obtain the marginal effect of increasing \( f \) on the expected utility of an individual seeking recourse to the formal court:

\[
\begin{align*}
&= \Phi'(f + \sigma)[u^B(f) - u^B(f + \sigma)] \\
&\quad + \Phi'(f - \sigma)[u^B(f - \sigma) - u^B(f)] + [\Phi(f + \sigma) - \Phi(f - \sigma)]u^B'(f).
\end{align*}
\]

The net effect is composed of three terms. The first term is due to the fact that as \( f \) increases marginally, the formal judge with the preferred judgment \( V^F = f + \sigma \) switches from following his own preferences (and giving a verdict of \( f + \sigma \)) to following the law precisely (and thus giving a verdict \( f \)). The second term is due to the fact that the formal judge with the preferred judgment \( V^F = f - \sigma \) switches from following the law precisely (and giving a verdict \( f \)) to following his own preferences (and thus giving a verdict of \( f - \sigma \)). Both these effects result in a disutility for whoever would have their cases mediated by judges harboring these preferences. By contrast, the third term is due to the fact that a proportion \( [\Phi(f + \sigma) - \Phi(f - \sigma)] \) of formal judges are following the formal law to the letter; and if \( f \) increases, this means that with probability \( [\Phi(f + \sigma) - \Phi(f - \sigma)] \) the individual would receive a more favorable verdict.
It is straightforward to see that if the densities around $f - \sigma$ and $f + \sigma$ are large, that is, if a large proportion of judges are on these thresholds—then the net effect of an increase in $f$ can be a decrease in the expected utility of the commoner from seeking recourse in the formal court. In other words, a more radical law necessarily makes its strict implementation too costly for a certain fraction of modern judges for whom it deviates too far from their preferred judgment. They respond by ceasing to follow the written law and, instead, shift to their preferred judgment. It is also true that as the formal law becomes more radical, it induces some of the most progressive judges within the formal system to fall in line with the written law rather than follow their own preference. But note that this change would actually cause these judges to become more conservative, not less.

If the proportion of judges in the two categories highlighted above is large enough, their response outweighs that of the modern judges who do follow the more radical (pro-commoner) prescription of the revised law. If so, the enactment of such a law eventually hurts the interests of the commoners (i.e., the expected value of the formal judgment decreases).

There are other possible reasons why too radically progressive laws could be detrimental to disadvantaged people. Two of them come to mind. First, our theory has been built on the assumption of perfect enforcement of the statutory law. Assume now that this is not true and the level of enforcement varies inversely with the level of “progressiveness” of the law. Such a situation is especially likely to occur if the enforcement of the modern law requires the cooperation of local customary authorities (e.g., in matters of land conflicts). Then, provided that a more progressive law has the effect of disproportionately increasing the uncertainty surrounding the enforcement of the formal court’s verdict, it will end up harming the intended beneficiaries. Note that the same effect can be obtained if, as argued by Kahan (2000), a large proportion of enforcers of the statutory law within the modern sector are reluctant to apply radical versions of it. On the basis of US evidence regarding liability for date rape, domestic violence, sexual harassment, drugs, and drunk driving, he shows that increasing severity on the part of law makers has had the effect of deterring the police from arresting the culprits and enforcing the legal verdicts. The conspicuous resistance of law enforcers may even reinforce the social norms that law makers intended to change. To surmount sticky norms, law makers are better advised to apply “gentle nudges” than “hard shoves” so as to induce law enforcers to discharge their civic duties.

Second, marginalized groups typically internalize the dominant values of the elite and lend legitimacy to the customary authorities, particularly when
the latter use religious symbols and references. This implies that when the law shifts in their favor, members of these groups may not fully value the legal change. In technical terms, they discount $v^F$ in their utility calculus, as a result of which the size of the magnet effect is dampened in proportion to the magnitude of the discount factor. If it happens that the discount factor increases more than the value of the modern law when the latter becomes more progressive—marginal people feel increasingly guilty about referring to a law that deviates too much from customary practices—the law is again running counter to its own purpose. A moderate law could better advance the interests of the marginalized groups.

V. Extensions of the Model

A. Heterogeneous Stakes

What happens when the assumption that all disputes have identical stakes is relaxed, that is, when there is heterogeneity in the severity of disputes, implying that the extent to which individuals care about the outcome of a settlement varies with the type of dispute? Our model predicts that the more severe the dispute, the more likely it will end up being judged in the formal court. The intuition is that, when a dispute involves a large amount of property and the formal court is likely to produce a more favorable verdict, a party may be willing to appeal to it even if the administrative and social costs are high. Formally, to express this idea, we characterize any dispute according to a parameter $\gamma \in [1, \gamma_{\text{max}}]$ and rewrite the utilities obtained by the commoner and the elite member from a specific verdict $v$ as $\gamma u^C(v)$ and $\gamma u^E(1-v)$, respectively. It is then easy to show that the interval of verdicts that would attract both parties to the informal court is smaller for more critical disputes. Intuitively, an individual is more willing to bear the cost of accessing the formal court when the stake of the verdict is higher (see the appendix, sec. III, for the proof).

We can also show that more disputes will be resolved in the formal court when the statutory law is very different from the custom. Formally, if $\tilde{\gamma}$ is the threshold value of the severity of disputes such that all disputes for which $\gamma > \tilde{\gamma}$ go to the formal court while all those for which $\gamma < \tilde{\gamma}$ are resolved by the informal judge, as $f$, the (mean value of the) legal verdict, moves away from $I$, the custom-based judgment, the threshold $\tilde{\gamma}$ decreases (see the appendix, sec. IV, for the proof).

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6 For instance, in patriarchal societies, not only men but also women see wife beating as a normal part of conjugal relations (Economist 2010, 46). To cite another example, women have sometimes been observed to support honor crimes (Ockrent 2006, 98–100).
B. Heterogeneity of Commoners’ Outside Options

In the setting of our model, the possible equilibrium outcomes are as follows: commoners are subject to an unchanged custom, they witness an adjustment of the custom in their favor, or they appeal to the modern court. There is thus no possibility of equilibria in which a fraction of the village commoners appeal to the modern court while the others remain within the ambit of the customary jurisdiction. The latter outcome obtains if we allow for some heterogeneity in the population of the commoners, for instance, by assuming that they face different exit opportunities (see Aldashev et al. 2011). As intuition suggests, those with the best exit opportunities will be the first to avail themselves of the possibility of using the modern court while those with the worst exit opportunities will be the last ones to leave the native community. In such a framework, it is particularly unrealistic to assume that the social prestige obtained by the customary authority from settling a dispute is a constant that does not vary with the number of people staying within the community. It is more pertinent to assume that the marginal benefit in terms of prestige increases as the size of the community decreases.

When outside options are heterogeneous within the commoner group, a standard outcome obtains in which the effect of a more progressive law is to simultaneously cause a progressive transformation of the custom and to induce a fraction of the commoners to appeal to the modern court. In other words, the dual legal system is active in its two components: the magnet effect operates and the modern law is explicitly referred to in court cases. Such a combination is not possible when exit options are identical for all commoners, as shown in Section II.

VI. Case Study

In this section, we illustrate the logic of the magnet effect and the choice between a radical and a moderate legal reform with the help of a single example drawn from the inheritance laws in Ghana. The PNDC (Provisional National Defense Council) government that succeeded Nkrumah at the head of Ghana in December 1981 adopted a reformist approach to many issues, in contrast to the radical policies of its predecessor. Such a stance deserves to be stressed, as the PNDC was genuinely intent on bringing significant changes to the society and economy. Interestingly, one of its goals

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7 Heterogeneity in the elite population is irrelevant, as it will have no effect on the equilibrium outcomes. Given that they are favored by custom, elite members have no incentive to appeal to the formal court.
was to raise women’s status and participation in the socioeconomic development of the country, partly by supporting a strong feminist movement.

The achievement that we want to draw attention to here is the so-called PNDC Law 111 whereby the Ghanaian government attempted to regulate practices of intestate succession in favor of the wives and children of a deceased man, particularly among people (the Akans) governed by a matrilineal system. In the words of the chairman of the Inheritance Commission (known as the Ollennu Commission by the name of the chairman), the new law is aimed at modifying the matrilineal family system “in such a way as to give the wife and children of a deceased person interest in a definite portion of his estate since it is felt that the right to maintenance and training of the children and support for the wife out of the estate, though legally enforceable, is not generally recognized as sufficiently substantial” (cited from Josiah-Aryeh 2008, 20). By deciding that the nuclear family should become the focus of succession, the PNDC Law 111 “appears to be an attack on customary law” (Josiah-Aryeh 2008, 29).

Under the matrilineal system, indeed, brothers and sisters born of the same mother occupy a more important place than the spouse inside the family sphere. A person is not entitled, therefore, to inherit from his or her spouse or from his or her father: membership of the matri-clan determines all succession rules, and it is typically the maternal uncle of a child who is in charge of managing the assets of the deceased father (Woodman 1985; Quansah 1987; Gedzi 2009a, 2009b). Matrilineal societies are thus characterized by a weaker relationship between father and son than patrilineal societies (La Ferrara 2007).

Upon careful examination, the PNDC Law 111 is not as radical as it is sometimes purported to be. It makes a pivotal distinction between the family assets (the assets inherited from the matri-clan) and the assets personally acquired by a deceased person. While the former continue to be regulated by custom, the latter are to be divided according to a rule that earmarks the highest share of the deceased’s personal assets to the nuclear family (surviving spouse and children) and a smaller one to the extended family. For example, when a man dies and his own parents are dead, the share accruing to the spouse is 3/16, that accruing to the children is 9/16, and the customary heir receives 1/4. When there are no children, personal assets are divided equally between the surviving spouse and the customary heir (Josiah-Aryeh 2008, 21–25). A colonial law, the Marriage Ordinance (1884), was even more favorable to the nuclear family (with 1/3 of the deceased’s personal assets devolved to the surviving spouse and 2/3 to the children), yet it applied only in cases of officially registered marriages.
Following passionate protestations by traditional chiefs, the law was amended in 1909, awarding a 1/3 share to the extended family, and a 2/3 share to the spouse and children, but the application was again restricted to officially registered marriages (Woodman 1985; Awusabo-Asare 1990; Manuh 1997).

Although empirical evidence is sparse, it is still sufficient to enable us to assess the impact made by the PNDC Law 111, and a number of findings can be usefully interpreted in the light of our theory. First, 22% of a sample of about 250 household heads (around the city of Kumasi), a significant minority, have declared a preference for following the prescriptions of the law. By contrast, 37% have expressed a preference for the customary inheritance practice, while 25% confessed that they make inter vivos gifts either to escape the matrilineal succession custom—gifts are then made to children—or to avoid Law 111’s prescription—gifts then go to members of the matri-clan (Gedzi 2009a).

Second, most female plaintiffs prefer to take land and family cases to chiefs’ or family courts. The minority of those who prefer the formal court option mention a number of reasons. They think that the court will be impartial to women and that it is capable of enforcing its sanctions. The court, they believe, has the ability to give necessary protection to those who need it, whereas chiefs’ courts are mainly concerned with maintaining or reestablishing existing or preexisting relationships between disputants. As a consequence, informal judges may not assess the cases brought to them in a rightful manner. On the other hand, women who prefer the customary ways tend to lay emphasis on the ability of indigenous courts to repair and restore damaged relationships through arbitration, mediation, and advising.

The low take-up rate of litigation relating to Law 111 is often attributable to women’s perception of the high cost of legal recourse, typically the fear of severe sanctions in the form of separation from their children, ejection from their house, and loss of valuable family and clan relationships (Gedzi 2009b, 15–17; see also Benneh, Kasanga, and Amoyaw 1997; Fenrich and Higgins 2001). Due to “fear of spiritual reprisals from the family, family and community pressure and the strong moral sense not to wash the family linen in public,” they are reluctant to take family members of their deceased husbands to the formal courts when those family members infringe on their inheritance rights (Gedzi 2009b, 27). In short, most disputants prefer to solve their cases in the traditional setting of local informal courts where the procedure is less adversarial than in the formal court. Conversely, the few women who seek formal litigation to claim their rights are strong characters,
often with a comparatively high level of education (and outside options), who dare defy the social pressure and threats emanating from the extended family.8

Third, from another field study (Quisumbing et al. 2001), it appears that a widespread practice followed by Akan household heads—40% of them when they are males and 48% when they are female—consists of dividing the personal assets of the deceased person into three equal parts: 1/3 for the surviving spouse, 1/3 for the children, and 1/3 for the extended family. This practice, which actually coincides with the prescription of the succession law of 1909, is more favorable for the members of the nuclear family than custom, yet at the same time more favorable for the extended family than the statutory provisions of the PNDC Law 111.

Many elements of our theoretical discussion are well reflected in the above-presented evidence. In particular, a magnet effect is apparently at work since custom has evolved in the direction of the new law, and it is difficult to attribute the whole transformation of custom to the endogenous force of land pressure—population growth and market integration make investments for land improvement and conservation more necessary, yet these investments require a proper incentive structure that the matrilineal succession system cannot provide. On the one hand, the main mechanism behind the endogenous evolution of this system consists of the practice of inter vivos gifts to children, which has been increasingly resisted by the extended family under conditions of land scarcity. On the other hand, the facts that (i) a significant minority of household heads claim to follow the statutory provisions of the PNDC Intestate Succession Law and (ii) some women refer to the modern court to settle their case suggest that this law has a genuine impact.

Law 111 is a progressive law compared to the 1909 law (in the latter, the share of the extended family is 1/3 while it is only 1/4 in the former), yet moderate compared to the Marriage Ordinance (1884), which deprived the extended family of any share in the personal wealth of the deceased person. That the latter ordinance aroused serious tensions in Ghanaian matrilineal groups suggests that a radical legal reform is probably less effective and desirable than a more moderate one. It is revealing, in this regard, that under the impact of Law 111, custom has been driven to

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8 A woman interviewed by Victor Gedzi confessed that she decided not to contest her right of a share in her deceased spouse’s estate because “there can be danger there since some family members may take the issue personally and may use spiritual or physical means to terminate my life. This is why I prefer to live in peace with the family members” (Gedzi 2009b, 13).
evolve toward the prescription of the 1909 law, which for the extended family (whose authority represents the elite in our theory) is less favorable than custom yet more favorable than Law 111. It is therefore as though the 1909 law acted as a focal point at which a new (probably transitory) equilibrium could be established.

That a comparatively small number of women dare seek the assistance of the modern court system to advance their interests is in keeping with the assumption that informal sanctions are severe enough to be taken into consideration whenever a choice of arbitration types is contemplated by a plaintiff. The magnet effect nevertheless operates because Law 111 has conferred upon women an added bargaining power which they can use effectively against the upholders of matrilineal custom.

This is not true everywhere, however. In some remote areas, custom has not changed because people, and the marginal group (women) in particular, are not well informed about the new law (Fenrich and Higgins 2001). A basic assumption on which our magnet effect theory rests is therefore violated. Moreover, in Muslim communities (which are governed by a patriarchal social system), opinion leaders, including chiefs, insist that Islamic principles determine the rules of intestate succession. Any plaintiff who would dare challenge these principles would face very serious sanctions: according to the chief imam of the Volta region, any Muslim woman who wants to enforce her rights under Law 111 would face stronger sanctions from the community than a woman who does not profess the Islamic faith (Gedzi 2009b, 14). In the latter instance, the magnet effect is not working because the cost of appealing to the formal court is prohibitively high and the customary authority is highly reluctant to adapt the local rule. Yet we need to emphasize that in Muslim communities the “local rule” invoked by religious authorities is not custom proper but an alternative law, the sharia. The custom actually followed in these communities is generally the result of a blending of Islamic principles with indigenous, pre-Islamic practices. As such, it is therefore susceptible of adapting to changing circumstances (Platteau 2012a, 2012b).

VII. Conclusion
The question of the role of statutory law in social environments permeated by custom and traditional norms acquires special importance when custom harms the interests of disadvantaged groups. This question has actually drawn the attention of many colonial officials and postcolonial authorities in the developing world (see Colin 2004). It is, therefore, surprising that social scientists (and economists, in particular) have devoted so little attention to
this topic. It is true that anthropologists (especially legal anthropologists) and legal scholars have discussed various aspects of the relationship between law and development and have accumulated interesting empirical evidence. Yet, these endeavors remain scattered and lack a clear theoretical framework, as a result of which several aspects of this issue are often intermingled and predictions or policy implications remain unclear or ill specified. Since there exists a variety of reasons why a modern law may not have a bite, or may end up privileging members of the elite, it is fundamental to distinguish carefully between these different causes so as to devise appropriate remedies.

In this paper, we focus on situations in which the statutory law is designed to correct social inequalities embedded in custom. Assuming that marginal individuals are identical in terms of available outside opportunities, we show that several outcomes are possible. Most interesting is the apparently paradoxical state in which the statutory law is not actually invoked yet does exert a positive influence because it acts as a magnet that drives custom in the desired direction. When heterogeneous outside opportunities exist for the members of the disadvantaged group, the formal law generally plays a magnet role, and there are at least a few members of this group—those with the best exit opportunities—who appeal to the formal court. The others stay within the informal jurisdiction of their community and benefit from a more favorable verdict. The mechanism underlying the magnet effect is simple: by its mere existence, the statutory law empowers members of the disadvantaged group by enabling them to threaten customary authorities with seeking recourse from the formal court.

The usefulness of our analytical framework is not only in highlighting the inner logic of the magnet effect in a rigorous way but also to determine the influence of a number of key factors, namely (i) litigation and other transaction costs involved in using the formal court system, (ii) the cost of exclusion from social exchanges inherent in community life, (iii) the importance attached by customary authorities to keeping commoners within the fold, (iv) the extent of unpredictability of the modern judge’s verdict, and (v) the gap between the statutory law and custom. Factor i can be reduced through all sorts of actions aimed at getting the formal court closer to the disadvantaged groups, including efforts by civil society organizations to make these commoners more willing and able to defend their rights. Factor ii depends on the range of outside opportunities available to commoners, in

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9 For example, we come across statements according to which a situation of legal pluralism can help vulnerable groups of the society by providing space for negotiation, on the one hand, and statements stressing that these groups are often victimized while more powerful and better-connected individuals capture benefits, on the other hand (Cleaver 2003, 28; Ansoms and Claessens 2011, 11).
particular, income-earning possibilities. In terms of policy, factor iii is more difficult to act upon, whereas factors iv and v are directly in the hands of the legislator.

When i, ii, and iv decrease, or when v increases, commoners’ interests may be better protected either through an evolution of custom or through their appeal to the modern court. If iii is reduced, the attitude of the informal judge is less accommodating than before. A possible consequence of this change is that the commoners will be prompted to go to the formal court. These are the expected outcomes when the commoners’ population is homogeneous in terms of outside opportunities. When commoners are heterogeneous, all the above changes have the effect of compelling a larger fraction of the village commoners to leave the customary jurisdiction and, simultaneously, of driving custom in the wake of the statutory law (the magnet effect). Perhaps the most intriguing result derived from our model is that pro-commoner radicalism may defeat its own purpose. Under certain conditions, indeed, a moderate law will better serve the interests of the disadvantaged than a radical law.

Of course, the influence of the statutory law is only one possible cause of the transformation of custom. Moreover, legal systems are often more complex than suggested in our analysis of legal dualism: there may be more than two sources of law, custom itself may be subject to conflicting interpretations (see, e.g., Berry 1993; Firmin-Sellers 1996), and the verdict of the formal court may not follow the simple logic depicted in this paper. All these features create additional complications that might modify the predictions of our basic model. Our effort must be seen as a first attempt to formalize the relationship between formal law and custom represented by a strategic actor. It thus opens the way for more refined analyses and rigorous empirical testing. If the necessity of these further endeavors has become more evident to the reader, we believe that the ultimate objective of this paper has been achieved.

Appendix

1. Effects on Thresholds $\bar{I}$ and $\bar{I}$

The threshold condition (1) can be written as:

$$u^E(1 - \bar{I}) = Eu^E(1 - v^E) - t^E - Q(A) \equiv \Phi^E.$$

Thus, $\Phi^E(f, \phi, t^E, Q(A))$ denotes the reservation utility of the elite. Clearly, it is decreasing in $f$ (average formal-law verdict), and, by concavity
of the utility function, increases with $\phi$ (precision of the formal verdict). Moreover, it decreases in the net benefit of the elite from the social exchange (i.e., it decreases in $Q(A)$) and decreases in the administrative cost of accessing the formal court ($t^E$). Given this, and the fact that

$$\frac{d\bar{I}}{d\Phi^E} < 0,$$

the threshold identity (for the elite member) of the informal judge is

$$\bar{I}(f, \phi, t^E, Q(A)).$$

Similarly, rewriting (2) as

$$u^C(I) = Eu^C(v^F) - t^C - Q(A) \equiv \Phi^C,$$

and observing that the expected outside option of the commoner, $\Phi^C$, increases in $f$ and $\phi$, and decreases in $t^C$ and $Q(A)$, we get that the threshold identity (for the commoner) of the informal judge is

$$I(f, \phi, t^C, Q(A)).$$

II. Effects on Threshold $\bar{v}$

Rewrite (3) as

$$g(\bar{v} - I) = X + Q(A) - Q(A_C) \equiv \Pi^C,$$

where $\Pi^C(X, Q(A), Q(A_C))$ denotes the maximum loss that the judge biased against the commoner is ready to accept, before letting the case go to the formal court. This maximum loss clearly increases in the judge’s direct payoff from the case ($X$) and in the net benefit of social exchange ($Q(A)$). The maximum loss decreases in the net benefit of social exchange under the exclusion of the commoner ($Q(A_C)$). Since

$$\frac{d\bar{v}}{d\Pi^C} > 0,$$

the judge’s threshold verdict $v$ carries through all the above comparative statics signs:

$$\bar{v}(X, Q(A), Q(A_C)).$$
III. Effects of the Severity of Disputes on Thresholds $I$ and $\bar{I}$

We characterize any dispute according to a parameter $\gamma \in [1, \gamma_{\text{max}}]$ and rewrite the utilities obtained by the commoner and the elite member from a specific verdict $v$ as $\gamma u^C(v)$ and $\gamma u^E(1-v)$, respectively. We denote by $G(\gamma)$ the distribution of the severity of disputes. For notational simplicity, let’s abstract away from the payoffs of the social game. This will not qualitatively affect the results in this section. Then, the critical values $I$ and $\bar{I}$ are given by the following equations:

$$\gamma u^C(I) = \gamma Eu^C(v^F) - t^C, \quad (A1)$$
$$\gamma u^E(1-\bar{I}) = \gamma Eu^E(1-v^F) - t^E. \quad (A2)$$

We denote by $I(f, \gamma)$ and $\bar{I}(f, \gamma)$ the solution to these two equations. It is then straightforward to show that $I(f, \gamma)$ is increasing and $\bar{I}(f, \gamma)$ is decreasing in $\gamma$.

IV. Effect of $f$ on the Threshold $\bar{\gamma}$

Suppose that $f$ differs sufficiently from $I$, such that $X-g(f-I)<0$. If $f>I$, then as $\gamma$ increases, $I(f, \gamma)$ approaches $f$. Therefore, for $\gamma$ sufficiently large, we have $X-g(I(f, \gamma)-I)<0$. On the other hand, for $\gamma$ sufficiently large, we have $I \notin [I(f, \gamma), \bar{I}(f, \gamma)]$. Combining the two results, we get that for large $\gamma$, $v^M(f, \gamma) \notin [I(f, \gamma), \bar{I}(f, \gamma)]$ (since the threshold verdict for the commoner is too costly for the informal judge). Similar reasoning applies with respect to $\bar{I}(f, \gamma)$ when $f< I$. Therefore, for the most critical disputes, the informal judge would not be willing to accommodate both parties. Consequently, these would end up in the formal court.

Let $\bar{\gamma}(f)$ be the threshold value of $\gamma$, such that all disputes for which $\gamma>\bar{\gamma}(f)$ go to the formal court; and all disputes for which $\gamma<\bar{\gamma}(f)$ remain in the hands of the informal judge. Then $\bar{\gamma}(f)$ is given by the solution to the following equations:

$$X - g[\bar{I}(f, \gamma) - I] = 0 \text{ if } f < I, \quad (A3)$$
$$X - g[I(f, \gamma) - I] = 0 \text{ if } f > I. \quad (A4)$$

It is easy to show that as $f$ moves away from $I$, the threshold value $\bar{\gamma}$ decreases. Therefore, more disputes will end up in the formal court when the formal law differs sufficiently from $I$. 
References


