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Do Exclusionary Rules Convict the Innocent?[◊]

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ABSTRACT

Rules excluding various kinds of evidence from criminal trials play a prominent role in criminal procedure, and have generated considerable controversy. In this paper, we address the general topic of excluding factually relevant evidence, that is, the kind of evidence that would rationally influence the jury's verdict if it were admitted. We do not offer a comprehensive analysis of these exclusionary rules, but add to the existing literature by identifying a new domain for economic analysis, focusing on how juries respond to the existence of such a rule. We show that the impact of exclusionary rules on the likelihood of conviction is complex and depends on the degree of rationality exhibited by juries and on the motivations of the prosecutor.

◊ We thank participants at the 2008 American Law and Economics Association meetings for helpful comments and suggestions. The usual disclaimer applies.

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I. INTRODUCTION

In criminal jury trials, though relevant evidence is presumptively admitted, specific policies can compel exclusion. Some of these exclusionary rules are controversial constitutional interpretations, such as *Miranda*'s[1] exclusion of unwarned custodial confessions or *Mapp v. Ohio*'s[2] exclusion of evidence obtained from a search or seizure that violates the Fourth Amendment. Other exclusions have an older pedigree and a statutory basis, such as the rule against hearsay and restrictions on the use of prior crimes evidence and statements made in discussions over a settlement or plea. To be sure, there is a stark difference in the rationales for these rules: hearsay and prior crimes evidence is said to be unreliable in ways that the jury will not fully appreciate and the evidence is therefore excluded in the name of accuracy. By contrast, no one claims that the evidence obtained by unreasonable searches or seizures, nor statements made in negotiations between the parties, is unreliable. Here, the purpose of its exclusion is to deter police from violating the Fourth Amendment and to facilitate pre-trial resolution. However, these differences do not matter for this paper, where we address the general topic of excluding factually relevant evidence, that is, the kind of evidence that would rationally influence the jury's verdict if it were admitted. We do not offer a comprehensive analysis of these exclusionary rules, but add to the existing literature by identifying a new domain for economic analysis, which is to analyze how juries respond to the existence of such a rule.

The conventional wisdom in criminal procedure scholarship assumes that the exclusion of evidence leaves juries to decide cases as if the excluded evidence never existed. Not hearing the excluded evidence, the jury knows neither of its existence or content. Yet this analysis is incomplete. Even if the jury does not hear certain evidence, if the jury knows of the existence of the exclusionary rule, it may be aware that there is some probability that relevant evidence was excluded in the present case. If the exclusions were equally likely to favor either side, they might neutralize each other and have no net effect. For example, the exclusion of pre-trial settlement negotiations does not favor either party because the jury has no way of knowing which side conceded the most.

[1] *Miranda v. Arizona* 384 U.S. 436 (1966).
[2] *Mapp v. Ohio* 367 U.S. 643 (1961).

But the jury might know that some evidentiary exclusions are asymmetric: the criminal defendant can exclude the prosecutor's evidence obtained through governmental violations of the Fourth or Fifth Amendments (i.e., an illegal search, seizure, or interrogation), but a private defendant cannot violate those Amendments and therefore the prosecution cannot exclude defense evidence on the same grounds. Similarly, one might reasonably believe that the rule that excludes prior crimes evidence from being used to prove that a person acted in conformity to a criminal character[3] is much more likely to bar the prosecutor's evidence against the defendant than the defendant's evidence against prosecutorial witnesses. Thus, we can plausibly wonder if the jury will react to its knowledge of asymmetric exclusion by giving asymmetric weight to the possibility that it has not heard all of the extant evidence of the defendant's guilt. The jury knows that the prosecutor knows of all the extant evidence and might infer from the prosecutor's decision to bring a weak case some probability that the judge has excluded relevant evidence of guilt.

In discussing the rule against admission of the defendant's prior crimes, Lauden & Allen (2011, pp. 134-135) recently raised the possibility of jury inferences of this kind:

> We predict that jurors start with an assumption that defendants have prior records and that the assumption affects their deliberations virtually no matter what judges may tell them. We also predict that the biggest discrepancy between judges' and jurors' views of the evidence will be located in the set of cases in which jurors are not directly informed of defendant's priors, and thus must engage in surmise. We also predict that a fair amount of surmising is going on as a result of the other mechanisms we have mentioned for indirectly indicating the nature of a defendant's priors. Last, we predict that one product of that surmising is likely to be to disadvantage the innocent defendant.

One can broaden their point by making the same claim for other exclusionary rules. In any criminal case, juries might infer that there is a possibility that the court has excluded probative evidence of the defendant's guilt because it was obtained in violation of the defendant's Fourth or Fifth Amendment rights. This inference would increase the jury's willingness to convict given the evidence at trial, which means it would lower the prosecution's effective burden of proof, making the jury more likely to convict the innocent.

[3] Federal Rule of Evidence 404(b).

Our analysis shows that, once juries' inferences and behavior is explicitly taken into account, the impact of exclusionary rules on the prosecution's effective standard of proof is complex, depending on a number of relevant factors. First, if juries are completely unaware of the existence of exclusionary rules (i.e. "naïve"), then the evidentiary threshold that juries require to convict is unaffected. Innocent suspects (i.e. those who would be acquitted in a world without exclusionary rules) are not adversely affected by the exclusionary rule, though guilty suspects who benefit from the exclusion of evidence are better off. This simple scenario corresponds to the conventional wisdom in most criminal procedure scholarship. A second possibility is that juries are aware of the existence of (asymmetric) exclusionary rules, though not fully Bayesian in accounting for the possibility of the exclusion of evidence in their particular case, nor in taking full account of the strategic responses of the prosecutor to the exclusionary rule. Under this assumption of "limited updating," we show that the effective standard of proof goes down. This entails the possibility that innocent suspects are worse off, and is consistent with the result already recognized in the small economic literature on this issue (Edman 2001; Jacobi 2011).

This simple picture, however, is incomplete. If juries are perfectly Bayesian (i.e. fully rational in accounting for the impact of exclusionary rules and in taking full account of the strategic responses of the prosecutor), we show that the outcomes depend crucially on the probability distribution of suspects and on the preferences of the prosecutor. In particular, the prosecution's effective standard of proof may increase, decrease or remain unchanged, relative to the benchmark threshold in the absence of an exclusionary rule. We characterize circumstances in which each of these outcomes may occur, and the various impacts on innocent and guilty suspects.

The central intuition for why the prosecution's effective standard of proof need not always fall when the jury is aware of the existence of an exclusionary rule is the following. The existence of an exclusionary rule, taken in isolation, induces juries to lower their threshold for convicting suspects (in view of the possibility that some factually relevant evidence of guilt has been excluded). An opportunistic prosecutor (i.e. one who seeks to maximize the fraction of suspects convicted) will thus be tempted to exploit the asymmetry of information with respect to the jury by indicting innocent suspects for whom no evidence has been excluded, but whom the jury might convict given its reduced threshold. A rational jury will anticipate this strategic behavior on the part of the prosecutor, and seek to correct for it by raising the prosecution's effective standard of proof. Whether the equilibrium involves a higher or lower standard of proof relative to that which would prevail in the absence of an exclusionary rule turns out to depend on the shape of the probability density function of suspects. For instance, we provide an example in which the prosecution's effective standard of proof is higher under an exclusionary rule. Thus, we conclude that the impact of exclusionary rules on trial outcomes and on the welfare of innocent and guilty suspects is not susceptible to any simple generalizations.

Our paper provides the first economic model showing that the effect of exclusionary rule on the effective standard of proof and, in consequence, on innocent and guilty individuals is ambiguous once we allow for Bayesian juries and strategic prosecutors. The policy implications depend very much on the extent to which juries are closer to the naïve model or the Bayesian model. Nonetheless, our model shows that – depending on the sophistication of juries, the motivations of prosecutors, and the probability distribution of suspects – exclusionary rules need not help the guilty (as conventional criminal procedure scholarship generally presumes) nor hurt the innocent (as some recent economic literature has argued).

The paper is organized as follows. Section II briefly reviews the relevant literature. Section III introduces the basic version of the model. We then consider various assumptions about the jury's knowledge and inferences. Section IV concludes the paper.

II. LITERATURE REVIEW

Our paper intersects with several literatures. Most obviously, there is an economic literature on the exclusionary rule (e.g. Atkins & Rubin 2003; Calabresi 2003; Cicchini 2010; Mialon & Mialon 2008; Mialon & Rubin 2008). This literature considers various aspects of the impact of exclusionary rules, for instance on police behavior and on the deterrence of crime. However, none of the published literature considers the jury's inferences from the existence of exclusionary rules.

There is a significant economic literature on jury behavior. For instance, Schrag and Scotchmer (1994) analyze the impact of restrictions on character evidence pertaining to defendants' past convictions on jury behavior. The emphasis, however, is on the effects of jury prejudice against defendants with past criminal records, and the impact on the deterrence of crime, rather than on the questions addressed in this paper. Froeb and Kobayashi (1996) analyze inferences by naïve and potentially biased juries in the context of civil litigation, focusing on the strategic production of evidence by the parties. However, their paper does not address exclusionary rules in criminal trials. To the best of our knowledge, an unpublished student paper (Edman 2001) was the first to formally model jury responses to exclusionary rules. Since we presented the first version of our model at ALEA [American Law and Economics Association] in 2008, Jacobi (2011) has also proposed a formal model of this topic in a working paper. Both Edman (2001) and Jacobi (2011), however, draw more determinate conclusions than we think are warranted, as explained below.

There is also a large literature on wrongful conviction (e.g., Garrett 2008; Gould & Leo 2010) that seeks to identify the causes of this type of error, though it has not considered the possibility that exclusionary rules affect the prosecution's effective burden of proof. An economic literature on the optimal standard of proof in criminal trials also exists (e.g. Miceli, 1990), but it does not generally consider the impact of exclusionary rules. This paper is also related to a literature on the behavior of prosecutors and the rules of evidence (e.g. Garoupa & Rizzolli, 2011). Finally, there is a small literature on the principal-agent problem in criminal law (e.g., Dharmapala, Garoupa & McAdams 2011), but it has not focused on the jury, as we do now.

III. MODEL

Assume that there is a continuum of suspects for a given crime, with the size of the population normalized to 1. The prosecutor P observes each suspect's probability of guilt $p \in [0, 1]$. The probability density function $g(p)$ and the cumulative density function $G(p)$ represent the distribution of suspects over p, with $G(1) = 1$. After observing a suspect's p, the prosecutor P chooses whether or not to indict the suspect. For those suspects that P indicts, P can present evidence q ε [0, 1] in court. The decision of whether to convict or acquit an indicted suspect is made by the jury, denoted J. In making this decision, the jury J has an objective function that trades off type I and type II errors (i.e. false acquittals and false convictions). J convicts if and only if its inference about p, denoted r, exceeds a threshold of reasonable doubt p* (i.e. J convicts iff $r \geq p^*$).

P's objective function is modeled in two different ways. The first model is of a benevolent prosecutor who has exactly the same preferences as the jury. The second model is of an opportunistic prosecutor who cares about the proportion of suspects convicted, perhaps because of career concerns. In both models, P's strategy consists of a decision about what subset of suspects to indict (for example, a possible strategy might be to indict all suspects with p in the range [0.95, 1].). Note that, regardless of P's objective function, we restrict P to presenting only truthful evidence of guilt at trial. This entails that $q \leq p$, whether P is benevolent or opportunistic, and regardless of any exclusionary rules that may be applicable (as discussed below).

With no exclusionary rule, there are no constraints on the production of evidence in court, so r = q = p. In particular, suppose the cost function for the jury is:

$$\int_0^{p*} pL_1 g(p)dp + \int_{p*}^1 (1-p)L_2 g(p)dp$$

where the first integral is the expected cost of false negatives and the second integral is the expected cost of false positives. False negatives impose a cost L_1 and false positives impose a cost L_2 (typically, we would expect that $L_2 > L_1$, but this is not necessary for the results derived below). The jury chooses p* to minimize the expected cost, yielding:

$$p^* = \frac{L_2}{L_1 + L_2}$$

Hence, the threshold goes up if false positives become relatively more costly.

The equilibrium can be characterized straightforwardly as follows: P indicts suspects for whom $p \geq p^*$, presenting evidence $q = p$; J convicts defendants for whom $r = q = p \geq p^*$; when P is opportunistic, her payoff is $(1 - G(p^*))$. This equilibrium is independent of the prosecutor's preferences. A benevolent prosecutor mimics the behavior of the jury because they share the same preferences and the same information set. An opportunistic prosecutor also mimics the behavior of the jury because there is no gain from indicting suspects with p less than p* since they will be acquitted at trial.

III.A. EXCLUSION OF EVIDENCE WITH NAÏVE OR NON-BAYESIAN JURIES

With an exclusionary rule, P again observes p; however, with probability n, some element e of the evidence is not admissible in court - i.e. if the evidence is p, then the evidence presented in court must be $q = p - e$, where e is sufficiently small in the relevant range to satisfy $q \geq 0$. With probability $1 - n$, the evidence is admissible, so the evidence presented in court is $q = p$. Note that the focus here is on cases where e is relatively small, so that the excluded evidence is not dispositive of the suspect's guilt. When e is sufficiently large, q will be close to zero, and it will presumably be impossible for P to indict the suspect. In such circumstances, the question of what inferences the jury might draw is moot, as there will be no trial.

A straightforward, albeit extreme, assumption about the jury is that it is *fully* naïve in the sense that it is unaware of the existence of the exclusionary rule. Then, the jury will choose the same threshold p* as in the absence of the exclusionary rule. Innocent suspects (those with $p < p^*$ - i.e. suspects who would be acquitted in the absence of an exclusionary rule) are not harmed. However, some guilty suspects (with $p < p^*$) are better off – specifically, those for whom evidence is excluded and $e > p - p^*$ are not indicted and convicted (as they would have been in the absence of the exclusionary rule). Even an opportunistic P cannot exploit the asymmetry of information with respect to the jury – the jury is unaware of the exclusionary rule, and so there is no scope for P to indict innocent suspects in the hope that the jury will convict them in the belief that evidence has been excluded.

The above scenario is quite similar to the implicit premise underlying much of conventional criminal procedure scholarship on exclusionary rules. However, it relies on an extreme form of naivety among juries. An alternative assumption is that juries are only partially naïve and engage in what we term "limited updating" – they are aware of the existence of the exclusionary rule, and take it into account when determining the threshold for conviction. However, the jury does not fully take account of P's strategic response to the exclusionary rule.

When the jury is aware of the possibility that some evidence is subject to exclusion, the threshold probability that the jury uses to convict defendants will, in general, be affected. Specifically, define p** to be the new threshold for the jury to convict. This means that the jury convicts if and only if q ≥ p**. The cost function for the jury is now:

$$(1-n)[\int_0^{p**} pL_1 g(p)dp + \int_{p**}^1 (1-p)L_2 g(p)dp] + n[\int_0^{p**+e} pL_1 g(p)dp + \int_{p**+e}^1 (1-p)L_2 g(p)dp]$$

where the first two integrals refer to suspects with fully admissible evidence and the last two integrals refer to suspects for which evidence was excluded. By straightforward computation, the new threshold is p** = p* - ne, assuming g(p**) ≅ g(p** + e). In fact, more generally, we can show that:

$$p^{**} = p^* - n\frac{g(p^{**}+e)}{(1-n)g(p^{**}) + ng(p^{**}+e)}e$$

As the likelihood and the size of excludable evidence go up, the threshold goes down. The explanation is quite intuitive. Exclusion of evidence increases false negatives (because it deters indictment by prosecutor) and decreases false positives (because fewer suspects are indicted in total). As a consequence the threshold goes down.

As before, the prosecutor observes p before deciding whether to indict the suspect. We now assume that the prosecutor is also able to determine how much of the evidence is admissible before deciding whether to indict the suspect (i.e. that the prosecutor can anticipate what evidence will be excluded). The prosecutor only indicts if the admissible evidence is such that q ≥ p** (otherwise, an acquittal will take place). This means that with probability 1 - n, the prosecutor is able to present evidence $p \geq p^{**}$ and with probability n, $p - e \geq p^{**}$. The implication is that for suspects with p ε [p**, p** + e] there is a probability n that they will not be indicted as there is insufficient evidence to guarantee a conviction. Some "innocents" (i.e. suspects for whom the true p is below p*) are worse-off (in particular, those with p ε [p**, p*] and for whom no evidence is excludable) and some "guilty" suspects (for whom the true p is above p*) may be better off (in particular, those with $p \geq p^*$ and excludable evidence such that $e > p - p^{**}$). Note that once again the goals of the prosecutor play no role. All indicted suspects have $p \geq p^{**}$ and the prosecutor cannot strategically exploit the asymmetry of information.

III. B. EXCLUSION OF EVIDENCE WITH A SOPHISTICATED JURY

We now assume that J is sophisticated (or Bayesian). J makes an inference from the admissible evidence knowing that some exclusion of evidence takes place with probability n. Moreover, J takes full account of P's strategic response to the exclusionary rule. Suppose in particular that J is confronted at trial with evidence $q < p^{**}$. There are two possible scenarios in which this could happen:

(i) $p = q + e > p^{**}$ and evidence was excluded

(ii) $p = q < p^{**}$ and evidence was not excluded.

The probabilities of (i) and (ii) depend on the actions taken by the prosecutor, in particular the extent to which the prosecutor strategically exploits the asymmetry of information. Define S as the probability that J places on the event that the prosecutor is opportunistic (an opportunistic prosecutor indicts suspects with probability $p < p^{**}$ using the asymmetry of information to seek to convey the message that the weak case is due to exclusion of evidence). The probabilities of (i) and (ii) are n and (1-n)S respectively. The likelihood that the "true" probability of guilt is p greater than p** is given by Bayes' formula:

$$\frac{n}{n+(1-n)S}$$

It follows immediately that if the prosecutor is benevolent (S = 0), the probability is one since there is no possibility of opportunism. If the evidence observed by the jury is less than p**, it is because the remaining evidence was excluded. However, if there is some probability that a prosecutor is opportunistic (S > 0), the probability is less than one. The reason why the observed probability q is less than p** could be because the prosecutor is opportunistic and indicts “innocent” people. When the prosecutor is opportunistic for sure (S = 1), the probability is *n* reflecting the possibility of “true” exclusion of evidence. Consequently, J’s inferred probability of guilt is:

$$r = \frac{n(q+e)+(1-n)Sq}{n+(1-n)S} = q + \frac{n}{n+(1-n)S}e$$

J’s inferred probability of guilt is (q + e) when S = 0 (benevolent prosecutor) and $q + ne$ when S = 1 (opportunistic prosecutor). They reflect the possibility of “true” exclusion of evidence, which is maximal when the prosecutor is benevolent (so that the probability of guilt fully discounts for the excludable evidence) and minimal when the prosecutor is opportunistic.

The jury is willing to convict individuals with evidence such that p ε [p** - e, p**] as long as on average the “true” probability is expected to be above the threshold p**.

J will infer that r ≥ p** and convict if

$$q + \frac{n}{n+(1-n)S}e \geq p^{**}$$

In other words, the lowest level of evidence that the prosecutor can consider to present for an indictment is:

$$q \geq p^{**} - \frac{n}{n+(1-n)S}e$$

A benevolent prosecutor (one with S = 0) can indict suspects with p as low as p** - e since the jury knows that weak evidence against an indicted suspect is due to exclusion and not to strategic behavior. In this sense, J fully delegates to P the discretion to select suspects to indict. An opportunistic prosecutor with S = 1 can only go down to p** - ne, since the jury does not trust the prosecutor and hence does not delegate the discretion to select cases to the same extent.

Let us define a=n/[n+(1-n)S]. The choice of p** by the jury now involves minimizing the following expected cost function:

$$(1-n)[\int_{0}^{p**-ae} pL_1 g(p)dp + \int_{p**-ae}^{p**} [(1-p)SL_2 + p(1-S)L_1]g(p)dp + \int_{p**}^{1} (1-p)L_2 g(p)dp] + n[\int_{0}^{p**+(1-a)e} pL_1 g(p)dp + \int_{p**+(1-a)e}^{1} (1-p)L2g(p)dp]$$

The first three integrals refer to suspects for whom evidence is not subject to exclusion (but for whom the prosecutor might take advantage of the information asymmetry) and the second set of integrals refer to those for which evidence is "truly" excludable.

By straightforward computation, the new threshold is p** = p* under a uniform distribution of suspects, or a distribution that is sufficiently close to being uniform (i.e. assuming g(p**-ae) ≅ g(p**) ≅ g(p**+(1-a)e)). The intuition is that there are two effects that exactly cancel out when the distribution is uniform. On the one hand, the exclusionary rule, taken in isolation, induces J to reduce its threshold. On the other hand, the strategic response to the exclusionary rule by an opportunistic P induces J to increase its threshold. However, as we will see below, this result relies crucially on the probability density function that is assumed.

Notice that even when p** = p*, individuals are affected in different ways. For suspects with admissible evidence, the threshold is actually p* - ae, that is, lower than before. For suspects with excludable evidence, the threshold is actually p* + (1 - a)e. "Innocents" are generally worse-off since now suspects with p < p* could be indicted and convicted if evidence is admissible and p > p* - ae. As for the "guilty", some of them are better off, namely, those for whom p > p* but since evidence is not admissible have p < p* + (1-a)e.

Let us assume that the jury knows the prosecutor is benevolent, i.e. S = 0. Immediately we know that a = 1 and the expression above can be reduced to:

$$\int_0^{p^{**}} pL_1 g(p)dp + \int_{p^{**}}^1 (1-p)L_2 g(p)dp$$

If the jury knows the prosecutor is benevolent, the excluded evidence is perfectly anticipated by the jury and therefore the threshold decision is similar to a situation where there is no exclusion, $p^{**} = p^*$ for any probability density function $g(p)$.

Suppose now that the jury knows that the prosecutor is opportunistic, S = 1. It is the case that $a = n$. The expression above is now:

$$\begin{aligned}(1-n)[\int_0^{p^{**}-ne} & pL_1 g(p)dp \\ & + \int_{p^{**}-ne}^1 (1-p)L_2 g(p)dp] \\ & + n[\int_0^{p^{**}+(1-n)e} pL_1 g(p)dp + \int_{p^{**}+(1-n)e}^1 (1-p)L_2 g(p)dp]\end{aligned}$$

The threshold in this case can be easily derived from computing the first-order condition:

$$p^{**} = p^* + n\,(1-n)\frac{g(p^{**}-ne) - g(p^{**}+(1-n)e)}{(1-n)g(p^{**}-ne) + ng(p^{**}+(1-n)e)}e$$

As shown before, for some distributions, we have $p^{**} = p^*$. In particular when $g(p^{**} - ne) \cong g(p^{**} + (1-n)e)$. However, when the distribution is skewed to the left, we should have $g(p^{**} - ne) > g(p^{**}+(1 - n)e)$ and consequently $p^{**} > p^*$. If more individuals are located on the lower tails of the distribution the threshold should go up. Strategic indictment of innocent suspects by P impacts a larger pool of individuals, therefore J has to increase the threshold to address the problem. If the distribution is skewed to the right, that is, we have $g(p^{**} - ne) < g(p^{**} + (1-n)e)$ and consequently $p^{**} < p^*$. In this case, because the pool affected by the strategic behavior of the prosecutor is smaller, we have a somewhat similar outcome to that when J engages in limited updating with respect to the possibility of exclusion.

These possibilities are illustrated graphically in Figures 1-3. Figure 1 depicts a uniform distribution of suspects, Figure 2 a right-skewed distribution of suspects, and Figure 3 a left-skewed distribution of suspects. The outcomes in the various cases considered above are summarized in Table 1.

IV. CONCLUSION

Our simple model shows that the impact of exclusionary rules on the prosecution's effective standard of proof is far from being simple and depends on a complex set of factors. If juries engage in limited updating, the impact of the exclusionary rule is unambiguous and detrimental to innocents since the critical threshold for evidence decreases. However, with Bayesian juries (that fully and rationally anticipate the existence of an exclusionary rule and prosecutors' strategic responses), the overall effect is ambiguous and depends on the probability density function as well as on the motivation of the prosecution. With a uniform distribution of suspects, the threshold does not change but impacts differentially on innocents and guilty individuals. With a distribution skewed to the left (right) and a strategic prosecutor, the critical threshold goes up (down).

We have assumed that the excluded evidence is detrimental to the defendant. In some cases it could be relevant to admit the possibility of the excluded evidence being instead detrimental to the case of the prosecution (for example, rape shield laws may exclude some defense evidence that the jury would consider relevant). This would inevitably complicate the model (e.g., Garoupa & Rizzolli 2011). Such complications reinforce our main insight: the impact of exclusionary rules on criminal procedure is highly complex and relies on the interaction of a number of factors. From an economic perspective, it cannot be said that the exclusion of evidence unambiguously hurts the innocent and helps the guilty.

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Figure 1: Uniform Distribution of Suspects

Figure 2: Right-Skewed Distribution of Suspects

Figure 3: Left-Skewed Distribution of Suspects

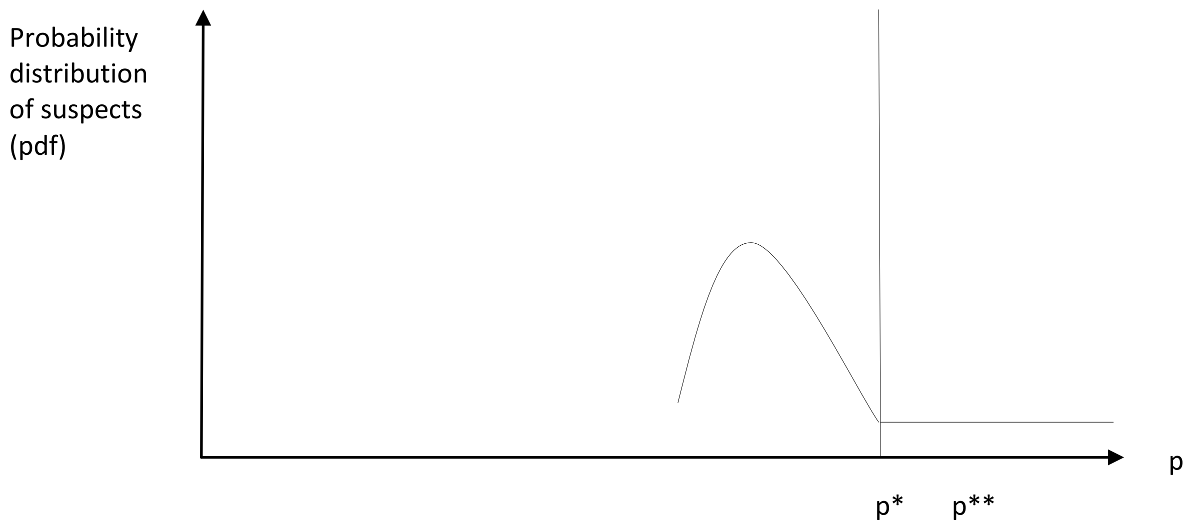

Table 1: Outcomes

		Prosecutor	
		Benevolent	Opportunistic
Jury	Naïve	J's threshold for conviction is unaffected; some guilty suspects may benefit, but innocent suspects do not suffer	J's threshold for conviction is unaffected; some guilty suspects may benefit, but innocent suspects do not suffer
	Limited Updating	J's threshold for conviction falls; some innocent suspects may suffer	J's threshold for conviction falls; some innocent suspects may suffer
	Sophisticated	No effect of exclusionary rules	J's threshold for conviction may increase or decrease, depending on the distribution of suspects