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Innocent Problem

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SCREENING, PLEA BARGAINS AND THE INNOCENT PROBLEM

Oren Gazal

Abstract and a Summary of the Key Argument

Abstract

Courts in common law countries reject plea-agreements only when the agreed upon sentence is seen as exceedingly lenient. This judicial intervention is designed to ensure that plea-bargaining does not undermine deterrence. Many legal scholars argue against this policy, claiming that courts should prohibit plea-bargaining all together. They argue that the plea-bargaining system increases the risk of wrongful convictions. Economists often criticize this judicial intervention as well, but for a different reason. Rather than advocating the abolition of plea-bargaining, many economists argue that the courts should accept all plea-agreements without review. They claim that plea-bargaining can help ensure an efficient use of prosecutorial resources and thus help maximize deterrence. In the paper, I will argue that a plea-bargaining system that includes judicial review is superior to both of these suggested alternatives. Moreover, I will show that the prohibition of exceedingly lenient sentences is justified, not because it ensures appropriate deterrence, but because it can reduce the risk of wrongful convictions. When the evidence against a certain defendant is weak, the prosecution is usually willing to offer him a lower sentence in plea-bargaining in order to ensure his conviction. Such a defendant would not accept an offer to plead guilty unless he receives a substantial concession in the agreement. Thus lenient plea-bargaining can indicate that the evidence against the defendant is weak. Given that weak evidence can indicate a higher probability of factual innocence, it is likely that the percentage of innocent defendants is relatively higher among defendants that are offered an exceptionally lenient plea-bargains. When courts prevent these types of agreements, they force the prosecutor either to go to trial or to dismiss the case. At the same time, the court would accept plea-bargains in strong cases because in these cases, prosecutors can achieve defendants' agreements to settle even without offering them exceedingly lenient concessions. By hindering the prosecutor's ability to agree to exceedingly lenient sentences, courts increase the cost of handling weak cases, without obstructing the prosecutor's ability to settle stronger cases. This helps to reduce the risk of wrongful convictions by encouraging the prosecutor to pursue the cases of defendants that are more likely to be guilty and to dismiss the cases against defendants that more likely to be innocent.

Summary of the Key Argument

The paper will show that, contrary to the general supposition, a plea-bargaining system with judicial review protects innocent defendants better than either a system without plea-bargaining or a system with unreviewable plea-bargaining.

The topic of plea-bargaining generates one of the fiercest debates about criminal procedure in common-law countries. The opposition to the practice bases its arguments on several different grounds. Some argue that the use of bargaining in criminal law is immoral (Alschuler, 1981), or that the agreements reached through this process are tainted by coercion (Kipnis, 1976). Others claim that the practice diverts the court from its responsibility to find the truth (Gross, 1992), and that plea-bargaining transfers too much discretion from the court to the prosecutor (Alschuler, 1976).

From a consequential point of view, the two main arguments that must be addressed in order to defend plea-bargaining concentrate on the allegedly incorrect distribution of sentences that the system produces. First, it is argued that the plea-bargaining system increases the risk that an innocent defendant might plead guilty in return for leniency (Schulhofer, 1992). This argument has become known as the "innocent problem." Second, it is asserted that the leniency offered to defendants in exchange for their guilty plea undermines the ability of the criminal justice system to promote the goals of punishment, i.e. deterrence, incapacitation, and retribution. (Alschuler, 1981).

As one might expect, most law and economics scholars clearly support an unrestricted use of plea-bargaining (Landes, 1971). They view plea-bargaining as a simple marketplace transaction, and claim that no imperfection justifies its regulation (Easterbrook, 1983). They argue that protecting the defendant cannot justify preventing him from selling his right to trial. Plea-bargaining is only an option, and when it harms the defendant's interest, he can always reject it. In a similar manner, they maintain that limiting plea-bargaining does not protect public interest. The prosecution is in a better position to ensure the public interest than the judiciary. In adversarial legal systems, it is the parties' responsibility to represent their respective interests. It is the role of the prosecutor to protect the public interest, while the

defense attorney must represent the interests of the defendant. The court must render a decision only when these different interests are in conflict. Thus, when both sides reach an agreement in the shadow of the court, they indicate that the agreement better serve both the public interest and the defendant's interest (Church, 1979). Of course, agency problems and bounded rationality can lead to mistakes – but these imperfections lead to even worse results when a full court trial takes place (Scott & Stuntz, 1992).

The basic economic model of plea-bargaining (Landes, 1971) assumes that the prosecutor has unlimited discretion to reach a plea-agreement in which the conviction and punishment are set. The prosecutor is subject to resource constraints and cannot try all of the cases that she would like. As a result, the prosecutor tries to maximize the overall sum of punishments imposed on the defendants that deserve punishment in her opinion¹. Therefore her goal is to equalize marginal punishment per resources. When a prosecutor settles a case out of court, she saves resources and ensures conviction in return for a punishment that is lower than the one that would be expected after a trial. The prosecutor determines the minimal sentence for which she is willing to settle by taking into account the expected sentence if a trial is held, and the cost of such a trial. In economic terms, this sentence is her reservation price. In contrast, the defendant determines the maximal sentence to which he would agree by taking into account his estimation of the potential trial result, and the personal costs of going to court (such as anxiety and legal fees). This sentence is his reservation price.

The prosecutor can offer the defendant an agreed sentence in return for his plea. Since she is a monopolist and a repeat player, she can create a reputation as an attorney that

¹ This is generally a reasonable assumption. If the prosecutor seeks maximum deterrence or incapacitation then the maximization strategy is clearly reasonable. This strategy is also reasonable if she seeks the imposition of punishments that only fit the crime, as long as the court's verdicts generally reflect the fair punishment. This is because the prosecutor cannot reach an agreement in which the punishment would be harsher than the one expected to be imposed by the court after trial. She can only bargain in the shadow of the law or take the case to court. In any case the punishment cannot exceed the one expected to be imposed by the court after conviction. Therefore, even if we believe that the prosecutor's aim is to impose penalties according to a retributive criterion, the maximization assumption gives us a good tool for analyzing her behavior. It is also worth noting that the model does not assume that the prosecutor does not impute a defendant corruptively and prosecutes him even if he is innocent. The model does not assume anything about the way the prosecutor chooses who deserves punishment, and although she would presumably only charge people she believed to be guilty, corruption or subjective and non-established beliefs that a person is guilty could lead her to implicate the innocent.

goes to trial whenever her offer is rejected. This allows her to offer agreements on a "take it or leave it" basis. If the prosecutor knows the defendant's reservation price, she could extract his entire surplus by offering him a sentence which is just below this price. However, in the more likely occurrence that the defendant's reservation price is unknown, the prosecutor would need to take into account the probability that the defendant would refuse her offer. In order to reduce the risk of refusal, the prosecutor is likely to offer a sentence lower than the reservation price of an average defendant in similar cases. Thus, the defendant is likely to gain some surplus from the plea-bargaining process.

Using the above analysis, we can now address the plea-bargaining opponents' two main arguments. Firstly, the suggestion that plea-bargaining leads to leniency, and thus undermines deterrence, is incorrect. In exchange for offering a degree of leniency to defendants, the prosecutor could increase the number of cases she is able to prosecute, and thus actually increase deterrence.² Secondly, the plea-bargaining process does not harm innocent defendants, as a defendant would only accept a deal if he believed that a trial provided a real threat of a harsher sentence. Thus, when a defendant could show his innocence in court, the prosecutor would not be able to force him to accept a plea-agreement. When a defendant knows that he might be convicted in a trial, plea-bargaining can serve as an insurance against a more severe sentence. Removing the option of plea-bargaining from an innocent defendant only worsens his already grave situation.

In fact, as Grossman & Katz, 1983 showed, the percentage of wrongful convictions actually would be lower in a system where plea-bargaining is available. When agreements are forbidden, both innocent and guilty defendants have a chance of being acquitted in court. Alternatively, in a system that allows plea-bargaining, only defendants that refuse the prosecutor's offer can be found innocent. While a guilty defendant might refuse a plea bargain offer, an innocent defendant is much more likely to refuse such an offer, because he has a better chance at trial. While the defendant knows with assurance whether he is guilty, the prosecutor only has an estimation about his guilt. A guilty defendant knows that the facts revealed in court

² Similarly, by agreeing to penalties that are lower than the retributively-appropriate penalty, the prosecutor can ensure that more offenders that deserve punishment will be punished.

might increase the probability of his conviction. In contrast, an innocent defendant knows that court proceedings could reveal information that would assist his claim of innocence. Thus, the guilty defendant would most likely estimate the chances of his acquittal to be lower than the prosecutor's estimation, while the innocent defendant's estimation of the probability of a not-guilty verdict would be higher than the prosecutor's estimation. Hence, guilty defendants are more likely to accept prosecutors' offer than innocent defendants. As a result, the percentage of innocent defendants that refuse plea-bargain offers and go to trial is higher than the percentage of guilty ones. Because going to trial provides a chance for acquittal, and since guilty defendants are more likely to accept a deal out of court, the plea-bargaining system actually reduces the rate of wrongful convictions (Scott & Stuntz, 1992).

It is important to note that in this scenario, the actual number of innocent defendants that would be convicted does not decrease. In fact, the number would be higher. This is the result of the fact that the overall number of defendants would rise when plea-bargaining is allowed. As there are always innocent people among indicted defendants, an increase in the number of defendants prosecuted and convicted would increase the number of innocent defendants convicted as well. However, this occurrence does not justify the limitation of plea-bargaining because the most important factor is not the number of wrongful convictions, but their percentage among overall convictions. It is not only bad to convict innocent defendants, it is also good to convict guilty ones. If the percentage of wrongful convictions was less important than the number of innocent defendants convicted, then every penal system could be improved by arbitrarily acquitting half of the defendants. Such an action would reduce the number of innocent defendants that were convicted by half. This would not, however, change the percentage of wrongful convictions among those that were declared guilty. Few people would support such a reform.

In practice, the complete abolition of the plea-bargaining system has not occurred. Different forms of plea-agreements are widespread in different common law countries. However, in some jurisdictions the arguments against plea-bargaining systems have become incorporated into its implementation. In the United States, the general rule is that the prosecutor's sentence recommendation does not bind the court. Thus, if the court holds that the suggested sentence is too light, it has the authority to impose a higher one after the defendant has pled guilty. This rule is aimed to address

both the abolishment of plea-bargaining and the institution of unlimited bargaining without judicial review. Through the use of an example, I will try to indicate the criterion that should be used by the court to review a plea-agreement. I will also suggest a change in the judicial method of intervention, when the criterion for such an intervention is satisfied.

In order to understand how a plea-bargaining system with judicial review protects the innocent, one needs to understand the inherent dangers to innocent defendants within the other two systems. The dangers posed by unreviewable plea-agreements are most vividly illustrated by an example provided by Prof. Alschuler, one of the fiercest opponents to the plea-bargaining system Alschuler presents his argument against plea-bargaining through this example:

"San Francisco defense attorney Benjamin M. Davis recently represented a man charged with kidnapping and forcible rape. The defendant was innocent, Davis says, and after investigating the case Davis was confident of an acquittal. The prosecutor, who seems to have shared the defense attorney's opinion on this point, offered to permit a guilty plea to simple battery. Conviction on this charge would not have led to a greater sentence than thirty days' imprisonment, and there was every likelihood that the defendant would be granted probation. When Davis informed his client of this offer, he emphasized that conviction at trial seemed highly improbable. The defendant's reply was simple: 'I can't take the chance.' " (Alschuler, 1968)

Because charge bargaining is not subject to a court's review, this case provides an example of unreviewable plea-bargaining. The prosecutor decided to pursue this rape case because she believed that the defendant should be punished, and because she concluded that the result of the process (battery conviction and up to 30 days of imprisonment) was worth its costs. That is to say that the prosecutor preferred allocating her limited resources to this rape case rather than to a stronger alternative case that was for a milder offence. In this plea-bargaining system, the costs of the weaker rape case are equal to the costs of the stronger theft case, while the benefit for the prosecutor (the resulting sentence) is higher in the rape case than they are in the theft case. In this way, it can be argued, that the plea-bargaining system sometimes encourages the prosecutor to pursue cases against defendants that are more likely to be innocent and to dismiss cases in which the likelihood of innocence is lower.

In part, Alschuler is correct. Certain types of plea-bargaining systems can endanger innocent defendants. However, he is incorrect when he argues that prohibiting plea-bargaining would protect the defendants better. As the following argument illustrates, this is not necessarily the case.

For the purposes of the following example, assume plea-bargaining is prohibited. Within this context, apply a similar scenario to the one described above, in which the prosecutor must choose between two cases due to limited resources. The first case is a rape case in which there is a low probability of conviction, while the second one is a simple theft case in which there is a high probability of conviction. To serve her interests, the prosecutor would prefer the case in which the expected sentence achieved per resources spent would be the highest. The expected sentence per resources (*SPR*) for case *i* can be presented as $SPR_i = S_i \cdot P_i / R_i$, where S_i is the sentence if the defendant is found guilty in a trial in case *i* ($i=1$ the rape case; $i=2$ the theft case), P_i is the probability of conviction for case *i*, and R_i are the resources needed to try case *i*. Though $P_1 < P_2$, the fact that $S_1 > S_2$ makes it a reasonable possibility that $S_1 \cdot P_1 / R_1 > S_2 \cdot P_2 / R_2$, in which case the prosecutor would prefer to pursue the rape case. The prosecutor's decision would depend on the size of R_1 , which could be bigger or smaller than R_2 , and on the exact difference between P_1 and P_2 . In Alschuler's example, the prosecutor might still prefer to take the defendant in the rape case to trial, if she calculates that this would yield a higher *SPR* than the theft case. It should be noted here that if the prohibition of plea-bargaining is not accompanied by an increase of prosecutorial resources, then the prosecutor that had previously settled the rape case would be more likely to dismiss both cases due to lack of resources. However, this does not undermine the argument that the prohibition of plea-bargaining is not likely to protect the innocent. This shortage of resources would raise the minimal *SPR* which the prosecutor would require in order to pursue a case. In this situation, however, the prosecutor would still have to make decisions in order to maximize the *SPR*, and therefore she might still prefer cases with a low *P* and high *S* to cases with high *P* and a low *S*.

Adding judicial review to the plea-bargaining system is likely to alter the prosecutor's choice. If the court intervenes and disregards a sentencing recommendation whenever it is exceedingly lenient, (i.e. much lower than S_i), then this would decrease the

prosecutor's credibility when she promises an exceedingly lenient sentence. When P_i is very low, the only way to encourage the defendant to accept a settlement is to offer him a sentence that is much lower than S_i . However, this option would become impossible in this situation, because it would become clear to the defendant that the court would not accept such an agreement. The result would be that when the prosecution has a weak case against a defendant, the defendant would refuse any plea-bargain offer, if the sentence is subject to court's review.

In simplest terms, the prosecutor would be presented with two types of cases: strong cases and weak cases. The prosecutor could offer a settlement in which the punishment would not need to be much lower than S_i , in order to entice a defendant against which there is strong case (when P is high), to accept it. However, in weak cases (when P is low), most defendants would reject any offered plea-bargain. When the plea-bargain sentence is high, the defendant would refuse it in order to pursue his high probability of acquittal. Conversely, when the offered sentence is low, the defendant would refuse it because of his belief that the court would reject the recommendation and impose a harsher one.

Hence, in this situation, the prosecutor would be able to reach agreements only in strong cases. Since a settled case is less expensive to conduct, she would prefer to pursue strong cases instead of weak ones. If we consider our original example within this context, it is likely that the prosecutor would pursue the theft case rather than the rape case. The cost of prosecuting the rape defendant would be much higher than the cost of prosecuting the theft defendant, because the prosecutor would need to try the rape case, while she could simply settle the theft case. At the same time, the expected sentence (probability times the sentence, $P \cdot S$) in both cases is almost the same. In the rape case, the sentence is very high, while the probability of conviction is very low. In the theft case, the sentence is low, but because of the agreement, a conviction is assured. Since the difference in the expected sentences is small, it cannot compensate for the large difference in the amount of resources needed to complete these two cases. Thus, adding judicial review to the plea-bargaining system encourages the prosecution to take strong cases and dismiss weak ones.

A simple example might help to clarify this conclusion. Assume that a prosecutor wants to maximize the sum of the sentences of the cases she pursues. Further assume,

for simplicity, that the prosecutor knows that all of the defendants' reservation prices are equal to the expected sentences (i.e. it equals $S_i \cdot P_i$). The prosecutor has 9 units of resources (for example, 9 months of human labor). A trial costs 3 units, while a settlement costs 1 unit. Therefore, the prosecutor can either try 3 cases or settle 9 cases. After the prosecutor selects the cases that she believes deserve legal action, she is left with the following 20 cases:

Probability of guilt C	Probability of conviction P	Theft S=4	Battery S=5	Robbery S=6	Rape S=10	Manslaughter S=25
98%	90%	3.6 <small>i=1</small>	4.5 <small>i=2</small>	5.4 <small>i=3</small>	9 <small>i=4</small>	22.5 <small>i=5</small>
96%	60%	2.4 <small>i=6</small>	3 <small>i=7</small>	3.6 <small>i=8</small>	6 <small>i=9</small>	15 <small>i=10</small>
93%	40%	1.6 <small>i=11</small>	2 <small>i=12</small>	2.4 <small>i=13</small>	4 <small>i=14</small>	10 <small>i=15</small>
80%	15%	0.6 <small>i=16</small>	0.75 <small>i=17</small>	0.9 <small>i=18</small>	1.5 <small>i=19</small>	3.75 <small>i=20</small>

The above table shows 20 cases, 4 cases for each offence: theft, battery, robbery, rape and manslaughter. The cases are also differentiated by the probability of conviction (P). Hence, in one theft case the probability of a conviction (case $i=1$) is 90%, in the second (case $i=6$) it is 60%, in the third (case $i=11$) it is 40%, and in the fourth (case $i=16$) it is 15%. The same probabilities exist for the other offences. The numbers in the table represent the expected sentence in years of imprisonment if a trial takes place ($S_i \cdot P_i$). This also would be the sentence in the case of a settlement, since we have assumed that this would be the reservation price of all defendants.⁵ Column C represents the probability that the defendant is guilty, according to the evidence at the prosecutor's disposal.⁶

⁵ This reservation price means that all defendants are risk neutral for sentence.

⁶ I assumed that the level of evidence needed for convictions ("beyond reasonable doubt") is equal to 95%. Hence, when $C > 95\%$, it is likely that the court will find that there is enough evidence for conviction. However, the court still might have a different evaluation of the evidence than the prosecutor, and therefore it might still acquit the defendant. If there is no systematic deviation between the prosecutor's evaluation of the evidence and the court's evaluation, then the defendant, if brought to court, is likely to be convicted ($P > 50\%$), when the probability of guilt is higher than 95% ($C > 95\%$). Similarly, when the prosecutor estimates, according to her evidence, that there is less than a 95% chance that the defendant is truly guilty, she would also estimate that the likelihood of conviction is less than 50% (i.e. if $C < 95\%$ then $P < 50\%$). Clearly, the more likely it is that the defendant

The social cost of convicting an innocent defendant is much higher than the social cost of acquitting a guilty defendant. Accordingly, society demands a high likelihood of guilt, i.e. beyond a reasonable doubt, before supporting a conviction. In the example above, I assumed that the critical level of proof that justifies conviction is 95%. Thus, in this case, it is in the public interest to convict a defendant if, and only if, $C > 95\%$ and $P > 50\%$. According to these guidelines, the defendants represented in the two bottom lines of the table (cases $i=11 \dots 20$ – shaded in gray) should not be convicted.

We will now apply this calculation to the three possible judicial systems previously discussed. In an unreviewable plea-bargaining system, it is in the prosecutor's interest to settle all of the cases that she pursues. This strategy would allow her to pursue nine cases. The nine cases which collectively yield the highest sentence are: 2, 3, 4, 5, 9, 10, 14, 15 & 20 presented in the following table:⁷

Probability of guilt C	Probability of conviction P	Theft $S=4$	Battery $S=5$	Robbery $S=6$	Rape $S=10$	Manslaughter $S=25$
98%	90%	3.6 $i=1$	4.5 $i=2$	5.4 $i=3$	9 $i=4$	22.5 $i=5$
96%	60%	2.4 $i=6$	3 $i=7$	3.6 $i=8$	6 $i=9$	15 $i=10$
93%	40%	1.6 $i=11$	2 $i=12$	2.4 $i=13$	4 $i=14$	10 $i=15$
80%	15%	0.6 $i=16$	0.75 $i=17$	0.9 $i=18$	1.5 $i=19$	3.75 $i=20$

Three of these nine cases are weak cases; that is to say that they have a $C < 95\%$ probability of guilt (cases 14, 15 & 20). It is socially undesirable to allow these defendants to face conviction. Pursuing the cases against these defendants also leaves the prosecutor without any resources to pursue other cases for which $C > 95\%$ (such as cases 1, 6, 7 & 8).

committed the offence (C), the higher the probability of conviction (P). The table illustrates this type of relationship between C and P .

⁷ In this example, the critical SPR is 3.75 years of imprisonment per unit of resources.

If plea-bargaining is not allowed, the prosecutor must try all of the cases that she selects. Thus, she can only pursue three cases. The three cases that collectively yield the highest prison term are the three manslaughter cases presented below (cases 5, 10 & 15). One of these cases (case $i=15$) has a probability of guilt that is $C < 95\%$. Thus, the result is similar to the outcome of the first system discussed: one third of the cases pursued have an insufficient body of evidence to justify a prosecution that might result in a conviction.

Probability of guilt C	Probability of conviction P	Theft $S=4$	Battery $S=5$	Robbery $S=6$	Rape $S=10$	Manslaughter $S=25$
98%	90%	3.6 $i=1$	4.5 $i=2$	5.4 $i=3$	9 $i=4$	22.5 $i=5$
96%	60%	2.4 $i=6$	3 $i=7$	3.6 $i=8$	6 $i=9$	15 $i=10$
93%	40%	1.6 $i=11$	2 $i=12$	2.4 $i=13$	4 $i=14$	10 $i=15$
80%	15%	0.6 $i=16$	0.75 $i=17$	0.9 $i=18$	1.5 $i=19$	3.75 $i=20$

However, when plea-bargaining is allowed but subjected to judicial review, the ultimate result is altered. Assume that the court does not allow settlements in which the agreed sentence is lower than $\frac{1}{2}S$.⁸ Thus, the prosecutor can only settle cases in which $P > 50\%$ (cases 1-10). If the prosecutor wants to pursue other cases, she must try them in court and spend three times more resources for each case. This would encourage her to pursue only strong cases. In our example, the prosecutor would settle the nine cases marked in the following table (cases 1, 2, 3, 4, 5, 7, 8, 9 & 10.)

⁸ If the court, instead of forbidding such settlements, increases the sentence whenever such a sentence is reached, the result will be similar, because a defendant would know that the court would ignore the prosecutor's promise of an exceedingly lenient sentence, and thus he would not agree to such a plea-bargain.

Probability of guilt C	Probability of conviction P	Theft S=4	Battery S=5	Robbery S=6	Rape S=10	Manslaughter S=25
98%	90%	3.6 <small>i=1</small>	4.5 <small>i=2</small>	5.4 <small>i=3</small>	9 <small>i=4</small>	22.5 <small>i=5</small>
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80%	15%	0.6 <small>i=16</small>	0.75 <small>i=17</small>	0.9 <small>i=18</small>	1.5 <small>i=19</small>	3.75 <small>i=20</small>

In each of these cases, the probability of guilt is high enough to justify prosecution.⁹ Unlike the first two systems discussed, none of the defendants that are more likely to be innocent are prosecuted. Therefore, adding judicial review to the plea-bargaining system reduces the risk that innocent defendants will be prosecuted and convicted.

The argument above relies on certain assumptions about the prosecutor's and defendant's decision making processes, most of which are commonly held assumptions in the economic literature. Still, in order to strengthen the argument, I will illustrate that the paper's conclusions hold true even in a more complex real world setting.

For example, I assume that the prosecutor's sole aim, when deciding how to utilize her resources in the best way, is to maximize her overall sentence terms. According to this logic, the prosecutor chooses which defendant to prosecute only on the basis of the severity of their offence and the probability of their conviction. However, it is likely that the prosecutor tries to pursue additional objectives when she decides who to prosecute. For example, the prosecutor might want to avoid the risk of losing a case in a jury trial, because of the public criticism that she might face. In addition, she might prefer pursuing high profile cases for political reasons, even if their *SPR* is low.

⁹ In another example, it still might be worthwhile for the prosecutor to pursue a case even though she cannot settle it. Thus, adopting a system with reviewable plea bargaining does not ensure that only strong cases would be pursued. However, it is clear that the percentage of weak cases that would be pursued in this system is substantially lower because of the relatively high expense required to conduct these cases.

However, the main conclusion is still valid even if the prosecutor takes such considerations into account. In fact, the addition of some considerations into the model for the prosecution's decision making process might even strengthen the argument. For example, if the prosecutor gives special consideration to the risk of loosing at a trial, she will refrain from prosecuting weak cases even more than the basic model predicts. In these circumstances, the prosecutor has additional incentive to pursue only the cases she can conclude through a plea-agreement, because these cases will almost certainly end with a conviction. Pursuing a weak case in a reviewable plea-bargaining system will lead to a jury trial that might end in an acquittal.

On the other hand, the prosecutor might consider the degree to which a case is high-profile, in addition to its severity and strength. As a result, the prosecutor might prefer a high-profile, weak case to a strong, less famous case, even if she needs to try the former case in court, and the latter can be concluded through a plea-agreement. This might pose a severer challenge to this thesis. However, as long as the prosecutor gives some consideration to the cost of a possible trial when screening a case, and as long as plea-bargains are less expensive than jury trials, judicial review of exceedingly lenient cases will reduce the severity of the innocent problem.

Several policy conclusions can be derived from the paper's analysis. First, all types of plea-bargaining and settlement systems should include judicial review or another mechanism that prevents exceedingly lenient sentences. If the aim of judicial review is to reduce the percentage of innocent defendants facing trial, then there must be judicial review of both sentence bargaining and charge bargaining. One can apply this analysis to evaluate different settlement systems.¹⁰ For example, in civil law countries, this argument leads to the conclusion that the German Penal-Order system (Strafbefehlsverfahren) and the Italian Agreed Penalty system (Patteggiamento) are more effective at protecting the innocent than the Dutch or Belgian transactions (transactie), because agreements in the former are subject to judicial approval while agreements in the latter are not.

¹⁰ In many European countries, the prosecutor has the power to settle a case before trial in a manner that has some similarities to the plea bargaining system in common law countries.

Second, this analysis provides the criterion by which the court should determine when a suggested settlement should be rejected. The court should reject the recommended sentence when the offered sentence is lower than the highest sentence a defendant with 50% chances of acquittal would accept. When the agreed sentence is this low, then it is an indication that the parties believe that the chances that the court would find reasonable doubt are higher than the chances that it would not. Essentially, this means that the parties believe that there is reasonable doubt according to the available evidence.

Third, when the court rejects the parties' sentence recommendation, it should allow the defendant to withdraw his plea. Currently, when the court rejects a plea-agreement in common law countries, it usually results in the imposition of a harsher sentence than the one prescribed in the agreement. On the other hand, there are some types of plea-agreements, available in different jurisdictions, in which the defendant is entitled to a full trial if the agreement is rejected by the court.¹¹

When a defendant knows, in advance, the cases in which the court would reject an agreement, it is unimportant whether he is allowed to withdraw his plea of guilt after the agreement is rejected. In such a case, the defendant would refuse any sentence recommendation that he knows the court will not respect. However, when it is impossible to predict with certainty whether the court would accept a plea-agreement, the defendant's ability to withdraw his plea becomes critical. A court is most likely to increase the sentence of a defendant who had gained a significant concession from the prosecutor. However, this significant concession can be a signal that the prosecution's case is weak, and thus can indicate a higher likelihood of innocence. This type of intervention is particularly risky for the defendants who are most likely to be innocent. For this reason, the reviewable settlement systems in continental Europe, such as the German Penal Order System or the Italian Agreed Penalty System, are superior to most plea-bargaining systems in common law countries, because they allow the defendant to go to trial after the court rejects the parties' recommendation.

¹¹ For example, Rule 11(c)(1) to the Federal Rules of Criminal Procedure distinguishes between three types of plea agreements: an agreement about the charges (type A agreement), an agreement to recommend a sentence (type B agreement) and an agreement for a specific sentence or sentence range (type C agreement). To the extent that the plea agreement is a type B, the defendant does not have the right to withdraw the plea if the court does not follow the parties' recommendation. On the other hand, when the court rejects a type A or type C agreement, it must allow the defendant to withdraw his plea.

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