

Submitted: October 13, 2012

Accepted: December 28, 2012

PLEADING INNOCENTS: LABORATORY EVIDENCE OF PLEA BARGAINING'S INNOCENCE PROBLEM

Vanessa A. Edkins
Florida Institute of Technology

Lucian E. Dervan
Southern Illinois University, School of Law

ABSTRACT

We investigated plea bargaining by making students actually guilty or innocent of a cheating offense and varying the sentence that they would face if found 'guilty' by a review board. As hypothesized, guilty students were more likely than innocent students to accept a plea deal (i.e., admit guilt and lose credit; akin to accepting a sentence of probation) ($Chi-square=8.63, p<.01$) but we did not find an effect of sentence severity. Innocent students, though not as likely to plead as guilty students, showed an overall preference (56% across conditions) for accepting a plea deal. Implications and future directions are discussed.

INTRODUCTION

If the average U.S. citizen were asked to describe the common progression of a criminal case, the depiction would likely mirror a *Law & Order* episode: police investigation, suspect apprehension, trial by jury, and a verdict. This script is, in fact, a very *uncommon* progression; in any given year, roughly 90-95% of convictions in criminal cases are obtained through a guilty plea (Pastore & Maguire, 2003) with the majority of those pleas presumably worked out through plea bargains.

Plea bargains are an efficient way for prosecutors to ensure a favorable disposition of a case, without expending the resources required for trial, and for defendants to benefit from a sentence recommendation or charge reduction (Tor, Gazal-Ayal, & Garcia, 2010). The benefits are obvious with cases in which conviction is a highly probable outcome, but the process is making one very important assumption: the defendant is guilty as charged.

Research on Plea Bargaining

Empirical research on plea bargaining has mainly focused on the attorney's role and decision-making process (Edkins, 2011; Kramer, Wolbransky, & Heilbrun, 2007), presumably because the client's side is much more difficult to study. Studies looking at pleas from the defendant's

perspective often employ vignettes, and ask participants to imagine themselves as guilty or innocent. Using this technique, Gregory, Mowen, and Linder (1978) showed that, not surprisingly, 'guilty' participants were significantly more likely to accept a plea than 'innocent' participants (83% compared to 18%).

Gregory et al. (1978) also devised a scenario with more external validity: Students were made to be innocent or guilty of the 'crime' of having prior knowledge about a test. All students were accused and offered a 'deal' in which they would admit their guilt and lose participation credit. The alternative was to go before an ethics committee and risk a lower final grade. A small sample size precludes drawing many inferences from the study, but the majority of 'guilty' students accepted the deal (6/8) and none of the innocents (0/8). The researchers believed that the innocent participants' refusal to plead guilty stemmed from an optimistic belief that they would not be wrongfully 'convicted' by the ethics committee.

Bordens (1984), using vignettes and participants imagining themselves as 'guilty' or 'innocent', investigated whether subjects in the Gregory et al. (1978) studies were using an *optimizing* strategy to evaluate plea bargains. Unlike the previous work that did not find 'innocent' subjects willing to accept a deal, Bordens (1984) showed that 'innocent' suspects who fear conviction is imminent will show an optimizing strategy; that is, they will choose the option that offers the most rewards at the least cost, which means accepting a plea deal (especially if the deal contains probation) and avoiding a potentially lengthy prison term.

Tor et al. (2010), using a similar methodology, turned the investigation toward the idea of fairness. Individuals weighing plea bargains may consider the *substantive fairness* (i.e., punishing only individuals who are guilty and thus, deserve punishment) and the *comparative fairness* (i.e., the similarity of the current offer to those extended in similar situations in the past) when deciding whether to accept or reject. A plea deal for an innocent defendant is inherently substantively unfair, and the researchers did find 'innocent' individuals overall less likely to plead guilty, and more likely to take their chances at trial; innocents were more risk prone, preferring the uncertainty of a trial. The findings also provide further support for Bordens (1984) claims of optimizing strategies. When the chances of conviction were altered in the vignettes (5%, 30%, 50%, 70%, and 95%), 'innocent' and 'guilty' participants responded differently. The sanction for a trial conviction was a 60-month license suspension, and at a 50% chance of conviction, only 20% of 'innocent' participants (compared to 56% of 'guilty' participants) accepted a plea to have their licenses suspended for 30 months. Alternatively, at the 95% chance of conviction, 50% of 'innocents' agreed to a 57-month suspension, but only 41% of 'guilty' participants. Those who knew they were 'guilty' saw the cost of a trial worth the risk, and the reward from the plea bargain was not large enough to offset this.

Testing the concept of *comparative fairness*, Tor et al. (2010) found that 'guilty' participants offered a deal that was much better than the usual offer in similar cases, accepted approximately 59% of the time. Similarly, 46% of those actually told they were innocent said they would accept the advantageous offer. When the offer was comparatively unfair (i.e., worse than what was usually offered in similar cases), plea rates for the 'guilty' decreased to 27%, and to 18% for the 'innocent.'

Akin to this concept of comparative fairness is disparity between the punishment if convicted and that implied in the plea offer. The enticement possible in plea deals is a common concern (Bibas, 2004), and some argue the resulting sentence differential – the discrepancy between the trial conviction sentence and plea negotiated sentence – may force any rational actor (innocent or guilty) to choose the plea (Givelber, 2000). Bordens (1984) found that about one third of the subjects assuming the role of an innocent defendant were open to accepting a plea bargain when the chances of conviction were very high, and as mentioned, one of the most enticing outcomes was the offer of a plea bargain that contained no jail time, only probation. Taking the investigation into the field, Bordens and Bassett (1985) interviewed defendants convicted through pleas; further bolstering the theory of optimizing, 67% stated that they accepted the plea to avoid a higher sentence or to secure the least severe punishment they could.

Current Study

The Bordens (1984) and Tor et al. (2010) research lays a solid framework for the psychological processes of plea bargains, yet both fall short by not attempting to increase the external validity of their studies. Until participants find themselves in a scenario similar to what a defendant faces, they cannot know how they would react. Russano, Meissner, Narchet, and Kassin (2005) created a paradigm, reminiscent of Gregory et al. (1978), using college students as subjects in experiments on interrogations and false confessions. The students were assigned to a ‘guilty’ condition where they agree to help out a student (confederate) after being explicitly told that working together was not allowed, or an ‘innocent’ condition where they are not approached for help. Applied to interrogations, the paradigm cannot truly investigate the effects of specific sanctions – police officers are not allowed to promise specific deals so the paradigm needed to remain very vague in offers of leniency – but we felt that adopting a similar design for plea negotiations could expand the previous research, and allow for the investigation of sentence differentials. Expecting to replicate related findings from Russano et al., and from the previous plea bargaining research, we hypothesize that students who are guilty will be more likely to accept a ‘plea’ deal than those who are innocent.

While the substantive unfairness intrinsic in an innocent defendant pleading guilty should cause fewer innocents to plead, we propose that sentencing differentials will produce an optimizing strategy, similar to what Bordens (1984) found, and, like their ‘guilty’ counterparts, the harsher the punishment attached to a loss at a ‘trial’, the more likely the ‘innocent’ participant will accept the deal. This would mean that the diagnostic ability, or ability to distinguish truth (i.e., a guilty person pleading “guilty”) from falsehood (i.e., an innocent person pleading “guilty”), would suffer as the sentence differential increased; in other words, the lenient punishment conditions should have a higher rate of diagnosticity than the harsh punishment conditions.

METHOD

Participants

Participants were 82 Introduction to Psychology students from a small, southeastern, private technical university. Six students were excluded due to suspicion ($N = 2$), an inability to finish the experiment ($N = 2$), or a refusal to help the confederate (i.e., refusal to “cheat”; $N = 2$).

Seventy-six students remained (31 female, 45 male). The ethnicity of the sample was 52.6% Caucasian, 21.1% African American, 13.2% Hispanic, 5.3% Asian, and 7.9% indicated 'Other'. Forty-eight of the 76 participants were U.S. citizens; 28 were non-citizens.

Design and Procedure

Our procedure was adapted from the false confession paradigm constructed by Russano et al. (2005). Participants were randomly assigned to one of four conditions; two independent variables were manipulated: guilt (cheating or no cheating) and sentence if 'convicted' (harsh punishment or lenient punishment).

A confederate and the participant were lead into a private room by one of our experimenters. Informed consent was obtained and participants filled out a short demographic sheet. The experimenter then explained that we were studying performance on logic problems and whether people work better alone or in pairs and the study would be completed in two parts. First, the two would be left alone and would work together to solve three logic problems. Subsequent to this, they would be asked to work separately to solve three more (they were told that it was imperative they work alone on the second set). The logic problems were multiple-choice, based off of a practice LSAT test. In the guilty condition, the confederate would ask for assistance on the problems that were to be solved individually (repeated a maximum of three times). In the innocent condition, no assistance was requested.

The experimenter, blind to guilt condition, would take the logic problems and leave the room. After 5 minutes, the experimenter would return and declare, "We have a problem. I'm going to need to speak with each of you individually" and would request that the confederate leave the room with him or her. Five minutes later, the experimenter would return and say, "You and the other student had the same wrong answer on the second and third individual questions. The chances of you getting the exact same *wrong* answer are really small – in fact they are like less than 4% - because of this, when this occurs, we are required to report it to the professor in charge and she may consider this a form of academic dishonesty." Two of the three logic problems had no correct answer in order to ensure students would not be suspicious. The experimenter then told the participant that this situation has arisen before and the experimenters have been given authority to offer participants two alternatives.

The alternatives offered included a "plea", the same in all conditions, in which the participant would admit to working with the other student and would lose all compensation (research credits), structured to mirror a plea offer of probation: sign this deal, and you get to go home. Participants were then offered a second choice: have the professor in charge bring the incident to an Academic Review Board (described as a 10-12 person board consisting of faculty and staff; akin to a jury in the criminal justice system). In the harsh sentence condition, participants were told that if they lost at the Board, they would lose today's compensation and they would have to enroll in a 3-credit class on ethics (free of charge, mandatory weekly attendance, paper requirement, graded on pass/fail basis). In the lenient sentence condition, participants were told the same, but the 3-credit class was replaced with 9 hours of ethics training (mandatory attendance, graded on a pass/fail basis).

In order to make the likelihood of prevailing similar to the likelihood of prevailing in an actual trial, the experimenter said of the Academic Review Board, “the majority of students, like 80-90%, are usually found guilty.” This last statement was included to avoid the overly optimistic outlook of innocent participants that was found in the Gregory et al. (1978) study, to mirror the actual conviction rates of defendants who choose to take their case to trial (Administrative Office of the United States Courts, 2010), and to reflect the trial conviction rates (86%) found with innocent defendants (Drizin & Leo, 2004) Also, in a small pilot test, we had found that our participants were overly optimistic about their chances at a trial (of 28 ‘innocent’ participants, 19 chose to take their case to the review board).

Following the participant’s choice, participants were probed for suspicion and a thorough debrief was employed. The experimenter made sure that the participant left the study feeling at ease and with an understanding of why deception was necessary.

RESULTS

Participants did not differ in their decisions to plea based on gender, Chi-square (1, $N=76$) = 0.24, $p = 0.63$; ethnicity, Chi-square (4, $N=76$) = 0.51, $p = 0.97$; citizenship status, Chi-square (1, $N=76$) = 0.16, $p = 0.90$; or English as a first language, Chi-square (1, $N=76$) = 0.34, $p = 0.56$. Plea decisions also did not differ by experimenter Chi-square (1, $N=76$) = 0.83, $p = 0.36$. Reported results are collapsed across all of the previously mentioned groups.

We conducted a hierarchical loglinear analysis to test the effects of guilt (guilt vs. innocence) and type of punishment (lenient vs. harsh) on decision to accept the plea bargain. The interaction was not significant, Chi-square (1, $N = 76$) = 0.26, $p = 0.61$, nor was the main effect for punishment, Chi-square (1, $N = 76$) = 0.75, $p = 0.39$. The main effect for guilt was significant, Chi-square (1, $N = 76$) = 10.95, $p < 0.001$. To break down this effect, a separate Chi-square test was performed looking at guilt and plea, collapsed across type of punishment. Applying the continuity correction for a 2 x 2 contingency table, there was a significant effect of guilt, Chi-square (1, $N = 76$) = 8.63, $p < 0.01$, with the odds ratio indicating that those who were guilty were 6.39 times more likely to accept a plea than those who were innocent. Interestingly, while 89.2% of our guilty participants chose a plea, 56.4% of our innocent participants did as well. See Table 1 for plea acceptance rates.

Table 1. Rates of Accepting and Rejecting the Plea Offer, by Condition

	‘Innocent’ Participants				‘Guilty’ Participants			
	Accepted		Rejected		Accepted		Rejected	
Punishment	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
Lenient	52.4	11	47.6	10	85	17	15	3
Harsh	61.1	11	38.9	7	94.1	16	5.9	1

Since we had predicted a difference in plea rates based on the severity of the punishment the student would face if found “guilty” by an academic review board, we went ahead and calculated the diagnosticity of the type of punishment even though the effect of punishment was not significant. We hypothesized that a punishment close to the punishment agreed to in the plea

bargain would have a higher rate of diagnosticity; that is, a lenient punishment would have a higher rate of diagnosticity than a harsh punishment. Diagnosticity was calculated for the punishment conditions by comparing the rate of guilty people accepting pleas to the rate of innocent people accepting pleas. Although the diagnosticity for the lenient punishment (1.62) was larger than that for the harsh punishment (1.54), the diagnosticity for both punishment levels was quite low and the difference between the two levels is too small to deem significant (Table 2).

Table 2. Rates of Pleas and Diagnosticity by Punishment Condition

Condition	Guilty accepting the plea	Innocent accepting the plea	Diagnosticity
Lenient punishment	85%	52.4%	1.62
Harsh punishment	94.1%	61.1%	1.54

DISCUSSION

The paradigm employed here allowed us to mimic the psychological constructs present when someone is falsely accused of committing an act (though, obviously, to a *much* lesser degree than what would be experienced by an innocent person accused of committing an actual criminal act) and study exactly how the proffer of a quick way out – coupled with a reduced penalty – can affect decisions.

Previous research (Tor et al., 2010) has suggested that ‘innocent’ defendants will be less likely to accept a plea deal, and more likely to be risk seeking, preferring the uncertainty of a trial, because pleading to a crime one did not commit is inherently an unfair proposition. We did not find this to be the case – in both of our ‘innocent’ conditions, participants were more likely to accept a plea than to take their case to trial.

We had hope to use sentencing differentials to show that our participants were engaging in optimizing strategies similar to those displayed in the previous literature, but unfortunately, there was no significant effect for this variable. While our manipulation of punishment severity did not have an effect, we of course cannot say that sentencing differentials are not important. The null result can only show that our manipulation did not uncover an effect of differentials, if the effect does exist. Diagnosticity tests suggested that we may have been on the right track but deficient in the power needed to make any claims (see Table 2). While the two punishments seemed more than adequately different (three, three hour seminars compared to a semester-long class with a paper requirement), perhaps we should have focused more on what the punishments have in common that would be avoided with a plea deal – the experience of the academic review board. Considering we had ‘innocent’ participants more willing to take a plea bargain than to defend themselves in front of the review board, knowing full well that they did not commit an act of academic dishonesty, perhaps the very nature of the plea we used made the costs of a trial outweigh the benefits for *both* of our sanctions; choosing a plea may have reflected an optimizing strategy for all conditions. Unfortunately, we did not have students rate their

perception of the sentence severity so we cannot properly assess that the difference between our punishments was significantly large. Further research will need to parse out this possible confound.

Another limitation of the study is that it addresses plea deals without one important actor: the defense attorney. While our study may have more external validity than the previous research asking participants to imagine that they are guilty, the presence of legal counsel may add another dimension to the decision. Yet, the paradigm employed here may not be far off from reality: In our criminal justice system the “right to counsel” is seriously lacking. The American Bar Association (2005) concluded that “thousands of persons are processed through America’s courts every year either with no lawyer at all or with a lawyer who does not have the time, resources, or in some cases the inclination to provide effective representation.” (p. 4). Still, a future direction for this research could include somehow creating a role to provide the student with legal counseling.

The innocence problem in plea bargaining needs to be recognized. Aside from the one, eight-person condition in the Gregory et al. (1978) study, previous empirical research has demonstrated that guilty pleas can be elicited from a substantial percentage of innocent people (Bordens, 1984; Tor et al., 2010). The current study has built on the previous research by moving the findings into a realm that more closely matches the psychological constructs present when a person is falsely accused of a crime. With confidence, we can now state that the innocent are at risk.

REFERENCES

Administrative Office of the United States Courts. (2010) *Annual report of the director: Judicial business of the United States Courts*. Washington, D.C.: U.S. Government Printing Office.

American Bar Association. (2005). *Standing Committee on Legal Aid and Indigent Defendants, Executive Summary IV*. Recommendation to the American Bar Association House of Delegates: Washington, DC. Retrieved from <http://www.abanet.org/leadership/2005/annual/dailyjournal/107.doc>.

Bibas, S. (2004). Plea bargaining outside the shadow of a trial. *Harvard Law Review*, 117:2463-2547.

Bordens, K.S. (1984). The effects of likelihood of conviction, threatened punishment, and assumed role on mock plea bargaining decisions. *Basic and Applied Social Psychology*, 5:59-74. doi: 10.1207/s15324834basp0501_4.

Bordens, K.S., & Bassett, J. (1985). The plea bargaining process from the defendant’s perspective: A field investigation. *Basic and Applied Social Psychology*, 6:93-110. doi: 10.1207/s15324834basp0602_1.

Brady v. United States, 1970, 397 U.S. 742.

Drizin, S.A., & Leo, R.A. (2004). The problem of false confessions in the post-DNA world. *North Carolina Law Review*, 82:891-1004.

Edkins, V.A. (2011). Defense attorney plea recommendations and client race: Does zealous representation apply equally to all? *Law and Human Behavior*, 35:413-425. doi: 10.1007/s10979-010-9254-0.

Givelber, D. (2000). Punishing protestations of innocence: Denying responsibility and its consequences. *American Criminal Law Review*, 37:1363-1408.

Gregory, W.L., Mowen, J.C., & Linder, D.E. (1978). Social psychology and plea bargaining: Applications, methodology, and theory. *Journal of Personality and Social Psychology*, 36:1521-1530. doi:10.1037/0022-3514.36.12.1521.

Kramer, G.M., Wolbransky, M., & Heilbrun, K. (2007). Plea bargaining recommendations by criminal defense attorneys: Evidence strength, potential sentence, and defendant preference. *Behavioral Sciences and the Law*, 25, 573-585. doi:10.1002/bsl.759.

Pastore, A.L., & Maguire, K. (Eds.). (2003). *Sourcebook of Criminal Justice Statistics*. Retrieved from <http://albany.edu/sourcebook>.

Russano, M.B., Meissner, C.A., Narchet, F.M., & Kassin, S.M. (2005). Investigating true and false confessions with a novel experimental paradigm. *Psychological Science*, 16:481-486. doi:10.1111/j.0956-7976.2005.01560.x.

Tor, A., Gazal-Ayal, O., & Garcia, S.M. (2010). Fairness and the willingness to accept plea bargain offers. *Journal of Empirical Legal Studies*, 7:97-116. doi:10.1111/j.1740-1461.2009.00171.x.

AUTHOR BIOGRAPHY

Vanessa Edkins is an Assistant Professor of Forensic Psychology at Florida Institute of Technology. Her research examines jury decision making, plea bargaining decisions of both attorneys and clients, and discrimination in the civil and criminal justice system. E-mail: vedkins@fit.edu

Lucian Dervan is an Assistant Professor of Law at Southern Illinois University, School of Law. His research focuses on various subjects related to criminal law, both domestic and international, including plea bargaining, white collar crime, and internal corporate investigations. E-mail: ldervan@law.siu.edu.