HEURISTICS, BIASES, AND CRIMINAL DEFENDANTS

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I. INTRODUCTION

Cognitive science teaches us that most people, much of the time, act in ways that systematically depart from the behavior of a purely rational actor.[1] In the past fifteen years, scholars have used this core insight not only as the basis for critique of law and economics-based analyses, but also as the foundation of its own distinct approach to legal problems. The resulting literature is robust and stimulating, and "behavioral law and economics" has contributed to virtually every field of legal inquiry. I am in favor of drawing on psychology's insights to enrich legal scholarship and practice, and generally applaud the effort to strengthen the connection between reality and critique.[2] My purpose here is simply to use this symposium's discussion of plea bargaining to introduce a note of caution with respect to the application of this research to the workings of the criminal justice system, and in particular with respect to the behavior of criminal defendants.

As most of the commentators who have applied behavioral law and economics to the plea bargaining process have pointed out, what results appears to present something of a puzzle. A straightforward application of the heuristics and biases literature leads to the conclusion that plea bargaining should occur only rarely.[3] That, of course, does not accord

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1. *See generally* REID HASTIE & ROBYN M. DAWES, RATIONAL CHOICE IN AN UNCERTAIN WORLD (2001).

2. Indeed, I have relied on psychology in my own work. *See, e.g.*, Chad M. Oldfather, *Writing, Cognition, and the Nature of the Judicial Function*, 96 GEO. L.J. (forthcoming 2008).

3. *See* Stephanos Bibas, *Plea Bargaining Outside the Shadow of Trial*, 117 HARV. L. REV. 2463, 2497 (2004) (noting the tendency of heuristics, biases, and related phenomena to "cause defendants to lean against plea bargaining and toward going to trial"); Richard Birke, *Reconciling Loss Aversion and Guilty Pleas*, 1999 UTAH L. REV. 205, 207 (noting that the practice of plea bargaining appears to contradict the principle of loss aversion); Russell Covey, *Reconsidering the Relationship Between Cognitive Psychology and Plea Bargaining*, 91 MARQ. L. REV. 213, 215 (2007) ("Were one to form predictions about plea bargaining based only on cognitive research, it would be logical to expect plea bargaining to be a rare

with reality, in which plea bargaining accounts for the resolution of the vast majority of all criminal cases.[4] Scholars have accordingly set about the task of identifying the aspects of the system that apparently overwhelm the cognitive forces that would otherwise compel defendants to refuse to plea bargain.

My goal in this Essay is to suggest an alternative possibility, namely that the teachings of behavioral law and economics may not apply as forcefully or consistently to criminal defendants as to other legal actors. This might be so for two reasons. First, it might be inappropriate to apply the heuristics and biases literature to criminal defendants at all (or, at least, to all classes of criminal defendants), for the simple reason that criminal defendants, as a distinct subset of the population, may differ in material ways from the populations on which the heuristics and biases research is based. Second, the situational nature of human behavior counsels against the straightforward application of behavioral law and economics principles to defendants' behavior inside the context of the criminal justice system. While prior work applying behavioral economics to plea bargaining recognizes these possibilities, it has failed to pursue either in detail.

The remainder of this Essay proceeds as follows. Part II briefly outlines prior efforts to apply the insights of behavioral economics to the plea bargaining process. Part III considers the possibility that the research on heuristics and biases does not apply to criminal defendants, or at least not as forcefully or consistently as it applies to the populations on which the research is based. Part IV takes up the alternative possibility that, even if criminal defendants as a class are as susceptible to cognitive shortcomings as the rest of us, situational considerations might lead criminal defendants acting within the context of the criminal justice system to behave in ways that are inconsistent with the predictions of behavioral economics.

II. HEURISTICS, BIASES, AND PLEA BARGAINING: THE "TRADITIONAL" STORY

It may be premature to speak of a "traditional" story about the application of behavioral economics to plea bargaining. Nonetheless, prior work on the topic includes enough consistency to allow for the tentative articulation of a traditional account, which goes something like

occurrence."); Ian Weinstein, *Don't Believe Everything You Think: Cognitive Bias in Legal Decision Making*, 9 CLINICAL L. REV. 783 (2003).

4. Covey, *supra* note 3, at 215.

this: People are, as Herbert Simon famously phrased it, "boundedly rational."[5] Simply put, we lack the cognitive capacity to undertake the analyses necessary to be fully rational with respect to all of our choices and actions.[6] As a consequence, we tend to rely on certain mental shortcuts—heuristics—that generate behavior that, while often at least roughly in accord with the prescriptions of rationality, will systematically depart from it in significant ways.[7] And we are susceptible to certain distortions in our thought—biases—that render us unable to rationally assess the information with which we are presented.[8]

Scholars applying this research to plea bargaining have concluded that plea bargaining seemingly ought not to occur as frequently as it does.[9] Criminal defendants, the reasoning goes, are loss averse[10] like the rest of us, meaning that they (and we) are more willing to take risks to avoid a loss than we rationally should be.[11] Because a plea bargain typically involves accepting a loss of liberty, and forgoing the chance to avoid the loss by going to trial, we should expect plea bargains to occur only rarely.[12] What is more, other cognitive shortcomings seemingly pull in the same direction. Psychology suggests that people tend toward overconfidence in the face of uncertain outcomes, and to interpret information in self-serving ways.[13] As a consequence, we can expect individual defendants to be inclined to believe that they stand a

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5. HERBERT A. SIMON, REASON IN HUMAN AFFAIRS 19–23 (1983).

6. For a more nuanced discussion of the meaning of "bounded rationality," see Gerd Gigerenzer, *Heuristics*, *in* HEURISTICS AND THE LAW 17, 22–24 (G. Gigerenzer & C. Engel eds., 2006). As Greg Mitchell points out, the account that I have provided above, though it is typical of such accounts in the legal literature, overlooks a distinction between the "bounded rationality" concept and the account of error underlying heuristics and biases research. *See* Gregory Mitchell, *Taking Behavioralism Too Seriously? The Unwarranted Pessimism of the New Behavioral Analysis of Law*, 43 WM. & MARY L. REV. 1907, 1923 n.23 (2002).

7. *See, e.g.*, Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 CAL. L. REV. 1051, 1085–90 (2000) (discussing the availability and representativeness heuristics).

8. *See, e.g.*, *id.* at 1091–1100 (discussing the overconfidence, self-serving, and hindsight biases).

9. *See* Birke, *supra* note 3, at 207; Bibas, *supra* note 3, at 2497. Bibas argues that, in the aggregate, the ninety-four to ninety-five percent of defendants who plead guilty is not necessarily too high or too low, but rather that the defendants' psychological irrationality in decision making affects the distribution of and inequities among individual defendants' sentences. Bibas, *supra* note 3, at 2497.

10. Bibas, *supra* note 3, at 2507–12.

11. Birke, *supra* note 3, at 207, 212.

12. *Id.* at 219.

13. Bibas, *supra* note 3, at 2498–2502; Covey, *supra* note 3, at 218; Weinstein, *supra* note 3, at 813–15.

relatively good chance of prevailing at trial, and to have difficulty viewing the evidence in their case in an objective manner.[14] Other phenomena, such as denial mechanisms, discounting of future costs, fairness bias, framing, and anchoring, might likewise lead defendants to be disinclined to plea.[15] In sum, as Russell Covey puts it, "[w]ere one to form predictions about plea bargaining based only on cognitive research, it would be logical to expect plea bargaining to be a rare occurrence."[16]

Such predictions, of course, would immediately run into trouble with reality, in which over ninety percent of all criminal cases are resolved by plea bargain.[17] The question for scholars, then, has become how to reconcile the predictions of theory with the facts of practice, and whether we can identify the apparently powerful force(s) suppressing the tendency to resist plea bargaining. Richard Birke implicates criminal defense attorneys, who he asserts succumb to systemic coercion to "provide information about the expected value of trial that is too rudimentary to present an accurate picture to the defendant of the value of trial"[18] and who take advantage of framing effects to present prosecutorial offers as being more favorable than they really are.[19] Covey points to plea discounts and trial penalties,[20] the framing effects of pretrial detention, and the psychic and other costs of continued participation in the criminal justice process,[21] and likewise identifies the pressures faced by defense counsel.[22] Stephanos Bibas and Ian Weinstein have taken the prevalence of plea bargaining as a given, focusing instead on the inequitable results that might follow from the operation of heuristics and biases[23] and urging defense counsel to be

14. For example, Weinstein's article is built around the story of a former client of his, a defendant in a drug case, who seized on the fact that the complaint stated that the police seized a box full of cocaine from him, when in fact it was a bag. Weinstein, *supra* note 3, at 783–87. The client viewed this inconsistency as establishing reasonable doubt, and Weinstein recounts his job as, among other things, requiring him to get his client to recognize that the jury would be much more likely to focus on the five kilograms of cocaine inside the bag, rather than on the fact that it wasn't a box. *Id.*

15. Bibas, *supra* note 3, at 2502–19; *see also* Covey, *supra* note 3, at 221–23.

16. Covey, *supra* note 3, at 215.

17. Birke, *supra* note 3, at 207.

18. *Id.* at 209; *see also id.* at 232–33 (expanding on this explanation by positing that defense attorneys face institutional pressure to produce guilty pleas and to avoid trials).

19. *Id.* at 209, 232–34.

20. Covey, *supra* note 3, at 224–33.

21. *Id.* at 239–43.

22. *Id.* at 243–45.

23. *See* Bibas, *supra* note 3, at 2529–30 (suggesting that demographic variation in

mindful of their presence and to view debiasing as a central component of their role.[24]

Assuming heuristics and biases manifest themselves in typical ways in criminal defendants acting in the context of the criminal justice system, these are perfectly plausible accounts of the factors at play. And I wish to make clear that I take no position on whether those assumptions will ultimately prove correct. I do, however, believe there is good reason for skepticism, as I will outline below.

III. INDIVIDUAL DIFFERENCES IN COGNITION AND THE (POSSIBLY) SPECIAL CASE OF THE CRIMINAL DEFENDANT

Behavioral law and economics replaces one model incorporating an assumption about human behavior—that people act rationally—with another that likewise incorporates an assumption about human behavior—that people act irrationally in predictable ways.[25] Both involve generalizations: just as no economist even minimally attentive to the people around him (or, for that matter, to himself) could defend the proposition that people always act rationally, neither can anyone familiar with the research on which behavioral law and economics rests defend the proposition that people always act irrationally in the ways identified by that research.[26] Indeed, most legal scholars relying upon behavioral economics recognize this and offer at least perfunctory qualifications in their introductions of the research.[27]

To appreciate the significance of this point, it is important to recognize that the phenomena of heuristics, biases, and the like are generalizations. As such, it is perhaps fair to say that *most* people are susceptible to them *most* of the time.[28] That does not, of course, rule out

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susceptibility to heuristics and biases "can lead to some truly perverse results, such as larger plea-bargain discounts to induce pleas from worse offenders").

24. *See* Bibas, *supra* note 3, at 2544–45; Weinstein, *supra* note 3, at 817–33.

25. *See* Korobkin & Ulen, *supra* note 7, at 1074–75.

26. Gregory Mitchell, *Why Law and Economics' Perfect Rationality Should Not Be Traded for Behavioral Law and Economics' Equal Incompetence*, 91 GEO. L.J. 67, 83–87 (2002).

27. *See* Robert A. Prentice, *Chicago Man, K-T Man, and the Future of Behavioral Law and Economics*, 56 VAND. L. REV. 1663, 1722–24 (2003) (providing examples of articles in which legal scholars have recognized individual variations in susceptibility to departures from rationality).

28. And even that may be too strong a characterization. As Greg Mitchell has pointed out,

> because behavioral decision researchers are interested primarily in finding deviations from norms of procedural rationality by any *statistically*

the possibility of individual differences in terms of susceptibility to these phenomena, nor that certain subsets of the population might, in general, be more or less susceptible to them. As Greg Mitchell notes:

> Research tells us that cognitive biases do *not* affect us all with uncanny consistency. In particular, differences in education, training, cognitive capacity, thinking dispositions, sex, and cultural background across individuals appear to be reliably associated with different levels of cognitive performance. Furthermore, emotional differences, developmental differences, and different modes of mental processing appear to be associated with different levels of cognitive performance within individuals. Therefore, depending on the characteristics of the individual and the system of thought activated in a particular decisionmaking situation, the behavior of different groups of individuals and the behavior of the same individual over time may vary considerably, from perfect rationality to seeming irrationality.[29]

Susceptibility to biases is therefore not uniformly distributed among the general population. If we assume[30] that such susceptibility to biases is normally distributed throughout the population, we would find, to state things very simplistically, that most people are somewhat susceptible, with a few people being extremely susceptible and an equal portion being hardly susceptible at all. Breaking out the subpopulations that Mitchell identifies would lead to distributions that would perhaps still follow a bell curve, but which would center around higher or lower

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> *significant* percentage of subjects (that is, they seek to find nonrandom deviations from the neoclassical economic model, and a small percentage who deviate may suffice for purposes of statistical analysis), an experiment often will be portrayed as having found some "systematic non-rational tendency" even though less than half of the subjects provided the nonrational response in the experiment.

Mitchell, *supra* note 26, at 86 n.46. Mitchell's critique goes even further than the one here, to call into question more generally the appropriateness of behavioral economics as a source of insights relevant to the legal system. *See* Mitchell, *supra* note 6, at 1912–13 ("A rational review of the evidence on human judgment and decision making should lead one to agnosticism rather than empirical certainty on the matter of the rationality or irrationality of legal decision making.").

29. Mitchell, *supra* note 26, at 87.

30. I am aware of no evidence based on which to assert that what follows is anything more than an assumption.

means measured in terms of susceptibility. My point here is not to achieve any sort of statistical realism, but rather to illustrate the basic idea that, within the population as a whole, (i) individuals will vary in their susceptibility to biases, and (ii) subpopulations will vary in their susceptibility to biases such that the average individual members of a given population will be more (or less, as the case may be) susceptible to biases compared to the average member of the population as a whole and other subpopulations.

When we are studying criminal defendants, of course, we are concerned with a unique subpopulation. Prior work applying behavioral economics to plea bargaining partially recognizes the possibility that criminal defendants may, as a class, differ from the general population in terms of the extent to which heuristics and biases hold sway over their thought processes. Stephanos Bibas, for example, not only posits that "[m]ost criminals are less risk averse (at least with regard to imprisonment) than law-abiding citizens,"[31] but also recognizes that cognitive performance varies along with a host of other demographic factors.[32]

My aim here is simply to press this point further. There is good reason to suspect that the distribution of susceptibility to cognitive biases among criminal defendants would diverge significantly from the distribution amongst the general population, as well as from other subpopulations defined so as to include both defendants and nondefendants. The basis for this suggestion is the observation that criminal defendants—at least insofar as they are guilty—have engaged in behavior that departs from core social norms, and that indicates that they do not respond to society's various schemes of rewards and punishments in the way that the rest of us do. This, too, is no doubt an overgeneralization, given the varying sorts of conduct that can lead to criminal sanction.[33] But the point remains that criminal defendants occupy a far end of the distribution amongst the population of an attribute that we might call "criminality," and that their presence on the far reaches of this distribution implies the possibility of statistical

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31. Bibas, *supra* note 3, at 2509–10.

32. *Id.* at 2502, 2511–12.

33. "Despite the debate about specialisation among criminals, and the persisting interest in antisocial personality, the evidence indicates that offenders are heterogeneous in personality . . . . The assumption of a distinct "criminal personality" is therefore questionable, and comparison of unselected offenders with nonoffenders is likely to be a strategy with limited payoffs." RONALD BLACKBURN, THE PSYCHOLOGY OF CRIMINAL CONDUCT: THEORY, RESEARCH AND PRACTICE 186 (1993).

atypicality on other measures of behavior as well, including susceptibility to heuristics and biases. Further refinement in the definition of the subpopulations under analysis—into categories such as violent criminals, sexual offenders, white collar criminals, and so on—might reveal even greater variance in cognitive style.

Although the causes of crime remain, to a large degree, a mystery,[34] prior research has revealed all sorts of ways in which offenders differ from nonoffenders. Among other things, criminals tend to be of below-average intelligence,[35] to have poor impulse control,[36] to have low self-esteem,[37] and to suffer from a relative lack of interpersonal problem-solving skills.[38] In short, "[p]eople who break the law are often psychologically atypical. This is not to say they are necessarily sick (although some are), or that atypicality of any sort characterizes every single lawbreaker. Rather, the evidence says that populations of offenders differ statistically in various respects from populations of nonoffenders."[39]

As a result, any attempt to draw conclusions about the behavior of criminal defendants from basic behavioral economics research should remain qualified. It may turn out to be that whatever factors underlie

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34. Blackburn notes:

> Research on the personality of criminals has employed more than a hundred psychological tests . . . but while most studies comparing criminal samples with controls on standardised measures have identified significant differences, these have not always been replicated. Some reviewers therefore remain skeptical about whether differences found shed any light on the personal antecedents of crime, and conceptual and methodological shortcomings pervade much of this area of research.

Id. at 185 (citations omitted).

35. *Id.* at 186–91; ADRIAN RAINE, THE PSYCHOPATHOLOGY OF CRIME: CRIMINAL BEHAVIOR AS A CLINICAL DISORDER 241 (1993) ("One strong and consistent finding is that both delinquents and criminals have relatively lower IQs; the finding that verbal IQ in particular is compromised in antisocial groups is suggestive of left hemisphere dysfunction and a disruption of language processing."); JAMES Q. WILSON & RICHARD J. HERRNSTEIN, CRIME AND HUMAN NATURE 27 (1985) ("There is mounting evidence that, on the average, offenders differ from nonoffenders in physique, intelligence, and personality. Some of these differences may not themselves be a cause of crime but only a visible indicator of some other factor that does contribute to crime.").

36. BLACKBURN, *supra* note 33, at 191–96.

37. *Id.* at 197–200. *But see* DAVID FARABEE, RETHINKING REHABILITATION: WHY CAN'T WE REFORM OUR CRIMINALS? 44 (2005) (asserting a lack of "reliable evidence linking low self-esteem to criminality").

38. BLACKBURN, *supra* note 33, at 206–07; RAINE, *supra* note 35, at 241.

39. WILSON & HERRNSTEIN, *supra* note 35, at 173.

criminality bear no relation to one's susceptibility to cognitive biases. On the other hand, it might be that criminal defendants are either more or less susceptible to thought based in heuristics and biases as compared to the general population. And it may well be that some subset of the criminal population is so psychologically atypical that an entirely different model of thought is required to account for its members' behavior. Any of these latter possibilities could have significant implications for a complete understanding of the dynamics of plea bargaining, and accordingly for the nature and form of any prescriptive recommendations based on the research.

IV. THE SITUATIONAL NATURE OF BEHAVIOR

A second reason to be cautious in relying too heavily on existing cognitive science research in the plea bargaining environment stems from the importance of context. Different types of situations can lead to different types of thought.[40] As Russell Covey highlights, the situation faced by a criminal defendant presented with the choice of whether to accept a plea bargain is more than marginally unusual as a decisional situation; the defendant may well be incarcerated and certainly must contend with nontrivial procedural hassles in order to exercise the choice.[41] What is more, a defendant faced with a plea offer is unlikely to make the decision whether to take it alone. He will be represented by counsel and will likely decide to accept only after consulting with others. Both of these features counsel against the easy application of behavioral economics in the plea bargaining context.

Start with the situation faced by a defendant engaging in plea bargaining. Even if we assume that it is only the defendant's susceptibility to biases that need concern us, there is reason to suspect that the context will affect it. It may well be that criminals, and therefore most criminal defendants, are impulsive risk-takers in most contexts in the real world. If those traits are constant, we might expect (consistent with the traditional story outlined above) defendants to be relatively more confident in their ability to prevail at trial and relatively more willing to risk a larger penalty in return for the chance to escape punishment altogether. But if I may engage briefly in the vice of

40. *See* Mitchell, *supra* note 26, at 109 ("[W]hen we broaden our view to include research into the effects of situational variables on judgment and decisionmaking, we see that people do not exhibit the same behavioral tendencies across situations, whether the tendency is towards rationality or irrationality.").

41. *See* Covey, *supra* note 3, at 237–41.

anecdote, my own experience as a public defender does not support the conclusion that overconfidence afflicts most defendants. To be sure, because I did appellate and post-conviction work, my clientele was not representative of all criminal defendants.[42] That said, the psychological term that most readily comes to my mind as an accurate descriptor of their mental state vis-à-vis the criminal justice system is "learned helplessness." The phrase refers to the passiveness one develops in response to a situation one perceives as uncontrollable.[43] Although some of my clients undoubtedly were overconfident and under the sway of the self-serving bias, most seemed quite strongly to hold a belief that they would not be treated fairly by the system and that they would lose no matter what they did.[44] In short, we ought to be cautious about concluding that a preference for risk "on the street" translates into a preference for risk in the environment of the criminal justice system. Defendants might instead be characterized by fatalism or passivity, which could result in a failure even to attempt considered analysis of a plea bargain offer.[45]

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42. My clients did include defendants who had entered guilty pleas and who were appealing their sentences. My sense is that these clients were no more or less likely than their counterparts who had lost at trial to believe that they had been "railroaded."

43. Stated more precisely:

> The cornerstone of the hypothesis is that learning that outcomes are uncontrollable results in three deficits: motivational, cognitive and emotional. The hypothesis is "cognitive" in that it postulates that mere exposure to uncontrollability is not sufficient to render an organism helpless; rather, the organism must come to expect that outcomes are uncontrollable in order to exhibit helplessness. In brief, the motivational deficit consists of retarded initiation of voluntary responses and is seen as a consequence of the expectation that outcomes are uncontrollable. If the organism expects that its responses will not affect some outcome, then the likelihood of emitting such responses decreases. Second, the learned helplessness hypothesis argues that learning that an outcome is uncontrollable results in a cognitive deficit since such learning makes it difficult to later learn that responses produce that outcome. Finally, the learned helplessness hypothesis claims that depressed affect is a consequence of learning that outcomes are uncontrollable.

Lyn Y. Abramson et al., *Learned Helplessness in Humans: Critique and Reformulation*, 87 J. ABNORMAL PSYCHOL. 49, 50 (1978).

44. Relatedly, as my colleague Michael O'Hear points out, the absence of fair process in the typical plea bargaining process tends to leave defendants with the perception that outcomes will likewise be unfair. *See* Michael M. O'Hear, *Plea Bargaining and Procedural Justice*, 42 GA. L. REV. (forthcoming 2007).

45. The effect could play out in other ways as well, such as by affecting emotional state, which can in turn affect reasoning. *See* Bryan Myers et al., *Psychology Weighs in on the Debate Surrounding Victim Impact Statements and Capital Sentencing: Are Emotional Jurors*

Another significant situational constraint arises out of the fact that the decision whether to accept a plea bargain is not likely to be an individual decision in a strict sense. The presence of defense counsel is likely to affect the manner in which any biases play out, as Bibas, Birke, and Weinstein acknowledge.[46] Indeed, given that defense counsel will typically be the repeat player who is best positioned to assess a plea offer and the person who must decide whether to recommend that offer to her client, there may be a real sense in which it is the lawyer's susceptibility to heuristics and biases that we ought to be concerned about.[47] But even that is undoubtedly too narrow a conception of the decisional process. A defendant faced with a plea deal is likely to consult with family, friends, and fellow inmates before making his decision.[48] In contrast to the sorts of well-defined, individual decisions made under fixed time constraints on which the behavioral economics literature is largely based, plea bargains present complex decisions typically made over a relatively lengthy time span after consultation with a potentially large group of people. Each one of these distinctions presents a possible roadblock to the easy application of heuristics and biases research to plea bargaining. It is not yet clear, for example, how group deliberation affects the operation of these cognitive processes.[49] A defendant contemplating a plea offer may, as a result, be more or less susceptible to cognitive bias, and the underlying research provides us no easy means to tell which will be the case. Alternatively, the serious consequences attached to plea bargaining, coupled with the often relatively leisurely pace at which the decision whether to take a plea

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Really Irrational?, 19 FED. SENT'G REP. 13, 16–17 (2006).

46. *See* Bibas, *supra* note 3, at 2519–27; Birke, *supra* note 3, at 209; Weinstein, *supra* note 3, at 786–87.

47. *See, e.g.*, *Plea Bargaining from the Criminal Lawyer's Perspective: Plea Bargaining in Wisconsin*, 91 MARQ. L. REV. 357, 370 (2007) (comments of Dean Strang) ("I can dress this up so that you don't all think I'm violating the Wisconsin Rules of Professional Conduct, but I decide whether the client is taking this plea agreement. I decide it nearly 100% of the time."); *id.* at 371 (comments of Deja Vishny) ("I agree that I'm mostly the decision maker. I don't think it's 100% of the time. In other words, I have had clients decline to do what I thought probably would have been a better outcome for them. But one of the things that I have found is that although I may be the decision maker, it's done by empowering the client to come to the best decision for their case.").

48. Weinstein, *supra* note 3, at 830 (relating the story of a client who had discussed his situation with fellow inmates and decided to take a plea deal based in part on their assertion that "[n]obody wins" at trial).

49. *See* Mitchell, *supra* note 6, at 2004 ("In some cases, group deliberations and collective decision making moderate bias, in some cases they have no apparent net effect, and in some cases they amplify bias.").

offer is made, may mean that defendants make the decision via a more systematic mode of thought that, while not always leading to full rationality, is not subject to the sorts of regularized errors resulting from heuristic thought.[50]

V. CONCLUSION

Although I have expressed some skepticism regarding the use of behavioral economics in the analysis of plea bargaining, I do not wish to convey the sentiment that the exercise is misguided or not worthwhile. The critiques I have articulated do not undermine the value of behavioral economics as the foundation of a powerful critique of rational choice depictions of the plea bargaining process. Nor do I mean to suggest that useful models of plea bargaining cannot be developed based on behavioral economics. In constructing such models, however, scholars must remain mindful of the fact that the greater descriptive accuracy provided by behavioral economics might be more apparent than real, and might mask some substantial blind spots which ought to be taken into account in any model or prescriptive recommendation.

In the end, the situation presents a variant of what Adrian Vermeule has termed "the institutionalist dilemma":[51] we cannot escape the need

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50. *Id.* at 2013 (discussing the work of psychologists). Mitchell suggests that:

> [I]nstead of always relying on the same cognitive mechanisms to process information, people sometimes engage in thought processes more closely approximating normatively rational decision strategies (which may lead to random errors when people have insufficient processing resources), whereas at other times people engage in thought processes utilizing "arational" heuristics (which typically lead to "good" choices but may be more prone to nonrandom errors.)

Id.; see also id. at 2011–17 (discussing the tendency in the behavioral law and economics literature to overlook the possibility that thought might be more than unimodal); *id.* at 2005–11 (discussing the variability of framing effects and the apparent situationality of risk-aversion and risk-seeking).

51. ADRIAN VERMEULE, JUDGING UNDER UNCERTAINTY: AN INSTITUTIONAL THEORY OF LEGAL INTERPRETATION 3 (2006). Vermeule's project is directed at judges choosing an interpretive approach, but the core dynamic inheres in nearly every question of institutional design in the legal system.

> The sheer complexity of the legal system means that the empirical questions at issue are often "trans-scientific": although they are empirical in principle, they are unresolvable at acceptable cost within any reasonable time frame. Worse, judges are boundedly rational: their capacity to process the information they can obtain is limited, in part because of cognitive failings. While those failings are shared by all decisionmakers, they are exacerbated by the case-by-case decisionmaking

to choose a framework in which plea bargaining takes place, and must do so without the information necessary to be certain that our chosen design will not unacceptably distort the results it generates. We must accordingly be mindful of the potential unintended consequences of reform proposals, and ought perhaps to act in such a way as to minimize them.[52] Stephanos Bibas's proposed solutions to the problems of the plea bargaining system strike me as largely consistent with this approach.[53] He advocates, for example, a series of reforms designed to increase the quantity and quality of information available to both defendants and prosecutors.[54] But here, too, there is potential for mischief. Too much information can trigger yet another aspect of bounded rationality, namely "information overload," in which case those presented with more information than they can effectively process tend to ignore all of it.[55]

All of this suggests the need for scholarly humility and recognition of

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> procedure that defines adjudication—a procedure that emphasises the salience of particulars and hampers judges in discerning the systemic effects of the interpretive approaches they adopt. The overall picture, then, is that boundedly rational judges must necessarily adopt some interpretive decision-procedure or other, on empirical grounds, but without the necessary information. This is the *institutionalist dilemma*: judges cannot escape the enterprise of choosing interpretive decision-procedures under conditions of uncertainty and bounded rationality.

Id.

52. This leads Vermeule to advocate a formalist approach to the interpretation of legal texts.

> The basic idea, only apparently paradoxical, is that judges acting under conditions of grave uncertainty and bounded rationality should restrict the range of information they attempt to collect and reduce the complexity of their behavioral repertoire, on the ground that further increments of information, complexity, and flexibility produce definite costs for only speculative gains.

Id. at 5. In a similar vein, Greg Mitchell argues that the uncertainty surrounding the applicability of the heuristics and biases research to the legal context counsels in favor of what he terms "do no harm" reforms—that is, reforms designed as much to avoid unintended consequences as to accomplish their intended end. *See* Mitchell, *supra* note 26, at 132.

53. Bibas outlines a series of proposed reforms, some of which are more developed than others, and some of which (such as "ameliorating the influence of money") are more aspirational than concrete. *See* Bibas, *supra* note 3, at 2531–45.

54. *Id.* at 2531–35.

55. *See* Troy A. Paredes, *Blinded by the Light: Information Overload and Its Consequences for Securities Regulation*, 81 WASH. U. L.Q. 417, 417–20 (2003); Cass R. Sunstein, *Informing America: Risk, Disclosure, and the First Amendment*, 20 FLA. ST. U. L. REV. 653, 667 (1993).

the fact that we as scholars are likewise susceptible to the combined effects of bounded rationality and limited information. The decision whether to accept an offered plea bargain is complex, requiring the assessment of a host of variables. Yet it pales in comparison to the decisions necessary to construct or modify a system in which plea bargaining takes place.