Cognitive Bias in the Courtroom: Combating the Anchoring Effect Through Tactical Debiasing

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Introduction

JUDGES AND JURIES ARE the heart of the American legal system. We entrust them to fairly apply the facts to the law and render justice through their judgment. Judges are relied on daily to resolve multi-million dollar claims, decide guilt or innocence, and even impose life or death sentences. We have long assumed, or perhaps merely hoped, that judges and juries get it right most of the time. If "[t]he jury is said to be the least predictable of the decision makers in the legal system,"[1] we should at least rely on well-trained, experienced, and dispassionate judges. Yet recent research in judgment and decision-making has shattered this pristine image. Judges, despite their "fancy titles, their magisterial robes, and their elevated stature in the courtroom," are human—and humans err.[2] It is not so much that humans are unpredictable, but rather that they are "predictably irrational"[3]—that is, they systematically deviate from the models suggested by rational choice theory or unbounded rationality.

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1. Valerie P. Hans & Theodore Eisenberg, *The Predictability of Juries*, 60 DePaul L. Rev. 375, 375 (2011).

2. Chris Guthrie, *Misjudging*, 7 Nev. L.J. 420, 420 (2007) [hereinafter Guthrie, *Misjudging*].

3. Dan Ariely, Predictably Irrational: The Hidden Forces that Shape our Decisions *xix* (2010).

It is not simply that jury instructions are notoriously complex and incomprehensible,[4] or that legal standards are vague and vary in application from case to case, decision-maker to decision-maker,[5] but also, judging is hard. Judges and juries are asked to make difficult decisions about emotional issues with limited information. When confronted by such complexity and uncertainty, people resort to mental shortcuts.[6] These shortcuts, or heuristics, reduce complex calculations to much simpler judgments. This process is extremely useful for functioning in the world, but it also leads to severe and systematic errors.[7] In the context of a legal system designed to ensure justice, these frequent errors and biases are troubling and ultimately unacceptable.

Legal research has begun to confront this bounded rationality by proposing ways to "debias" decision makers. One way of doing so would be to debias through policy—that is, implementing legal policies that insulate people from their irrationality.[8] For example, if people are bad at conceptualizing the risks of consumer products, the law could change to impose stricter liability on manufacturers so that dangerous products are not placed in the market.[9] Another way to ensure rational decisions prevail over arbitrary irrationality would be to use the law to shape people's decisions by reducing or eliminating information bias—debiasing through law.[10] Instead of eliminating dangerous products from the market, continuing the example, this approach would help consumers appreciate the real risk by making manufacturers publicize a concrete instance of a negative outcome.[11] A third way might be called debiasing through process—that is, changing legal procedure to avoid bias. For instance, requiring judges to first arrive at a tentative sentence before looking at the sentencing guidelines to avoid having their judgment anchored by the guidelines.[12]

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4. Peter Meijes Tiersma, *Reforming the Language of Jury Instructions*, 22 HOFSTRA L. REV. 37, 45–46 (1993).

5. Erik Lillquist, *Recasting Reasonable Doubt: Decision Theory and the Virtues of Variability*, 36 U.C. DAVIS L. REV. 85, 111–12 (2002).

6. Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, 185 SCIENCE 1124, 1124 (1974).

7. *Id.*

8. Christine Jolls & Cass R. Sunstein, *Debiasing Through Law*, 35 J. LEGAL STUD. 199, 200 (2006).

9. *Id.*

10. *Id.*

11. *Id.* at 210.

12. Mark W. Bennett, *Confronting Cognitive "Anchoring Effect" and "Blind Spot" Biases in Federal Sentencing: A Modest Solution for Reforming a Fundamental Flaw*, 104 J. CRIM. L. & CRIMINOLOGY 489, 529–32 (2014).

Proposals for debiasing through law, policy, and process are important. This Article proposes a similar focus on debiasing through tactics. Tactical debiasing allows practitioners to have an immediate impact without waiting for politically difficult legal and policy changes that may never come. In particular, this Article examines tactical debiasing of the anchoring effect through a criminal sentencing scenario. Like previous studies, this study shows the power of the anchoring effect in influencing sentencing outcomes. Unlike previous studies, however, this research is the first to reveal that tactical debiasing has a statistically significant effect: confirming that there are easy-to-implement response strategies that can significantly reduce the anchoring effect. Rather than just identifying the problem, this study identifies a solution.

This Article is organized into five sections. Part I describes how the anchoring effect works. Part II explains how the anchoring effect applies in the courtroom. Part III outlines this Article's original experiment testing the anchoring effect within a criminal sentencing scenario to assess four different defense strategies in response to a prosecutor's sentencing request. A detailed description is given of the methods that were used; including the process, participants, and variables manipulated between conditions. Part IV presents the study's results, including the anchoring effect observed from the prosecutor's argument, the effectiveness of each of the four countering strategies in different anchoring conditions, and the effect of an exact figure versus a range as an anchor. After discussing the results of our experiment, Part V explores the significant implications of the study's findings for both policy and practice. Finally, Part VI acknowledges certain limitations inherent in the type of academic research required for this study.

I.   The Anchoring Effect

Choices are not made in a vacuum. Instead, our minds rely upon cues from the environment to structure decision-making. These cues are helpful in many situations, and yet prone to error in others, leading us to make important decisions based on factors outside our control. In their influential study on errors in judgment, Amos Tversky and Daniel Kahneman identified anchoring as one of the major categories of cognitive bias.[13] Generally speaking, anchoring is a shift in one's perception based on information presented to the perceiver. In

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13.   Tversky & Kahneman, *supra* note 6, at 1128.

circumstances involving numerical estimates or calculations, anchoring involves a shift in an individual's estimate towards the initial value presented. People generally estimate by starting from an initial value and adjusting until they reach their answer. But these adjustments are typically insufficient, and people have a tendency to assimilate towards the value at which they started.[14] Different starting points, therefore, will yield different end results.[15] In one of the most oft-cited examples of this phenomenon, Tversky and Kahneman first spun a wheel of fortune and then asked participants whether the percentage of African countries in the United Nations was higher or lower than the number spun on the wheel—manipulated to spin and land on either ten (the low number) or sixty-five (the high number).[16] Participants who spun the low number of ten, estimated on average that the percentage of African countries in the United Nations was twenty-five, while those that spun the high number of sixty-five guessed on average that forty-five percent were members of the United Nations.[17] Thus, a completely random number—and one that participants knew to be random—significantly influenced participants' estimates.

Further research confirms that anchoring has a powerful effect on nearly all estimation tasks.[18] Whether estimating the length of the Mississippi River, the amount of meat eaten by average Americans, the population of Chicago, or the number of babies born each day in the United States, the estimation was heavily skewed by the number first presented to participants.[19] In fact, the median subject moved almost halfway toward the anchor from the estimate he or she would have made without it.[20]

The impact of anchoring, however, is not limited to abstract estimations about seemingly inconsequential Jeopardy questions. Anchoring can even impact personal choices over which we believe we have much more control—such as deciding what and how much to buy at the grocery store.[21] Market research has shown that simply pricing products in terms of multiple units—six cans for $3 instead of one can

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14. *Id.*

15. *Id.*

16. *Id.*

17. *Id.*

18. Karen E. Jacowitz & Daniel Kahneman, *Measures of Anchoring in Estimation Tasks,* 21 Personality & Soc. Psychol. Bull. 1161, 1161 (1995).

19. *See id.* at 1163.

20. *Id.*

21. *See* Brian Wansink et al., *An Anchoring and Adjustment Model of Purchase Quantity Decisions,* 35 J. Marketing Res. 71, 72 (1998).

for 50 cents—increases sales by 32%.[22] More dramatically, research shows that by manipulating purchase limits, sales can be increased by over 100%.[23] In one experiment, researchers discounted cans of soup by just 10 cents, and varied signage on displays so that customers were presented with "no limit per person," "limit of 4 per person," or "limit of 12 per person."[24] When "no limit" or "a limit of 4 cans" was advertised, most people chose to purchase about 3 cans of soup.[25] When a limit of 12 cans was advertised, however, shoppers purchased an average of 7 cans of soup.[26] The same researchers replicated this anchoring effect on products that were not discounted for sale.[27] Small marketing changes dramatically re-vector consumers, providing a powerful anchor that influences consumer purchasing decisions.

If anchoring applied only to guessing games by the uninformed or low threat soup-buying consumers' shopping decisions, it would be interesting, but not very important. Anchoring, however, appears just as powerful with experts in deeply analytical, real-world calculations. Researchers asked both amateurs and experienced realtors to assess the fair market value of a house for sale.[28] During a tour of the house and neighborhood, researchers provided a ten-page packet of information about the house and the market, then varied the listing price by up to 12% in each direction from the appraisal value.[29] Both amateurs and experienced realtors were heavily influenced by the listing price—amateurs increased their appraisal of the home 24%, and experts increased their appraisal 13% from the low condition to the high condition.[30] Notably, although amateurs acknowledged the importance of list price in their calculations, experts largely downplayed it, claiming it was not an important factor in their pricing decision.[31] Thus, although the anchoring bias powerfully affected these experts in real-world situations, they failed to recognize its important impact.

Over time, research has clarified the mechanisms that create the anchoring bias. As Tversky and Kahneman suspected, the initial

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22. *Id.* at 73.
23. *Id.* at 74.
24. *Id.*
25. *Id.*
26. *Id.*
27. *Id.* at 76.
28. Gregory B. Northcraft & Margaret A. Neale, *Experts, Amateurs, and Real Estate: An Anchoring-and-Adjustment Perspective on Property Pricing Decisions*, 39 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 84, 87 (1987).
29. *Id.* at 87–88.
30. *See id.* at 93.
31. *Id.* at 95.

anchor serves as a starting-point that is then adjusted until the first plausible value is reached.[32] This adjustment of estimates towards the anchor is called an "assimilation effect."[33] However, there is another process at work as well. The anchor has a priming effect, which selectively evokes information consistent with the anchor.[34] The research literature refers to this as "selective accessibility."[35] For example, Mussweiler and Strack asked research participants whether Gandhi was older or younger than either 140 years or 9 years of age.[36] The high anchor participants estimated that Gandhi was 67, on average, while the low anchor participants estimated he was 50.[37] The selective accessibility explanation for anchoring proposes that the participant selectively generates knowledge conforming to the target age. That is, participants asked to consider whether Gandhi was abnormally old, selectively evoke information about old age or, more specifically, Gandhi as an old man. This information, which indicates that Gandhi grew extremely old, then builds the basis for the estimate of his age.[38] Thus, anchoring affects both the starting point from which one adjusts an estimate and the accessibility of knowledge that forms the basis for the estimate.

II.   Anchoring in the Courtroom

The anchoring effect has also been observed to influence decisions made in the courtroom. Research has shown anchoring has a strong effect on civil court jury awards. In a civil case, the plaintiff asserts that the defendant is liable and proposes a specific damage award. Consistent with an anchoring and adjustment process, jurors then use the plaintiff's request as a "jumping-off place" to determine

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32.   Thomas Mussweiler & Fritz Strack, *Considering the Impossible: Explaining the Effects of Implausible Anchors*, 19 Soc. Cognition 145, 156 (2001) [hereinafter *Considering the Impossible*].

33.   Barry Markovsky, *Anchoring Justice*, 51 Soc. Psychol. Q. 213, 214 (1988); *see also* Thomas Mussweiler et al., *Overcoming the Inevitable Anchoring Effect: Considering the Opposite Compensates for Selective Accessibility*, 26 Personality & Soc. Psychol. Bull. 1142, 1142 (2000) [hereinafter *Overcoming the Inevitable Anchoring Effect*].

34.   *Considering the Impossible, supra* note 32, at 158; Fritz Strack & Thomas Mussweiler, *Explaining the Enigmatic Anchoring Effect: Mechanisms of Selective Accessibility*, 73 J. Personality & Soc. Psychol. 437, 439 (1997).

35.   Thomas Mussweiler & Fritz Strack, *Comparing is Believing: A Selective Accessibility Model of Judgmental Anchoring*, 10 Eur. Rev. Soc. Psychol. 135, 145 (1999); *Considering the Impossible, supra* note 32, at 145; *Overcoming the Inevitable Anchoring Effect, supra* note 33, at 1143–44.

36.   *Considering the Impossible, supra* note 32, at 146.

37.   *Id.*

38.   *Id.* at 148–50.

an appropriate award amount.[39] In fact, it seems "the more you ask for, the more you get."[40] In one study, researchers used wildly implausible anchors ranging from $100, to $20,000, to $5 million, to $1 billion for a personal injury case in which a woman claimed the birth control pill prescribed by her health-maintenance organization caused her to develop ovarian cancer.[41] Generally, participants thought less of plaintiffs when they asked for huge sums of money (e.g., more selfish and less honorable).[42] Nevertheless, as the anchor amount increased, so too did the compensation awarded.[43] It is understood in civil practice, therefore, that if you want a large compensation award, you have to ask for an even larger one.

However, these aforementioned studies involved lay people, posing as mock jurors, who were perhaps unaware of appropriate compensation amounts. Surely judges, who have experience in criminal or civil litigation and knowledge of the "going rates" for sentencing or damages awards would be less susceptible to these biases? Judge Richard Posner complained about these faulty assumptions when he wrote that "realism about judges" is lacking and the law is taught "as if judges were computers rather than limited human intellects navigating seas of uncertainty," ignoring the motivations and constraints operating on judges.[44] Empirical research substantiates Judge Posner's concern. Far from being the province of untrained and inexperienced jurors, anchoring "has shown itself to be the heuristic par excellence among judges and magistrates."[45]

Judges, like jurors, are human. While judges often possess more knowledge than jurors, some studies have shown that knowledge only helps to decrease, but not totally eliminate, the anchoring effect.[46] Thus, judges appear to be nearly as susceptible as jurors to any num-

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39. Dale W. Broeder, *The University of Chicago Jury Project*, 38 NEB. L. REV. 744, 756 (1959).

40. Gretchen B. Chapman & Brian H. Bornstein, *The More You Ask for, the More You Get: Anchoring in Personal Injury Verdicts*, 10 APPLIED COGNITIVE PSYCHOL. 519, 522 (1996).

41. *Id.* at 523–24.

42. *Id.* at 526–27.

43. *Id.* at 526.

44. RICHARD A. POSNER, HOW JUDGES THINK 377 (Harvard Univ. Press 2008).

45. Francisca Fariña et al., *Anchoring in Judicial Decision-Making*, 7 PSYCHOL. SPAIN 56, 57 (2003).

46. *See* Thomas Mussweiler & Fritz Strack, *Numeric Judgments Under Uncertainty: The Role of Knowledge in Anchoring*, 36 J. EXPERIMENTAL SOC. PSYCHOL. 495 (2000); *see also* Andrew R. Smith et al., *Knowledge Matters: Anchoring Effects Are Moderated by Knowledge Level*, 43 EUR. J. SOC. PSYCHOL. 97 (2013); *c.f.* Birte Englich et al., *The Last Word in Court—A Hidden Disadvantage for the Defense*, 29 LAW & HUM. BEHAV. 705, 716 (2005) [hereinafter Englich et al., *Last Word*] ("It could be argued that experts in criminal law are less susceptible to the

ber of cognitive illusions, biases, and errors in judgment.[47] Judges are not consistently more uniform in their sentencing decisions than inexperienced juries.[48] "In fact, substantial sentencing disparities result even when judges receive identical case information."[49] This is largely because misjudging is not the result of informational defects or attitudinal prejudices, but rather cognitive blinders that affect the way judges and everyone else make judgments and decisions.[50] One area that judges may truly differ from juries is in their self-awareness about these blinders: experts mistakenly see themselves as less susceptible to biases, but they are wrong.[51]

Judges are anchored by probation officers' sentencing recommendations,[52] guidelines,[53] pretrial motions,[54] prosecutors' requests,[55] and even the random roll of dice.[56] Researchers have found evidence of the anchoring effect in decisions made by judges at the state, federal, and military court level, both domestically and overseas.[57] One review of 555 sentencing cases in a Spanish jurisdiction found 63.6% of the judgments were guided "by an anchoring effect in the public prosecutor's request or, in the case of an appeal, in the prior judicial decision."[58] An experiment, using nineteen first-year German trial judges, found sentences were dramatically higher from the judges who heard a high sentencing demand than from participants who heard a lower demand for the exact same scenario.[59] To show this effect was not the result of mere inexperience, the experi-

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assimilative sentencing bias than non-experts. But according to our data, expertise does not make any difference.").

47.   Chris Guthrie et al., *Inside the Judicial Mind*, 86 CORNELL L. REV. 777, 816 (2001) [hereinafter Guthrie et al., *Inside the Judicial Mind*].

48.   Morris B. Hoffman, *The Case for Jury Sentencing*, 52 DUKE L.J. 951, 987–89 (2003).

49.   Englich et al., *Last Word, supra* note 46, at 705.

50.   Guthrie, *Misjudging, supra* note 2, at 428.

51.   Englich et al., *Last Word, supra* note 46, at 717.

52.   *See* Ebbe B. Ebbesen & Vladimir J. Koneèni, *The Process of Sentencing Adult Felons: A Causal Analysis of Judicial Decisions, in* THE TRIAL PROCESS 413, 434 (Bruce Dennis Sales ed., 1981).

53.   Bennett, *supra* note 12, at 519–24.

54.   Guthrie et al., *Inside the Judicial Mind, supra* note 47, at 792–93.

55.   Fariña et al., *supra* note 45, at 60.

56.   Birte Englich et al., *Playing Dice with Criminal Sentences: The Influence of Irrelevant Anchors on Experts' Judicial Decision Making*, 32 PERSONALITY & SOC. PSYCHOL. BULL. 188, 194 (2006).

57.   *See* Jeffrey J. Rachlinski et al., *Can Judges Make Reliable Numeric Judgments? Distorted Damages and Skewed Sentences*, 90 IND. L.J. 695 (2015).

58.   Fariña et al., *supra* note 45, at 60.

59.   Birte Englich & Thomas Mussweiler, *Sentencing Under Uncertainty: Anchoring Effects in the Courtroom*, 31 J. APPLIED SOC. PSYCHOL. 1535, 1539–40 (2001).

menters replicated it on sixteen trial judges with an average of fifteen years of experience. Only this time, rather than the prosecutor asking for the sentence, it was a computer-science student—someone whose opinion was essentially worthless. Still they showed the same significant anchoring effect.[60]

The first sentencing recommendation—made by the prosecutor—forms such a strong anchor for sentencing decisions that it creates a distinct disadvantage for the defense.[61] Not only does the prosecutor's sentence recommendation anchor the judge, it influences the defense attorney's subsequent sentence recommendation.[62] When defense attorneys counter the prosecutor's offer, their number is adjusted based on the prosecutor's demand, which compounds the anchoring effect rather than counterbalancing it.[63]

Researchers have tested ways to combat this anchoring effect in civil judgments. Awards tend to be significantly lower when the defense specifies a rebuttal amount than when they do not.[64] In general, lower defense rebuttals produce lower awards than higher rebuttals.[65] Though a specific defense rebuttal helps reduce the size and variability of awards, it does not completely undo the anchoring effect of the plaintiff's initial request.[66] The two competing numbers tend to shape a range of acceptable awards, and "jurors assume that the appropriate compensation lies somewhere between."[67]

In an effort to find an effective strategy to combat the anchoring effect in the courtroom, researchers recently tested three defense approaches to a plaintiff's anchor within a mock civil trial scenario: (1) ignoring, (2) countering, and (3) attacking.[68] In that experiment (hereinafter the "Campbell Study"), the plaintiff asked for either $250,000 or $5 million.[69] The defense then responded by: (1) arguing against the request without specifying an appropriate alternative; (2) suggesting that the jury should award no more than $50,000; or (3) ridiculing the plaintiff's excess demand as an indicator of their lack of

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60. *Id.* at 1545.

61. Englich et al., *Last Word, supra* note 46, at 709.

62. *Id.* at 712.

63. *Id.* at 716.

64. Mollie W. Marti & Roselle L. Wissler, *Be Careful What You Ask For: The Effect of Anchors on Personal Injury Damages Awards*, 6 J. EXPERIMENTAL PSYCHOL. 91, 95 (2000).

65. *Id.* at 98.

66. *Id.* at 99.

67. *Id.* at 101.

68. John Campbell et al., *Countering the Plaintiff's Anchor: Jury Simulations to Evaluate Damages Arguments*, 101 IOWA L. REV. 543, 543–44 (2016).

69. *Id.* at 554–56.

credibility while still not specifying an alternative amount.[70] This research again confirmed a significant anchoring effect for the plaintiff's requests, raising average damages from $225,765 in the low anchor condition to $1,859,137 in the high anchor condition—an increase of 813%.[71] While the researchers did not find statistically significant differences in the three defense strategies, they did notice a pattern in which countering mitigated the anchoring effect more than ignoring.[72] Attacking the excessive anchor was least effective.[73]

III.   Experiment

Will a prosecutor's or plaintiff's anchor have a significant effect on the final determination? Can defense attorneys do anything to correct the anchoring effect? Previous research has answered with a qualified "yes it will" and "no they cannot"—at least short of changing the rules to allow the defense to argue first.[74] Not satisfied with that answer, and hoping to build off of the promising research on civil court judgments discussed above, we devised an experiment to test: (1) whether prosecutors' anchors affect sentencing adjudged in a mock criminal scenario; and (2) are there defense countering strategies that could be implemented immediately—consistent with current legal practice—that could help mitigate the anchoring bias?

Additionally, we sought to determine whether these anchoring or countering strategies caused jurors to favor the arguments of the prosecutor or defense counsel. Building off of the Campbell Study,[75] we tested four possible defense strategies to counter a prosecutor's sentencing anchor: (1) ignoring, (2) identifying, (3) countering, and (4) identifying and countering.

One of the most common strategies employed by defense counsel in response to a prosecutor's sentencing anchor is to simply ignore the anchor. This may be because many defense attorneys are unaware of just how strong the anchoring bias can be, or they are not convinced a counter strategy will yield positive results. In either case, we hypothesized, in line with recent research,[76] that this oft-used strategy

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70. *Id.*

71. *Id.* at 561.

72. *Id.* at 563.

73. *Id.*

74. *See* Birte Englich, *Blind or Biased? Justitia's Susceptibility to Anchoring Effects in the Courtroom Based on Given Numerical Representations*, 28 LAW & POL'Y 497 (2006); *see also* Englich et al., *Last Word, supra* note 46, at 709, 718–19.

75. Campbell et al., *supra* note 68.

76. *Id.*

would be the least effective in mitigating the anchoring effect. In other words, we thought ignoring prosecutors' recommendations would result in sentences most closely aligned with the prosecutor's anchor. Additionally, because doing so avoids criticizing the prosecutor's anchor technique, we posited that the result would favor the prosecutor.

We also wanted to research defense strategies that attacked the prosecutor's anchor strategy, but we identified weaknesses in previous empirical attempts aimed at this strategy. For example, in the Campbell Study, attacking the plaintiff attorney's credibility did not mitigate the anchoring effect at all.[77] Instead, when the defense attorney attacked the plaintiff attorney's credibility, simulated jurors actually awarded a higher damage award than when the defense attorney simply challenged the liability and award and ignored the anchor.[78] This is consistent with attribution theory, a body of psychological research showing that when one person attacks the character of another, the attacker is perceived as having lower integrity than when he has not attacked another's character,[79] and that those who provide negative evaluations of intellectual work are perceived as "brilliant but cruel."[80] The larger framework of attribution theory suggests that we have a tendency to attribute a person's behavior to internal, dispositional characteristics rather than situational factors (i.e., the fundamental attribution error).[81] Within the context of these experimental trial scenarios, participants who witness an attack on the plaintiff attorney's credibility may interpret this as a character flaw of defense counsel, rather than a criticism of the prosecutor's or plaintiff's technique. Thus, in contrast to the Campbell Study,[82] we chose not to attack the attorney providing the initial anchor, which in this case was the prosecutor.

Instead, we analyzed an identifying or informing strategy, similar to the study conducted by Timothy D. Wilson and his colleagues (hereinafter the "Wilson Study").[83] In the Wilson Study, participants

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77. *Id.* at 562.

78. *See id.* at 560.

79. Cindy Schultz & S. Mark Pancer, *Character Attacks and Their Effects on Perceptions of Male and Female Political Candidates*, 18 POL. PSYCHOL. 93, 99 (1997).

80. Teresa M. Amabile, *Brilliant but Cruel: Perceptions of Negative Evaluators*, 19 J. EXPERIMENTAL SOC. PSYCHOL. 146 (1983).

81. Daniel T. Gilbert, *Inferential Correction, in* HEURISTICS AND BIASES: THE PSYCHOLOGY OF INTUITIVE JUDGMENT 167 (Thomas Gilovich et al. eds., 2002).

82. Campbell et al., *supra* note 68.

83. Timothy D. Wilson et al., *A New Look at Anchoring Effects: Basic Anchoring and Its Antecedents*, 125 J. EXPERIMENTAL PSYCHOL. 387 (1996).

were forewarned that the numerical information they would receive might influence their subsequent judgments.[84] Although this strategy did help to mitigate anchoring biases, the adjustments participants made were not of sufficient magnitude to nullify the anchor effects.[85] The Wilson Study noted that while there were "indications that the forewarning manipulations influenced people's responses to some degree," anchoring effects occur unintentionally and unconsciously, so it is "difficult for people to know the extent to which an anchor value influenced their estimates."[86] As such, they cannot correct their responses appropriately.[87] In other words, people want to avoid a biased judgment, but genuinely do not see themselves as biased. Because they are unwilling or unable to recognize their bias, even when told, educating them is not enough. Based on these findings, we expected that simply making people aware of their own bias would also be ineffective.

Therefore, we decided to combine the two strategies of attacking and informing by attacking the prosecutor's technique through identifying the manipulative effect of anchoring. By doing so, we hoped not only to reduce sentences but also to shift favor toward the defense counsel by drawing jurors' attention to the manipulative strategy being employed by the prosecutor. We hypothesized this could reduce the anchoring effect because it would make the prosecutor's use of an anchor less reliable given that the emotional impact caused by the perception of "psychological manipulation" might disrupt the unconscious anchoring processes.

Additionally, a countering strategy has been tested empirically by a number of researchers as a defense strategy to combat the prosecutor's anchoring effect.[88] This strategy may not be popular with defense attorneys because it could be perceived as a concession of actual guilt and removes any residual doubt from the initial verdict. Countering also creates sentencing or damages floors that may be higher than what was already in the mind of a judge or juror. However, it was the most effective strategy in the Campbell Study's civil trial scenario in both the low and high anchor conditions.[89] Despite defense attor-

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84. *Id.* at 397.

85. *Id.* at 397–98.

86. *Id.*

87. *Id.*

88. Campbell et al., *supra* note 68; Marti & Wissler, *supra* note 64; Tina L. Decker, Effects of Counter-Anchoring Damages During Closing Argument (2006) (unpublished Ph.D. dissertation, University of Kansas) (on file with author).

89. Campbell et al., *supra* note 68, at 560.

neys' concerns, we expected our results to mimic the Campbell Study findings,[90] and hypothesized that the countering strategy would be effective in mitigating the anchoring effect in our criminal scenario.

We tested the countering strategy alone and in conjunction with the identifying strategy (*identify + counter* strategy). In practice, attorneys are not limited to only one strategy in their defense arguments; thus, we wanted to test whether the effectiveness of a countering strategy would be bolstered by the addition of the identifying strategy. As representatives of the state in criminal court proceedings, prosecutors are likely perceived as the vanguards of justice. Indeed, prosecutors are typically rated more highly than defense attorneys by real and mock jurors alike in terms of their honesty, intelligence, and skill.[91] Thus, it may be assumed that their sentencing recommendations are reasonable and fair. However, the *identify + counter* strategy alerts the jurors or judge that they must consider the opposite—that the prosecutor is using a high anchor in order to sway them towards a higher sentence, and that the fair and appropriate sentence is actually much lower than what the prosecutor suggested. Researchers have found that this "consider-the-opposite" technique may help compensate for the selective accessibility effects of anchoring,[92] perhaps by encouraging jurors to access information that is consistent with a lower anchor. Encouraging jurors to consider the opposite might also alert them to the possibility that the prosecutor is not being truthful about the appropriate sentence, disrupting the truth bias that most people maintain.[93] We hypothesized that this would be the most promising strategy for reducing or even eliminating the anchoring effect.

Finally, our last research question was: are these four defense strategies equally effective in both an exact-anchor condition (where the prosecutor suggested an exact sentence) and in a range-anchor condition (where the prosecutor suggested a range in sentence)? In

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90. *Id.*

91. *See* David L. Cohen & John L. Peterson, *Bias in the Courtroom: Race and Sex Effects of Attorneys on Juror Verdicts*, 9 Soc. Behav. & Personality 81, 85–86 (1981); *see also* Robert Fitzgerald & Phoebe Ellsworth, *Due Process vs. Crime Control: Death Qualification and Jury Attitudes*, 8 Law & Hum. Behav. 31, 39 (1984); *see also* Daniel Linz et al., *Attorney Communication and Impression Making in the Courtroom*, 10 Law & Hum. Behav. 281, 300 (1986); *see also* Adam Trahan, Don't Shoot the Messenger: Capital Jurors' Perceptions of Attorneys 15 (Aug. 2009) (unpublished Ph.D. Dissertation, Indiana University) (on file with author).

92. *Overcoming the Inevitable Anchoring Effect, supra* note 33, at 1145.

93. *See* Charles F. Bond, Jr. & Bella M. DePaulo, *Accuracy of Deception Judgments*, 10 Personality & Soc. Psychol. Rev. 214 (2006); *see also* Timothy R. Levine et al., *Accuracy in Detecting Truths and Lies: Documenting the "Veracity Effect,"* 66 Comm. Monographs 125 (1999).

previous studies, most researchers examined the anchoring effect with exact anchors (e.g., 140 years old[94] or $5 million[95]). However, in practice, prosecutors or plaintiffs may not suggest an exact number; instead, they may suggest an appropriate range for damages or sentencing. In a 2015 study, Ames and Mason examined the effects of range offers on negotiations.[96] They argued that offer recipients would not simply focus on the more attractive point within the range (i.e., the low end when buying a car), but rather that the range endpoints serve as tandem anchors, providing the recipient information about the appropriate outcome.[97] Additionally, they suggested that extreme counter-offers would be perceived as less polite when the offer-maker suggested a range rather than an exact point.[98] In their series of five studies, Ames and Mason found support for both of these hypotheses: when offer-makers proposed a range instead of an exact point during different types of negotiations (i.e., catering costs, salaries, and used car prices), it resulted in deal benefits for the offer-makers and increased feelings on behalf of the offer recipient that extreme counter-offers were impolite.[99] Although plaintiffs and prosecutors vary considerably as to whether they propose a range or an exact settlement or sentence, the effects of this have not yet been tested within the realm of juror decision-making. Based on previous research, we hypothesized that the anchoring effect would persist in both the exact and range conditions; however, we expected that defense counsel's counters would be perceived as less polite when the prosecutor suggested a range, resulting in more favor for the prosecutor when using the counter strategy.

A. Methods

1. Participants

The participants for this Article's study were comprised of 780 adults (338 men and 442 women) from the United States, recruited through Amazon's Mechanical Turk ("MTurk") participant pool.[100] The average age of participants was 39.32 years (*Standard Deviation* =

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94. *Considering the Impossible, supra* note 32.

95. Campbell et al., *supra* note 68, at 559.

96. Daniel R. Ames & Malia F. Mason, *Tandem Anchoring: Informational and Politeness Effects of Range Offers in Social Exchange*, 18 J. PERSONALITY & SOC. PSYCHOL. 254 (2015).

97. *Id.* at 255.

98. *Id.*

99. *Id.* at 268–70.

100. *Amazon Mechanical Turk*, AMAZONJOBS, https://www.amazon.jobs/team/mechanical-turk (last visited Mar. 2, 2018) [https://perma.cc/E4VP-XKQV].

13.17), their average income was $30,000-$49,999 per year, and they were mostly Caucasian (81%), followed by Hispanic (6%), African American (5%), Asian (5%), and other ethnicities (3%).[101] As with most research involving MTurk samples, the participants were highly educated: approximately 90% of the sample reported education beyond a high school degree; moreover, 61% of the sample had at least a college degree, and 18% reported a postgraduate degree. Meanwhile, 83% reported some sort of religious or spiritual affiliation. With regard to prior jury experience, 168 participants (22%) reported that they had served on a jury before: 124 (16%) had served on a jury for at least one criminal case, and 87 (11%) had served on a jury for at least one civil case. Of those who had served on a jury, 33% adjudged a sentence. The sentences they reported ranged from a nominal fine to 25 years in prison. Because we presented the participants with a scenario involving a military defendant, we also measured military affiliation: 64 participants (8%) were affiliated with the military, with a vast majority of those (72%) reporting that they were veterans.

2. Procedure

After agreeing to participate in our ethics board-approved study, participants were directed to an external website that hosted the survey content. The participants first completed a consent form and then answered basic demographic questions. Next, they were presented with one of thirteen versions of a criminal mock trial scenario that differed in terms of the prosecutor's anchor (high versus low and exact versus range) and the defense's counter-anchor technique, as described below.

3. Trial Scenario

Participants were presented with a three-page written description of a mock criminal trial involving a U.S. Air Force serviceman who had pled guilty to burglary.[102] All participants were given opening instructions where they were advised that the maximum sentence for this crime was 120 months (ten years) of confinement, and they were directed to select a sentence that would "best serve the welfare of society and the needs of the accused." They were then provided with a factual scenario that contained the details of the crime. At this point, the participants were randomized (by the survey system) into thirteen differ-

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101. These percentages reflect racial composition of the 539 participants who answered this question.

102. *See infra* Appendix A (showing the scenario provided to participants).

ent conditions containing the prosecutor and defense attorneys' sentencing arguments. There was one control condition, in which the prosecutor and the defense attorney argued for a higher sentence and a minimal sentence, respectively. The prosecutor suggested that "burglary is one of the most intimate and violating crimes that can be perpetrated," and "only a strong sentence will show society how seriously we take this crime." Meanwhile, the defense attorney asked to "show leniency to a first-time offender," and "he knows he has to pay for his wrongdoing, but wants the best chance to be a productive citizen going forward." However, in this control condition, neither the prosecutor nor defense counsel provided a numerical anchor. There were also twelve experimental conditions where participants were presented with either a high or low anchor from the prosecutor, an exact or range anchor from the prosecutor, and then one of four counter-anchoring techniques from the defense attorney.

B.   Independent Variables

1.   Anchor Type

Participants in the experimental conditions were presented with one of two anchor types (low or high) from the prosecutor, and in the high anchor condition, the prosecutor suggested either an exact sentence or a range.

2.   Low vs. High Anchor

In the low anchor condition, the prosecutor's statement contained the same arguments as in the control condition; however, the prosecutor ended his statement with the following: "The law allows for 120 months of confinement, because that's how serious the crime of burglary is. Airman Abis deserves at least 24 months in jail." Meanwhile, in the high anchor condition, the statement ended with: "The law allows for 120 months of confinement, because that's how serious the crime of burglary is. Airman Abis deserves the full 120 months in jail."

3.   Exact vs. Range Anchor

There were two separate conditions within the 120-month argument. In the exact condition, the prosecutor proposed an exact sentence: "Airman Abis deserves the full 120 months in jail." Meanwhile, in the range condition, the prosecutor proposed a range: "Airman

Abis deserves 110-120 months in jail." The remainder of the argument was the same across groups.

C. Defense Strategy

After the prosecutor argued for a particular sentence, the participants were presented with one of four counter-anchor arguments from the defense counsel (i.e., *ignore, identify, counter*, or *identify + counter* strategies). As described above, these were adapted from the Campbell Study's counter-arguments (i.e., *ignore, attack*, and *counter* strategies)[103] and information learned from the Wilson Study on the anchoring effect.[104]

1. Ignore Strategy

The *ignore* strategy consisted of an argument from the defense that the Airman should receive a minimal sentence; however, the defense counsel did not identify that the prosecutor was using the anchoring effect or provide any counter-anchor. This was the same defense strategy employed in the control condition. In summation, the defense counsel's strategy in this scenario was to ignore the prosecutor's anchor entirely.

2. Identify Strategy

For the *identify* strategy, defense counsel brought the concept of anchoring to the attention of participants by arguing that "the prosecutor is only throwing out [24 months, 120 months, or 110-120 months] to anchor your opinion at this ridiculously high number: it's psychological manipulation."[105] The goal with this strategy is to alert the adjudicator to the prosecutor's use of an anchor as a way of combating the subliminal effect that an anchor can have on an unwitting audience.

3. Counter Strategy

For the *counter* strategy, participants were told that "the defense counsel would like to argue for 0 months' confinement, but the defense counsel is going to level with you and admit the appropriate sentence for this case is somewhere between 3 and 6 months." While

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103.   Campbell et al., *supra* note 68, at 559–60.
104.   Wilson et al., *supra* note 83.
105.   The information contained within brackets (i.e., the length of suggested sentence in months) varied depending on the anchor condition.

this strategy does not draw attention to the use of an anchor, it sets a competing anchor against the prosecutor's sentence recommendation.

4. Identify + Counter Strategy

For the *identify + counter* strategy, defense counsel combined the *identify* and *counter* strategies, stating:

> The prosecutor is only throwing out [24 months, 120 months, or 110-120 months] to anchor your opinion at this ridiculously high number: it's psychological manipulation. The defense counsel says many defense counsel would ask you to give 0 months' confinement, just to anchor your opinion at a lower number. But the defense is going to level with you and admit that the appropriate sentence for this case is somewhere between 3 and 6 months.

D.   Dependent Variables

We had two main outcome measures of interest: length of sentence adjudged (a numerical variable) and favor for the prosecutor or defense counsel, as measured by participants' qualitative comments about the reasons for their sentence and the arguments that meant most in their sentencing decision.

1.   Sentence

After viewing the trial scenario for their respective groups, all participants were asked to "select the most appropriate term of confinement, if any, choosing any whole number from 0 to 120 months."

2.   Favor for Prosecutor or Defense Counsel

Participants were also asked two qualitative questions: (1) what were your reason(s) for assigning the sentence that you gave; and (2) whose arguments meant the most to you, and why? Two trained and independent raters, blind to the participant groups, coded these qualitative comments. The raters coded the participants' responses based on whose arguments were most meaningful (0 = *prosecutor,* 1 = *defense,* 2 = *both,* or 3 = *neither, personal experience, don't know,* or *nonsense*).[106] Cohen's kappa, a measure of inter-rater reliability, was excellent for these ratings (κ = .82). According to researchers Landis and Koch,[107] inter-rater agreement over .81 is "almost perfect." Differences between

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106.   These participants (n = 61) were excluded from the analyses involving this data.

107.   J. Richard Landis & Gary G. Koch, *The Measurement of Observer Agreement for Categorical Data,* 33 BIOMETRICS 159, 165 (1977).

raters were resolved by discussion, which produced a single favor rating for each participant (0, 1, 2, or 3, as described above).

E.   Analysis Plan

To examine the effect of our experimental conditions on sentence adjudged, we first conducted preliminary analyses to establish that there were no interactions between our demographic variables and our outcome measures of interest. Then, an Analysis of Variance ("ANOVA") was conducted between the control and ignore groups to measure the effectiveness of a low versus high anchor without any defense countering. Next, to examine the effectiveness of the counter strategies with each of these anchors (low and high), a 2 (low versus high anchor) x 4 (*ignore, identify, counter, identify + counter*) ANOVA was conducted with sentence adjudged as the dependent variable. And finally, to examine the effectiveness of the counter strategies in the exact versus range condition, a 2 (exact versus range anchor) x 4 (*ignore, identify, counter, identify + counter*) ANOVA was conducted. In each case, both the main effects and interaction effects were explored, and when there were significant results, Bonferroni post-hoc comparisons were used to determine which groups differed significantly.

Meanwhile, to examine the effects of these anchor types and countering strategies on prosecutor and defense favor, chi-square tests—analyses that compare statistically the expected versus observed frequencies—were conducted to compare the percentage of people who favored the prosecutor's argument against those that favored the defense arguments in each condition.

IV.   Results

Before exploring our research questions of interest, we first examined whether there were any significant relationships between sentence adjudged and our demographic variables (i.e., age, gender, ethnicity (Caucasian or non-Caucasian), household income, religiosity (religious or non-religious), previous jury experience, and military affiliation). Notably, there were no significant correlations between any of the demographic variables and sentence adjudged or differences between groups (e.g., men versus women) in sentence adjudged (all ps > .20). Thus, none of these demographic variables were included as control factors in the subsequent analyses.

Table 1 displays the sentence adjudged by participants in each of the conditions. As shown in Table 1, the sentence adjudged differed greatly depending on whether participants received a low or high

anchor from the prosecutor and the defense attorney's countering strategy. Participants' adjudicated sentences spanned a range from a low of 22.70 months when the prosecutor imposed a low anchor and defense counsel implemented the *identify + counter* strategy; to a high of 54.03 months when the prosecutor provided an exact high anchor with the defense counsel employing the *ignore* strategy.

Table 1: Descriptive Statistics for Sentence Adjudged by Control and Experimental Groups

Condition or Group	Strategy		n	M (SD)	95% CI	Range
Control Group	–		55	47.13 (40.62)	[36.15, 58.11]	0-120
Low anchor	–	Ignore	63	36.02 (28.72)	[28.72, 43.31]	0-120
	–	Identify	62	30.53 (27.09)	[23.65, 37.41]	0-120
	–	Counter	63	28.33 (26.67)	[21.62, 35.05]	0-120
	–	Identify + Counter	63	22.70 (26.91)	[15.92, 29.47]	0-120
Exact high anchor	–	Ignore	67	54.03 (41.79)	[43.84, 64.22]	3-120
	–	Identify	55	53.58 (37.20)	[43.52, 63.64]	0-120
	–	Counter	63	34.84 (36.01)	[25.77, 43.91]	0-120
	–	Identify + Counter	57	29.93 (29.51)	[22.10, 37.76]	0-120
Range high anchor	–	Ignore	58	48.88 (43.32)	[37.49, 60.27]	0-120
	–	Identify	60	48.68 (35.09)	[39.62, 57.75]	3-120
	–	Counter	58	40.86 (32.90)	[32.21, 48.51]	2-120
	–	Identify + Counter	56	42.39 (36.92)	[32.27, 52.51]	0-120

M = mean, *SD* = standard deviation, CI = confidence interval.
Low anchor = 24 months suggested sentence from prosecutor.
Exact high anchor = 120 months suggested sentence from prosecutor.
Range high anchor = 110-120 months suggested sentence from prosecutor.

### A.   Anchoring Effects in Criminal Trial Scenarios

Our first research question was whether the prosecutor's anchor would have a significant effect on sentence adjudged, favor for the prosecutor, or favor for the defense counsel in a mock criminal scenario. Therefore, we conducted an ANOVA to compare the sentences adjudged in the control, low anchor, and high anchor conditions (exact and range combined). In each case, we included only those conditions where the defense ignored the prosecutor's argument; thus, the defense counsel counter-arguments were constant across groups. This ANOVA showed that there was a significant difference in sentence adjudged between groups ($F(2, 240) = 3.38$, $p = .036$).[108] To discern which groups differed from each other, we conducted Bonferroni

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108.   *F* statistics are reported when running an ANOVA, which is used to test whether the means of two or more populations are significantly different. When p < .05, this indicates a significant finding.

post-hoc comparisons, which showed that the low anchor condition produced significantly lower sentences than the high anchor condition (p = .03); however, the average sentence adjudged in the high anchor condition (i.e., 120 months suggested by prosecutor) was not significantly different from the sentence adjudged in the control condition, where only the maximum sentence (120 months) was provided in the trial scenario (p = .371).

Additionally, whether the participants favored the prosecutor's or defense counsel's arguments differed by anchor type (χ^2(1, n = 207) = 15.581, p < .001). Those who were presented with a high anchor were 29% more likely to favor the defense counsel's arguments than those who were presented with the low anchor, and they were 20% more likely to favor defense counsel's arguments than those who received no anchor (control group).[109]

Figure1: Percentage of Participants Favoring Prosecutor or Defense Arguments by Anchoring Condition[110]
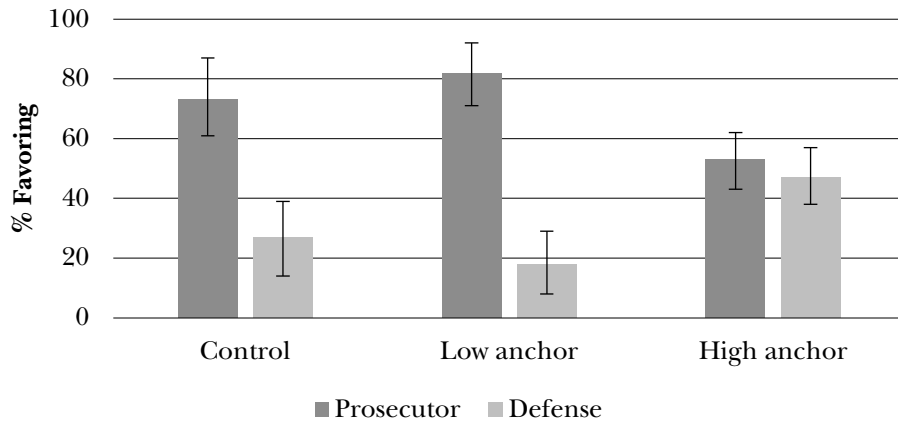
B.   Effectiveness of *Countering* Strategies in Different Anchoring Conditions

Our second research question examined whether the defense counsel's *counter* strategy significantly affected sentencing adjudged,

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109.   *See infra* Figure 1.

110.   Figure 1 represents the percentage of those favoring prosecutor's arguments or defense arguments in control, low anchor, and high anchor conditions. Only those participants in the *ignore* strategy in the low and high anchor conditions were included in these analyses (n = 207); those participants who favored both, neither, or gave irrelevant answers (n = 36) were excluded from analyses. Error bars represent 95% confidence intervals.

and whether these defense strategies were differentially effective when the prosecutor provided a low or high anchor. Thus, we conducted a 2 (low versus high anchor) x 4 (*ignore, identify, counter, identify + counter*) ANOVA with sentence adjudged as the dependent variable. For group comparability, we included only those conditions where the prosecutor suggested an exact sentence.

As expected, there were significant differences in the sentence adjudged for the low versus high anchor ($F(1, 492) = 22.48$, $p < .001$, $\eta^2 = .04$) and by defense strategy ($F(3, 490) = 9.12$, $p < .001$, $\eta^2 = .051$). A post-hoc t-test, a statistical test completed after initial analysis to discern which groups differed significantly from each other, showed that participants in the high anchor condition adjudged significantly higher sentences than those in the low anchor condition ($M = 43.26$, $SD = 37.97$ and $M = 29.39$, $SD = 27.68$, respectively). Additionally, Bonferroni post-hoc comparisons showed when defense counsel used the *identify + counter* strategy ($M = 26.13$, $SD = 28.29$), participants adjudged significantly lower sentences than when defense counsel simply ignored the anchor ($M = 45.30$, $SD = 37.13$) or used the *identify* strategy ($M = 41.37$, $SD = 34.11$) (all $ps > .01$). When defense counsel used the *counter* strategy, participants adjudged significantly lower sentences than when he ignored the anchor ($p = .006$). All other group differences were insignificant. Meanwhile, the interaction effect between low versus high anchor and countering strategy was also insignificant ($F(3, 490) = 1.93$, $p = .124$, $\eta^2 = .011$), which suggests that although the high anchor sentences were higher, the four defense strategies had similar relative efficacies when the prosecutor proposed a low or high anchor.

In terms of arguments favored, as Figure 2 shows, whether the participants favored the prosecutor or defense counsel's argument differed by defense strategy ($\chi^2(1, n = 592) = 11.053$, $p = .011$). In this case, when defense counsel identified that the prosecutor was using an anchoring strategy (*identify* or *identify + counter* strategies), participants were more likely to favor the defense counsel's arguments. In numerical terms, favor shifted approximately 13% toward defense counsel when using the *identify* strategy.

Figure 2: Percentage of Participants Favoring Prosecutor or Defense Arguments by Defense Strategy[111]

■ Prosecutor   ■ Defense
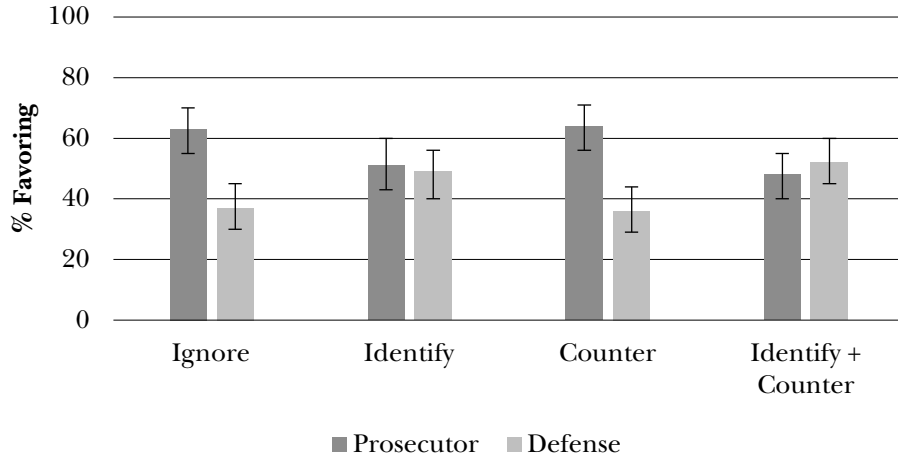
C. Exact Anchor vs. Range Anchor

Finally, we examined whether there were differences in sentences adjudged when the prosecutor suggested an exact sentence as opposed to a range, and whether the defense counsel's countering strategies were differentially effective within these two conditions. Therefore, a 2 (exact versus range anchor) x 4 (*ignore, identify, counter, identify + counter*) ANOVA was conducted, including only those participants who had been presented with the high anchor sentence. Again, there was a significant effect for defense strategy ($F(3, 471) = 5.890$, $p = .001$, $\eta^2 = .036$). In this case, when defense counsel used the identify + counter strategy ($M = 36.11$, $SD = 34.28$) or the counter strategy ($M = 37.73$, $SD = 34.54$), participants adjudged significantly lower sentences than when the defense counsel ignored the anchor entirely ($M = 51.64$, $SD = 42.41$) or when the *identify* strategy was used ($M = 51.03$, $SD = 36.04$) (all $ps < .05$). All other differences were insignificant. However, there was no significant difference between exact versus range anchor ($F(1, 473) = 0.383$, $p = .536$, $\eta^2 = .001$), and there also was no significant interaction effect for exact versus range anchor x defense strategy ($F(3, 471) = 1.589$, $p = .191$, $\eta^2 = .010$). Thus, the sentences were not significantly different when the prosecutor sug-

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111. Figure 2 represents the percentage of those participants favoring prosecutor's arguments or defense arguments by defense strategy ($n = 592$); those participants who favored both, neither, or gave irrelevant answers ($n = 133$) were excluded from analyses. Error bars represent 95% confidence intervals.

gested an exact sentence versus a range, and the defense strategies were similarly effective in both conditions.

In regard to whose argument was favored in the exact versus range conditions, as shown in Figure 3, whether the participant was presented with an exact sentence or a range from the prosecutor was not significantly related to whether he favored the prosecutor's or defense counsel's arguments ($\chi^2(1$, $n = 381) = 0.749$, $p = .387$).

**Figure 3: Percentage of Participants Favoring Prosecutor or Defense Arguments by Anchor Type**[112]
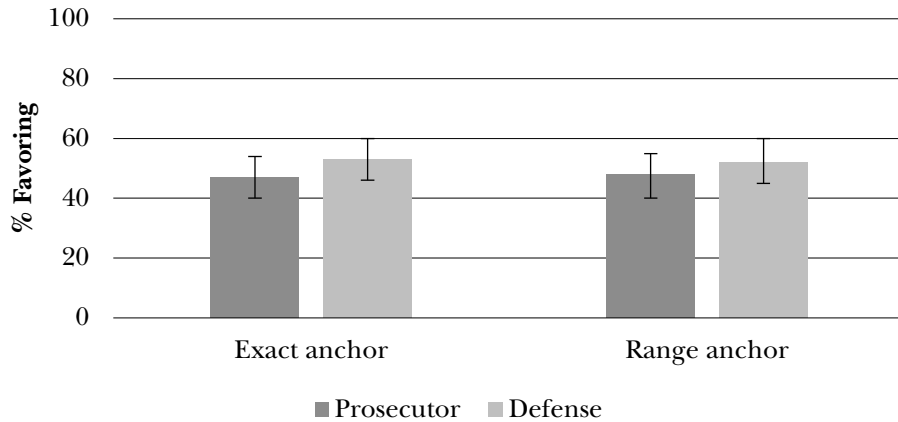
To explore this issue further, we also examined whether participants in the high anchor condition would favor defense counsel less when countering a range sentence from the prosecutor (110-120 months) as opposed to an exact sentence from the prosecutor (120 months). See Figure 4. In this scenario, the defense counsel simply countered the prosecutor's recommended sentence by suggesting a 3-6 month sentence range. Analysis shows that there was a significant difference in the percentage of participants who favored the defense counsel's argument, depending on whether the prosecutor suggested an exact sentence or a range ($\chi^2(1$, $n = 101) = 4.124$, $p = .042$). More specifically, participants were 20% less likely to favor defense counsel when he countered the range offer (110-120 months) than when he countered the exact offer (120 months). However, when defense

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112. Figure 3 represents the percentage of those participants favoring prosecutor's arguments or defense arguments in the exact and range high anchor conditions (120 months or 110–120 months) ($n = 381$); those participants who favored both, neither, or gave irrelevant answers ($n = 93$) were excluded from analyses. Error bars represent 95% confidence intervals.

counsel used the *identify + counter* strategy to counter the prosecutor's suggested sentence, these significant differences disappeared ($\chi^2(1, n = 88) = 0.411, p = .521$). With the *identify + counter* strategy, participants were only 7% less likely to favor defense counsel when he countered the range offer than when he countered the exact offer. In other words, participants did seem to be more critical of defense counter offers when prosecutors appeared flexible in their sentencing recommendations. Most importantly, the *identifying* strategy appeared to decrease negative perceptions about the defense counsel's counter of a prosecutor's range anchor.

Figure 4: Percentage of Participants Favoring Prosecutor or Defense Arguments by Anchoring Condition and
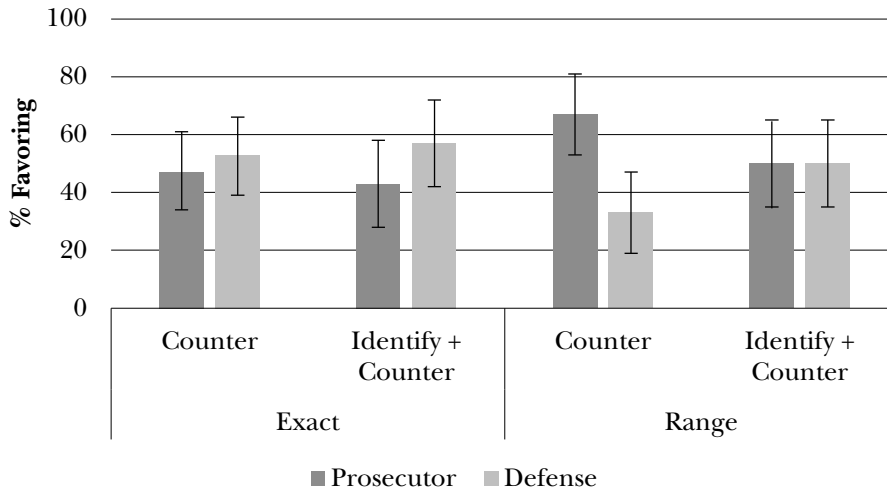
V.   Implications

Our findings have broad implications for both policy and practice. First, with regard to policy, there are a variety of laws already in place—including sentencing guidelines, damage caps, maximum punishments, and a move toward judge-alone sentencing—that attempt to mitigate sentencing and damages disparity, but do not necessarily address the issues caused by the anchoring effect.

That being said, the anchoring bias can be reduced without requiring changes in the law. For example, one reaction to the dissatisfaction with discretionary and indeterminate sentencing regimes that

failed to curb unjust disparities was to create sentencing guidelines.[113] An issue with sentencing guidelines has been the way that they motivate prosecutors to charge cases differently to create different sentencing ranges.[114] Additionally, advisory sentencing guidelines themselves have a significant anchoring effect—and intentionally so.[115] As compared to the whims of counsel, the anchoring impact of sentencing guidelines may well be preferable. It is important, however, that both policymakers and judges acknowledge the coercive effect of even nonbinding guidelines. As an additional protection against this effect, Federal District Court Judge Mark Bennett suggests a "modest proposal" that judges first arrive at a tentative sentence based on the sentencing factors as applied to the facts of the case and only then look at the sentencing guidelines.[116] Unlike other approaches, which would require changes in the law, Judge Bennett's proposal can be implemented immediately by individual judges to reduce anchoring bias in their sentences.

Another reaction, in the civil litigation arena, has been tort reform efforts to cap damages. In addition to a host of other problems, damage caps actually seem to increase award amounts as they anchor damages upwards toward the cap.[117] This is not altogether different from maximum punishments in criminal cases and makes sense based on the anchoring research discussed earlier. If any available number—even an irrelevant one—tends to anchor judgment under uncertainty, one would expect that punishment limits would have an anchor and adjustment effect. An obvious policy solution would be to ensure that jurors are not informed of damage caps or maximum punishments. Instead, after their determination, a judge would adjust the verdict to the extent required by law. Of course, this would not work in judge-alone cases, where judges would be aware of the maximum permitted damage awards or criminal sentences by necessity.

A reaction in the criminal arena, discussed at length by Federal District Court Judge Morris Hoffman,[118] has been the near complete transfer of sentencing authority from juries to judges. As late as 1960,

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113. Rachel E. Barkow, *Sentencing Guidelines at the Crossroads of Politics and Expertise*, 160 U. PA. L. REV. 1599, 1619 (2012).

114. *Id.* at 1624; *see* U.S. SENTENCING COMM'N, SPECIAL REPORT TO THE CONGRESS: MANDATORY MINIMUM PENALTIES IN THE FEDERAL CRIMINAL JUSTICE SYSTEM 89 (1991).

115. Bennett, *supra* note 12, at 519–24.

116. *Id.* at 529–32.

117. Jennifer K. Robbennolt & Christina A. Studebaker, *Anchoring in the Courtroom: The Effects of Caps on Punitive Damages*, 23 LAW & HUM. BEHAV. 353, 359 (1999).

118. Hoffman, *supra* note 48, at 956.

thirteen states still retained jury sentencing in noncapital cases; only five states did so as of 2003.[119] Even the military justice system, a long holdout for jury sentencing, is inching toward judicial sentencing. The Military Justice Act of 2016 implemented judge sentencing as the default, while still allowing an accused to elect sentencing by a jury.[120] However, it is not at all clear that judges are any less susceptible to prejudice or any more uniform and predictable in sentencing than jurors.[121] As discussed earlier, research indicates judges are just as susceptible to the anchoring bias, though less aware of it.[122]

In addition to existing policies, researchers have proposed new policies that are worth considering in order to reduce the anchoring bias in sentencing. One research team, noting that allowing the prosecution to propose the first sentence puts the defense at a distinct disadvantage, proposes reassessing procedural sequences in court.[123] Though it would require a change from longstanding tradition, research indicates that if the defense argued first, it would be their sentencing recommendation that sets the initial anchor from which the end result would be derived.[124] This, of course, would not eliminate the anchoring effect, but merely transfer its favorability to the defense.

Some civil courts do not allow a plaintiff to request a specific sum for noneconomic damages while other trial courts give judges discretion to allow or prohibit a plaintiff's request for a specific amount.[125] Some civil litigators advise defense counsel to make a motion in limine or object during argument to exclude a plaintiff attorneys' suggestion of specific monetary sums for noneconomic damages.[126] This approach to limiting the anchoring effect in civil court judgments is

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119.   *Id.* at 966.

120.   National Defense Authorization Act for Fiscal Year 2017, Pub. L. No. 114–328, § 5222, 130 Stat 2000, 2909 (2016). Amending 10 U.S.C. Section 839 to make the military judge responsible for "conducting a sentencing proceeding and sentencing the accused in non-capital cases unless the accused requests sentencing by members." *Id.* Notably, the Report of the Military Justice Review Group, which formed the basis for many of the changes in the Military Justice Act of 2016, recommended a transition to full "judge-alone sentencing in all non-capital cases." *Report of the Military Justice Review Group*, MIL. JUST. REV. GROUP. 481 (Dec. 22, 2015).

121.   *See* Hoffman, *supra* note 48, at 986–87.

122.   Englich et al., *Last Word, supra* note 46, at 706.

123.   *Id.* at 718.

124.   *Id.*

125.   Don Rushing et al., *Anchors Away: Attacking Dollar Suggestions for Non-Economic Damages in Closings*, 70 DEF. COUNS. J. 378, 382–83 (2003).

126.   *Id.* at 386.

strongly supported by research and seems very well-advised for defense counsel in jurisdictions that allow it.

Similarly, policy makers might consider the possibility of precluding counsel from arguing for a specific sentence in criminal trials. If this change would be too disruptive, the timing of any specific sentence recommendation by counsel could be adjusted. As Judge Bennett proposed for the sentencing guidelines,[127] perhaps judges and juries could be required to formulate a sentencing range before they hear arguments from counsel on the appropriate sentence. Quite obviously this would reduce counsel's opportunity to persuade, but maybe that is preferable in sentencing outcomes—sentences that reflect the evidence rather than the persuasive powers of any individual attorney or cognitive bias.

Trial litigators need not wait for policy changes, however, as our findings have immediate implications for both civil and criminal attorneys. This Article confirms a powerful anchoring effect in court judgments from the prosecutor's initial sentencing recommendation. Thus, as others have suggested,[128] prosecutors who desire a longer sentence need only set their sentencing recommendation high, and the jury or judge will likely assimilate to that anchor. However, far from being a recommendation for prosecutors to "ask for more to get more," our findings suggest prudence and careful consideration of sentences adjudicated in similar cases with similar offenders to ensure fairness in wielding such great power. Prosecutors must also be mindful that suggesting a high sentence, especially without offering a range, may swing favor towards defense counsel. Our results were consistent with previous research showing that jurors have less favorable views of plaintiffs when they suggest higher damage awards.[129] This loss of favor did nothing to mitigate the strong anchoring effect, and jurors still adjudged higher sentences in the high anchor condition. Consequently, when they believe it is in the best interest of society for the offender to be incarcerated, prosecutors are advised to suggest a high sentence.

Our findings have even greater implications for defense attorneys. The anchoring effect is far too powerful for defense attorneys to ignore. In fact, ignoring essentially cedes control over the sentencing outcome to the prosecutor, resulting in sentences skewed heavily toward the prosecutor's request. In our experience, and as others have

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127. Bennett, *supra* note 12, at 519–24.
128. Chapman & Bornstein, *supra* note 40.
129. *Id.* at 526.

noted,[130] ignoring is a common approach taken by defense counsel. Whether they are concerned about conceding liability, unwilling to commit to a specific punishment, or worried about surrendering the possibility of a lower sentence, many defense attorneys take a "safe" approach, and argue simply that the prosecutor's recommendation is unreasonable and the sentence should be much lower. While this conservative approach may feel safe, it fails empirically, because of the powerful effect of the single anchor. Therefore, defense attorneys must be proactive in countering the anchoring effect through their sentencing argument.

Our research suggests that countering with a defense anchor is essential to mitigating the anchoring effect. Even if the sentencing authority uses only the two competing anchors to establish a reasonable range of outcomes and splits the difference, defense attorneys will benefit from proposing an alternate number. However, the science suggests something far more important happens when a counter-anchor is proposed. It gives the judge or jury the opportunity to consider how the lower number might fit with the facts of the crime. A low number activates selective accessibility for those facts that make the crime less severe—those mitigating and extenuating circumstances that are consistent with the lower anchor. Thus, counter-anchoring makes inroads that an argument alone is unable to do.

Countering is excellent at reducing the effects of a single anchor, but it does nothing to tilt the balance on the argument-favored scale. It does not undermine the prosecutor's innate favorability as the representative of truth and justice within the courtroom, and the prosecutor's anchor still seems highly relevant and unbiased. An identifying strategy can help shift the emotional balance. Rather than falling into the trap of attacking the prosecutor's character, and thereby losing the defense's own credibility, defense attorneys are well-advised to attack the technique. Identifying the manipulative effect of the prosecutor's anchor dramatically swung favorability ratings from the prosecutor's side to the defense. This may be because people generally trust that others are telling the truth,[131] and when presented with information that counters this assumption, negative emotional reactions ensue, which can lead to relationship deterioration.[132] In this case, when jurors were alerted to a possible trick, they lowered their

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130. Campbell et al., *supra* note 68.

131. Bond & DePaulo, *supra* note 93; Levine et al., *supra* note 93.

132. *See* Steven A. McCornack & Timothy R. Levine, *When Lies are Uncovered: Emotional and Relational Outcomes of Discovered Deception,* 57 COMM. MONOGRAPHS 119 (1990).

estimation of the trickster and adjusted their sentences towards the defense counsel's recommendation. Unexpectedly, this swing in favorability toward the defense had no effect on sentencing outcomes in the *identify* alone strategy. With a single anchor still standing, the favorability gains are unrealized potential.

When combined, identifying and countering strategies produce the greatest gains. Across conditions, the *identify* + *counter* strategy had the most dramatic impact on sentencing decisions, beating the *ignore* strategy by 37% in the low anchor condition and 45% in the high anchor condition. The *identify* strategy appears to prepare a fertile field by shifting favorability opinions, allowing the seeds of a counter-anchor to take root and grow. If defense attorneys are seeking to implement just one point from this research, it should be the use of an *identify* + *counter* strategy in sentencing.

We are not aware of any other research testing an *identify* + *counter* strategy to combat anchoring effects. As this study shows, the *identify* + *counter* strategy holds the most promise for trial attorneys. This strategy could be valuable not only in the criminal sentencing context, but also in civil court with jury awards and in negotiation contexts where anchoring is exceedingly important. The *identify* + *counter* strategy is ripe for further refinement, development, and testing in subsequent research that builds from this study.

VI.   Limitations

Though our research findings have profound implications for trial practitioners, they are also limited by several aspects of the research setting. First, as real sentencing decisions are often made by judges or multi-member juries, the generalizability of our results is limited because we used neither. Certainly, it would be ideal to test our response strategies on judges to ensure that they have the same powerful anchor effect; however, studies suggest it likely will have the same effect.[133] When researchers have studied judges using anchoring scenarios, judges reacted similarly to lay people, showing susceptibility to psychological biases with less awareness of those biases.[134]

It is also important to note that the participants in this study independently passed sentences, rather than partaking in the collaborative process of jury deliberations. In some legal contexts (i.e., civil courts, a few states, and the military justice system), award determination and

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133.   See the discussion on the anchoring effect on judges in Part II, *supra*.

134.   Englich et al., *Last Word, supra* note 46, at 716–17.

sentencing can be done by juries. Instead of a single judge susceptible to bias, there may be 6, 8, or 12 individual jurors who arrive at a sentence through group deliberation. It is not clear how the deliberative process might moderate or exacerbate anchoring bias. In a previous study,[135] researchers attempted to correct for a multi-member jury by grouping and averaging collections of individual responses.[136] This haphazard approach has little statistical or practical applicability, so we did not attempt it here. The important dynamic of a jury deliberation is not that the end result is an average of each juror's view. Rather, it is by encouraging robust discussion, more points of view will be brought into the conversation, jurors will consider factors they may have overlooked, and individual biases might be moderated in the process. There is no way to replicate this through statistical analysis; it would require researchers to test strategies with group deliberations, which was not done here. Within the context of our experimental scenario, we found that each juror will be impacted by the anchoring bias and the countering techniques we tested; however, it does not test how the group dynamic of deliberations might affect these results. This is a promising direction for future study.

Second, we used a sample of paid MTurk participants from an Amazon worker pool. A growing body of research has shown that MTurk participants exhibit similar or better performance on a variety of tasks as compared to college students.[137] However, MTurk participants have been criticized recently for their motivation to complete tasks quickly and tendency to give answers that are just "good enough."[138] Although it may be that some participants completed the task quickly, our goal was to compare conditions; hence, this expediency would not affect the results unless all of the speedy and less conscientious MTurk participants were clustered into one condition. Random assignment to conditions, such as that employed in this study, provides a foundation to meaningfully compare groups regard-

135.   Campbell et al., *supra* note 68.

136.   *Id.* at 556–58.

137.   *See* Michael Buhrmester et al., *Amazon's Mechanical Turk: A New Source of Inexpensive, Yet High-Quality, Data?*, 6 PERSP. ON PSYCHOL. SCI. 3 (2011); *see also* Krista Casler et al., *Separate but Equal? A Comparison of Participants and Data Gathered Via Amazon's MTurk, Social Media, and Face-to-Face Behavioral Testing*, 29 COMPUTERS HUM. BEHAV. 2156, 2156–57 (2013); *see also* David Hauser & Norbert Schwarz, *Attentive Turkers: MTurk Participants Perform Better on Online Attention Checks than do Subject Pool Participants*, 48 BEHAV. RES. METHODS 400, 400–01 (2016).

138.   Tyler Hamby & Wyn Taylor, *Survey Satisficing Inflates Reliability and Validity Measures: An Experimental Comparison of College and Amazon Mechanical Turk Samples*, 76 EDUC. & PSYCHOL. MEASUREMENT 912, 913 (2016).

less of the overall quality or accuracy of their performance. In other words, the statistical contrasts between the different anchors and defense strategies are meaningful whether or not participants were expedient.

Finally, we used a written trial scenario that in no way mimics the experience of an actual trial. Certainly, jurors would approach criminal sentencing with more gravitas if they participated in the formal proceedings of an actual trial and were forced to make a sentencing determination with a defendant facing actual jail time. As such, we do not suggest that both the sentencing determinations and favor towards prosecutors and defense attorneys that we found in our data are accurate estimations of the trends one might see in an actual trial. For example, the shift in favor of defense counsel did not have a significant effect on sentences adjudged in our experimental scenario; however, in an actual trial, favor may exert a more powerful effect on sentencing decisions. Nonetheless, we suggest that the underlying psychological processes that lead people to assimilate towards anchors, as well as their ability to reason when faced with counter-anchoring techniques, are not context-specific. Moreover, and in line with the argument presented in the previous paragraph, realism of the scenario is not a necessary condition for us to make meaningful statistical comparisons between conditions.

Conclusion

Judges and juries exercise immense power in both civil judgments and criminal sentencing outcomes. They may strive to be fair, but the complexity and uncertainty of these judgments lead to predictable systematic errors or biases. Many studies have proven the power of the prosecutor's sentencing recommendation and the plaintiff's damages request to anchor both judges and juries toward a certain number. Some scholarship has been directed toward debiasing these judgments by using changes in law, policy, and procedure. Our research, however, reveals the promise of tactical debiasing. In particular, we show that implementing a strategy that combines an identify attack—alerting the adjudicator to the bias instilled by the prosecutor's sentencing recommendation—with a counter proposal by defense counsel, significantly reduces the anchoring bias caused by the prosecutor's initial sentencing request. This finding holds immense promise for both further refinements in the study of anchoring and empirically testing new tactical debiasing techniques that will reduce other prominent cognitive biases in the courtroom.

Appendix A

Written Description of Mock Criminal Trial[139]

Opening Instructions

Roberto Abis, the accused, has pled guilty to burglary. It is your duty to determine a proper sentence for this offense. Your determination of the amount of punishment, if any, is a grave responsibility requiring the exercise of wise discretion. The maximum punishment that may be adjudged in this case is confinement for 120 months (10 years). The maximum punishment is a ceiling on your discretion. You are at liberty to arrive at any lesser sentence, to include no punishment. In arriving at your determination, you should select the sentence which will best serve the welfare of society and the needs of the accused. After reading the information below, please select the most appropriate term of confinement, if any, choosing any whole number from 0 to 120 months.

Factual Scenario

Roberto Abis is a 20-year-old United States Air Force Airman from Sylmar, California. He has served as an aircraft maintenance technician for 18-months, enlisting immediately after High School. He has no prior record of criminal misconduct, earned a B-average in school, and enlisted in the Air Force because his family did not have money for college.

In pleading guilty, Airman Abis admitted that, on 16 July 2016, in Fairview Heights, Illinois (near Scott Air Force Base where he is stationed) he unlawfully broke and entered the dwelling house of Ronda Magsaysay, at night, with the intent to commit the offense of theft therein. At about 2300 (11 pm), he was leaving a friend's house. As he was getting in his car, he noticed the next-door neighbor's driveway was empty and the lights were off. He did not know the neighbor, Ronda Magsaysay, a 32-year-old civilian Air Force employee who lives alone. Airman Abis explained that he decided to walk around the house, see if he could get in, and steal something. He walked around the house trying doors and windows until he found a bathroom window unlocked. He looked into the house and, when it appeared dark and silent, jumped in through the window. Using the flashlight from his phone, he quickly walked through the house. He grabbed a Jack Wolfskin brand backpack (valued at $80) and put into it an Apple

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139. Trial scenario presented to MTurk participants reproduced in its entirety.

MacBook laptop (valued at $1300), a Fitbit (valued at $250), and Beats by Dre headphones (valued at $180). After gathering these items, he unlocked the front door and left. He was about to drive home when he decided it would be fun to make another run through the house. He went back in and took a Sony PlayStation 4 (valued at $325), a jewelry box with jewelry inside (valued at $1100), and a pair of women's panties from a drawer (valued at $8). He also knocked over a bookshelf (no damage) and kicked through the coffee table (valued at $200). He then left. The next day, his friend casually mentioned the cops had woken him up in the middle of the night to ask if he saw anyone going into Ms. Magsaysay's house. Fearing he might get caught, Airman Abis drove into the woods and dumped the stolen items. Three months later, after he was charged, he returned to the woods to see if he could find the items and return them. He never found them.

About 2 hours after Airman Abis left, Ms. Magsaysay returned home. Upon finding her front door unlocked, she became terrified someone was inside. She immediately called a friend and waited in her car until he arrived. When he arrived, they went into the house, turned on the lights, and saw the bookshelf overturned. She immediately called the police to report a burglary. In court, she explained that she was less upset about the value of the items, which could be replaced, but devastated she would never again have 3 years' worth of personal photos stored on the computer and a necklace her grandmother had passed down before her death. She also expressed that she had to move from the house, because she never again felt safe there, and she feels uncomfortable every time she is alone. It is hard for her to regain her sense of privacy and she does not trust her neighbors.

Arguments

The prosecutor asks you to send a strong message about this intensely violating crime by giving a term to confinement [between 24 and 36 months (low range)/ between 110 and the full 120 months (high range)/ at least 24 months in jail (low exact)/ the full 120 months in jail (high exact)].[140] He argues that, next to rape, burglary is one of the most intimate and violating crimes that can be perpetrated. Airman Abis lurked outside, in the dark, contemplating how he could rob this innocent person. He may seem nice and polite on

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140. Forward slashes indicate how the argument varied by prosecutor's anchor.

the outside, but he has something twisted and disturbing deep down inside him. He twice made a conscious choice to violate her safety and her sense of self. What would have happened if she was home, alone, in that house? How can she ever feel safe again knowing that someone who appears as upstanding as a military member could prey on her under the cover of night? How can this neighborhood and the people who learn about these crimes trust their neighbors and trust the Airmen who are serving nearby? Only a strong sentence will show society how seriously we take this crime. And only a strong sentence will sufficiently deter Airmen Abis from acting on these criminal urges in the future. The law allows for 120 months of confinement, because that's how serious the crime of burglary is. Airman Abis deserves [24 to 36 months/110 to 120 months/the full 120 months] in jail.

The defense counsel asks you to show leniency to a first-time offender and allow him to rebuild his life. [He says the prosecutor is only throwing out 24 to 36 months to anchor your opinion at this ridiculously high number: it's psychological manipulation. (*identify*)/ He says he would like to argue for 0 months confinement, but he is going to level with you and admit the appropriate sentence for this case is somewhere between 3 and 6 months. (c*ounter*)/ He says the prosecutor is only throwing out 24 to 36 months/ between 110 and 120 months/ to anchor your opinion at this ridiculously high number: it's psychological manipulation. He says many defense counsel would ask you to give 0 months confinement, just to anchor your opinion at a lower number. But he is going to level with you and admit the appropriate sentence for this case is somewhere between 3 and 6 months. (*identify + counter*)] He argues that, when put into proper perspective, this is a petty theft offense: less than $4,000 worth of personal property. Airman Abis is a good young man who made a terrible decision by acting on a split-second curiosity. This trial, and the associated criminal conviction, is punishment enough to deter him from ever again committing a crime. He tried to make amends and never wanted to hurt anyone. He did not think through the impact on Ms. Magsaysay and is devastated by what his actions did to her. He knows he has to pay for his wrongdoing, but wants the best chance to be a productive citizen going forward.