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THE PRACTICAL MANDATES OF THE FOURTH AMENDMENT: A BEHAVIORAL ARGUMENT FOR THE EXCLUSIONARY RULE AND WARRANT PREFERENCE

I. INTRODUCTION

The Fourth Amendment¹ stands as the main protector of individual privacy from government intrusion.² This protection is prophylactic, as “[t]he Amendment is designed to prevent, not simply to redress, unlawful police action.”³ Consequently, the specific protections of the amendment aim to deter violations from occurring in the first place. Yet there are two troubling trends in Fourth Amendment doctrine that threaten to undermine this protection: first, the weakening of the warrant preference,⁴ and second, the growing disfavor of the exclusionary rule.⁵

As to the first trend, the Supreme Court formerly interpreted the Fourth Amendment rather strictly, requiring searches be conducted pursuant to a warrant. More recently, however, the Court has turned to analyzing searches under a more amorphous standard of reasonableness. That is, the

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¹. The Fourth Amendment reads:

The right of the people to be secure in their persons, houses, papers, and effects against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

U.S. CONST. amend. IV.

². Camara v. Mun. Court of S.F., 387 U.S. 523, 528 (1967) (“The basic purpose of [the] Amendment, as recognized by countless decisions of this Court, is to safeguard the privacy and security of individuals against arbitrary invasions by governmental officials.”).


⁴. The term “warrant preference” is sometimes used confusingly in the criminal procedure literature. Some use it to mean the Supreme Court’s traditional favoring of searches conducted pursuant to a warrant; others use it to refer to the Court analyzing searches under a broader reasonableness standard where the presence of a warrant is a persuasive consideration. For those that use the warrant preference to refer to the broader reasonableness standard, the Court’s traditional favoring of searches conducted pursuant to a warrant is called the “warrant requirement.” See, e.g., 1 JOSHUA DRESSLER & ALAN C. MICHAELS, UNDERSTANDING CRIMINAL PROCEDURE 167–68 (4th ed. 2006) (describing the traditional “warrant requirement” but also noting that it may “more accurately” be called the “warrant preference”); Thomas Y. Davies, Recovering the Original Fourth Amendment, 98 MICH. L. REV. 547, 559 (1999) (describing the Court’s traditional “warrant-preference”). Throughout this Note, the term “warrant preference” should be taken to mean the Supreme Court’s traditional favoring of searches conducted pursuant to a warrant.

⁵. As discussed further below, the exclusionary rule is the traditional remedy for a Fourth Amendment violation in a criminal proceeding, whereby the prosecution cannot use any incriminating evidence obtained due to a violation of the amendment against the criminal defendant.
legality of a search no longer turns on the presence or absence of a warrant (subject to limited exceptions), but on whether the search is reasonable. With warrants no longer a per se requirement, more searches can be conducted without a warrant and thus without a judge determining the legality of the search before it occurs. Instead, legality can be determined ex post.

As to the exclusionary rule, debate over its effectiveness has persisted almost since its inception. 6 Commentators have maligned exclusion as a “crude” deterrent 7 and offered some alternative remedies that they believe could better deter Fourth Amendment violations. Clearly, criticism of the exclusionary rule is not a novel trend. However, members of the Court have recently echoed these criticisms and rendered the future of the exclusionary rule unclear.

In this Note, I argue that these trends in Fourth Amendment doctrine are based on certain questionable assumptions about human behavior. In the movement toward ex post reasonableness review of police conduct instead of an ex ante warrant preference, the Court displays a confidence in the ability of judges to place themselves in the context of an ex ante determination when analyzing a search ex post. Thus, the Court implies that judges are able to ignore potentially illuminating yet impermissible information that may have been uncovered in the search. And the criticism of the exclusionary rule posits that improved deterrence of police misconduct requires tying the punishment for an illegal search directly to its harm and imposing a more direct sanction. As shown below, both of these positions assume that the actors involved behave rationally. 8

These two trends would be apt, and perhaps even compelling, if the rationality assumption accurately reflected human judgment and decision making. Yet behavioral science, particularly in the fields of cognitive psychology and behavioral economics, has identified a number of ways in

6. See, e.g., Elkins v. United States, 364 U.S. 206, 216 (1960) (“The exclusionary rule has for decades been the subject of ardent controversy.”); Thomas E. Atkinson, Admissibility of Evidence Obtained Through Unreasonable Searches and Seizures, 25 COLUM. L. REV. 11, 22–24 (1925) (arguing, in 1925, the superiority of the exclusionary rule over other remedies for Fourth Amendment violations, including tort damages). For a concise overview of the debate over the deterrent effect of the exclusionary rule, see DRESSLER & MICHAELS, supra note 4, at 375–79.


which people systematically deviate from rational behavior. When the insights of these fields are incorporated into the Fourth Amendment analysis, arguments for a looser warrant preference and against exclusion are rendered questionable. Quite to the contrary, an analysis informed by behavioral science indicates that a combination of warrants and exclusion might be important to protecting privacy.

This Note injects these behavioral insights into the Fourth Amendment debate. Part II provides a background on Fourth Amendment search doctrine, highlighting the current movements away from the warrant preference and the exclusionary rule. Part II also draws out the implicit behavioral assumptions on which these two trends are premised and reveals the basis of these behavioral assumptions in economics.

Part III begins with the emerging behavioral criticism of economic conceptions of human behavior. It shows that the insights of behavioral science directly challenge the assumptions central to the current evolution of Fourth Amendment doctrine. When analyzed in the light of behavioral science, the movements away from the warrant preference and exclusionary rule likely lessen the Fourth Amendment’s protection of privacy.

Part IV shows that opposite trends might actually provide better protection from illegal searches. That is, requiring judges to determine the legality of a search in an ex ante warrant proceeding might result in more accurate determinations of legality. And exclusion, instead of being a crude tool which fails to deter police misconduct while imposing unnecessary costs on society, might actually be a particularly effective remedy. Part IV thus demonstrates that we should proceed much more cautiously in Fourth Amendment doctrine and question the underlying assumptions under which we proceed.

II. THE STATE OF THE FOURTH AMENDMENT

A. The Fourth Amendment

The language of the Fourth Amendment is simple on its face: it prohibits unreasonable searches and requires that all warrants be supported
by probable cause. 10 Yet these seemingly simple provisions provide little guidance for concrete application, 11 resulting in protections that are the source of staggering controversy. 12 The Supreme Court has wrestled repeatedly with the protections of the Fourth Amendment, and the Court’s various approaches have met with persistent scholarly dissatisfaction. 13 Anthony Amsterdam notes that the decisions of the Court have “no considered or consistent indication of the approach to be taken” to determine the coverage of the amendment. 14 As he bluntly puts it, it is an understatement to call Fourth Amendment doctrine a “mess.” 15

This is not to say that Fourth Amendment doctrine is in a state of chaos. In applying the Fourth Amendment, a court conducts a three-step analysis. First, a court must determine whether the government conduct
was even a search in Fourth Amendment terms, thus triggering the protections of the amendment. Second, if there was a search, a court must then determine whether the search was legal. Finally, if the search was illegal, the court must determine the proper remedy. In criminal proceedings, where this issue is most common, a court must determine whether it must prevent the government from using any illegally obtained evidence against the victim of the search or whether it can admit the evidence under an exception to the exclusionary rule.

While the first step is generally well established, the second and third have been subject to substantial change. Warrants now play a lesser role in determining whether a search was legal, and the future existence of the exclusionary rule is uncertain. This Section explores these steps and shows how these two trends are changing the traditional methods for determining and remediating violations of the Fourth Amendment.

1. What Is a Search?

First, in order to trigger Fourth Amendment protection, government action must constitute a search. Yet a search is not self-defining; since 

\[16\] *Katz v. United States*, 389 U.S. 347 (1967), the Supreme Court has consistently held that “a Fourth Amendment search occurs when the government violates a subjective expectation of privacy that society recognizes as reasonable.”


What constitutes a reasonable expectation of privacy, though, is unclear. The case law contains some reference points. For instance, the Court has held that a person does not have a reasonable expectation of privacy in the telephone numbers they dial.\[18\] The Court has also held that a person does not have a reasonable expectation of privacy in an open field with a clear “No Trespassing” sign\[19\] or in a barn that requires hurdling five

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*18* See *Smith v. Maryland*, 442 U.S. 735, 745 (1979). In *Smith*, police attached a device “at [a telephone company’s] central offices to record the numbers dialed from the telephone at [the defendant’s] home.” *Id.* at 737. The numbers dialed by the defendant were used as evidence in investigating a robbery, eventually leading to the defendant’s arrest. *Id.*

*19* See *Oliver v. United States*, 466 U.S. 170, 181 (1984). *Oliver* consisted of two companion cases. In the first, police officers drove to a locked gate with a “No Trespassing” sign. *Id.* at 173. The officers walked around the gate and inspected the defendant’s farm, eventually finding a field of marijuana over a mile from the defendant’s house. *Id.* In the second case, police followed a footpath behind the defendant’s residence through the woods until they reached a secluded area where
fences to reach. However, the Court has held that a bus passenger has a reasonable expectation that Border Patrol agents will not squeeze his luggage.

In the first three scenarios the Court held that the government intrusion in question was not a search, while in the fourth scenario the squeezing of luggage was. Yet identifying the reasoning behind these distinctions is difficult, and justifying them even more so. In one Justice’s opinion, expectations of privacy that are reasonable from a citizen’s perspective “bear an uncanny resemblance to those expectations of privacy that [the] Court considers reasonable.”

Further, an enforceable expectation of privacy must “be one that society is prepared to recognize as ‘reasonable.’” Yet one study by Christopher Slobogin and Joseph E. Schumacher found some disparity between the Court’s views of government investigations and that of the public. Slobogin and Schumacher asked subjects to rate the intrusiveness of fifty hypothetical searches on a scale from zero to one hundred, with one hundred being “Extremely Intrusive.” Based on the average intrusiveness, the authors then ranked the searches from one to fifty, with fifty being the most intrusive search. The study found that, for a number of searches, the general attitude of their subjects mirrored relevant Supreme Court decisions. For example, “hospital surgery on a shoulder ([rank] = 40), a search of a bedroom ([rank] = 47), and bugging a phone

marijuana was being grown. Id. at 174. This area, which also had visible “No Trespassing” signs, was owned by the defendant. Id. at 174–75.

20. See United States v. Dunn, 480 U.S. 294, 304–05 (1987). In Dunn, a DEA agent and a city police officer entered the defendant’s ranch property without a warrant, first “cross[ing] over the perimeter fence and one interior fence” and then “over a barbed wire fence” to reach the defendant’s barn. Id. at 297. Looking in the barn and finding nothing of interest, the officers then “cross[ed] another barbed wire fence as well as a wooden fence” to reach a second barn. Id. at 297–98. Peering inside, the officers spotted a drug laboratory. Id. at 298.

21. See Bond v. United States, 529 U.S. 334, 338–39 (2000). In Bond, a border patrol agent boarded a bus to check the immigration status of the passengers. Id. at 335. While exiting the bus, the agent squeezed the bag stowed above the defendant’s seat and felt a “brick-like” object. Id. at 336. The agent searched the bag and found methamphetamine. Id.

22. Oliver, 466 U.S. at 181–83; Dunn, 480 U.S. at 305; Smith v. Maryland, 442 U.S. at 745–46.

23. Bond, 529 U.S. at 339.


27. Id. at 735–36. The hypothetical searches were based primarily on Supreme Court and lower court case law. Id. at 735.

28. Id. at 737.

29. Id. at 739.
The authors point out that participants saw this scenario as more intrusive than a police pat down, which clearly has been established as a Fourth Amendment search requiring protection.34 Further, the study found the use of undercover officers, such as the “covert use of a chauffer [or] secretary,” to be quite intrusive, ranked 31 and 34, respectively.35 The authors note that these ranked as more intrusive than searches of cars, which are considered Fourth Amendment searches.36 Yet the Court has held that the seemingly more intrusive use of undercover agents is not a search for Fourth Amendment purposes on the ground that one assumes any risk regarding the disclosure of confidences by acquaintances.37 As this study indicates, the Court’s conception of what is a reasonable expectation of privacy cannot always be divined from common experience.

Perhaps the closest that one can come to an articulate statement on what constitutes a Fourth Amendment search is that

the ultimate question under Katz “is a value judgment,” namely, “whether, if the particular form of surveillance practiced by the police is permitted to go unregulated by constitutional restraints, the amount of privacy and freedom remaining to citizens would be diminished to a compass inconsistent with the aims of a free and open society.”38

Thus, a court has some flexibility in determining whether police investigative techniques constitute a Fourth Amendment search.

31. Id. at 740.
32. See supra notes 19–20.
33. Slobogin & Schumacher, supra note 26, at 740.
34. Id. at 741 (citing Terry v. Ohio, 392 U.S. 1, 26–27 (1968)).
35. Id. at 740.
36. Id.
37. Id. (citing United States v. White, 401 U.S. 745, 751 (1971)).
2. Was the Search Legal?

Once a court determines that a government investigation constituted a Fourth Amendment search, it must address the more pressing, and even less clear, issue of whether the search violated the requirements of the amendment. While the standard for a search’s legality can be succinctly stated, its practical requirements in a concrete situation are amorphous. The Court has recognized this lack of clarity, noting:

The test of reasonableness under the Fourth Amendment is not capable of precise definition or mechanical application. In each case it requires a balancing of the need for the particular search against the invasion of personal rights that the search entails. Courts must consider the scope of the particular intrusion, the manner in which it is conducted, the justification for initiating it, and the place in which it is conducted.

Despite this lack of clarity, the case law does provide some indicia or guideposts for determining the legality of a search. First, the Fourth Amendment “usually requires, at a minimum, that the facts upon which an intrusion is based be capable of measurement against ‘an objective standard,’ whether this be probable cause or a less stringent test.” However, objective does not mean obvious; as the Court declared in Illinois v. Gates, “probable cause is a fluid concept—turning on the assessment of probabilities in particular factual contexts—not readily, or even usefully, reduced to a neat set of legal rules.” In reviewing an

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40. Bell v. Wolfish, 441 U.S. 520, 559 (1979). See also Ohio v. Robinette, 519 U.S. 33, 39 (1996) (“Reasonableness . . . is measured in objective terms by examining the totality of the circumstances. In applying this test we have consistently eschewed bright-line rules, instead emphasizing the fact-specific nature of the reasonableness inquiry.”); Camara, 387 U.S. at 536-37 (“[T]ranslation of the abstract prohibition against ‘unreasonable searches and seizures’ into workable guidelines for the decision of particular cases is a difficult task which has for many years divided the members of [the] Court . . . . [T]here can be no ready test for determining reasonableness other than by balancing the need to search against the invasion which the search entails.”).

41. Prouse, 440 U.S. at 654 (citations omitted). This less stringent test is often whether an officer had reasonable suspicion to engage in a less intrusive search. See Terry, 392 U.S. at 27.

42. 462 U.S. 213, 232 (1983). The same “totality of the circumstances” approach is used for determining whether police had reasonable suspicion to conduct a less intrusive search. Alabama v.
application for a search warrant, the judicial officer need “simply to make a practical, common-sense decision whether . . . there is a fair probability that contraband or evidence of a crime will be found in a particular place.”43 Yet this fair probability requires much less than certainty, as probable cause “does not demand any showing that [an officer’s] belief be correct or more likely true than false.”44

Second, a search generally should be made pursuant to a warrant.45 One benefit of a warrant is impartiality; warrants provide the determination of a search’s legality by a “neutral and detached judicial officer”46 and not a “‘hurried . . . law enforcement officer, engaged in the often competitive enterprise of ferreting out crime.’”47 Requiring warrants also prevents police from committing illegal searches, as the determination of whether a search is legal or not takes place before the search and its consequent invasion of privacy.48 The Court has even noted that in borderline cases, courts should tip the scales in favor of a search conducted pursuant to a warrant.49

It is unclear, however, how often and in what cases a warrant is still required in order to render a search legal.50 Indeed, one persistent controversy in the Fourth Amendment debate is over the role of warrants. To some extent, the controversy stems from the unclear language of the Fourth Amendment51: while all agree that Fourth Amendment searches are governed by the reasonableness standard of the first clause,52

45. 
47. Id. (quoting United States v. Chadwick, 433 U.S. 1, 9 (1977)) (citations and internal quotations omitted).
48. Granted, a police officer whose proposed search is denied by a magistrate could conceivably still engage in the search, although without any new information the search would likely be per se unlawful.
50. Wherever Fourth Amendment protection may end up, it is likely that homes will always receive significant protection and, in most cases, require a warrant. See Kyllo v. United States, 533 U.S. 27, 31 (2001) (“With few exceptions, the question whether a warrantless search of a home is reasonable and hence constitutional must be answered no.”).
51. As James J. Tomkovicz points out, there are “precedential, textual, historical, policy, and symbolic arguments” for and against the warrant preference. James J. Tomkovicz, California v. Acevedo: The Walls Close In on the Warrant Requirement, 29 Am. Crim. L. Rev. 1103, 1106 (1992). While they all are very important, a recitation of them is beyond the scope of this Note. I use only the textual argument because it is particularly illustrative of the disagreement over the construction of the amendment.
52. The first clause reads, “The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated . . . .” U.S. Const.
commentators divide on their conceptions of reasonableness. Critics of the warrant preference argue that there is no explicit requirement for warrants within the amendment, only the criteria requisite for a valid warrant. To these critics, the lack of a textual basis is dispositive. Supporters of the warrant preference “root the warrant demand in the reasonableness requirement of the first clause.” In their view, “a ‘reasonable search’ is one that has prior judicial approval.”

As has been discussed in great depth elsewhere, the Supreme Court once strongly favored the use of warrants. Thomas Y. Davies notes, For most of [the past] century, the Supreme Court has endorsed what is now called the “warrant-preference” construction of Fourth Amendment reasonableness, in which the use of a valid warrant—or at least compliance with the warrant standard of probable cause—is the salient factor in assessing the reasonableness of a search or seizure.

For some time, exceptions to the warrant preference were limited. But the Supreme Court has since created “a wide range of diverse situations [in which it has] recognized flexible, common-sense exceptions.” These now include cases of conducting a search under exigent circumstances, searching someone who was just arrested and the area under the arrestee’s

amend. IV (emphasis added).
53. Davies, supra note 4, at 559.
54. Tomkovicz, supra note 51, at 1125.
55. Id. at 1125–26.
56. Id. at 1126.
57. Id.
58. Davies, supra note 4, at 559 (footnote omitted). Indicative of this preference is Katz v. United States, where the Supreme Court declared, Searches conducted without warrants have been held unlawful notwithstanding facts unquestionably showing probable cause, for the Constitution requires that the deliberate, impartial judgment of a judicial officer . . . be interposed between the citizen and the police . . . . Over and again this Court has emphasized that the mandate of the [Fourth] Amendment requires adherence to judicial processes, and that searches conducted outside the judicial process, without prior approval by judge or magistrate, are per se unreasonable under the Fourth Amendment—subject only to a few specifically established and well-delineated exceptions.

389 U.S. 347, 357 (1967) (internal quotations, citations, and footnotes omitted) (omission in original).
60. Minnesota v. Olson, 495 U.S. 91, 100 (1990). These exigencies include “hot pursuit of a fleeing felon, or imminent destruction of evidence, or the need to prevent a suspect’s escape, or the risk of danger to the police or other persons inside or outside the dwelling.” Id. (quoting State v. Olson, 436 N.W.2d 92, 97 (Minn. 1989) (citation omitted)).
control, searching a car incident to an arrest, and entering a home to prevent injury to an individual. As William J. Stuntz states,

The Supreme Court, for its part, claims that the warrant [preference] is the centerpiece of the law of search and seizure, and that pre-screening by neutral and detached magistrates is the heart of citizens’ protection against police overreaching. But the same Court regularly narrows the range of cases to which the warrant [preference] applies, so that in practice warrants are the exception rather than the rule.

Further, instead of its analysis turning on the presence or absence of a warrant, more and more often the Court analyzes police conduct in terms of reasonableness. That is, a search’s legality turns on a general evaluation of the interests served and impaired by the search.

The Court has thus strayed far from the warrant preference. Under this general reasonableness standard, police can make the initial determination of whether a search is permissible, and only after this search has occurred and been challenged does a judicial officer get to review its reasonableness.

As Chief Justice Roberts recently stated in *Brigham City, Utah v. Stuart*, “the ultimate touchstone of the Fourth Amendment is reasonableness.” But what is and is not reasonable is open to interpretation, for “[t]here is no formula for the determination of reasonableness. Each case is to be decided on its own facts and circumstances.”Under this view, “the reasonableness of a search neither

65. DRESSLER & MICHAELS, supra note 4, at 173–74.
66. Again, in Davies’ words:
For several decades, the Supreme Court has been shifting away from the warrant-preference construction and toward what is now called the “generalized-reasonableness” construction, in which the value of the warrant is discounted and the constitutionality of a search or seizure is determined simply by making a relativistic assessment of the appropriateness of police conduct in light of the totality of the circumstances.
Davies, supra note 4, at 559 (footnote omitted).
67. 126 S. Ct. at 1947 (quotation omitted) (emphasis added).
necessarily nor presumptively turns on the existence of a warrant.\textsuperscript{69} Thus, a search can still be reasonable absent the protections of a warrant.

3. What if the Search Is Unreasonable?

The primary remedy for an unreasonable search is exclusion of any evidence obtained during the search.\textsuperscript{70} In 1914, the Supreme Court first fully articulated the exclusionary rule in \textit{Weeks v. United States}.\textsuperscript{71} Holding that illegally seized evidence could not be introduced at trial,\textsuperscript{72} the Court declared:

The effect of the Fourth Amendment is to put the courts of the United States and Federal officials . . . under limitations and restraints as to the exercise of [their] power and authority, and to forever secure the people, their persons, houses, papers, and effects, against all unreasonable searches and seizures . . . . The tendency of those who execute the criminal laws of the country to obtain conviction by means of unlawful seizures . . . should find no sanction in the judgments of the courts . . . .\textsuperscript{73}

While not beyond dispute,\textsuperscript{74} the Supreme Court has largely taken the view that the exclusionary rule’s purpose is to deter Fourth Amendment


\textsuperscript{70} Amsterdam, supra note 11, at 360. The issue of whether government action constituted a reasonable Fourth Amendment search usually arises in a postsearch hearing to determine whether evidence must be excluded. 1 \textit{LaFAVE}, supra note 12, at 5 (“[T]he practicing lawyer most frequently encounters the Fourth Amendment in the context of proceedings to determine whether the fruits of a search or seizure are to be admitted into evidence in a criminal case.”).


\textsuperscript{72} \textit{Id.} at 398.

\textsuperscript{73} \textit{Id.} at 391–92.

\textsuperscript{74} As Wayne R. LaFave states, “it is fair to say that the deterrence of unreasonable searches and seizures is a major purpose of the exclusionary rule.” 1 \textit{LaFAVE}, supra note 12, at 21. Many other commentators have concentrated on this deterrence purpose. See, e.g., Amsterdam, supra note 11, at 368; H. Mitchell Caldwell, \textit{Fixing the Constable’s Blunder: Can One Trial Judge in One County in One State Nudge a Nation Beyond the Exclusionary Rule?}, 2006 B.Y.U. L. REV. 1, 6; Posner, \textit{Excessive Sanctions}, supra note 8, at 638; Posner, \textit{Rethinking}, supra note 7, at 54; Christopher Slobogin, \textit{Why Liberals Should Chuck the Exclusionary Rule}, 1999 U. ILL. L. REV. 363, 365; Jeffrey Standen, \textit{The Exclusionary Rule and Damages: An Economic Comparison of Private Remedies for Unconstitutional Police Conduct}, 2000 B.Y.U. L. REV. 1443, 1445–46. LaFave points out two additional purposes of Fourth Amendment remedies: (1) judicial integrity and (2) public confidence. 1 \textit{LaFAVE}, supra note 12, at 21–22. Under the judicial integrity rationale, exclusion is supported on the ground that a court using illegally seized evidence is acting just as much in violation of the Constitution as the police officer who performed the illegal search. \textit{Id.} Under the public confidence rationale, exclusion is justified on the ground that knowledge that the government will not benefit from illegal searches builds public trust and confidence. \textit{Id.} at 22.
violations. By revoking the benefit of an illegal search—namely the evidence often necessary to obtain a conviction—the exclusionary rule is thought to remove the incentive to violate the Fourth Amendment. Deterrence has also been the impetus for expanding the reach of the exclusionary rule, as well as the reason for creating exceptions to the exclusion requirement.

The merit of the exclusionary rule has been at the center of much of the Fourth Amendment debate, with deterrence often the focus. Commentators have both criticized and defended the rule on its ability to deter Fourth Amendment violations, with the majority of the literature being critical. Commentators often propose alternative remedies that do not require the exclusion of evidence. Perhaps most popular are money


77. See Mapp, 367 U.S. at 655 (requiring the states to exclude illegally obtained evidence in order to deter Fourth Amendment violations by state officials).

78. See, e.g., Hudson, 126 S. Ct. at 2166–68 (declining to extend the exclusionary rule to knock-and-announce violations because the social costs of exclusion, as applied to this type of violation, outweigh the deterrent benefit); Leon, 468 U.S. at 922 (declining to extend exclusionary rule to “evidence obtained in objectively reasonable reliance on a subsequently invalidated search warrant” because the social costs of exclusion outweigh the deterrent benefit); United States v. Janis, 428 U.S. 433, 454 (1976) (declining to extend exclusionary rule to evidence illegally obtained during a criminal investigation and presented in a subsequent civil trial because the social costs of exclusion outweigh the deterrent benefit); Calandra, 414 U.S. at 354 (declining to exclude illegally obtained evidence from a grand jury proceeding because the “damage to [the proceeding] . . . outweighs the benefit of any possible incremental deterrent effect”).

79. Most commentators accept deterrence as the prime purpose of any remedy. See supra note 74.

80. Compare Posner, Rethinking, supra note 7, at 56 (calling the exclusionary rule “an exceptionally crude deterrent device” that “systematically overdeters”), with William C. Heffernan, The Fourth Amendment Exclusionary Rule as a Constitutional Remedy, 88 Geo. L.J. 799, 878 (2000) (arguing that only a contingent exclusionary rule is adequate to deter police misconduct where the conduct is severe but the harm is slight).

81. See, e.g., Caldwell, supra note 74; Jon O. Newman, Suing the Lawbreakers: Proposals to Strengthen the Section 1983 Damage Remedy for Law Enforcers’ Misconduct, 87 Yale L.J. 447 (1978); Slobogin, supra note 74.
damages, such as fines and constitutional torts. Other proposed remedies include criminal sanctions for offending police officers, internal police discipline, reduced sentences for criminals convicted on illegally obtained evidence, or some combination.

Coupled with this academic criticism is an increasingly unfavorable view of the exclusionary rule in the Supreme Court. In the recent decision of *Hudson v. Michigan*, the Supreme Court held that knock-and-announce violations, which violate the Fourth Amendment, do not require the exclusion of evidence obtained in the search. Erwin Chemerinsky argues that the Court’s majority opinion in *Hudson* “must be

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82. See, e.g., Bivens v. Six Unknown Named Agents, 403 U.S. 388, 422–24 (1971) (Burger, C.J., dissenting); Newman, supra note 81; Posner, Rethinking, supra note 7. For example, Newman argues that reformed § 1983 civil suits are a better deterrent than the exclusionary rule. Newman, supra note 81, at 451–53. Beginning from the premise that most victims of illegal searches, often criminal defendants, face a low chance of success in suing the government, Newman argues for multiple reforms to § 1983 suits to improve those chances. Id. at 453. These reforms include making the United States the sole or additional plaintiff in a § 1983 suit, id. at 453, making police agencies and governments liable, id. at 456, abolishing the good faith defense and judicial and prosecutorial immunity, id. at 461–63, shifting the burden of proof to the defense to justify the challenged action after it is shown that the plaintiff was denied her liberty, id. at 464, and adding mandatory liquidated damages on top of compensatory damages, id. at 465. Newman speculates that these reforms would increase the likelihood of judgments in favor of plaintiffs, id. at 466, raising the costs of violating the Fourth Amendment. Under Newman’s reforms, this greater cost is a strong incentive to agencies and governments to take appropriate action to curtail constitutional violations. Id. at 456–57.

83. See 1 LAFAVE, supra note 12, at 378–79.

84. See Caldwell, supra note 74. H. Mitchell Caldwell has argued for an alternate remedy due to “the exclusionary rule’s limited success in achieving its policy goal of deterring police officer violations of the Fourth Amendment as well as the distasteful effects of the rule.” Id. at 6. He proposes internal police discipline, coupled with optional exclusion, as an alternative. Id. at 5, 49. Such discipline would allow officers to “learn from their mistakes and conform their conduct to the Fourth Amendment.” Id. at 50. Further, Caldwell claims that such direct sanctioning of the offending officer gives that officer and others in her department notice of such sanctioning, deterring them from committing illegal searches in the future. Id. at 51.

85. See Guido Calabresi, The Exclusionary Rule, 26 HARV. J.L. & PUB. POL’Y 111 (2003). Calabresi has suggested a postconviction hearing where wrongfully obtained evidence would result in a reduction in sentence. Id. at 116. Calabresi suggests, for example, reducing a sentence by two to four points on the sentencing guidelines. Id. Noting that this remedy would have little deterrent effect on police misconduct, Calabresi suggests automatic institutional punishment for police officers. Id. at 116–17. The officer’s punishment would be a function of the officer’s behavior, with negligence receiving a slight punishment, gross negligence a greater punishment, and intentional wrongdoing a severe punishment. Id.

86. See Caldwell, supra note 74, at 49 (allowing a judge the option to exclude evidence if she finds internal police discipline to be inadequate); Standen, supra note 74, at 1484 (arguing for a combined system of exclusion and money damages).


88. A knock-and-announce violation occurs when the police fail to knock and announce their presence prior to entering a dwelling. Wilson v. Arkansas, 514 U.S. 927, 932–33 (1995). In some cases, though, law enforcement interests may warrant an unannounced entry. Id. at 936.

89. Id.

90. *Hudson*, 126 S. Ct. at 2168.
understood as calling for the complete elimination of the exclusionary rule.”91 While Justice Kennedy’s concurrence attempted to ease any concern over exclusion’s future,92 Chemerinsky warns that “the willingness of four Justices—Roberts, Scalia, Thomas, and Alito—to overrule decades-old precedents and eliminate the exclusionary rule certainly gives a sense that major changes are likely ahead in constitutional law in the years to come.”93

Particularly interesting was the Court’s discussion of alternative ways to deter Fourth Amendment violations. In response to the defendant’s suggestion “that without suppression there will be no deterrence of knock-and-announce violations at all,”94 the Court offered the alternative deterrent of § 198395 and Bivens96 suits, both forms of constitutional torts.97 Echoing the view of many critics of the exclusionary rule, the Court suggested that these would be an adequate substitute for exclusion.98 The Court also doubted the extent of Fourth Amendment violations due to increased police professionalism and, echoing other critics of exclusion, noted that internal police discipline deters illegal conduct.99 As such, many commentators, as well as a solid block of the Court, doubt the effectiveness of exclusion and instead would likely employ some alternative remedy to deter Fourth Amendment violations.

As mentioned above, constitutional torts are one of the more popular alternatives to exclusion. The economic criticism of the exclusionary rule is particularly illustrative of the argument for constitutional torts.100

92. Id. See Hudson, 126 S. Ct. at 2170 (Kennedy, J., concurring) (underscoring that, after Hudson, “the continued operation of the exclusionary rule, as settled by [the Court’s] precedents, is not in doubt”).
94. Hudson, 126 S. Ct. at 2166.
97. Hudson, 126 S. Ct. at 2167.
98. Id.
99. Id. at 2168.
100. The following presentation of the economic criticism is taken mostly from three of Judge Richard A. Posner’s pieces on the subject. See RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW (6th ed. 2003) [hereinafter POSNER, ECONOMIC ANALYSIS]; Posner, Excessive Sanctions, supra note 8; Posner, Rethinking, supra note 7. Calling this argument the “economic” argument is not to imply that all economists or legal economists support this position. It is instead an illustrative example of traditional economic analysis applied to the Fourth Amendment debate.
Besides providing a justification for these torts, the economic criticism reveals some of the behavioral assumptions of the exclusionary debate.

Embracing deterrence as the predominant purpose of Fourth Amendment remedies, the economic argument frames the issue as how best to achieve optimal deterrence. With this goal in mind, the argument assumes that defendants who get state evidence excluded receive a windfall while society pays an undue cost. The criminal’s damages from a search are defined as privacy and property interests and are assumed to have a relatively low value. But when evidence is excluded, a criminal defendant often goes free and thus receives a benefit valued at the criminal defendant’s interest in not being punished for her crime. One can very reasonably assume that this value of freedom from punishment is much greater than the value of the violated privacy and property interests.

On the other side of the scale, society, through police action, has only violated and should only have to compensate for a citizen’s relatively

101. See Posner, Rethinking, supra note 7, at 54 (“[D]eterrence is the raison d’être of the [exclusionary] rule.”).

102. Id. Posner defines optimum deterrence as setting the penalty for an offense “at the level that imposes on the offender a cost equal to the harm caused, as raised to reflect the possibility of his escaping punishment.” Id. Thus, optimal deterrence occurs when the penalty imposed equals the cost to the victim of the offense increased by the probability of apprehension and conviction. Id. at 54 n.17. Posner represents this with the formula \( f = \frac{C}{p} \), with \( f \) being the fine to achieve optimal deterrence, \( C \) being the cost to the victim, and \( p \) being the probability of punishment. Id. In the context of Fourth Amendment remedies, \( C \) is the cost borne by the victim of the illegal search, often a criminal defendant. While normally a fine, \( f \) represents the price paid by the offender, or society, in the Fourth Amendment remedy. In the case of exclusion, \( f \) would be the cost of excluding evidence, which would often entail the freeing of a guilty defendant. In the case of tort damages, \( f \) would be the fine assessed on the officer, department, or government. For example, assuming that the harm caused by an illegal search could be valued at $100 (\( C = $100 \)) and assuming perfect enforcement (\( p = 1.0 \)), the cost imposed on the police officer who conducted the illegal search should equal $100 (\( f = $100 \)). This deterrence is optimal because it would deter only searches that were not cost justified, or under Posner’s definition, unreasonable. Posner defines reasonable searches as those that are socially efficient. See infra note 108.

103. Posner assumes that the only interests protected by the Fourth Amendment are privacy interests against trespass to person or property. POSNER, ECONOMIC ANALYSIS, supra note 100, at 711. These costs are the lawful “property interests” and “interests in bodily integrity, mental tranquility, and freedom of movement” that are “traditionally protected by tort actions.” Posner, Rethinking, supra note 7, at 50–51. Further, these costs are “a function of the intrusiveness of a search.” Id. at 74. Note that Posner does not include the cost of criminal punishment. Id. at 59–60. Posner goes as far as to liken a police search of one’s home that interrupts one’s tranquility to an unwanted telephone solicitation. See POSNER, ECONOMIC ANALYSIS, supra note 100, at 711. These assumptions are open to criticism on both conception and valuation. See Arval A. Morris, The Exclusionary Rule, Deterrence and Posner’s Economic Analysis of Law, 57 WASH. L. REV. 647, 661–62 (1982) (arguing that Posner’s assumed values are “hypothetical and arbitrary” and that “Posner presents neither evidence of the actual dollar amounts that realistically might be assigned to his economic deterrence formula nor any method whereby they might reliably be ascertained”).

minor privacy and property interests. Yet the punishment imposed on society—namely exclusion resulting in a guilty defendant going free—is often a much greater punishment than simply compensating for privacy and property interests. Thus, society bears the much larger cost of freeing a guilty criminal. 105 With this conception of the interests involved, the economic critique argues that the exclusionary rule systematically overdeters reasonable 106 police searches. 107 With such low damage to the individual and potentially high costs for society, the significant net cost from exclusion will deter reasonable searches. 108

The economic critique suggests a tort or damages remedy instead of exclusion. 109 Under the economic theory of deterring illegal conduct, 110 the optimal punishment is that which equals the expected gain from breaking the law 111 but does not exceed the amount that results in a socially optimal outcome. 112 This calculus involves a fine tuning of damages that cannot be

105. Id.
106. Posner gives an economic definition of reasonableness using a cost-benefit analysis, equating reasonable searches to those that have a positive net benefit, i.e., are socially optimal. See Posner, ECONOMIC ANALYSIS, supra note 100, at 712; Posner, Rethinking, supra note 7, at 74. Thus, a search is reasonable if the cost in privacy violations to the search victim, outlined above, is outweighed by the costs of not obtaining a conviction, multiplied by the probability that the suspect will not be convicted without the search. Posner, ECONOMIC ANALYSIS, supra note 100, at 712. In other words, where the value to society of conducting the search exceeds the penalty, i.e., the search is socially efficient, the state would conduct the search and reap the net benefit. If the value to society is below the penalty, or socially inefficient, the search is unreasonable and would not be conducted. While this definition rests on the arguable assumption that traditional property and privacy interests are the only interests protected by the Fourth Amendment, the actual definition of reasonableness is irrelevant to this Note.
107. Posner, ECONOMIC ANALYSIS, supra note 100, at 713; Posner, Rethinking, supra note 7, at 56.
108. Posner uses the following example to illustrate this point: Because of some oversight a search warrant is invalid and, as a result, evidence essential to the conviction of a dangerous criminal is suppressed. The cost to the criminal of this Fourth Amendment violation is $100 . . . , while the cost to the community of letting him go free is $10,000. The sanction in this case is excessive, unless only one percent of Fourth Amendment violations are caught, which seems unlikely.

Posner, Rethinking, supra note 7, at 55. In terms of Posner’s formula, see supra note 102, C would be the cost to the criminal of $100, while f would be the $10,000 cost to the community of letting her go. Thus, for this fine to optimally deter, p must equal 0.01, or a 1% chance of punishment, which Posner doubts. If p is greater than 0.01, reasonable searches will be deterred.
109. Id. at 53.
110. Remember that this discussion is about the police officer’s potential lawbreaking in performing an illegal search, not the underlying crime which led to the questioned search.
112. Although ideally all crimes should be prevented, law enforcement is costly, and the cost of deterring all law breaking would be prohibitive. Optimal crime deterrence thus occurs “where the marginal social cost of reducing crime further equals the marginal social benefit.” Cooter & Ulen, supra note 111, at 512.
accomplished through exclusion; the “damages” to society from exclusion are often equal to the social damage of letting the criminal go free. Also, because the economic argument conceptualizes the interests involved at such disparate amounts, police will hesitate to perform socially optimal searches due to the potentially disproportionate punishment of exclusion. A tort regime would allow courts to set the punishment for violating an individual’s Fourth Amendment rights equal to the actual harm to the individual. Because damages can be tailored to match the actual damage to the criminal defendant from an illegal search, the tort remedy can conceivably attain optimum deterrence.

B. Behavioral Assumptions in the Fourth Amendment Debate

Both the Supreme Court’s move away from the warrant preference and the continued calls for replacing exclusion illustrate two behavioral assumptions at the center of the Fourth Amendment debate. The economic critique of exclusion also hints at the source of these assumptions. Clearly stated, the supporters of the move away from the warrant preference and exclusionary rule are implicitly assuming that the actors involved behave rationally. This assumption is borrowed from traditional economics and is one that has pervaded the last generation of legal scholarship. While

113. *Excessive Sanctions*, supra note 8, at 638.
114. This is probably not as simple as it sounds if one does not accept Posner’s conception of the interests harmed by an illegal Fourth Amendment search. For example, William J. Stuntz has argued that, while an illegal search can result in tangible harms, it can also cause intangible harms to the individual searched and, indirectly, to society through “the diminished sense of security that neighbors and friends may feel when they learn of the police misconduct.” *Warrants*, supra note 64, at 902. Stuntz argues that these harms are “impossible to calculate.” *Id.*
115. *Rethinking*, supra note 7, at 56.
116. Rational choice theory has long been used in economics. Francesco Parisi & Vernon Smith, *Introduction to The Law and Economics of Irrational Behavior* 1, 1 (Francisco Parisi & Vernon Smith eds., 2005) (“Since the inception of Adam Smith’s invisible hand, economics has largely been guided by rational choice theorists who advance the notion that the logical pursuit of self-interest drives human choices in a free society and leads to prosperity.”). The Chicago approach to law and economics is considered, for the most part, traditional law and economics. See Nicholas Mencur & Steven G. Medema, *Economics and the Law* 94 (2d ed. 2006) (stating that “the Chicago approach to law and economics[,] [is] an approach that has attracted a large following and has come to dominate scholarship within the economic analysis of the law”).
the strictness of the conception of rationality varies, the common thread is
the notion that actors do not make systematic mistakes in judgment and
decision making.

To understand these assumptions, one must first understand their basis
in economics. Economics has had an incredible influence on legal
scholarship.118 While previously confined to areas such as antitrust and
tax,119 economic analysis has since expanded into most areas of the law.120
Always undergirding the economic analysis of law is the economic model
of human behavior, namely rational choice theory.121 By providing legal
scholarship with this cohesive model of human behavior, economics has
changed legal discourse.122

The traditional economic model of human behavior, while difficult to
ascertain fully,123 predicts that humans act to maximize their expected

118. See Cooter & Ulen, supra note 111, at 4 (“Economics has changed the nature of legal
scholarship, the common understanding of legal rules and institutions, and even the practice of law.”).
119. Id. at 4; Posner, Economic Analysis, supra note 100, at 23.
120. See Cooter & Ulen, supra note 111, at 4 (noting that economic analysis of law has
“expanded into the more traditional areas of the law, such as property, contracts, torts, criminal law
and procedure, and constitutional law”). See also Posner, Economic Analysis, supra note 100, at 23
(“[T]he hallmark of the ‘new’ law and economics . . . is the application of economics to the legal
system across the board: to common law fields such as torts, contracts, restitution, and property; to
the theory and practice of punishment; to civil, criminal, and administrative procedure; to the theory
of legislation and regulation; to law enforcement and judicial administration; and even to constitutional
law, primitive law, admiralty law, family law, and jurisprudence.”).

121. Korobkin & Ulen, supra note 117, at 1055. See Thomas S. Ulen, Firmly Grounded: Economics in the Future of Law, 1997 Wis. L. Rev. 433, 436 (“The single most important contribution that law and economics has made to the law is the
use of a coherent theory of human decision making (‘rational choice theory’) to examine how people
are likely to respond to legal rules.”).

122. See Korobkin & Ulen, supra note 117, at 1060 (“[T]here is no single, widely accepted
definition of rational choice theory . . . . In actuality, there are probably nearly as many different
conceptions of rational choice theory as there are scholars who implicitly employ it in their work.”)
(footnote omitted). Korobkin and Ulen illustrate a variety of conceptions of rational choice with
varying degrees of predictive power. Id. at 1060–66 (borrowing the framework of Donald P. Green & Ian Shapiro, Pathologies of Rational Choice Theory (1994)). For instance, the conception of
rational choice theory commonly called “expected utility theory” posits that people always take the
course of action that maximizes their net expected benefit. Id. at 1063. Yet expected utility theory
gives no indication of the ends an individual aims to achieve, only the means by which she will try to
attain those ends. Id. at 1062. What exactly provides a person with benefit is unknown. Thus, absent
a violation of a few conditions, any behavior can be described in the language of rationality in the ex
post. Id. at 1063. Without some information regarding an actor’s subjective preferences, it is
impossible to accurately predict that actor’s behavior ex ante.

Take the common act of reshelving material in a library. If someone reshelves a book after using
it, then we can say that the person derives some value, or utility, from being a considerate and
responsible library patron and that this value is greater than the cost of reshelving the book. Thus,
utility is maximized, and this choice is rational. However, if someone does not reshelve a book, then
we can say that the value of being a considerate and responsible library patron is outweighed by the
cost of reshelving the book. Thus, this choice is rational as well. In both situations, we can assume
preferences such that each actor is maximizing their own utility. Yet if we see that person reading in

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utility or self interest. Such a prediction makes certain assumptions about human judgment and decision making. Thomas S. Ulen describes these assumptions in what he calls the “bare bones of rational choice theory”:

Decision-makers are rationally self-interested; they have complete, transitive, and reasonably stable preferences; they can learn about and compute the costs and benefits of alternative courses of action; and they seek to maximize as many of their preferences as they feasibly can. Where the outcomes of current action lie in the future, rational actors compute the probability of the various outcomes, evaluate the utility to them of those outcomes, and choose that action that promises the maximum expected utility.

This Section attempts to demonstrate how rational choice theory is behind the trends in Fourth Amendment doctrine discussed above. First, it demonstrates that criticisms of exclusion coupled with proposals for alternative remedies assume that people will act according to rational choice theory when faced with potential sanctions or punishments. Specifically, much of the criticism of exclusion focuses on the argument that exclusion, because it does not directly affect police, is a poor deterrent. Instead, some more direct sanction, such as monetary damages or fines, would better deter Fourth Amendment violations. This argument

the library, any confident prediction about whether she will reshel the book is impossible absent knowledge of her preferences.

Conceptions of rational choice with greater predictive power suffer from their own shortcomings. The most common conception of rational choice theory in law and economics is called “self interest theory.” Id. at 1064. Self interest theory posits that individuals will strive to maximize their self interest and will choose the means that will best achieve this end. Id. At first glance, this may not seem much different from expected utility theory. But self interest theory assumes that an actor’s ends come from her own desires; essentially, the theory assumes that individuals are selfish. Id. at 1065.

An example will help illustrate this. Consider again our library patron. While minor, there are costs to reshelving a book, most notably in the time spent finding its appropriate place. Under self interest theory, no one would reshelve the book as doing so imposes a cost that one can avoid (assuming there are no penalties for leaving books out on the library tables). Thus, we have an empirically falsifiable prediction. The problem is that our predictions are often incorrect. Id. at 1069.

Books are left on tables and reshelved, meaning that, at least according to this conception, some people are behaving rationally and some are not.

Further, as the two examples of our library patron illustrate, conceptions of rationality assume that people have startling cognitive capabilities. People are thought to be able to calculate the expected costs and benefits of all available alternatives and choose the option that maximizes individual well-being, however defined. See infra text accompanying note 125. Our library patron can instantly calculate which course of conduct, reshelving or not, makes her best off.

125. Ulen, supra note 122, at 457.
rests on the assumption that the police behave according to rational choice theory in light of these remedial schemes.

Second, this Section shows that the movement away from warrants and ex ante determinations of a search’s legality assumes that judges have the cognitive capability to evaluate a search ex post exactly the same as they would have ex ante. That is, by allowing more searches to be evaluated after they have occurred, the Court is necessarily implying that judges are able to rationally process only legally admissible information and ignore any inadmissible information. This assumed ability to cognitively partition information reflects an influence of rational choice theory.

1. The Deterrence of Police

First, in relation to deterring unlawful police conduct, is critics’ application of the model of the rational lawbreaker. 126 This individual is assumed to break the law only when the expected benefits of that conduct, such as monetary gain, outweigh the expected costs, such as fines or imprisonment. 127 In order to prevent lawbreaking, rational choice theory indicates that the expected punishment should be set above the expected gain from the lawbreaking. 128 This can be accomplished by either raising

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126. See Cooter & Ulen, supra note 111, at 494–98. While Cooter and Ulen use the term “rational crime,” “rational lawbreaking” will be used here to avoid confusing the lawbreaker in an illegal search (the police officer) with the victim (a suspected criminal).

127. See Christine Jolls, On Law Enforcement with Boundedly Rational Actors, in THE LAW AND ECONOMICS OF IRATIONAL BEHAVIOR, supra note 116, at 268, 268; Polinsky & Shavell, supra note 111, at 47 (noting the economic theory of law enforcement argues that an individual contemplating performing a harmful act will only do so “if his expected utility from doing so, taking into account his gain and the chance of his being caught and sanctioned, exceeds his utility if he does not commit the act”), cited in Jolls, supra, at 272. Rational lawbreaking, whether premeditated or impulsive, is assumed to conform to the predictions of rational choice theory. Cooter & Ulen, supra note 111, at 501. Cooter and Ulen argue that decision making in premeditated lawbreaking may conform with the economic model, while impulsive crime may appear as if it had been deliberated and thus also conforms with the theory. Id.

Note also that the individual would only weigh the gain of the crime against expected costs, or the statutory punishment discounted by the probability of evading punishment. Law enforcement is not perfect, and crimes go unpunished. Thus, the expected penalty from committing a crime is less than the statutory penalty. For example, if the fine for breaking a certain law was $100 and the probability of punishment was 10%, the expected punishment would be $10. This model is a simplified form of a full model of optimal law enforcement but is sufficient for the purposes of this Note. For a full discussion of the economic theory of optimal law enforcement, see id. at 510–17; Polinsky & Shavell, supra note 111.

128. Cooter & Ulen, supra note 111, at 512. As Korobkin and Ulen note in relation to general deterrence of undesired behavior, deterring 100% of certain conduct would likely be prohibitively costly. Korobkin & Ulen, supra note 117, at 1092. Thus, “[f]or any type of conduct the state wishes to discourage . . . , rational choice theory advises policy makers to set the penalty for the undesirable
the probability of detection and punishment or increasing the statutory penalty.

For example, consider a potential criminal deciding whether to steal a car. The economic theory postulates that this actor will determine the value of stealing the car and weigh that against the expected punishment for stealing the car. The expected punishment would be the likely statutory penalty, such as a prison term, discounted by the probability of detection and punishment.

The model of the rational lawbreaker is applied in criticism of the exclusionary rule when discussing how best to deter police (in the Fourth Amendment search context, one must remember that it is the police who are the potential lawbreakers). In relation to the illegal search, exclusion is remote in both time and space. Further, some argue that the costs of exclusion are actually borne by judges and prosecutors, not the police officers. This means that the expected cost of an illegal search to the individual officer could be quite low and thus a weak deterrent.

Economic analysis thus tells us that more direct and immediate sanctions, such as fines or disciplinary punishment, would be better deterrents than exclusion. Such an argument reflects the assumption of a rational response to an increase in expected costs by the rational lawbreaker. The argument assumes that the direct sanction will affect, or punish, the officer more than exclusion does and thus will increase the potential cost of conducting an illegal search. With this cost increased, the police officer would respond by decreasing the number of illegal searches she conducts so as to avoid the increased costs. To do so is only rational.

2. The Cognitive Abilities of Judges

The second way in which rational choice theory is reflected in the current Fourth Amendment debate is more subtle. As evidenced in Ulen’s bare-bones description of rational choice theory, actors are assumed to have rather incredible cognitive abilities. Rational choice theory indicates that individuals are able to process complicated information rationally to arrive at accurate judgments. The movement away from the warrant preference indicates a similar confidence in the cognitive conduct such that the desired fraction of the population . . . will calculate that the expected costs of the conduct exceed the expected benefits to them.” Id.

130. See, e.g., Caldwell, supra note 74, at 48.
131. See supra text accompanying note 125.
capabilities of judges. I am not referring to judges’ ability to apply the rather amorphous standards of the Fourth Amendment; the substance of that analysis does not change from before a search to after a search. I am instead referring to the ability of judges to mechanically determine reasonableness absent any influence or bias and arrive at an accurate determination.\textsuperscript{132}

The legality of a search depends on the facts known to the police before the search occurs; any subsequently discovered evidence cannot render an already-performed search reasonable at the time of its inception. Warrants are ideal for this determination, as legality is necessarily determined when the only information available is the information known prior to conducting the search. But by loosening the warrant preference and allowing a search’s legality to be determined after it has occurred, the Court is implicitly assuming that a judge will be unaffected by any subsequent information. That is, the Court must be thinking that a judge can cognitively place herself at a prior point in time and make a judgment that considers only the legally admissible information. This sort of informational partitioning is an intellectual feat typical of the rational actor.

III. A BEHAVIORAL APPROACH TO THE FOURTH AMENDMENT

If these behavioral assumptions are accurate, the current trend in Fourth Amendment law may be compelling; the economic conception of behavior provides little theoretical basis for keeping the exclusionary rule or warrants. Yet current research in behavioral science has shown that the economic theory of behavior is flawed. With the current direction of Fourth Amendment doctrine premised on such flawed assumptions, the wisdom of this direction is highly suspect.

\textsuperscript{132} William Stuntz has discussed the possible influence of bias in determinations of a search’s legality. In discussing judicial bias in determining whether to exclude evidence, Stuntz hinted at the effect of hindsight, discussed further below. See Stuntz, Warrants, supra note 64, at 911–12. Stuntz focused more on the potential judicial bias from the character of the defendant and her “inherently unsympathetic” nature. Id. at 912. Yet, he also noted that “[i]t must be much harder for a judge to decide that an officer had something less than probable cause to believe cocaine was in the trunk of a defendant’s car when the cocaine was in fact there,” and that timing problems “tend to overestimate the magnitude of some kinds of risks.” Id. (citing two studies on hindsight bias). Thus, instead of solely discussing personal or moral biases against deciding in favor of a criminal and against the police, Stuntz recognized that there may be inherent cognitive shortcomings that prevent accurate determinations. While his intuition was partially correct, a deeper analysis is necessary to understand the potential distortions in Fourth Amendment decision making.
A. Bounded Rationality

A growing body of research is making plain the fact that people do not behave as rational choice theory predicts. However, this research is not just identifying the ways in which rational choice theory fails; it is also providing an alternative to rational choice theory by developing ways to better predict behavior. Building on the work of Daniel Kahneman and Amos Tversky in cognitive psychology and Richard H. Thaler in economics, scholars in the behavioral sciences are uncovering the ways in which people’s behavior systematically deviates from that predicted by rational choice theory. In particular, behavioral science has identified a number of bounds on judgment and decision making. By considering these bounds, behavioral science, particularly in the law, can better predict how humans will actually act and perhaps provide new life for old legal debates.

One bound that directly challenges traditional notions of rational choice theory is “bounded rationality.” Bounded rationality “refers to the obvious fact that human cognitive abilities are not infinite. We have limited computational skills and seriously flawed memories.” In particular, people “are systematically biased in their predictions of the probable results of various events.” Many of these biases are due to the use of mental shortcuts, or heuristics. People are faced with nearly infinite information and, accordingly, nearly infinite possible courses of action. Processing all of this information to arrive at an optimal outcome, as predicted by rational choice theory, is impossible. Mental shortcuts allow us to filter this information and make a decision.

134. Jolls, Sunstein & Thaler, supra note 9, at 1476.
135. Id. (“The task of behavioral law and economics, simply stated, is to explore the implications of actual (not hypothesized) human behavior for the law.”).
137. Jolls, Sunstein & Thaler, supra note 9, at 1477 (footnote omitted). This conception of human cognitive capability is a far cry from the conception that Ulen outlined in describing the bare-bones of rationality. Compare supra text accompanying note 125.
139. Id.
140. Id.
Ulen note, “without . . . mental shortcuts, the task of making even relatively simple decisions would become so complex that daily life would almost certainly grind to a halt.” 141 Yet while these valuable shortcuts economize information processing, they also often result in systematic biases in judgment and decision making.142

Two mental shortcuts may significantly affect the debate over the proper Fourth Amendment scheme: overconfidence bias and hindsight bias. The next Sections discuss these biases and reveal their impact on the Fourth Amendment debate.

B. Overconfidence Bias and Policing Police

Overconfidence bias refers to people’s perception “that good things are more likely than average to happen to [them] and bad things are less likely than average.”143 In some cases, what one perceives to be overconfidence may be justified; an individual, due to her superior skill or talent, may actually be more likely than average to have something good happen to her.144 But, statistically speaking, not everyone can be above average. Overconfidence bias is evident, and at least some people’s beliefs are erroneous, when the majority of people see themselves as better situated than average.

A number of studies have uncovered such erroneously overconfident beliefs. In reviewing experiments on risk perception among smokers, Neil D. Weinstein concluded “that smokers substantially underestimate their own personal risk.”145 Weinstein’s research showed that “smokers tend to conclude that they are less likely to suffer health effects than other smokers.”146 Further, “[s]mokers claim that their risk of smoking-related illness is ‘slightly less than,’ ‘equal to,’ or only ‘slightly greater than’ that of the ‘average person.’”147 In particular, smokers claim that “their own risk [of lung cancer] is ‘a bit higher’ than average,” while “[t]heir actual risk . . . may be more than 10 times the risk of a non-smoker.”148
This misperception of personal susceptibility to risk is an example of overconfidence bias at work. As Weinstein notes, “[p]eople may be quite aware of well-publicized risks and even over-estimate their numerical probability, but resist the idea that the risks are personally relevant.” 149 And even with accurate knowledge of the abstract probability of a negative event, individuals minimize their judgment of its likelihood as to themselves. As is likely with other hazardous behaviors, 150 Weinstein’s research indicates that smokers “minimize the size of [their] risk and show a clear tendency to believe that the risk applies more to other smokers than to themselves.” 151

Other studies have echoed this biased judgment of the personal likelihood of negative events. In one study, Lynn A. Baker and Robert E. Emery asked recent marriage license applicants about the likelihood of divorce among the general population as well as expectations the applicants had about their own marriage. 152 While the applicants were largely accurate in predicting the likelihood of divorce among the general population, 153 they were quite optimistic as to their own marriage: “the median response of the marriage license applicants was 0% when assessing the likelihood that they personally would divorce.” 154

In another study, Weinstein asked college students to estimate their likelihood “of experiencing future life events [as compared to] the average chances of their classmates.” 155 Weinstein found that “students tend to believe that they are . . . less likely [than their peers] to experience negative events.” 156 For example, on average, the students believed themselves to be 58.3% less likely than their peers to have a drinking problem. 157 For every student who perceived herself to be more likely than average to have a drinking problem, more than seven students believed

149. Id. at S128.
150. Id. Weinstein suggests that similar views would be prevalent among people engaged in “heavy drinking, unsafe sex, and speeding in automobiles.” Id.
151. Id.
153. Id. at 442. The median response for “the percent of couples in the U.S. who marry today who will get divorced at some time in their lives” was 50%, the “closest correct approximation” at the time. Id. (citation omitted).
154. Id. at 443.
156. Id. at 818.
157. Id. at 810.
that they were less likely than average. The students also believed themselves to be 48.7% less likely than their peers to be divorced, with the ratio of “less likely” to “more likely” responses at over nine to one.

Overconfidence is not limited to the occurrence of negative life events. In the same study, Weinstein found that “students [also] tend to believe that they are more likely than their peers to experience positive events.” For example, on average, the students believed themselves to be 50.2% more likely than their peers to like their postgraduation job. Overconfidence also affects assessments of self in a positive direction. In one study, Ola Svenson asked American and Swedish subjects to compare their skill and safety as drivers to other subjects of the study. Svenson found that 88% of the American subjects and 77% of the Swedish subjects “believed themselves to be safer than the median driver.” Further, 93% of the American subjects and 69% of Swedish subjects “believed themselves to be more skillful drivers than the median driver.” Among the American subjects, 46.3% believed themselves to be among the top 20% most skillful drivers.

Christine Jolls has argued that overconfidence bias may change the way we approach law enforcement. As discussed above, the traditional economic argument for public law enforcement sets the penalty of breaking a law at or above the lawbreaker’s expected gain, yet not so high that it deters efficient conduct. With the expected costs of breaking the law equal to or exceeding the expected benefits, the rational lawbreaker would thus not break the law. The success of this prediction depends on a potential lawbreaker “calculat[ing] in a fully rational way the costs—given the probability of detection—and benefits of [breaking that law] and then [making] fully optimal decisions about how to behave.” Yet overconfidence skews this assessment.

158. Id.
159. Id.
160. Id. at 818.
161. Id. at 810.
162. Ola Svenson, Are We All Less Risky and More Skillful Than Our Fellow Drivers?, 47 ACTA PSYCHOLOGICA 143, 144 (1981).
163. Id. at 146.
164. Id.
165. Id.
166. See Jolls, supra note 127.
167. See supra notes 113–15 and accompanying text.
As shown above, “people underestimate the probability that negative events will happen to them as opposed to others.” Because detection and punishment for breaking the law is likely regarded as a negative event, people will perceive themselves as less likely than average to have their lawbreaking detected and punished. Given this erroneous estimate, “actors will tend to be less deterred from the behavior sought to be deterred than they would be in the absence of [overconfidence] bias; the bias leads them to underestimate in a systematic way the probability that they will be detected [and punished].”

An example may help illustrate this point. Consider the common deterrent of speeding tickets. A fine for speeding, under traditional economic analysis that does not take account of overconfidence, would be set at some amount near the value of speeding to an individual, increased by the probability of detection and punishment. In the face of this potential punishment, rational drivers would no longer speed, as any gain from speeding would be offset by the expected punishment.

If drivers are boundedly rational and exhibit overconfidence bias, fines for speeding may not attain their goal. As shown above, people not only underestimate their likelihood of encountering negative events, but they are also overconfident in their driving ability. It is not too much of a leap to then assume that people will underestimate the likelihood that their driving at an excessive speed will result in punishment. If this is the case, speeding tickets set at an amount thought to deter rational drivers will be less effective than predicted.

In the Fourth Amendment context, overconfidence changes the way we think about deterring police. Police officers, like most other people, likely underestimate the probability of negative events. And the exclusion of evidence a police officer uncovers (albeit illegally) is undoubtedly a negative event; exclusion can lead to a criminal avoiding punishment entirely. Due to overconfidence, police will underestimate the probability that an illegal search will be detected and punished, and thus they lose some of the incentive to refrain from conducting illegal searches.

Because it does not take account of overconfidence bias, the rationality assumption in criticisms of the exclusionary rule is flawed. Any remedy

169. Id. at 273.
170. Id.
171. Id. at 274.
172. Empirical research on this point is necessary before we can be certain that police suffer from overconfidence in this particular context. The need for further empirical research is discussed further below. See infra Part V.
that does not take account of overconfidence bias will fail to attain its predicted deterrence. For example, a fine for illegal searches could be set to some amount approximating the police officer’s gain when increased by the probability that the illegal search will be detected and punished. At this amount, Fourth Amendment violations supposedly become too costly and police cut back on them. But if police officers perceive themselves as less likely to have their illegal searches detected and punished, the fine will be much less effective than predicted. The same holds true for constitutional torts or other administrative penalties. As such, the proffered alternatives to exclusion, at least in their present form, would likely not attain their predicted deterrence.

C. Hindsight Bias and Determining Reasonableness

Hindsight bias refers to the effect outcome information has on an ex post judgment of the ex ante probability of that outcome. 173 Simply stated, the fact that an event actually happened will increase one’s perception of the likelihood of that event happening. 174 In one often-cited study, five groups were given a brief account of the British conflict with the Gurkas in Nepal and then asked to predict the likelihood of four possible outcomes for the conflict. 175 One group received no information on the outcome of the conflict, while four groups were each told that a different outcome actually happened. 176 Participants in the four groups with outcome knowledge consistently overestimated the likelihood of their given outcome compared to the probability predicted by the group with no

175. Id. at 289. The four possible outcomes were “(a) British victory, (b) Gurka victory, (c) military stalemate with no peace settlement, and (d) military stalemate with a peace settlement.” Id. The actual outcome was a British victory. Id. at 291.
176. Id. at 289. Thus, one group received only the passage describing the conflict while the other four groups received the passage plus one additional sentence on the outcome of the conflict, “such as, ‘The two sides reached a military stalemate, but were unable to come to a peace settlement.’” Id. The groups were then asked to determine “the probability of occurrence of each of the four possible outcomes.” Id.
outcome knowledge. Many other studies have demonstrated hindsight bias in a variety of contexts.

As discussed above, a common implicit assumption in the Fourth Amendment debate is that the system of determining illegal searches is accurate. While few would likely argue that the system is perfect, there has been little attention paid to the inner cognitive process of determining whether a search was legal once it gets to court. Yet, one failure that is sometimes discussed is the effect of hindsight on determinations of reasonableness. This determination is made after the search has been conducted and any incriminating evidence is or is not found. While “the hindsight bias is a threat to accurate determinations in many areas of [the]
law,”180 this scenario is particularly ripe for hindsight’s manipulation. Because Fourth Amendment doctrine is so amorphous and contains such latitude for decision making,181 there is significant room for hindsight to covertly affect a determination of reasonableness.

Lay people have consistently demonstrated evidence of biased determinations of reasonableness when judging in hindsight. In one study, subjects played the role of jurors in a civil case in which the plaintiff claimed that his civil rights had been violated by a police search of his apartment.182 While all of the subjects were given the same initial set of facts,183 the authors of the study provided the subjects with one of three possible outcomes: the discovery of a significant amount of heroin (guilty), the discovery of nothing (not guilty), and no knowledge of the outcome of the search whatsoever (neutral).184 In assessing the amount of damages to award the plaintiff, subjects who received the “guilty” ending awarded “substantially lower damage awards” than those who received the “not guilty” and “neutral” endings.185 The authors concluded that this disparity in damage awards was due to hindsight bias affecting interpretation of the facts.186 This study was later refined and repeated, again finding that outcome knowledge affected damage awards.187

In the Slobogin and Schumacher study, subjects were asked to rate the intrusiveness of various hypothetical searches. Some subjects were not told the goal of the search while others were given a description of the “evidence being sought or the crime being investigated.”188 Subjects who

181. See supra Part II.
183. In short, the facts concerned an informant telling two police officers that a large heroin sale was going to occur in a particular apartment. Id. at 101–02.
184. Id. at 102.
185. Id. at 104. Asked to award damages between $0 and $50,000, subjects with neutral outcome knowledge awarded $22,748 on average, and subjects with “not guilty” outcome knowledge awarded $24,834 on average; subjects with “guilty” outcome knowledge awarded $16,090 on average. Id. at 105.
186. Id. at 110–11. The authors rejected the explanation that subjects did not want to reward “wrongdoing,” as an accompanying questionnaire showed that the subjects who received the “guilty” outcome “were significantly less likely to believe that the police had misbehaved” in conducting the search in question. Id. at 104–05.
188. Slobogin & Schumacher, supra note 26, at 735–36. For example, subjects told of the police objective received hypotheticals such as “[a] search of a garbage can for evidence of forgery,” while those not told the police objective received “[a] search of a garbage can.” Id. at 736 (emphasis
were told what the police were looking for rated the searches as less intrusive than those who were not told of the police objective.\textsuperscript{189} While the authors directed their subjects to assume that the party subject to the search was innocent,\textsuperscript{190} the authors speculated that subjects who were told what evidence the police were looking for might have assumed that the evidence would be found.\textsuperscript{191} If the subjects did assume that evidence would be found, then their ratings of intrusiveness could have been affected by the presumed guilt of the individual; i.e., it is less intrusive to search a guilty individual. In this case, hindsight bias distorted the analysis of police conduct.\textsuperscript{192}

While hindsight bias in the Fourth Amendment context has been documented in lay people, judges are more complicated. Two studies by Chris Guthrie, Jeffrey J. Rachlinksi, and Andrew J. Wistrich explored hindsight bias’s effect on judges.\textsuperscript{193} In the first study, a group of judges was given a short description of a lower-court decision that was appealed.\textsuperscript{194} The judges were randomly assigned one possible appellate court disposition (Lesser sanction, Affirmed, or Vacated).\textsuperscript{195} Subjects were also told to evaluate the search either as if it was happening to them or as if the search was occurring in the abstract to some unspecified third party.\textsuperscript{196} Note that, because the objective of the search was not necessarily achieved, the subjects could not know whether the search was intrusive.\textsuperscript{197}

\textsuperscript{189} See id. at 759. Subjects rated the intrusiveness, or “invasion of privacy or autonomy”, from zero to one hundred, with one hundred being “Extremely Intrusive.” Id. at 736. The mean intrusiveness of third-person searches without a given police objective was 59.26 while the mean intrusiveness of third-person searches with a given police objective was 48.93. Id. at 759. The mean intrusiveness of first-person searches without a police objective was 63.19 while the mean intrusiveness of first-person searches with a police objective was 54.95. Id.

\textsuperscript{190} See id. at 736.

\textsuperscript{191} See id. at 761. This was only a hypothetical interpretation, as it was unclear how the survey respondents interpreted the condition of the police objective. Id. If the subjects interpreted the objective at face value and only assumed that the police had an objective, this knowledge might have led them to decide that the search was less intrusive. Id. If instead the objective was interpreted to mean that achieving the objective (e.g., finding contraband) was achieved or more likely to be achieved, then the data indicates hindsight bias. Id.

\textsuperscript{192} See id. at 761, 771. See also Dorothy K. Kagehiro et al., Hindsight Bias and Third-Party Consentors to Warrantless Police Searches, 15 LAW & HUM. BEHAV. 305, 312 (1991) (finding that subjects viewed a third-party consentor to a search, such as a roommate, as more justified in permitting a search when evidence was uncovered in the search and less justified if no evidence was uncovered).


\textsuperscript{194} Guthrie, Rachlinksi & Wistrich, Judicial Mind, supra note 180, at 801–02. The scenario involved a § 1983 case that was dismissed, with the plaintiff fined under Rule 11. Id. at 801.

\textsuperscript{195} Id. at 802.
was most likely to occur.196 Many of the judges assigned the outcome they were given as the most likely outcome.197 For example, of those “told that the court of appeals had affirmed, 81.5% of the judges indicated that they would have predicted that result.”198 The study thus found that “judges exhibited a predictable hindsight bias” in assessing the probability of various outcomes of an appeal.199

The second study, in contrast, indicated that judges were not affected by hindsight in the Fourth Amendment context. In studying judges’ ability to disregard inadmissible or legally inadmissible information, the authors “explore[d] whether judges [could] disregard the outcome of a search when deciding whether the police had probable cause to conduct the search in the first place.”200 One group of judges was given a factual scenario involving a suspicious automobile and asked whether they would issue a warrant for a search.201 A second group was given the same factual scenario but told that the police officer searched the car without requesting a warrant, uncovering a large amount of drugs and a gun.202 These judges were asked whether they would exclude this evidence from trial.203 In both cases, the judges were, in effect, being asked whether there was probable cause to search the automobile.

The study found no statistically significant difference between ex ante and ex post assessments of probable cause.204 There was thus “no evidence that the hindsight bias affected [a] judge[’s] assessments of probable cause.”205 Noting that “[t]he vast literature on the hindsight bias includes virtually no studies that fail to uncover evidence of the hindsight bias in ex post assessments of ex ante probabilities,” the authors were surprised by their finding.206 They rejected the possibility that judges had learned to

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196. Id.
197. Id.
198. Id. “[O]nly 27.8% of those told the court of appeals had vacated, and only 40.4% of those told that the court of appeals had remanded for imposition of a lesser sanction, indicated that affirmance was the most likely outcome.” Id.
199. Id. at 803.
200. Wistrich, Guthrie & Rachlinski, Inadmissible Information, supra note 193, at 1313.
201. Id. at 1315.
202. Id.
203. Id. This particular factual scenario is ideal for their experiment. As the authors note, searches of automobiles are an exception to the warrant preference, but “police sometimes do request warrants for automobile searches to ensure the admissibility of evidence uncovered during the search.” Id. at 1316 (citing Chambers v. Maroney, 399 U.S. 42, 51 (1970)).
204. Id. Of those asked to issue a warrant, 23.9% “concluded that there was probable cause;” while of those asked to exclude the evidence, 27.7% “concluded that there was probable cause.” Id.
205. Id. at 1317.
206. Id.
avoid hindsight bias in general, as “several other studies show judges are influenced by hindsight bias in other situations.”²⁰⁷ Further, there was no evidence of experience mitigating hindsight bias.²⁰⁸

The authors see two possible explanations for the lack of hindsight bias in this scenario. The first “is that ‘probable cause’ assessments do not actually depend upon the likelihood that a search produces incriminating evidence,” turning instead on the appropriateness of police conduct.²⁰⁹ Yet the authors question this hypothesis, as “a judgment of appropriate police conduct would also seem likely to be influenced by the outcome of the search.”²¹⁰ A more compelling explanation “is that judges have developed informal heuristics which they use to assess probable cause.”²¹¹ Applying various mental shortcuts such as finding a search illegal when its only basis is an assertion of suspicion, judges’ determinations of probable cause may not consider the underlying facts closely enough to be affected by hindsight.²¹² Ultimately, as the authors acknowledge, the reasons for judges’ seeming immunity to hindsight bias in the Fourth Amendment context needs more study.²¹³

The effect of hindsight on Fourth Amendment violations is troubling both in principle and for its effect on deterrence. First, inaccurate determinations of reasonableness mean that Fourth Amendment rights are potentially being incorrectly enforced. Criminal defendants who are victims of objectively unreasonable searches have a right to some form of recourse. When incriminating evidence causes a decision maker to erroneously find a search valid, this recourse is denied. In a similar vein, police officers are not to be punished for conducting an objectively reasonable search that violates no constitutional rights. If no incriminating evidence is found but a decision maker erroneously finds a search illegal, the officer is liable for conduct society would encourage if not for the influence of hindsight.

While the potential inaccuracy of determinations of Fourth Amendment violations is troubling in and of itself, hindsight bias can also affect deterrence, as any Fourth Amendment remedial scheme that does not take into account the effect of hindsight bias will likely fail to achieve its desired level of deterrence. Hindsight bias changes the probability that law

²⁰⁷. *Id.* (citations omitted).
²⁰⁸. *Id.*
²⁰⁹. *Id.*
²¹⁰. *Id.* at 1318.
²¹¹. *Id.*
²¹². *Id.*
²¹³. *Id.*
breaking will be punished; some valid searches that do not turn up evidence will be punished, deterring valid searches, while some illegal searches that do turn up evidence will not be punished and thus not deterred. Recall that under the economic conception of deterring lawbreaking, penalties are set at a level where the statutory penalty is an amount above the value to the lawbreaker, increased by the probability of detection and punishment. At this amount, penalties are thought to deter the optimal number of violations of the law. Unless the probability of punishment accounts for hindsight bias, the statutory penalty will not be set at a level that deters the optimal amount of violations of the law. Thus, hindsight bias only adds to the “mess” that is Fourth Amendment doctrine.

In light of hindsight bias, the Court’s move away from a warrant preference to ex post reviews of reasonableness is especially troubling. As the Supreme Court once acknowledged, one of the reasons for the warrant preference was to eliminate the taint of hindsight. It once even called ex post review a “far less reliable procedure of an after-the-event justification for the arrest or search, too likely to be subtly influenced by the familiar shortcomings of hindsight judgment.” However, decisions that are more recent have implicitly dropped this concern. In the move toward ex post review, the Court must be assuming that a judge can uniformly analyze the probable cause of a search before and after that search has occurred. Since hindsight bias can only affect ex post review, the Court must be assuming that judges behave rationally and can ignore the effect of the bias in determining violations of the Fourth Amendment. While the second study by Guthrie, Rachlinski, and Wistrich hinted that this might be true, the majority of research indicates that people are affected by hindsight, and more research is necessary before their findings can be accepted. If hindsight is a problem, the Court’s assumption of rational cognitive thought processes is flawed. And by favoring ex-post review based on this erroneous assumption of rationality, the Court has opened wide the door for hindsight to taint evaluations of police conduct.

214. Stuntz has made a similar point, see Stuntz, Warrants, supra note 64, at 915, although it is again unclear whether he was referring to correcting hindsight bias or a preferential bias against siding with criminals. See supra note 133.
217. One exception is Justice Stevens’s dissent in Florida v. White, 526 U.S. 559, 570 (1999) (Stevens, J., dissenting) (noting the “inherent risks of hindsight at postseizure hearings”).
IV. THE BEHAVIORAL SUPPORT FOR EXCLUSION AND WARRANTS

In light of these cognitive biases’ effect on judgment and decision making in the Fourth Amendment context, past and present analyses of current and proposed remedies are missing important considerations. By incorporating these biases into the analysis, this Part shows that the current trends are not only in error, but their reverse might better enforce the Fourth Amendment.

A. Addressing Overconfidence Through Exclusion

Because the perceived penalty of any deterrent is reduced due to overconfidence bias, one obvious way to counter the bias is to increase the penalty. As Korobkin and Ulen note, in order to overcome overconfidence, “penalties for . . . undesirable behavior will have to be higher than policymakers would otherwise think necessary to achieve the desired level of deterrence.”218 In the Fourth Amendment context, this could mean an increase in the amount of fines or an artificial increase in the amount of damages in constitutional torts. With the expected penalty raised, overconfidence would be mitigated. Yet given the pay of police officers and limited budgets of police departments, this proposal may be a political nonstarter.219

Another method for overcoming overconfidence is increasing the salience of a penalty.220 Increasing the salience of a penalty may make people more aware of the penalty and thus more accurately assess its likelihood.221 When people have more information relating to the probability of an event or know that information is more available, they are better able to predict the actual probability of the event.222 Due to the

219. While the general public may not be enthusiastic about excluding evidence (and thus often freeing criminals), I imagine they would be even less enthusiastic about significant wealth transfers from police officers or departments to criminals. Depending on the impact of overconfidence, these wealth transfers may have to be quite significant. A potentially fascinating area for future research is gauging public preference between freeing criminals and imposing large monetary penalties on police officers and departments.
220. Jolls, Sunstein & Thaler, supra note 9, at 1538.
221. Id.
222. Availability is another, and perhaps more intuitive, mental shortcut. Availability refers to the tendency to use readily available memorable information in making such estimates: the more memorable an event, the greater the estimation of probability. Korobkin & Ulen, supra note 117, at 1057. On the other hand, information concerning an event might be memorable because it is, in reality, quite common. Id. When availability is due to commonality, the highly available information could be representative of the general prevalence of the event and the probability estimate could be quite
effect of availability of information on judgments of probability, “vivid and personal information will often be more effective than statistical evidence.”223

One way to increase salience is to make something highly visible.224 Jolls, Sunstein, and Thaler give the example of using large, brightly colored tickets for parking violations.225 Because these tickets are highly visible, passing motorists recognize the potential punishment for parking violations. Seeing someone actually being punished increases the salience, and thus the availability, of information regarding punishment. Jolls, Sunstein and Thaler also give the example of “community policing,” which makes police officers highly visible to members of the community.226 With this information, individuals can better predict the probability of detection and punishment, reducing their overconfidence.227 This increase in salience can “increase the deterrence of potential criminals without altering the actual probability of apprehension.”228

In the Fourth Amendment context, a “happy feature of [the] much-maligned [exclusionary rule] is the one that its critics always focus on: we can actually see the criminal walking out the courthouse door.”229 Exclusion is a highly visible remedy, “shin[ing] a spotlight on a few of the robbers and drug dealers who go free.”230 The very shock of a criminal walking away increases the comparative availability of exclusion. This availability, like the brightly colored parking tickets, could mitigate the overconfidence bias in police. With the consequence of an illegal search so accurate. Id.

Yet other information is memorable because it is especially salient, such as especially vivid or recently available information. Jolls, Sunstein & Thaler, supra note 9, at 1519. Because the greater availability of this information is not due to its actual commonality, the use of available information will result in systematically overestimating probability. Id. at 1518.

For instance, extensive news coverage of a burglary, including interviews with police, witnesses, and experts, provides quite vivid information about that crime. When attempting to estimate the general likelihood of a burglary occurring, all of the information concerning that particular burglary will be quite memorable and, thus, quite available in memory. In contrast, one does not take notice of the many days where no burglaries occurred. The readily available information about the occurrence of a burglary would be used in estimating the abstract likelihood of that crime, while there is no equally available information concerning the nonoccurrence of burglary. With such a disparity in the availability of information, the probability of the estimate will be skewed in favor of the more available information, and the actual likelihood of burglary will be overestimated.

223. Id. at 1537.
224. Id. at 1538.
225. Id.
226. Id.
227. Id.
228. Id.
230. Id. at 447.
visible, police can better estimate the likelihood of their own illegal search being detected and punished.231

Although exclusion is not common, an event does not need to be common to be salient;232 the uproar exclusion can cause may be enough. Consider the case of Judge Harold Baer, Jr. and Carol Bayless. Bayless was arrested with thirty-four kilograms of cocaine and two kilograms of heroin in the trunk of her car.233 Judge Baer, a U.S. District Judge in Manhattan,234 originally held that Bayless’s conduct had not given rise to the necessary reasonable suspicion sufficient to stop Bayless.235 Thus, all thirty-six kilograms of narcotics, with a street value of over four million dollars,236 were excluded from Bayless’s criminal trial along with her postarrest statements.237

The response to this decision was furious and “an avalanche of criticism” followed,238 with then “President [Bill Clinton] demanding that [Judge Baer] resign and Congress threatening impeachment.”239 Local politicians, including then New York City Mayor Rudolph W. Giuliani, publicly “assailed” Judge Baer and his decision,240 and local and national news outlets extensively covered the controversy.241 The pressure was so

231. It is unclear whether money damages would provide the same salience. If the damages or fines were relatively small, their visibility may be equally small. This low salience breeds overconfidence. Large fines that would be more visible run into the same problems of raising the fines solely to increase the expected punishment.
232. See supra note 222.
235. Bayless, 913 F. Supp. at 237. In so deciding, Judge Baer had deemed the defendant’s testimony to be more credible than that of the arresting officer. Id. at 242.
241. Between the time that the initial decision to exclude was issued and shortly after the judgment was vacated, The New York Times printed over fifteen articles or editorials on the controversy. See Bob Herbert, Presumed to Be Guilty, N.Y. TIMES, Feb. 2, 1996, at A13; Editorial, Judge Baer’s Mess, N.Y. TIMES, Apr. 3, 1996, at A14; Raymond W. Kelly, Editorial, Handcuffing the Police, N.Y. TIMES, Feb. 1, 1996, at A21; Raymond W. Kelly, Editorial, Judge Baer’s Tortured Reasoning, N.Y. TIMES, Jan. 3, 1996, at A16; Krauss, supra note 240; Don Van Natta, Jr., Drug Case Reversal, N.Y. TIMES, Apr. 3, 1996, at B3; Don Van Natta, Jr., Judge Agrees to Rehear Case on Drugs Seized by the Police, N.Y. TIMES, Mar. 6, 1996, at B1; Don Van Natta, Jr., Judge Finds Wits Tested by Criticism, N.Y. TIMES, Feb. 7, 1996, at B1; Don Van Natta, Jr., Judges Defend a Colleague From Attacks, N.Y. TIMES, Mar. 29, 1996, at B1; Don Van Natta, Jr., Judge’s Drug Ruling Likely to Stand, N.Y. TIMES, Jan. 28, 1996, at 27 [hereinafter Van Natta, Stand]; Don Van Natta, Jr., Judge to Hear Bid
great that Judge Baer, even though many believed his decision was valid, vacated his decision to exclude roughly two months later. Some suspect that this reversal was motivated by political rather than legal reasons.

Even though the decision to exclude did not stand, the case of Carol Bayless is a prime example of the visibility of the exclusionary rule. Had Judge Baer originally admitted the evidence, which would undoubtedly have resulted in Bayless’s conviction, and only fined the offending officer, the media coverage likely would have been a fraction of that in the actual case. Exclusion, with its high visibility, can mitigate the overconfidence bias that affects police trying to decide whether to conduct a search. Thus, when we reject the assumption that police officers (or anyone else for that matter) are able to accurately calculate the costs and benefits of their conduct, and instead acknowledge that police systematically deviate from rational behavior, the force of exclusion becomes evident.

B. Addressing Hindsight Through Warrants

By moving toward a reasonableness interpretation of the Fourth Amendment, the Supreme Court has moved the legality determination of police conduct to an ex post review by judges. Yet, due to hindsight, these judges may very well be getting it wrong. One could very well argue


242. See Freedman, supra note 239, at 739–40; Reske, supra note 234, at 32; Van Natta, Stand, supra note 241.


244. See Susan Bandes, Judging, Politics, and Accountability: A Reply to Charles Geyh, 56 CASE W. RES. L. REV. 947, 958 n.59 (2006); Freedman, supra note 239, at 737–43. See also Editorial, Tainted, supra note 241 (“Although Baer claims that the strength of new government evidence and inconsistencies in the defendant’s testimony convinced him that he had ruled improperly the first time, reasonable people may conclude that the judge bowed to political pressure.”).
that a search is only reasonable if the determination of its reasonableness
does not have the cognitive deck stacked against it.

Eliminating any information on what the search produced can remedy
this bias. In the context of constitutional torts against police officers,
Jonathan D. Casper, Kennette Benedict, and Jo L. Perry have suggested
that blinding the jury to outcome information would advantage guilty
plaintiffs who suffer from the jury’s hindsight bias.246 Their research
showed an increase in the number and amount of compensatory and
punitive damages awarded to constitutional tort plaintiffs when the jury
had no information as opposed to when a jury had information that the
plaintiff was guilty of a crime.247 While Casper, Benedict, and Perry
did note that blinding the jury at least “enable[s] jurors more effectively to
follow the legal norm that they ignore the guilt or innocence of the suspect
when deciding on the lawfulness of the police officer’s actions,”248 Absent
this outcome knowledge, the cognitive shortcoming of hindsight bias has
no chance to influence judgment.

While Casper, Benedict, and Perry focus on jury decisions, the same
rationale applies to judges. By keeping outcome information away from
the judge, there is no chance for hindsight, and we can be assured that the
judge is effectively following the legal norm. Blinding judges to outcome
information in an ex post suppression hearing is difficult, as the only time
one would ask for exclusion is when incriminating evidence was found.
Thus, a judge could easily infer that incriminating evidence was found,
even though he or she may not know what that evidence is.

A simple yet effective way to eliminate outcome information would be
to move the determination of reasonableness to before any outcome
information exists, i.e., before the search. A stricter warrant preference,
with its necessary ex ante determinations of reasonableness, would
accomplish just that. As Stuntz has noted, “[w]arrants attack distortions
that come with the suppression hearing by changing the timing of the
relevant decision.”249 With a warrant procedure, the reasonableness of a
search must be decided only on information that leads up to, and is
supposed to justify, the search. When we abandon the rationality

247. Id. at 299.
248. Id. at 300.
249. Stuntz, Warrants, supra note 64, at 915.
assumption of the Court’s movement away from the warrant preference and acknowledge the cognitive pitfalls the movement opens up, the need for a strict warrant preference becomes apparent.250

V. CONCLUSION

Admittedly, traditional conceptions of human behavior, often culled from economics, do not support the maintenance of the exclusionary rule or the warrant preference. Yet these conceptions of behavior are significantly flawed. A deeper understanding of behavior reveals that these two movements will not attain the goal of enforcing the Fourth Amendment. Quite the contrary: the opposite course should be taken in order to ensure the amendment’s protections.

While providing an argument for both the warrant preference and exclusionary rule, this Note does not pretend to have resolved the Fourth Amendment debate. More experimental evidence is needed before we can assert that the biases discussed herein are always present in the Fourth Amendment context. While the evidence on hindsight bias as to lay people is strong, more study of judges is necessary. Experiments on how overconfidence affects police officers are also needed.

Further, this Note does not attempt to exhaust all of the behavioral phenomena that could affect the Fourth Amendment debate. For instance, bounded will power may also affect deterrence,251 or confirmation bias may affect the interpretation of seemingly corroborative evidence. Yet this Note provides an important step in moving toward a better understanding

250. It must be noted that if the indications of Guthrie, Rachlinksi, and Wistrich’s study prove to be accurate, judges may not be susceptible to hindsight bias in the context of the Fourth Amendment. See supra notes 193–99 and accompanying text. If this is the case, the necessity of an ex ante determination of reasonableness is significantly weakened.

If judges are not susceptible to hindsight’s influence in the Fourth Amendment context, it may be wise to have them decide any kind of case raising this issue. The exclusionary remedy is already decided by judges and thus would already benefit from this unbiased determination. This is more difficult with constitutional tort remedies. Presumably, constitutional tort actions would include a right to a jury trial. While guilty plaintiffs might quickly waive their right to a jury in order to ensure an unbiased determination, innocent plaintiffs would get the benefit of having their case heard by the jury, a decision maker that is biased toward them. Yet this shopping for decision maker due to biases is somewhat troubling, as innocent plaintiffs could choose to tip the cognitive scale in their favor, resulting in police being punished for lawful conduct.

251. See Jolls, Sunstein & Thaler, supra note 9, at 1538–39.
and application of actual judgment and decision making in the Fourth Amendment context.

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