Probability Thresholds

Jonathan Masur

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Probability Thresholds

Jonathan S. Masur*

ABSTRACT: Scholars and lower courts have traditionally operated under the belief that cases involving direct tradeoffs between free speech and national security call for the application of straightforward cost-benefit analysis. But the Supreme Court has refused to adhere to this approach, instead deciding difficult liberty-versus-security questions with reference to a "probability threshold"—a doctrinal floor defining how likely a potential threat must be in order to register in the constitutional calculus. This doctrinal innovation has served as a necessary corrective to what would otherwise be the systematic overestimation of speech-based threats driven by the interaction of two factors. First, distinct informational asymmetries favor the government, the putative censor. Second, courts and other lay risk analysts—through the exercise of bounded rationality—tend to overstate very low-probability, highly emotionally salient dangers.

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"Independent and impartial judges must assess the balance between protecting our liberties and protecting our national security."

— Judge Samuel A. Alito Jr.¹

"We have to deal with this new type of threat in a way we haven't yet define . . . With a low-probability, high-impact event like this . . .

. . . If there's a one percent chance that Pakistani scientists are helping al Qaeda build or develop a nuclear weapon, we have to treat it as a certainty in terms of our response . . . ."

— Vice President Dick Cheney²

I. INTRODUCTION

The First Amendment states that Congress "shall make no law . . . abridging the freedom of speech,"³ but since the days of Justice Hugo Black's absolutism,⁴ few have doubted that the First Amendment must yield when its enforcement would threaten dire harm to the nation or its security. As the Supreme Court famously remarked, the Constitution "is not a suicide pact."⁵ Likewise, the Court's canonical speech-versus-security hypothetical that "[n]o one would question but that a government might prevent . . . the publication of the sailing dates of transports or the number and location of troops"⁶ has forfeited no currency in the seventy-five years since it was written.

Among courts and scholars, the debate over the proper balance between speech freedoms and national security has most often centered on the question of what framework judges should employ when deciding whether the threat to security posed by some form of expression is so great that the First Amendment no longer protects its utterance. In quotidian First Amendment cases that do not involve potentially grave national harms (cases of political speech or artistic expression, for instance), there is certainly little consensus or uniformity, and courts apply a variety of methods and doctrinal rules.⁷ But in difficult cases that place the freedom of

¹. The Judge's Only Obligation Is to the Rule of Law, N.Y. TIMES, Jan. 10, 2006, at A1 (quoting the opening statement at now Supreme Court Justice Alito's Senate confirmation hearing).
³. U.S. CONST. amend. I.
⁷. See generally GEOFFREY R. STONE ET AL., THE FIRST AMENDMENT (2d ed. 2003); LAURENCE TRIBE, AMERICAN CONSTITUTIONAL LAW §§ 12-1 to 12-39 (2d ed. 1988). Indeed, it is
speech and the demands of national security in direct opposition, a single leading view has emerged. The approach that has come to predominate, both within the academy and among the lower courts—though, importantly, not the Supreme Court—is “cost-benefit analysis,” a methodological tool borrowed from the private-law and regulatory contexts. This Article urges a rethinking of this approach.

Cost-benefit analysis demands that the judge simply and straightforwardly balance the cost of the dangerous speech—the harm that the expression is likely to cause if it is allowed—against the benefit (a better-informed public, for instance) one might expect the speech to produce; the speech warrants constitutional protection if (and only if) its benefits outweigh its costs. The aspiration for practitioners of cost-benefit analysis, even in the realm of inchoate constitutional rights, has been to quantify these costs and benefits to the greatest possible degree. This analysis requires the judge to determine the approximate probability that a potential speech-borne threat will materialize, estimate the magnitude of the damage that threat might cause, and multiply the probability and magnitude to arrive at the expected outcome of permitting the speech to occur. This outcome is then compared with the benefit that the judge expects the speech to confer. Consider, for instance, the publication of the sailing date of a troop transport, as mentioned above. If the government asserts that a newspaper publication of this date would create a five-percent probability that a submarine will sink the transport, and if the transport carried one hundred people, then the likely outcome of allowing publication of its sailing date will be five deaths. Only if the speech is worth more than five lives will the Constitution protect it.

This view of the First Amendment is not entirely without controversy. Nonetheless, one fact has become inescapable: cost-benefit analysis is ascendant within both the lower courts and the legal academy, and courts now decide cases that arise at the intersection of individual liberty and national security almost exclusively with reference to such a weighing of interests. This development is hardly surprising given the intuitive appeal of the approach. It would be a strange constitutional doctrine indeed that

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the taxonomy of these cases—their categorization as one type or another—that is most frequently decisive to the analysis. Stone et al., supra, at 18.

8. See infra notes 13-20 and accompanying text.

9. See infra notes 11, 13-16 and accompanying text.


forced courts to allow behavior that proves, in the aggregate, harmful (or even very harmful) to the nation's interests.

Yet somehow the First Amendment has tread a different path—a desirable one, as this Article will assert. First Amendment doctrine, as expounded by the Supreme Court, contains within it a peculiar twist, a previously unnoticed determination not to conduct unadulterated cost-benefit analysis. Where one might expect the First Amendment to advocate straightforward balancing—benefits versus harms—the doctrine instead inserts what this Article will refer to as a “probability threshold”: a lower boundary on how likely a potential harm must be in order for that harm to register in the constitutional calculus, regardless of the harm’s magnitude. If an event is so unlikely that the probability that it will occur does not cross this threshold, First Amendment doctrine instructs courts to refuse to weigh the expected harm from the event against the benefits that the speech in question is likely to produce. True balancing—a full accounting on each side of the ledger—simply will not take place unless the probability of the asserted harm crosses the threshold.

Consider a variant of this “troop transport” hypothetical. A magazine seeks to publish an article describing the production of a nuclear weapon, and the government estimates that the slight aid this article might provide to a terrorist group seeking to develop such a weapon will increase the likelihood that New York City and its 10 million residents are destroyed in a nuclear blast by a probability of 1 in 2 million (0.00005%). Again, the statistically expected outcome is five deaths. But here the threat is of such miniscule probability that it likely falls below the probability threshold, and therefore, it cannot serve as justification for censoring the article, regardless of how devastating such an attack would be. Threats that straightforward cost-benefit balancing would treat as equivalent fare very differently under the probability threshold.

This Article thus urges a rethinking of the approach that scholars and lower courts have taken to this crucial class of speech-versus-security cases. Moreover, the Article attempts to account for such a significant (though well-hidden) anomaly within such a venerable doctrine. In so doing, it turns to behavioral law and economics for insight into the cognitive processes that surround these instances of constitutional decision-making. The “probability threshold” may at first glance appear dramatically over-inclusive, denying the government the constitutional authority to combat highly dangerous, highly unlikely threats that speech might trigger. But the institutional relationship between the courts and the executive, and indeed the very nature of low-probability dangers, renders such a threshold a necessary corrective to what would otherwise be systematic overestimation of speech-borne perils.

As the Article explains below, three mutually reinforcing factors conspire to exaggerate the importance of low-probability, high-magnitude
threats. First, the government—in its joint role as both partisan litigant and ostensible purveyor of neutral information—will tend to inflate the risks, particularly the low-probability risks, posed by the speech it attempts to stifle. The history of the government's efforts to curb undesired speech is characterized by such exaggerations. Second, individuals—both judges and jurors—have a propensity to overvalue the danger of low-probability risks and ignore many differences in low-probability estimates, resulting in a willingness to undergo irrational, disproportionate sacrifices in order to eliminate risks that threaten little actual harm. Finally, dreadful, salient, and emotionally resonant threats will trigger more powerful reactions than quotidian dangers that present the same degree of harm. Low-probability, high-magnitude speech harms are by their very nature likely to assume dreadful forms—wars, riots, revolutions, and especially acts of terrorism stand as the prototypical consequences of inflammatory speech. The probability threshold exists to curb our inclination to overvalue these low-probability threats and to deter the over-suppression of speech that might otherwise result.

This Article proceeds in four parts. Parts II and III are purely descriptive: Part II describes the probability threshold mathematically and analyzes the types of potential threats that it will exclude from consideration under the First Amendment. Part III locates the probability threshold within several of the speech doctrines and notes that a probability threshold is most likely to exist where borderline constitutional speech carries with it the potential for causing significant harm—those cases that most pointedly demand cost-benefit analysis. Parts IV and V are both positive and normative: Part IV approaches the cost-benefit balancing questions at hand from the standpoint of behavioral law and economics and concludes that probability thresholds are both explicable and defensible as a crude response to systematic upward biases in courts' assessments of the probability that putative harms will occur. Part IV also attempts to quantify the probability threshold as a matter of orders of magnitude—the greatest degree of possible precision. Part V defends probability thresholds as a second-best corrective and describes the decisional errors that result when courts fail to guard against their tendency to overvalue extremely low-probability dangers.

This Article intends to open the domain of constitutional law to a search for probability thresholds (or other signs of the influence of intuitions into the cognitive), not to close it. Probability thresholds may well exist within a variety of heretofore unexamined legal doctrines, such as equal protection. More generally, it is likely that intuitive conceptions of behavioral economics and cognitive science—intuitions that predate much of the modern literature on these topics—have left their mark across a

variety of areas of public and private law. Further research holds the potential to reveal and illuminate these cognitive echoes.

II. EXPECTATIONS OF HARM AND THE PROBABILITY THRESHOLD

Over the course of the past several decades, cost-benefit analysis has assumed a prominent place within both the academic literature and public and private decision-making apparatuses as an essential—if not the dominant—analytical tool for selecting which policies to pursue and which activities to permit. Cost-benefit analysis has long been prevalent within both the domains of private law\textsuperscript{13} (torts, property, contracts, and the like) and public regulation,\textsuperscript{14} where since 1981 a series of executive orders has mandated that administrative agencies conduct cost-benefit analyses of all significant proposed regulations.\textsuperscript{15} As the art and science of cost-benefit analysis have evolved, the doctrine's applicability has spread from more economic questions of regulation and financing to less easily monetized subjects, including classical, individual, negative constitutional rights. One commentator has suggested that the doctrinal test of "strict scrutiny," which appears in various constitutional contexts, implicitly incorporates a cost-benefit analysis.\textsuperscript{16} And cost-benefit analysis has achieved a significant foothold in the doctrine surrounding the First Amendment freedom of speech.

There exist a number of doctrinal levers by which cost-benefit analysis may be shoehorned into First Amendment cases. The legal doctrine may explicitly or implicitly call for a balancing of harms and interests,\textsuperscript{17} or it may demand "heightened" or "strict" scrutiny and require the government to demonstrate a "compelling interest" in the form of a benefit realized or a harm avoided before the government may curtail speech.\textsuperscript{18} Most importantly, certain speech doctrines require that an exercise of the right (an act of speech or the publication of a magazine, for instance) not

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threaten more than an acceptable amount of harm; the outcome of the action must fall within acceptable limits. An action with expected consequences that exceed that limitation is rejected as constitutionally unprotected. This Article focuses upon this final type of doctrinal hook, as it is within that structure that one finds the “violence” cases—those that most directly weigh the value of expression against its ostensible antagonists: security and safety.

A. STANDARD COST-BENEFIT BALANCING AND PROBABILITY-MAGNITUDE CURVES

In order to describe the operation of the probability threshold (and to explain the types of threats it excludes from consideration under the First Amendment), a brief foray into the most basic technicalities of cost-benefit analysis is necessary here. In economic terms, the expected utility (Hₜ) of prohibiting speech is the product of the magnitude (Mₜ) of the harm to be avoided and the probability (Pₜ) that this harm will come to pass in the presence of speech:

\[ Hₜ = Mₜ \times Pₜ \]

This probability must, of course, be measured against the baseline chance of an event occurring in the absence of government intervention. For instance, imagine that in the middle of a war there is a .50 probability that a troop transport will be sunk if a local newspaper is allowed to publish the date and time on which it sails. Suppose, moreover, that there is a .15 probability that it will nevertheless be sunk if the newspaper is not permitted to publish the relevant information. The value to the government is thus:

\[ (.50 - .15) \times Mₜ = .35 \times Mₜ \]

Or, more generally:

\[ Hₜ = (Mₜ \times Pₜ) - (Mₜ \times Pₜ) \]

where Pₜ and Mₜ are, respectively, the probability and magnitude of harm if the speech act does not occur. Of course, in most cases, a potentially dangerous form of expression will threaten to trigger a variety of negative outcomes. So, to generalize further:

\[ Hₜ = \sum_{i,j} (M_i \times P_j) - (M_j \times P_j) \]

19. See infra Part II.A–B.

20. The second and third of these doctrinal incorporations are best conceived as variants of the first; in each case, the value of the constitutional right—which is often difficult or impossible to measure on a case-by-case basis—is set at a fixed level, and the court measures the expected harm against that baseline.
where $M_i$ and $P_i$ represent all of the possible states of harm in the post-speech world and $M_j$ and $P_j$ the possible states of harm in the non-speech or pre-speech universe. For instance, the publication of the sailing date of a troop transport might increase the probability that the transport is sunk by 0.01%; increase the probability that it is attacked (at the cost of several lives) but does not sink by 1%; and increase the probability that it is attacked (without loss of life) but diverted off course by 10%. Each of these potential outcomes comes with a cost of some magnitude; all are relevant to the cost-benefit calculation and should be amalgamated.

This economic conception fits within the doctrine: the government holds the most "compelling" interest in an action that would, with great probability, avoid (or cause) an event of tremendous harm (or benefit). With an idea of what fixed level of "interest" would overcome a given constitutional freedom, a court might establish a relatively systematic means of determining which governmental actions it would permit to proceed. Imagine that there exists a certain quantifiable threshold of expected harm ($C$) such that the government has a compelling interest in avoiding any expected harms greater than or equal to $C$. To state matters in the simplest possible terms, the government would thus be justified in suppressing speech when $H_s \geq C$, or in other words when:

$$M_s \times P_s \geq C$$

Dividing each side by $M_s$, we see that the government may constitutionally ban speech if and only if:

$$P_s \geq C / M_s$$

This equation explains the relationship that must exist between the expected probability and the expected magnitude of a threat in order for the government to have a constitutional license to curtail speech in order to prevent that threat from materializing. But more revealing than this equation alone is its graph:
All governmental actions curtailing threatening speech that fall above and to the right of the line (in the shaded area) would be constitutionally permissible, while those below and to the left would be prohibited. Because of the form of the equation for $H_s$, the line that separates prospective harms against which the government may act and those against which it may not assumes the form of $y = 1/x$, where the $y$-axis range ends at absolute certainty (100%) and the $x$-axis domain extends as far as the value of all life and property on earth (theoretically the greatest possible harm).

**B. LONG PROBABILITY TAILS AND THE PROBABILITY THRESHOLD**

We might well expect courts to decide First Amendment cases—and likewise expect First Amendment doctrine to conform—to the straightforward economic logic summarized above. This is how many commentators have described courts as behaving. This is how many

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commentators believe courts should behave. Indeed, for areas of the law that (explicitly or implicitly) demand an accounting of the harm that might result from speech, it is hard to envision what alternative path the courts might follow.

Yet First Amendment doctrine has not held so neatly to this approach. The seed of the doctrine's peculiar deviation from standard cost-benefit estimation lies in a particularly potent feature of the mathematical structure of cost-benefit calculation. The magnitude-probability curve represented above is asymptotic at very large harm magnitudes along the probability = 0 axis (the "x" axis): as the magnitude of a threat approaches infinity, the corresponding probability necessary to constitutionally actuate that harm approaches zero. On any such curve, "there is a long tail—tiny probabilities of extremely catastrophic outcomes." And in the case of extremely large harms—a significant act of terrorism such as the assassination of the president, for instance—the cost-benefit model predicts that the First Amendment would allow for the censorship of speech even when the expected probability of that harm occurring is very small.

The speech doctrines have not adhered unfailingly to that model, however. To the contrary, in many areas the Supreme Court has imposed a bar against asserting extremely low-probability harms as the basis for curtailing expression, regardless of the magnitude of the harm. First Amendment doctrine embodies what I here term a "probability threshold," a limitation on how small the probability of a potential harm may be before it

5 U. PA. J. CONST. L. 831, 877-78 (2003); Rodney A. Smolla, Free the Fortune 500! The Debate over Corporate Speech and the First Amendment, 54 CASE W. RES. L. REV. 1277, 1278 n.11 (2004); cf. GEOFFREY R. STONE, PERILOUS TIMES: FREE SPEECH IN WARTIME FROM THE SEDITION ACT OF 1798 TO THE WAR ON TERRORISM 546 (2004). This is the case even among those commentators who advocate a "thumb on the scale" in favor of speech on account of behavioral tendencies to overestimate harm. See, e.g., CASS R. SUNSTEIN, LAWS OF FEAR 218-23 (2005); Paul Horwitz, Free Speech as Risk Analysis: Heuristics, Biases, and Institutions in the First Amendment, 76 TEMP. L. REV. 1, 27-49 (2003).

23. For a small sampling of this literature, see generally Matthew D. Adler & Eric A. Posner, Rethinking Cost-Benefit Analysis, 109 YALE L.J. 165 (1999). See also James A. Goldston et al., A Nation Less Secure: Diminished Public Access to Information, 21 HARV. C.R.-C.L. L. REV. 409, 444 (1986); Cass R. Sunstein, Cost-Benefit Default Principles, 99 MICH. L. REV. 1651, 1654 (1999); cf. Richard A. Posner, The Speech Market and the Legacy of Schenck, in ETERNALLY VIGILANT 125-26 (Lee C. Bollinger & Geoffrey R. Stone eds., 2002). Judge Posner writes the cost-benefit equation to state that speech should be allowed if and only if $B \times pH/(1 + d)^n + O - A$, where B is the benefit to be realized from speech, p and H are the probability and magnitude of the potential harm that speech may cause, O is the offensiveness of the speech, A is the cost of administering the speech ban, and the $(1 + d)^n$ factor represents the temporal discounting. The model employed in this Article subsumes O and A within the harm calculation and brackets the issue of discounting; in all other respects, it is identical to Posner's.

24. W. Kip Viscusi & Richard J. Zeckhauser, Sacrificing Civil Liberties to Reduce Terrorism Risks, 26 J. RISK & UNCERTAINTY 99, 101 (2003). Note that there is no similarly long tail of low-magnitude, high-probability events, as the probability of any occurrence is bounded at "1."

25. See infra Part III.
loses constitutional significance and can no longer serve as a rationale for suppressing speech activities. Events whose probabilities cannot be definitively fixed, and whose likely probabilities fall beneath this threshold, are simply not cognizable under First Amendment doctrine. The government may not assert them as a justification for censorship of otherwise protected speech.26

Figure 2 describes this doctrinal phenomenon. The horizontal line that intersects the probability-magnitude function represents the minimum probability threshold that an event must cross in order to qualify as a judicially cognizable interest for purposes of constitutional review. Events that lie above and to the right of the probability-magnitude curve and above this line (the darker gray shaded area) still constitute compelling governmental interests or dangers significant enough to place speech outside of the protected realm. However, extremely dangerous harms of extraordinarily low probability27 (the lighter gray area below the line) are now entirely foreclosed as bases for overcoming constitutional rights. A potential speech-generated harm \( H \), holds no constitutional significance when:

\[ \text{Figure 2: Probabilities and Magnitudes of Harm Surpassing Some Fixed "Interest" Level and Degree of Certainty} \]

\[ \text{Magnitude of Harm} \]

26. See infra Part III.
27. Part III, infra, examines the rhetoric defining how low a probability must be for it to fall beneath the threshold.
(1) \( P, < \delta \)

Again, here \( P \) is the probability of harm and \( \delta \) is, per the usual convention, a very small number.

Additionally, the probability that a speech-triggered harm will materialize must be unknown to some degree—the analysis must exist in the domain of uncertainty, not risk.\(^{28}\)

(2) \( P, \text{ uncertain} \)

This assumption is unlikely to disturb the analysis. The content and context of expression—like the harms that it threatens—are so widely divergent from episode to episode, and constitutionally dangerous speech occurs so infrequently, that it is impossible to group speech acts into sufficiently homogenous categories to make statistical analysis of historical events possible and enable genuine risk evaluation of First Amendment events.\(^{29}\)

III. PROBABILITY THRESHOLDS IN SPEECH DOCTRINE

Contrary to what traditional cost-benefit analysis would predict and demand, probability thresholds have found their way into the depths of First Amendment analysis. Advocates of cost-benefit analysis in speech cases do not believe that such balancing must occur explicitly in every individual case. They postulate that years of doctrinal evolution have created a settled core of First Amendment rules that already incorporate the insights that cost-benefit analysis might provide; the doctrine has already achieved optimality, and so balancing need not take place "at retail."\(^{30}\) Only at the periphery of speech law, in difficult cases that test the value of speech against a strong countervailing interest—typically an interest in safety and security—should we expect to find explicit cost-benefit analysis. So, too, in these types of cases, and within the doctrines that govern them, do we find probability thresholds.

The speech doctrines that govern violence-inducing expression—"clear and present danger,"\(^{51}\) incitement,\(^{32}\) and their cousin, "fighting words"\(^{33}\)—all

28. See generally FRANK H. KNIGHT, RISK, UNCERTAINTY, AND PROFIT (1921). The importance of this assumption will become clear in Part III. In short, the likely harm from an event of known probability is easily quantifiable and could be measured against any desired baseline without fear of systematic bias.

29. See id. at 197–232 (describing the operation of true uncertainty).


demand that hypothetical harms reach a meaningful level of certainty before the courts will permit any speech prohibition. The doctrines achieve this goal through various means, but the verbal formulations of their "tests" have in common the requirement that the threat be foreseeable, near-term, and demonstrably probable to some limited degree. In addition, the law of prior restraints—a body of doctrine often invoked in these same violence cases where even one-time publication can threaten grave harm—imposes a probability threshold of its own. The doctrine imposes a higher burden of proof on the government when it seeks to use theorized, untestable, and thus potentially lower-probability future threats, rather than contemporaneous realities, to justify restraining expression before it occurs.

Clear and present danger, incitement, fighting words, and prior restraints include within their ambit a vast swath of the most difficult and sensitive speech cases—cases that demand careful weighing of the costs and benefits at hand. However, where one would expect to find unadulterated balancing, each doctrine instead interposes a probability threshold, screening out an entire class of low-probability, high-magnitude dangers.

A. CLEAR AND PRESENT DANGER, INCITEMENT, AND THE OPERATION OF PROBABILITY THRESHOLDS WITHIN THE "VIOLENCE" DOCTRINES

1. Brandenburg and the Modern Incitement Standard

The probability threshold’s strong roots in First Amendment law are most strikingly visible through the doctrines used to determine which types of speech will so facilitate or instigate the doing of harm by third parties that the government may constitutionally prohibit their expression. The landmark cases of Brandenburg v. Ohio34 and Schenck v. United States,35 and the famous doctrines they inaugurated, exemplify situations in which otherwise-protected speech can become unprotected if it threatens too great a harm. The speech at issue is implicitly understood to hold some fixed value, and the harm it may cause is viewed in comparison to that benchmark. Yet within these doctrines—which encompass the great majority of “harmful speech” cases36—the Court has prescribed more than a straightforward cost-benefit

34. See, e.g., Brandenburg, 395 U.S. at 444; see also infra Part III.A.
35. See, e.g., N.Y. Times Co. v. United States, 403 U.S. 713, 726–27 (1971) (Brennan, J., concurring); see also infra Part III.C (discussing probability thresholds within the doctrine of prior restraints).
38. Another First Amendment doctrine used to negotiate attempts to ban speech because of its harmful consequences—and another potential locus of a probability threshold—is the doctrine of secondary effects, which governs cases in which the government wishes to prohibit an adult business from locating in a particular area due to the crime it may induce. See City of
analysis based upon the speech's presumptive harm. Each doctrine incorporates a probability threshold that bars low-probability harms from consideration within the cost-benefit framework.

The most important law to this analysis is the modern First Amendment doctrine of incitement, established in *Brandenburg v. Ohio*, because it serves as the jurisprudential starting point for a high percentage of the harm-based speech-prohibition cases. It arose out of the trial and prosecution of a Ku Klux Klan leader, Brandenburg, for comments he made at a Cincinnati rally. In the course of this rally, Brandenburg made a series of racist and anti-Semitic remarks in which he advocated, among other things, the forced expulsion of Jews and African-Americans from the United States. Overturning Brandenburg’s conviction, the Supreme Court stated that

the constitutional guarantees of free speech and free press do not permit a State to forbid or proscribe advocacy of the use of force or of law violation except where such advocacy is directed to inciting or producing imminent lawless action and is likely to incite or produce such action.

The *Brandenburg* test thus incorporates both subjective and objective elements: a speaker must subjectively intend to incite lawless action, and the speech must be objectively likely to result in such lawlessness.

What is most immediately remarkable about the *Brandenburg* standard is that the magnitude of threatened harm holds no place in the analysis. Rather, the objective part of the *Brandenburg* test—that advocacy must be “likely to incite or produce such [imminent, lawless] action”—contains two guidelines, both of which are directed toward the separation of higher-probability harms from more inchoate, less likely, or less foreseeable dangers. The first is the requirement that the speech be “likely to incite”
violence—an explicit probability threshold that eliminates from consideration all low-probability harms, no matter how great they may be in magnitude.

Coupling with and reinforcing the operation of Brandenburg's probability threshold is its second limitation: before the government may criminalize speech, Brandenburg demands that the harm to result from the speech be not only likely, but "imminent." On its face, this imminence requirement appears illogical and unnecessary. There would seem to be little reason to limit the universe of constitutionally cognizable harms to only those that will materialize quickly, particularly in a technologically sophisticated world riddled with a farrago of complex mechanical and interpersonal interconnections. Severe dangers that emanate from advocacy, yet germinate more gradually, might seem equally worthwhile candidates for prohibition, modulo the temporal discounting of harm that the calculation would have to incorporate.

Yet imminence serves also as a mechanism for weeding out uncertain and low-probability consequences and for heightening the probabilistic and causal connection between speech and harm that must exist before the government may curtail advocacy. Speech harms necessarily involve the interposition of third-party causal actors; speech cannot, by itself, poison a drinking well or sink a troop transport. Confining the scope of cognizable harms to those that will arise in the near future curtails speculation over attenuated causal chains and more tightly couples speech in time, space, and probability to the harms it might engender. The victims of this triage are lower-probability harms that would require additional time and opportunity to germinate.

Brandenburg's probability threshold is not merely a matter of theory or of loose verbal formulations that do not accurately describe the analysis they portend. Rather, Brandenburg itself illustrates the operation of the probability threshold that its doctrinal test installs. The Ku Klux Klan rally at which Brandenburg spoke was attended by "12 hooded figures" who carried firearms and described themselves as the "organizers" of a large network—numbering in the hundreds—of Ku Klux Klan members in Ohio. Brandenburg's speech thus raised the specter of at least a series of racially motivated killings, if not the possible triggering of an entire race riot—not

47. See *Stone*, supra note 22, at 409.
an unlikely result given Cincinnati's extensive history of calamitous racial violence.\textsuperscript{49} But an analysis of the magnitude of these possibilities makes no appearance in the \textit{Brandenburg} opinion; the Court concentrated only on the likelihood that Brandenburg's speech would trigger such disasters. Since the danger in \textit{Brandenburg} did not cross the probability threshold, the Court found it unnecessary to conduct any further inquiry.

2. \textit{Schenck, Dennis}, and the Probability Threshold's Historical Roots

\textit{Brandenburg}'s probability threshold did not simply spring into being, fully formed, with the decision in that case. To the contrary, its historical roots run to perhaps the most famous doctrinal standard in all of First Amendment law and certainly the most famous of the harmful-speech standards: the "clear and present danger" test set forth in Justice Holmes's seminal opinion, \textit{Schenck v. United States}.\textsuperscript{50} \textit{Schenck} concerned a leaflet circulated in 1917 during the height of World War I to all men of draft age, urging them to take every lawful action to resist being conscripted.\textsuperscript{51} Fearing that such a suggestion could interfere substantially with the draft—and consequently with the war effort—the government prosecuted Charles Schenck under the Espionage Act, triggering a case that ended in Justice Holmes's path-breaking opinion several years later.\textsuperscript{52} "The question in every case," explained Holmes, "is whether the words used are used in such circumstances and are of such a nature as to create a clear and present danger that they will bring about the substantive evils that Congress has a right to prevent."\textsuperscript{53}

Holmes's "clear and present danger" rubric ruled the day for fifty years, and it set the standard according to which dissenting speech would be prosecuted through two world wars.\textsuperscript{54} In fact, the "clear and present danger" test was not considered terribly protective of speech, and \textit{Brandenburg}'s incitement was meant to ameliorate the condition of anti-government speakers.\textsuperscript{55} Yet, like \textit{Brandenburg}, \textit{Schenck} demanded that courts scrutinize only the likelihood that speech would trigger some harm or danger, not the enormity or significance of the threat. The "clear and present" analysis speaks only to the likelihood that a harm will result from the speech under consideration—and again to the imminence of that harm—not to either the

\begin{itemize}
  \item 51. \textit{Id.}
  \item 52. \textit{Id.}
  \item 53. \textit{Id.}
  \item 54. TRIBE, supra note 7, § 12-9, at 841–49.
  \item 55. \textit{Id.}
\end{itemize}
extent of the threatened harm or the statistically probable damage expected from the speech.

Even Richard Posner—an acknowledged expert on, and proponent of, using cost-benefit analysis to decide free-speech cases—has recognized that the "clear and present danger" test touches only upon the probability, and not the magnitude, of the danger. Posner has explained that Holmes's standard "requires that the probability [of harm] be high...and the harm imminent," and extrapolates from this that, in classical cost-benefit terms, "the danger of harm must be great." But Posner goes on to admit the central feature of the "clear and present danger" test (or, perhaps more descriptively, the missing central feature):

Holmes's analysis of the costs of speech was incomplete in Schenck because he focused only on the probability of harm if the speech was allowed and not on the magnitude of the harm if it occurred; he was looking only at one determinant of the expected harm of free speech.\(^5\)

Posner nonetheless argues that cost-benefit analysis "is part of the First Amendment interpretive tradition."\(^5\) Yet what Schenck reveals is not cost-benefit analysis's historical roots but the long pedigree of probability thresholds—and the First Amendment's exclusion of high-magnitude, low-probability events. The imposition of a probability threshold in free-speech analysis is not a contemporary or isolated innovation; its roots reach to the very birth of the modern doctrines governing dangerous speech, and probability thresholds have only grown more robust since that time.

The growth has not always been linear, however, and the Court has not always deviated so directly from the standard cost-benefit model of First Amendment analysis. On one prominent occasion, the case of Dennis v. United States, a plurality of the Court did endorse a black-letter formulation of the expected-harm calculation.\(^5\) Yet, the eventual rejection of the Dennis formulation in favor of a probability-threshold-incorporating legal rule further demonstrates the hold that probability thresholds have over this corner of First Amendment doctrine.

Dennis arose from an appeal by alleged Communist organizers of their conviction for "knowingly or willfully advoca[ting]...[the] propriety of overthrowing or destroying any government in the United States by force or violence..."\(^6\) The principal legal question confronting the Court was how precisely to interpret the "clear and present danger" standard from Schenck,

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57. Id. at 361; see also Posner, supra note 23, at 124–25; Posner, supra note 42, at 29.
60. Id. at 496 (quoting the Smith Act, 18 U.S.C. §§ 10–11 (1946)).
which it had accepted as the governing precedent. In this enterprise, the Supreme Court found itself on the receiving end of some felicitous guidance.

Chief Judge Learned Hand was the author of the lower court opinion in Dennis, and he had proposed an unencumbered cost-benefit test for gauging whether the speech should be punished: "In each case [courts] must ask whether the gravity of the 'evil,' discounted by its improbability, justifies such invasion of free speech as is necessary to avoid the danger." Hand's formula represents an obvious departure from a "uniform standard of likelihood, signaled by the word 'clear,'" and toward the type of classic cost-benefit analysis (B < PL) he developed in the context of tort negligence. The Supreme Court latched onto this formula without reservation: "We adopt this statement of the rule. As articulated by Chief Judge Hand, it is as succinct and inclusive as any other we might devise at this time. It takes into consideration those factors which we deem relevant, and relates their significances. More we cannot expect from words."

If Dennis had remained the standard formulation of the law, the probability threshold would have ceased operation. But the Dennis plurality's approach never garnered five votes, and the story of Chief Justice Hand's cost-benefit formula in Dennis became one of silently enforced desuetude. Brandenburg effectively overturned Dennis only eighteen years later, and the "likely to produce imminent lawless action" test has governed ever since. The Supreme Court has cited the Dennis test only once in the thirty-six years since it decided Brandenburg. The lower federal courts have cited Dennis only a handful of times. At least as far as the Supreme Court's case law is

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61. Id. at 508 ("In this case we are squarely presented with the application of the 'clear and present danger' test, and must decide what that phrase imports.").

62. United States v. Dennis, 183 F.2d 201, 212 (2d Cir. 1950).


64. Dennis, 341 U.S. at 510.

65. See JOHN HART ELY, DEMOCRACY AND DISTRUST: A THEORY OF JUDICIAL REVIEW 115 (1980) (arguing that Brandenburg would "have demanded the contrary result in the early Espionage Act cases and the later Communist cases" (emphasis added)); STONE ET AL., supra note 7, at 61; Gerald Gunther, Learned Hand and the Origins of Modern First Amendment Doctrine: Some Fragments of History, 27 STAN. L. REV. 719, 754 (1975) (describing Brandenburg as the Supreme Court's "clearest and most protective standard under the first amendment" while noting that the crucial innovation in that case was "hardly established" in prior law).


67. Bailey v. Systems Innovation, Inc., 852 F.2d 93, 98 (3d Cir. 1988); Culver v. Sec'y of the Air Force, 559 F.2d 622 (D.C. Cir. 1977); Gay Lib v. Univ. of Mo., 558 F.2d 848 (8th Cir. 1977); United States v. Smith, 555 F.2d 249, 253 n.3 (9th Cir. 1977); Sherling v. Townley, 464 F.2d 587 (5th Cir. 1972).
concerned, Brandenburg's and Schenck's probability threshold, not Dennis's straightforward cost-benefit analysis, has ruled this area of the law.

3. Brandenburg in Operation

Brandenburg does not stand in isolation as an unreplicated, unsubstantiated doctrinal innovation. On other occasions, the Court has demonstrated precisely how seriously it will read Brandenburg's probability threshold. Claiborne Hardware,68 a case that dealt with threats—and in some cases actual violence—against African Americans who refused to comply with a boycott against white-owned businesses, provides an illustrative example. In support of the NAACP-led boycott, Charles Evers, the NAACP local secretary, had made a number of speeches threatening African-American residents who continued to patronize the wrong businesses. At one point he declared: "If we catch any of you going in any of them racist stores, we're gonna break your damn neck."69 Moreover, these threats were backed by serious actions: "In two cases, shots were fired at a house; in a third, a brick was thrown through a windshield; in the fourth, a flower garden was damaged."70

Yet the Court did not hold Evers liable for the acts of violence that followed his speeches, and it did not even make reference to the grievousness of the harm that might have resulted had Evers been taken at face value. Instead, the Court pointed to the gap of "weeks or months" between Evers's speech and these assaults, concluding from the temporal lag that it was highly unlikely that Evers had directly incited the violence (per Brandenburg).71 A Court engaging in traditional cost-benefit analysis would have analyzed this (perhaps) low probability of causation alongside the conceivably great harm—indeed, possibly the intended harm—that Evers could have inspired the listening crowd to inflict. The Claiborne Court did no such thing. Once the Court determined that the putative threat did not cross the probability threshold, further cost-benefit balancing was unnecessary.

An even more startling example appears in Hess v. Indiana, a case that arose from an anti-Vietnam War demonstration at Indiana University. The

69. Id. at 902.
70. Id. at 904.
71. Id. at 928.
72. The Court's estimation of harm may well have been biased improperly by hindsight. Even if direct harm did not result from Evers's speech, it does not follow that harm was unlikely to occur; in the context in which Evers gave the speech, it might have been quite evident to any bystander that Evers had whipped the crowd into a violent frenzy. Of course, this issue—post hoc examination of causation and probability—is yet another indication of the Court's heavy emphasis on probability thresholds. See infra Part III.C (examining probability thresholds within the doctrine of prior restraints).
demonstration involved 100 to 150 protestors (who began by blocking traffic on a public street) and "a large number of spectators who had gathered" to watch the proceeding.\textsuperscript{73} As police moved to clear the protestors out of the street, witnesses heard Gregory Hess yell out either "We'll take the fucking street later," or "We'll take the fucking street again," precipitating his arrest.\textsuperscript{74}

The terse Supreme Court record does not disclose how tense a reasonable observer would have found the situation or how close the demonstrators were to becoming an unruly mob capable of threatening serious damage or injury; it may well be that the march was self-evidently peaceful. But the Court did not even bother to consider these possibilities. The magnitude of the potential harm from inciting a large group of protestors did not enter its analysis. Rather, the Court placed its emphasis on Hess's claim that he would "take the . . . street later" (or "again") and concluded that his speech at most "amounted to nothing more than advocacy of illegal action at some indefinite future time."\textsuperscript{75} Citing \textit{Brandenburg}, the Court then concluded that there could be no "rational inference from the import of [Hess's] language, that his words were intended to produce, and likely to produce, imminent disorder."\textsuperscript{76} Because the harm did not exceed \textit{Brandenburg}'s probability threshold, the Court's inquiry was simply at an end. By ignoring the magnitude of the low-probability threat posed by Evers's and Hess's speech, the Supreme Court signaled that it would apply \textit{Brandenburg}'s probability threshold with unyielding seriousness.

It would be easy to dismiss this doctrinal puzzle if its overall impact on constitutional cost-benefit balancing were minor. But \textit{Brandenburg} and \textit{Schenck} do not merely delineate an obscure corner of First Amendment law or encompass only a minor proportion of all harm-inducing speech cases. Rather, they provide the doctrinal legal framework for nearly every case that touches upon the dissemination of national secrets or national security,\textsuperscript{77} as well as many cases involving speech that threaten other types of harm, such as hate speech and indecency.\textsuperscript{78} And, as the following Sections demonstrate, other aspects of First Amendment law have similarly embraced doctrinal embodiments of probability thresholds.

\textsuperscript{73} Hess v. Indiana, 414 U.S. 105, 106 (1973).
\textsuperscript{74} \textit{Id.} at 107.
\textsuperscript{75} \textit{Id.} at 107-08 (emphasis added).
\textsuperscript{76} \textit{Id.} at 109 (citing Brandenberg v. Ohio, 395 U.S. 444, 447 (1969) (per curiam)).
\textsuperscript{77} See, e.g., N.Y. Times Co. v. United States, 403 U.S. 713, 726 (1971) (Brennan, J., concurring) (explaining that the framework would not be used only in an "extremely narrow class of cases"); \textsc{Tribe}, \textit{supra} note 7, \$ 12-9, at 841-48.
B. "FIGHTING WORDS" AS PARALLEL IMPOSITION OF A PROBABILITY THRESHOLD

Chaplinsky v. New Hampshire's "fighting words" doctrine mirrors Brandenburg's imposition of a probability threshold.79 The Chaplinsky test for determining whether speech is protected, like the Brandenburg test, incorporates two elements, both of which speak to the probability that the speech at issue will engender some sort of harm and neither of which touches upon the magnitude of the resulting harm. Chaplinsky criminalizes only "those [words] which by their very utterance inflict injury or tend to incite an immediate breach of the peace," or by another formulation, "the use in a public place of words likely to cause a breach of the peace."80 The size or danger of this breach of the peace is orthogonal to the Chaplinsky analysis; the only relevant factors are likelihood and, again, imminence.

Chaplinsky does contain a hint of an appreciation for the standard cost-benefit formula. The opinion alludes to the balancing of harms and benefits that should take place under such an algorithm, justifying its prohibition of "fighting words" on the theory that "[i]t has been well observed that such utterances are no essential part of any exposition of ideas, and are of such slight social value as a step to truth that any benefit that may be derived from them is clearly outweighed by the social interest in order and morality."81 But the Supreme Court never follows this with any admonition to consider the magnitude of the harm that might result from fighting words alongside the probability that the words will engender such a reaction. The above-quoted phrase is thus probably better read as merely setting forth the broader framework for these types of cases—speech is protected unless it is likely to cause some degree of harm—than as instructing courts to take the magnitude of threatened harm into account.

Cohen v. California, a subsequent "fighting words" case involving a man who wore a jacket with the words "Fuck the Draft" emblazoned upon it into a state courthouse, followed the same logic.82 The Court refused to punish Cohen for his speech on the ground that no one who saw the jacket would have taken it as an invitation to violence.83 Consequently, tangible harm—as opposed to mere harm to a viewer's sensibilities—was unlikely to result.84 The Court did not consider the extent or degree of harm that Cohen's jacket might have caused, and indeed it likely is fortunate for Cohen that it did not. In addition to the possibility that a viewer might become enraged by Cohen's profane expression of his viewpoint and attack him, there existed the (remote) possibility that someone might instead be convinced by

80. Id. at 572–73.
81. Id. at 572.
83. Id. at 20.
84. Id.
Cohen's rhetoric—"one man's vulgarity is another's lyric," explained the Court—and be spurred instead to unlawful draft resistance. Given the meager value of Cohen's chosen mode of expression and the state's interest in keeping the peace, a Court dedicated truly to balancing benefits and harms might easily have concluded that Cohen's jacket did not pass the test. But, focused as it was upon only the probability that Cohen would incite an onlooker to violence, the Court entirely glazed over these questions.

C. PROBABILITY THRESHOLDS WITHIN THE DOCTRINE OF PRIOR RESTRAINTS

The doctrine of prior restraints has departed substantially from its roots as a curb against speech-licensing schemes and professional censors and now includes a presumptive prohibition against even judicial injunctions that resemble post hoc punishments for speech in nearly every respect. The only meaningful distinction between an ex ante injunction against speech and an ex post punishment for speaking is the timing of the trial and whether it will occur before or after the act of speech has taken place. The doctrine of prior restraints is thus best understood as implicitly buttressing the probability threshold: The government must sustain a heavier burden if it wishes to prohibit speech when the negative effects of that speech are less well-known and when the likelihood that harm will arise is lower or more uncertain.

1. From Licensing to Judicial Injunctions

One of the most well-known and well-established First Amendment doctrines is the heightened scrutiny that attaches to governmental efforts to prohibit speech before it has been uttered—"prior restraints on speech" in the popular parlance. Many commentators have, by this point, explored the historical roots of the doctrine in great depth, and little further elaboration is necessary here. The disfavoring of prior restraints stemmed originally from public antipathy toward the English Licensing Act of 1662, which required all printed publications to obtain a license from a government censor before they could be printed and distributed.

85. Id. at 25.
86. I take no position here on whether the First Amendment, under any sort of balancing scheme, ought to include these types of potentialities in the cost-benefit equation. I mean only to indicate that the Cohen Court might have decided to do so.
Blackstone’s famous passage that laid the groundwork for this constitutional doctrine referred to this type of licensing scheme:

The liberty of the press is indeed essential to the nature of a free state; but this consists in laying no previous restraints upon publications, and not in freedom from censure for criminal matter when published. Every freeman has an undoubted right to lay what sentiments he pleases before the public; to forbid this is to destroy the freedom of the press . . . .

Scholars now widely agree that “when the first amendment was approved by the First Congress, it was undoubtedly intended to prevent government’s imposition of prior restraints similar to the English licensing system under which nothing could be printed without the approval of the state or church authorities.” The notion of prior restraints conjures up the swipe of the censor’s pen, the shutting of newspapers and magazines, and a governmental vice grip on free expression that seems antithetical to the constitutional spirit. The presumptive invalidity of prior restraints has long been one of the First Amendment’s most robust doctrines.

The “original” types of prior restraints all involved the participation of what amounted to an official censor, an administrative official whose sole occupation was to pass judgment upon the permissibility of speech before the speaker uttered it. Such systems may be objectionable for a number of reasons, particularly the expectation that an official “censor” will be all too eager to ban speech given that the laying of such restraints is precisely his job.

In the last century, however, the Supreme Court has extended the presumption of unconstitutionality to a host of other structures and

90. WILLIAM BLACKSTONE, 4 COMMENTARIES *152.
91. TRIBE, supra note 7, § 12-34, at 1039; see also Near v. Minnesota ex rel. Olson, 283 U.S. 697, 713 (1931); Emerson, supra note 88, at 650-52; Mayton, supra note 88, at 247.

In the First Amendment the Founding Fathers gave the free press the protection it must have to fulfill its essential role in our democracy. The press was to serve the governed, not the governors. The Government’s power to censor the press was abolished so that the press would remain forever free to censure the Government. The press was protected so that it could bare the secrets of government and inform the people. Only a free and unrestrained press can effectively expose deception in government.

Id.
93. See Jeffries, supra note 89, at 421.
94. See id. at 421-26; cf. Richard A. Epstein, The Permit Power Meets the Constitution, 81 IOWA L. REV. 407, 411-14 (1995). The litany of objections to an administrative-preclearance system is well documented, and, for present purposes, there is no need to explore them at length. Suffice it to say that even the harshest critics of broader prior-restraint doctrines accept the validity of the doctrine in that context.
activities, most notably (and most peculiarly) the purely judicial imposition
of injunctions against speech.95 Despite the antipathy with which courts have
traditionally regarded prior restraints, it is not immediately evident what evil
is brought into being by a judicial injunction that is not similarly summoned
by traditional post hoc punishment (trial and conviction) for the same
speech.96 A governmental threat to punish a speaker after she has spoken
will, in many cases, deter speech just as effectively as an outright ex ante
prohibition on that speech.97 The only difference lies in the timing: "Under
a system of injunctions, the adjudication of illegality precedes publication;
under a system of criminal prosecution, it comes later."98

Yet it is precisely this question of timing that explains the heightened
scrutiny applied to prior restraints on speech. At its core, the doctrine of
prior restraints serves as a buttress to the First Amendment's probability
threshold, screening out lower-probability harms through the requirement
that the government may not penalize speech until it has already occurred—
extcept under very selected circumstances and even when that penalty
involves only an injunction.

Before continuing, it will be useful to review the functioning of prior
restraints on speech (by comparison with their less-disfavored cousin, post
hoc criminal enforcement) and the consequences for the speaker under
each type of regulation. In rare cases, when the government seeks and
obtains an injunction99 on speech, the remedy will involve actual physical
restraints upon the speaker: police might shutter newspapers, put printing
presses under lock-and-key, refuse to rent out a generally available
municipal theater,100 or even close a parade route through strength-of-arms.

95. See, e.g., Marin Scordato, Distinction Without a Difference: A Reappraisal of the Doctrine of
96. For instance, "Judges are not perfect; sometimes they may err on the side of
suppression and enjoin speech without sufficient justification. But the fact remains that judges,
unlike professional censors, have no vested interest in the suppression of speech." Jeffries, supra
note 89, at 426–27.
97. See, e.g., id. at 427–30 (noting that post hoc punishment is very similar in structure to
an injunction against speech and, in fact, may chill a broader swath of conduct); Scordato, supra
note 95, at 15–16 ("Taken as a whole, this analysis strongly suggests that laws traditionally
characterized as prior restraints are no more likely to produce a greater or more effective
chilling effect on constitutionally protected speech than laws traditionally characterized as
subsequent sanctions.").
98. Jeffries, supra note 89, at 428.
99. The following discussion concerns only injunctive remedies obtained in court and not
any types of administrative-licensing schemes, which are objectionable for a multitude of
unrelated reasons. See supra notes 88–91 and accompanying text. Accordingly, the term "prior
restraint," wherever it is subsequently used in this paper, should be understood to describe only
injunctions against speech.
100. See, e.g., Se. Promotions., Ltd. v. Conrad, 420 U.S. 546, 547–48 (1975) (concerning the
musical "Hair").
But far more typically, a prior restraint takes the form of a court-issued injunction against the speech—a piece of paper. 101

Before a court may impose an injunction, it must consider whether the activity that the government seeks to enjoin is protected by the Constitution, and the putative speaker must be given the opportunity to contest the injunction (and its constitutionality) in court. 102 If the court issues an injunction and if the speaker then disobeys the injunction by performing the banned speech act, the government (and the court) can enforce the injunction through contempt sanctions. 103 At this post-speech contempt proceeding, the only issue is whether the speaker did, in fact, violate the terms of the injunction. According to the collateral-bar rule, the speaker can no longer argue that her speech was constitutionally protected—her only opportunity to make this argument came and went when the court issued the injunction. 104

By comparison, when a prior restraint on speech is not permitted or obtained, the speaker may be prosecuted after the speech occurs in a traditional criminal trial. 105 At this trial, the speaker is (of course) permitted to argue that her speech was protected by the First Amendment. 106

The two situations are thus congruent in nearly every respect. Under each enforcement mechanism, one substantive hearing will take place. 107 Under either enforcement mechanism, the speaker is given one opportunity to argue that her speech is constitutionally protected. 108 And the intended outcome (from the point of view of the court and the government) under either regime is identical. The punishment for uttering prohibited and unprotected speech ostensibly is set at the level necessary to deter such speech; under either condition, the legal system anticipates that unprotected speech will not take place. 109


102. See, e.g., Near, 283 U.S. at 705 (“The defendants demurred to the complaint upon the ground that it did not state facts sufficient to constitute a cause of action, and on this demurrer challenged the constitutionality of the statute.”).


104. See TRIBE, supra note 7, § 12-35, at 1042 & n.2.


107. The contempt proceeding is by nature abbreviated, since there remains only one live issue.

108. This means only one opportunity before the trial court. In either case the speaker may appeal the trial court’s decision—either the decision to grant the injunction under the prior-restraint regime or the conviction in the post hoc punishment regime—to the court of appeals and eventually, perhaps, to the Supreme Court.

109. This assumes, of course, that the speaker can gauge, ex ante, the probability that her speech will be prohibited; errors in this estimation may well lead to over- or underdeterrence.
Moreover, if the speaker truly values her ability to speak more than her freedom from punishment, she can always elect to violate an injunction that has been put in place and to accept the consequences. An injunction against speech—particularly, as is the case quite frequently, when the speech is a one-off event—functions more as a liability rule than it does as a property rule. Even after an injunction issues, the speaker is not truly barred from speaking. The speaker retains the option of simply continuing with the act of speech and accepting the subsequent punishment. As when the government may prosecute speech only after the fact, the speaker is offered a choice between punishment and silence. The only incongruity rests with the fact that, in the prior-restraint situation, the speech has not taken place yet, whereas in the post hoc punishment situation, it has. The selection of one or the other regime would appear to devolve into merely whether it is less costly to have the trial sooner or later.

2. Prior Restraints as Certainty-Forcing Devices

Yet, despite this apparent parallelism, a prior restraint on speech must overcome "a heavy presumption against its constitutional validity," and the government "carries a heavy burden of showing justification for the imposition of such a restraint." The Supreme Court has read into the First Amendment a strong constitutional preference for allowing speech to occur and punishing the speaker (if called for) only afterward. Commentators have struggled to identify the basis for this preference, which, as described above, is both historic and contemporary. Among the numerous explanations offered, the most plausible, the most rationally

The goal nevertheless remains to achieve perfect deterrence, and the legal sanction is presumably calibrated (to the extent possible) toward this end.

111. Cf. Guido Calabresi & A. Douglas Melamed, Property Rules, Liability Rules, and Inalienability: One View of the Cathedral, 85 Harv. L. Rev. 1089, 1111-12 (1972). Per Calabresi and Melamed's dichotomy, this is to say that a speaker need not bargain with the party who has obtained the injunction for a release of that injunction before speaking. She may simply speak and then absorb the punishment for having done so. Id.
116. See supra note 115 (cataloging an extensive list of possible explanations, none particularly compelling for reasons stated within the sources themselves).
instrumentalist, and the most widely accepted is an antipathy toward "adjudication in the abstract."¹¹⁷

When the trial occurs before the speech has been uttered, the court is forced to speculate prospectively about the harm that the speech will cause—or at least to speculate with less information than it would possess had the speech already occurred.¹¹⁸ Even if the harm that might emanate from speech germinates sufficiently slowly that it has not yet arisen by the time the speaker is put on trial, the court will still have before it valuable information that the court would not possess when deciding whether to impose a prior restraint: the precise tone and context in which the speech was delivered, some picture of the effect that it had upon listeners, a set of initial reactions to the speech, and some idea of the short-term ramifications of the speech.¹¹⁹ Consequently, under a prior-restraint regime, an entire universe of speculative, low-probability harms—threats that might never have had a chance of occurring and that would therefore prove baseless once the speech took place—could gain constitutional purchase. As one scholar explains:

[I]f the governing first amendment test for the speech at issue is one that turns on consequences (clear and present danger, for example), the necessity for speculation permits groundless fears to figure in the rationale for suppression. If the judgment were made at a later stage, the data from initial dissemination could on occasion serve to dispel such fears.¹²⁰

The law of prior restraints thus serves the First Amendment's probability threshold, weeding out a category of low-probability threats and applying an upward bias to the certainty of all governmental justifications presented in support of speech restrictions.

The Supreme Court has described its doctrine of prior restraints as a check against low-probability speculation, lending further support to the

¹¹⁷. Blasi, supra note 114, at 49–54; see also Jeffries, supra note 89, at 430 n.67 ("Professor Blasi's analysis of these factors is both thoughtful and thought-provoking. . . . In my view, the strongest of these arguments goes under the heading of 'adjudication in the abstract.'"); Redish, supra note 115, at 66–69 ("Perhaps the strongest argument against judicial prior restraint is that because such a restraint is imposed prior to the actual dissemination of expression, a court's first amendment ruling will necessarily be made in the abstract without any knowledge of the actual effect of the challenged expression.").

¹¹⁸. See United States v. Dennis, 183 F.2d 201, 212 (2d Cir. 1950) ("We can never forecast with certainty; all prophecy is a guess, but the reliability of a guess decreases with the length of the future which it seeks to penetrate.").

¹¹⁹. See Blasi, supra note 114, at 49–51. The executive certainly need not wait until the harm has actually occurred before punishing someone for a speech act. See generally, e.g., Dennis v. United States, 341 U.S. 494 (1951). But even if it is the case that post hoc trial and punishment will frequently occur "in the abstract," see Redish, supra note 115, at 68–69, at least the court will have before it much more information than it did before the speech took place.

¹²⁰. Blasi, supra note 114, at 49.
notion that it was indeed intended to function as a probability threshold. The most illuminating modern Supreme Court exposition on prior restraints comes from New York Times Co. v. United States, the so-called Pentagon Papers case, which overturned a lower court's injunction against the Times's publication of the Papers. The perfunctory per curiam opinion in this case relied predominantly upon the disfavor attached to prior restraints of speech, stating that "[t]he Government thus carries a heavy burden of showing justification for the imposition of such a restraint" and concluding that the government "had not met that burden." Justice Brennan's concurring opinion offers a more robust description of the presumption against prior restraints, grounding the government's burden of proof in the obligation to adduce evidence of probable, foreseeable dangers if speech is permitted, rather than merely uncertain hypotheses and speculation as to potential harms. Justice Brennan explained, "[T]he First Amendment tolerates absolutely no prior judicial restraints of the press predicated upon surmise or conjecture that untoward consequences may result."

According to Justice Brennan, this stringent presumption against speech restraints in the face of uncertainty or low-probability events extends to even the most serious of wartime situations, such as the aforementioned example of a newspaper that seeks to publish the dates and times of the sailing of troop transports. "[O]nly governmental allegation and proof that publication must inevitably, directly, and immediately cause the occurrence of an event kindred to imperiling the safety of a transport already at sea can support even the issuance of an interim restraining order." Again, the requirements of directness and immediacy (much like Brandenburg's imminence requirement) are coupled with "inevitably," a straightforward appeal to likelihood; the three words together direct a court to focus specifically on the probability of harm, relegating calculations of a harm's magnitude to a second tier.

Justice Stewart's concurring opinion, joined by Justice White, contains similar language. Justice Stewart states: "But I cannot say that disclosure of any of them will surely result in direct, immediate, and irreparable damage to our Nation or its people. That being so, there can under the First Amendment be but one judicial resolution of the issues before us." Two-thirds of Justice Stewart's verbal formulation is directed explicitly at probabilities—the harm must be "direct" and "immediate," meaning that the causal chain must be clear and, thus, the prospect of harm more easily
The third requirement, that the harm be "irreparable," may seem upon initial inspection to invoke the magnitude of the danger. But it does not actually reference magnitude, only whether a harm can be corrected or undone. More importantly, it appears within the context of the government's request for an injunction, and a party seeking an injunction traditionally must demonstrate that it risks irreparable harm if the act to be enjoined is allowed to take place. \(^{127}\) (Why would an injunction be necessary if the harm from the act could be remedied fully after the fact?) Justice Stewart's use of the word "irreparable" is thus far more likely a reference to this injunctive requirement than a serious effort to incorporate a measure of magnitude into the analysis.

Equally telling is the government's suggested—and rejected—standard: "[T]hat the President is entitled to an injunction against publication of a newspaper story whenever he can convince a court that the information to be revealed threatens 'grave and irreparable' injury to the public interest." \(^{128}\) This standard speaks explicitly—and exclusively—to the magnitude of harm threatened; so long as the potential injury is "grave," the Court need not even inquire into the probability that it will occur. \(^{129}\) The fact that all of the Justices refused to operate pursuant to such a doctrinal formulation \(^{130}\) lays bare their focus upon the likelihood that the government's alleged harms would come to pass and, in particular, their intent to test each asserted harm against a meaningful probability threshold. \(^{131}\)

\(^{126}\) \(N.Y.\) \textit{Times Co.}, 403 U.S. at 730 (Stewart, J., concurring).


\(^{128}\) \(N.Y.\) \textit{Times Co.}, 403 U.S. at 732 (White, J., concurring). For at least Justices White and Stewart, a large part of the weakness of the government's case stemmed from this untenable standard it suggested. \textit{See id.} ("Much of the difficulty inheres in the 'grave and irreparable danger' standard suggested by the United States.").

\(^{129}\) It is conceivable that by "grave" the government meant instead a proper cost-benefit analysis of the statistically expected harm, as measured by the product of its magnitude and probability. Yet, were this the case, it would lend further credence to the argument set forth in the text above, as the Court would have rejected not merely an unworkable and shortsighted doctrinal formula that focused exclusively on a harm's magnitude but, instead, a genuine attempt to perform classical cost-benefit analysis.

\(^{130}\) There is no doubt that this choice was squarely before the Justices. \(N.Y.\) \textit{Times}, 403 U.S. at 732 (White, J., concurring). Justice White wrote:

\begin{quote}

The Government's position is simply stated: The responsibility of the Executive for the conduct of the foreign affairs and for the security of the Nation is so basic that the President is entitled to an injunction against publication of a newspaper story whenever he can convince a court that the information to be revealed threatens "grave and irreparable" injury to the public interest . . . .
\end{quote}

\textit{Id.}

\(^{131}\) In parallel with the violence doctrines, this probability threshold is not a modern innovation. The canonical case on prior restraint—\textit{Near v. Minnesota}—describes the doctrine in significantly less detail but similarly announces that only high-probability threats will trump the Court's baseline antipathy toward prior restraint. \(Near v. Minnesota ex rel. Olson, 283 U.S. 697, 716 (1931).\) The Court wrote in \textit{Near}, "[T]he protection even as to previous restraint is not
IV. GOVERNMENT EXAGGERATION, AVAILABILITY HEURISTICS, AND THE PERILS OF LOW PROBABILITIES: A NORMATIVE ACCOUNT OF PROBABILITY THRESHOLDS

At first blush, the First Amendment's imposition of these probability thresholds reads as a doctrinal error—a court-made failure to adopt a verbal formulation that accurately encompasses the weighing of the harms and benefits of speech that this area of the law would seem to require. But the reality is not so straightforward.

Three mutually reinforcing factors conspire to inflate the value of low-probability threats in the judicial calculus, threatening systematic overestimation of the costs of incendiary speech and, thus, serving as potential justification for imposing probability thresholds. First, the government, which in these cases finds itself always in the role of censor, has incentives to overstate the harm that speech might cause. The historical record is replete with examples of governmental overestimation, intentional and otherwise. The risk that the government will overvalue the potential for harm—and that the court will accept this overvaluation—is particularly acute in the case of low-probability harms, which are easier for the government to invent, harder to disprove, and less susceptible to reasoned analysis or contradiction.

Second, as explained below, individuals tend to systematically overvalue the statistical threat posed by low-probability harms. In study after study, respondents have demonstrated a willingness to pay more to avoid low-incidence dangers than they would to avoid higher-probability harms that threaten statistically equivalent damage. Laypeople are also surprisingly insensitive to variations in small probabilities. Many-fold decreases in the chance that a harm will materialize do not produce nearly proportionate decreases in the amount that individuals will spend to avoid even these less-probable harms. Minor errors or alterations in estimation or calculation of low-probability harms can have drastic consequences. Past a certain point, low probabilities all tend to look the same to human eyes: they are all very small. But when multiplied by a very high-magnitude threat, these small differences become enormous. Where probabilities are small and uncertain, miniscule errors become decisive miscalculations. Again, all the biases trend systematically upwards: the government and the courts will tend to absolutely unlimited.” Id. But that protection lapses only in the face of concrete, highly probable events: “No one would question but that a government might prevent actual obstruction to its recruiting service or the publication of the sailing dates of transports or the number and location of troops.” Id. (emphasis added).Absent is any sense that a low-probability harm, even one of enormous magnitude, would legitimize a prior restraint.

132. See SUNSTEIN, supra note 22, at 220–21; see also infra Part IV.A.
133. See, e.g., Cass R. Sunstein, Terrorism and Probability Neglect, 26 J. RISK & UNCERTAINTY 121, 131 (2003); see also infra Part IV.B.
134. See infra Part IV.B.
exaggerate the threat of these harms, to constitutional effect. The result is a willingness to accept outsized restrictions on speech that promise only to mitigate harms that are less serious than the affected parties realize.

Third, and finally, individuals respond emotionally—and thus disproportionately—to the threat of particularly dreadful or fearsome harms.\textsuperscript{135} Low-probability, high-magnitude speech harms frequently manifest themselves in dreadful form: wars, riots, revolutions, and acts of terrorism. Similarly, the "availability heuristic" predicts that decision-makers will respond more emphatically to threats when examples of them come readily to mind.\textsuperscript{136} Many of the types of high-magnitude, low-probability harms that speech might cause—terrorism, most notably—are particularly salient at present, and individuals are consequently apt to overestimate systematically the chance that they will occur. A concerned populace will tend to inflate a salient threat of negligible probability into a peril of constitutional magnitude.

In the absence of a probability threshold, courts will systematically suppress more speech than they should, and constitutional liberties will suffer at the hands of an overexcited populace and an overeager governmental censor. Probability thresholds therefore act as a rough corrective, weeding out those uncertain, extremely low-probability harms that do not merit constitutional cognizance. What appears at first blush as a misguided verbal formula is instead a prescient, if crude, attempt to guard against cognitive tendencies that threaten to undermine the rational cost-benefit analysis the First Amendment demands.

One final brief note is necessary. In the Sections that follow, I suggest a normative justification for the probability threshold. I do not mean to suggest that the Supreme Court necessarily adopted a series of doctrines that effectuate this doctrine with these behavioral justifications in mind, though there is some evidence to this effect.\textsuperscript{137} Much work in legal history remains to be done in order to determine whether the probability threshold is a result of the Supreme Court's prescientific intuition regarding cognitive biases, a happy accident, or something else entirely.

A. Governmental Overestimation

Free-speech cases—and particularly those cases in which speech may be censored for being dangerous—place government in an odd role. On the one hand, it is always the censor; an individual wishes to speak, and the government wishes to curtail that speech for fear of the harm that it will do. Yet, the government also offers the most important—and to some minds, the

\begin{footnotesize}
\textsuperscript{135} See, e.g., Cass R. Sunstein, Probability Neglect: Emotions, Worst Cases, and Law, 112 YALE L.J. 61, 71 (2002); see also infra Part IV.C.
\textsuperscript{136} See Sunstein, supra note 135, at 64.
\textsuperscript{137} See infra Part IV.C.
\end{footnotesize}
only reliable—estimation of the harm that will result from speech. The government must then act as both advocate and impartial analyst, urging the court to adopt its calculation of speech harms and benefits as it simultaneously holds sole possession of the information and interpretive power necessary to make such a calculation. Predictably, these roles often merge.

The result is governmental probability inflation; the government alleges to the court that an event—most commonly a low-probability event—is more likely to occur than is, in fact, the case. When it occurs in the context of a low-probability threat, this effect is frequently decisive. An extremely high-magnitude, extremely low-probability harm that might make for a borderline constitutional case can become a compelling threat, justifying extreme anti-speech measures, if the government exaggerates the probability of its occurrence even slightly. And when the essential pieces of information regarding the putative threat are in the government's possession, the possibility of threat inflation is omnipresent.

In order to believe that the government will systematically overexaggerate the threats posed by speech, it is not necessary to believe that "executive action is more likely to be worse during emergencies," wars, or other moments of national disorder than it is during any other times. A theory of governmental threat inflation is entirely consistent with the belief that the government is no more or less likely to attempt to suppress legitimately constitutionally protected speech during times of unrest than it is at any other moment.

Nor is it necessary to believe that the executive will seize upon war, emergencies, or civil unrest to enact constitutionally suspect programs that otherwise would not be politically feasible. Governmental inflation can operate even if one does not believe that, for instance, "a security-minded President might use [an] emergency to justify imposing restrictions the President would have liked to have had in place before the emergency." A theory of governmental-threat inflation does not rely upon the executive

138. See Posner, supra note 56, at 316. Judge Posner argues that the President (and presumably the executive-branch national-security apparatus as a whole) is the only actor equipped to evaluate the threat posed by terrorists and civil unrest. Id.

139. See infra Part IV.B.

140. Eric A. Posner & Adrian Vermeule, Accommodating Emergencies, 56 STAN. L. REV. 605, 609 (2003). Posner and Vermeule argue that there is no evidence to suggest that the executive branch does any worse of a job at gauging the correct programs to undertake, or of balancing harms and benefits, during emergencies or wartime than at any other time. Id.

141. Id.

possessing nefarious motives and a cynical willingness to employ an apparent exigency in service of his goals.143

Rather, in order to believe that the government is systematically likely to inflate the probability that an unlikely harm will occur, it is necessary to believe only that the executive, like any other litigant, wants to win its cases. Imagine that the executive views a certain “package” of speech (spoken by a variety of actors) as dangerous and believes honestly that for the good of the polity it should suppress that speech.144 (Remember that this analysis does not require one to ascribe bad motives to the government.) The speakers challenge these restrictions in court. The executive believes that all of these speech restrictions—some of which may, in fact, violate the Constitution, some of which may not—are valid and necessary. Thus, the government concludes that it should (both as a matter of its rational self-interest as a public actor and in terms of the appropriate legal outcome) win all of these cases in court. The government will not behave then as a diffident neutral source; it will make its best case and place its best argumentative foot forward. It will present the facts in the light most favorable to its own position, having already decided that the restriction is appropriate.145 The government holds a systematic interest in obtaining a high rate of success when it chooses to bring suit against a speaker in the first place.

The history of the United States’ censorship of allegedly dangerous speech is rife with examples of the executive’s overestimation and inflation of the threat posed by expression. Perilous Times, Professor Geoffrey Stone’s

143. Though, this characterization seems entirely plausible. Tushnet, in a reply to Posner and Vermeule’s article on emergencies, supra note 140, posits this type of opportunistic behavior as the causal mechanism behind anti-liberty governmental over-reaching during wartime, Tushnet, supra note 142, at 1590, and his account has a ring of truth to it. Executive actors have preferences of all types that they wish to satisfy, and if the opportunity to satisfy a preference arrives only in the context of other, unrelated events, it is difficult to envision why the executive actor would not avail himself of this opportunity. Posner and Vermeule do not dispute Tushnet’s characterization; they add only that the expanded realm of politically feasible actions may include just as many new good governmental programs as bad ones. Eric A. Posner & Adrian Vermeule, Emergencies and Political Change: A Reply to Tushnet, 56 STAN. L. REV. 1593, 1594–95 (2004).

144. It is costly for the executive to act to curtail speech—whether it is actually suing for an injunction or padlocking a newspaper. Thus, pursuant to this model, it is necessary to assume only that the executive will take action to block speech if, and only if, it genuinely believes that the speech fails the cost-benefit test.

145. Not only will the government undoubtedly choose to make its own case (rather than making the opposition’s case in equally strong fashion), but after having already concluded that the speech restriction is justified, it likely will have anchored itself to that conclusion and will view the facts with that perspective in mind. See Andrew J. Wistrich, et al., Can Judges Ignore Inadmissible Information? The Difficulty of Deliberately Disregarding, 153 U. PA. L. REV. 1251, 1286–89 (2005). Countervailing facts that might have led an outside observer to doubt the executive’s conclusions will be glossed over; minor facts that do not lend significant support to those conclusions may take on new life. This is the very nature of advocacy; once the course of action has been decided, the advocate becomes convinced of the rectitude of the cause.
comprehensive account of the First Amendment's treatment during wartime, describes a multiplicity of instances in which the government alleged (as plausible) speech-related threats that were, in fact, entirely highly improbable, if not entirely impossible. Among them: Federalists argued for the passage of the Sedition Act of 1798, alleging that a "crowd of spies and inflammatory agents" endangered the nation's "very existence"; during the Civil War the military claimed that the Chicago Times dissenting voice had done "incalculable injury" to the Union cause; executive actors alleged during World War I that mild, local acts of dissent would seriously disrupt the military's conscription and recruitment efforts; at the height of the "McCarthy era," local libraries rushed to "remove 'Communistic' books" from their shelves and the House Committee on Un-American Activities announced that "Hollywood was in the grip of a Red terror"; and the Senate Internal Security Committee alleged that the anti-Vietnam War movement "was controlled by communist and extremist elements who are openly sympathetic to the Vietcong and openly hostile to the United States," while President Johnson even believed that they were "part of an international Communist conspiracy."

The denouement of the Pentagon Papers case is representative. Despite the government's dire predictions of the harm that would befall the country should the papers be released, Erwin Griswold, who as Solicitor General had argued the case and made such claims before the Supreme Court, admitted fifteen years later that the government had engaged in "massive overclassification"... and that "the principal concern of the classifiers [was] not with national security, but rather with governmental embarrassment of one sort or another."

Not only are such executive exaggerations endemic to speech-related harms, they may well be particular to speech-related harms—or at least to threats from allegedly subversive domestic elements. In an effort to rebut the notion that "the lesson of history is that officials habitually exaggerate dangers to the nation's security," one scholar assembled a list of official

146. See generally STONE, supra note 22; David Cole, Enemy Aliens, 54 STAN. L. REV. 953 (2002) (noting that as a historical matter, the United States has frequently overreacted in times of crisis).
147. STONE, supra note 22, at 37 (internal quotation marks and endnote omitted).
148. Id. at 107 (internal quotation marks and endnote omitted).
149. Id. at 171–73.
150. Id. at 334, 365 (internal quotation marks and endnote omitted).
151. Id. at 442 (internal quotation marks and endnote omitted).
154. POSNER, supra note 56, at 298.
underestimations of harm that included not a single speech-related threat and only one event that even debatably implicated civil liberties:

[T]he danger of secession that led to the Civil War, . . . the danger of a Japanese attack on the United States that led to the disaster at Pearl Harbor, . . . the danger of Soviet espionage in the 1940s that accelerated the Soviet Union's acquisition of nuclear weapons and by doing so emboldened Stalin to encourage North Korea to invade South Korea in 1950, . . . the installation in 1962 of Soviet missiles in Cuba that precipitated the Cuban missile crisis, . . . the outbreaks of urban violence and political assassinations in the 1960s, . . . the Tet Offensive of 1968 in the Vietnam War, . . . the Iranian Revolution of 1979 and subsequent taking of American diplomats hostage, . . . the catastrophe of September 11, 2001.155

What unites these examples most decisively is the fact that in not one case was the government attempting to defend a restriction on liberty that it had already deemed necessary, precisely the context in which speech cases must always arise. Even if the government underestimated threats more frequently than it overestimated them, it would still be the case that the government was systematically more inclined to overestimate than underestimate a peril when it sought to uphold a liberty-inhibiting policy in court.156 The proof is by contrapositive: these examples and counterexamples demonstrate that the executive only underestimates threats when there is no case to be won, no extant speech-suppressing policy to defend. Once the government is haled into court to defend itself, the trend is quite the opposite.

Deference to the executive has become a judicial shibboleth and, in most cases, appropriately so157—the executive is peculiarly capable of


156. This goes for situations unrelated to speech as well. There is ample indication that the American military drastically inflated the threat of Japanese sabotage on the West Coast during World War II (which led eventually to the internment of Japanese citizens and the Korematsu decision, Korematsu v. United States, 323 U.S. 214 (1944)) because of racial animus rather than any actual evidence. See, e.g., Mark Tushnet, Defending Korematsu?: Reflections on Civil Liberties in Wartime, 2003 WIS. L. REV. 273, 288 (2003). Likewise, the government's reaction to the post-war Red Scare was radically overinclusive and overwrought. See, e.g., id. at 289 ("[T]he Department of Justice actually had very little evidence to support its claims that the aliens it sought to deport were dangerous radicals.").

assessing and evaluating national-security threats.\textsuperscript{158} But when courts afford this deference, inflation of the threatened harm is one of the natural consequences. As the subject matter moves further outside of the courts' competence—in other words, as the probability of an event drops and it becomes less susceptible to judicial evaluation—that effect increases, and deference becomes an ever more decisive factor in the weighing of costs and benefits.\textsuperscript{159}

Moreover, low-probability, high-magnitude harms are particularly susceptible to governmental inflation. The lowest-probability harms involve especially acute informational asymmetries between the government and the court (and the opposing party). The less likely an event is to occur—and the more dramatic the threat—the less likely it is that background information relating to the event's potential causes or antecedents will have seeped into the public domain. The explanation echoes in the nature of both low-probability events and high-magnitude harms.

First, a potential harm of great magnitude\textsuperscript{160} can assume only a few forms (remember that this must also be a harm catalyzed by speech). A war. A riot. A revolution. An act of terrorism or violence, necessarily with a substantially destructive weapon. A significant combat loss, such as the sinking of a troop transport. These categories define nearly the entire universe of relevant high-magnitude speech harms. Such harms share one essential, salient characteristic: they all concern topics that are especially—if not exclusively—within the expertise of the executive branch.\textsuperscript{161} Only the

\textsuperscript{158} See Korematsu, 323 U.S. at 245 (Jackson, J., dissenting) (“In the very nature of things, military decisions are not susceptible of intelligent judicial appraisal.”); N. Jersey Media Group, Inc. v. Ashcroft, 308 F.3d 198, 219 (3d Cir. 2002) (“We are quite hesitant to conduct a judicial inquiry into the credibility of these security concerns, as national security is an area where courts have traditionally extended great deference to Executive expertise.” (citing Zadvydas v. Davis, 553 U.S. 678, 696 (2001))); Detroit Free Press v. Ashcroft, 303 F.3d 681, 707 (6th Cir. 2002) (“Inasmuch as these agents' declarations establish that certain information revealed during removal proceedings could impede the ongoing anti-terrorism investigation, we defer to their judgment. These agents are certainly in a better position to understand the contours of the investigation and the intelligence capabilities of terrorist organizations.”); cf. United States v. Curtiss-Wright Exp. Corp., 299 U.S. 304, 319 (1936) (“In this vast external realm [of foreign affairs and international relations], with its important, complicated, delicate and manifold problems, the President alone has the power to speak or listen as a representative of the nation.”).

\textsuperscript{159} Courts do not drop this deferential posture lightly. Cf. Pell v. Procunier, 417 U.S. 817, 827 (1974) (“[I]n the absence of substantial evidence in the record to indicate that the officials have exaggerated their response to these considerations, courts should ordinarily defer to their expert judgment in such matters. Courts cannot, of course, abdicate their constitutional responsibility to delineate and protect fundamental liberties.”).

\textsuperscript{160} And sufficiently low probability as to render its constitutional significance debatable.

\textsuperscript{161} The only possible exception is the possibility of a riot or other such domestic disturbance, about which civilian social scientists might have as much to say as any executive-branch policymaker. Still, the danger inherent to such a disturbance, which includes the issue
executive can know if the publication of a ship's schedule will lead to the sinking of a transport because only the executive knows when the transports sail or how much submarine activity they are likely to encounter. Only the executive can know whether the publication of partial plans for the hydrogen bomb will actually make it more likely that some terrorist or rogue nation could acquire the bomb, since only the executive knows what other information is yet to be published or how difficult it is to obtain plutonium and tritium on the world market. And only the executive can know whether opening the deportation hearing of a potential terrorist to the news media will give other terrorists valuable information about American anti-terrorism methods because only the executive knows what those methods are or how they relate to what the hearing might divulge. High-magnitude harms are national-security-implicating harms, and national-security-implicating harms are the province of the executive.

Second, and in concomitant fashion, low-probability harms rarely involve simple causal relationships—if A, then B, but only with small probability. More frequently they require a series of only loosely dependent probable occurrences, the interaction of disparate parties, or fortuitous conjunctions of unrelated events. The greater the number of moving parts and the more complex the relationships that a particular speech act must catalyze in order for a harm to occur, the more difficult and costly it is for a court to make an independent assessment of that harm's likelihood. The link is with Brandenburg's "imminence" requirement: once a potential causal chain has become so attenuated that an event will not necessarily occur "imminently," that chain likely involves a sufficiently large number of links that a court will have difficulty assessing the relevant probability absent some strong indication from the government. It is endemic to the structure of American government that these types of decisions fall within the near-exclusive competence of the executive. The question that remains is how to cope with the systemic distortions that result.

of how many police or national guard units stand ready to quell it, is a topic about which the executive is likely to have far better information than even any outside expert.

162. See Near v. Minnesota ex rel. Olson, 283 U.S. 697, 716 (1931) (describing the permissibility of government prevention of the publication of the sailing dates of troop transports).

163. See United States v. Progressive, Inc., 467 F. Supp. 990, 993 (W.D. Wis. 1979) (considering a request for an injunction to prohibit the publication of plans for a thermonuclear weapon).


166. POSNER, supra note 56, at 316. Judge Posner writes:

But if lawyers are not equipped to formulate sound legal policy regarding international terrorism, who is? The President is, virtually by default. The relevant
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Throughout history, when the executive has exaggerated threats to justify speech restrictions, it typically has exaggerated low-probability threats, transmogrifying them from negligible dangers into constitutionally cognizable harms. These are the types of dangers that will be more particularly within the executive's competence than the courts', and these are the types of dangers for which small adjustments in probability will produce the greatest impact.

B. LOW-PROBABILITY MATHEMATICS AND THE DIFFICULTY OF WEIGHING COSTS AND BENEFITS

What the executive cannot do for itself, the courts and the populace will do for it. The cognitive-science literature offers a fairly robust description of the extraordinary difficulties that individuals have when coping with low-probability threats or even when rationally evaluating low-probability events. Individuals tend to drastically overrate the statistical value of low-probability harms as a purely mathematical matter, substantially overpricing those harms when compared with harms of more easily quantifiable probabilities.

It is worth pausing now to note that by the use of the word "individuals" here and in the following Sections, I do not mean only the great proverbially unwashed masses, as distinct from the noble and rational judiciary. A significant body of literature substantiates the belief that judges are highly susceptible to the same sorts of cognitive errors and biases that plague non-judicial decision-making. And while there is reason to believe that experts may not succumb to all of the biases that interfere with a layperson's ability

expertise, on which he can draw, is widely distributed both within and outside government, but often in a form that cannot easily be presented in a legal forum, and not only because of the need for secrecy.

Id.

167. See supra notes 144–51 and accompanying text.

168. It is reasonable to assume that decision-makers—and the general public—will be risk averse to some degree and will rationally favor restrictions on low-probability harms that do not quite pass the cost-benefit test. But this fact does not change this Section's analysis. Risk averseness will only shift the cost-benefit curve slightly downwards; it will not change the shape of that curve or eliminate the long tail. A subset of low-probability harms that fail even risk-averse cost-benefit balancing and are susceptible to the cognitive errors described here will remain.

169. For background on the application of cognitive science to legal decision-making, see generally Christine Jolls et al., A Behavioral Approach to Law and Economics, 50 STAN. L. REV. 1471 (1998) (describing "how law and economic analysis may be improved by increased attention to insights about actual human behavior").

to make rational choices, judges are not experts (at assessing national security threats, for instance)—they are intelligent, educated generalists. That fact is, of course, part of what makes deference to administrative agencies and executive actors appropriate in the first instance. Absent any strong indication that judges will succeed in dodging the cognitive pitfalls that speckle typical rationality, this Article treats judicial and nonjudicial actors alike.

1. Low-Probability Value Inflation

Study after study has demonstrated that individuals experience great difficulty, purely as a matter of estimation and intuition, when dealing with high-magnitude, low-probability threats. For many years, economists, lawyers, regulators, and other types of decision-makers routinely have used statistical measures of the value of a human life when performing cost-benefit analyses and making regulatory decisions. Analysts obtain these value-of-life numbers by looking at the salary premiums that workers demand for more dangerous jobs, the amounts that people will pay to avoid certain every-day risks, or by simply performing surveys that ask hypothetical questions regarding what an individual would be willing to pay to avoid a peril of some fixed probability. While these estimates are hardly exact, they are well accepted and widely used within the risk-management industry and usually conform to a reasonably limited range of values. The value of life is most commonly priced at around $7 million. Importantly, though, these calculations are made almost always with reference to fairly


172. In re Aguinda, 241 F.3d 194, 205 (2d Cir. 2001) ("As generalists, [judges] need to continue to acquire general information . . . . We cannot make intelligent fact decisions or evaluate the effect of our legal decisions on society unless we have some understanding of that society." (internal citations omitted)); Eric A. Posner, Transfer Regulations and Cost-Effectiveness Analysis, 53 DUKE L.J. 1067, 1092 (2003) ("Judicial deference to agency action is justified by division of labor: agencies are specialists, judges are generalists.").

173. See N. Jersey Media Group, Inc. v. Ashcroft, 308 F.3d 198, 219 (3d Cir. 2002) ("[N]ational security is an area where courts have traditionally extended great deference to Executive expertise.").

174. These conclusions are naturally tentative and subject to revision as the social-science literature advances.

175. Viscusi & Aldy, supra note 46, at 18–23 (reviewing the literature and performing a meta-analysis of studies of wage-risk tradeoffs in the United States labor market).

176. See id. at 24–26 (reviewing past studies of price-risk tradeoffs in the United States housing and product markets).

177. See id. at 18–26, 63. Viscusi and Aldy's meta-study obtained a median value of life of $6.7 million with a standard deviation of $5.6 million, and half of the studies from the United States labor market arrived at values between $5 million and $12 million. Id. at 18, 63.
commonplace risks (workplace accidents and the like) that occur with significant probability.\textsuperscript{178}

Yet when the probability that a harm will occur drops significantly, toward a chance of one in hundreds of thousands or one in a million, individuals' responses to the same types of risk-assessment questions change drastically. The average person is willing to pay far more to avoid an exceedingly low-probability harm than the standard $7 million value of life would predict. In one survey, respondents confronted with a probabilistic threat to their lives of 1 in 100,000 were willing to pay approximately $220 to avoid the danger, which corresponds to a value of life of $22 million—already well above the typical $7 million benchmark.\textsuperscript{179} But when a parallel set of respondents were asked about a threat to their lives of only 1 in a million probability, they were still willing to pay on average $100 to avoid it, placing their estimated value of life at $100 million—nearly fifteen times the usual number and five times the value for a threat of tenfold greater probability.\textsuperscript{180}

Another study displayed this effect in even starker relief. Respondents were willing to pay, on average, $15 per airplane flight to lower the risk of a terrorist attack on that flight from 1 in a million to 1 in 10 million.\textsuperscript{181} This price, for a risk reduction of 9 in 10 million, corresponds to a value of life of approximately $16 million, already well above the typical amount. But this effect exploded when respondents were asked what they would pay to eliminate that final 1 in 10 million chance. The average person was willing to spend more than $16 in the face of only a 1 in 10 million probability of harm, pricing her life at a whopping $160 million.\textsuperscript{182} Other studies have revealed a similar effect, with individuals even willing to pay more to avoid smaller risks than to avoid larger ones.\textsuperscript{183}

The consequences of this type of value inflation are straightforward and severe. A judge or juror performing cost-benefit analysis on a speech act that

\textsuperscript{178} See id. at 19–21, 25. The studies surveyed involved such events as typical workplace injuries, fatal automobile accidents, air pollution, cigarette smoking, and bicycle accidents. Id. Most risks fell in the vicinity of 1 in 10,000. Id. Viscusi and Aldy's meta-analysis also revealed an inverse correlation between the value of a statistical life and the risk of death. Id. at 23.

\textsuperscript{179} Sunstein, supra note 133, at 131. This is despite the optimism that individuals typically display toward their own chances of danger. See Christine Jolls, Behavioral Economics Analysis of Redistributive Rules, 51 VAND. L. REV. 1653, 1658–63 (1998).

\textsuperscript{180} Id. By contrast, individuals typically underestimate larger-probability risks on the order of 1 in 1,000. W. KIP VISCUSI, FATAL TRADEOFFS: PUBLIC AND PRIVATE RESPONSIBILITIES FOR RISK 150 (1992).

\textsuperscript{181} Viscusi & Zeckhauser, supra note 24, at 116.

\textsuperscript{182} Id.

\textsuperscript{183} V. Kerry Smith & William H. Desvousges, An Empirical Analysis of the Economic Value of Risk Changes, 95 J. POL. ECON. 89, 100 tbl.2 (1987). Respondents to this study exhibited a willingness to pay more to reduce a small risk by 90% than to reduce a larger risk by the same proportion—meaning that they were paying extra for a smaller reduction in absolute risk—even when the two choices were presented sequentially to the same study participants. Id.
threatens a harm of high magnitude and low probability will be inclined to substantially overvalue the "cost" side of the ledger, compared to a higher-probability harm of similar statistical value, simply because of the low probability itself. This willingness to overpay to avoid low-probability threats will result in systematic oversuppression of speech in the presence of low-probability, high-magnitude harms; too little speech will occur when compared to either the result of an unadulterated cost-benefit analysis or to a balancing of speech against only higher-probability harms. By screening out the very lowest-probability events and their drastic distortions of cost-benefit analysis (again, valuations of life increase fivefold as the probability of harm drops from 1/100,000 to 1/1,000,000), a probability threshold will act as a crude check on this anti-speech bias.

2. Low-Probability Risk Insensitivity

The studies described above reveal two coordinated effects. First, as threats grew smaller, the actuarial value of life increased rapidly. In the presence of small probabilities, individuals functioned as poor cost-benefit balancers. But what should not be overlooked is the fact that these inflated cost-of-life values resulted from peoples' willingness to pay approximately equivalent amounts of money to eliminate all "small" risks, even when they actually differed in probability by an order of magnitude. Low-probability value inflation is thus part and parcel of what one might describe as low-probability insensitivity—layperson inability to distinguish between various tiny probabilities, even when they differ by as much as a factor of ten.

Another experiment highlights this effect and is worth describing in some detail. A 1998 survey told respondents a fictional story about a chemical plant that was at risk of releasing dangerous chemicals into the atmosphere above a nearby community. The survey described an insurance company engaged in writing policies for affected community members and then provided an estimate of the probability of a chemical release (some surveys listed it at 1 in 100,000, some at 1 in 1 million, and some at 1 in 10 million). Each survey provided only one of the three values.

The surveys then offered comparison data regarding the probability of a car accident and asked four questions:

184. See supra notes 175–83 and accompanying text.
185. See Viscusi & Zeckhauser, supra note 24, at 116.
187. Id. Some surveys phrased the information in terms of insurance premiums, offering the surveytaker an estimate of the premium that the insurance company would charge to insure against the harm (between fifteen cents and fifteen dollars). Since the survey obtained essentially identical results regardless of whether it was posed in terms of premiums or probabilities, I have described only the probability context here.
(1) whether the plant posed a serious health and safety risk to those living in the community, (2) whether the plant could operate in a manner that was safe for the community, (3) how serious is the risk of death posed by the plant, and (4) how close to the plant respondents would be willing to live.188

Remarkably, respondents proved almost completely insensitive to the ten-fold gradations in risk between each of the three scenarios. In their responses to the four questions, they graded the threat of a chemical release as “medium” (corresponding approximately to a risk of “3” on a scale of 1 to 5) irrespective of which of the three probabilities appeared on the survey they were given.189 The survey respondents apparently viewed small risks as exactly that—and only that; the statistically enormous differences between them did not even register. As one commentator suggests, it is likely that for risks in these domains “the relevant probability is ‘low, but not zero,’ and . . . finer distinctions are unhelpful.”190

A number of other studies have documented the same effect even among individuals presented with two differing risk situations side-by-side.191 In contexts ranging from automobile fatalities,192 to serious automobile injuries,193 to hazardous waste,194 to pesticides used on fresh produce,195 and even to oyster-borne illnesses,196 survey respondents displayed an utter inability to modulate their willingness to pay for increases in safety according to how much those safety increases actually would diminish the probability of harm. In one study, nearly half of survey respondents were willing to pay

188. Id. at 107.
189. Id. The survey asked respondents to answer each of the four questions on a scale of 1 to 5, with 1 the “lowest risk” answer and 5 the “highest risk” answer. Respondents who were told that the chances of an accident were 1 in 100,000 rated the risk at 3.03; those who were told that the probability was 1 in 1 million rated the risk at 2.93; and those who were given a risk assessment of 1 in 10 million rated the risk at 3.01. The differences were not statistically significant.
190. Sunstein, supra note 135, at 71. Indeed, studies have shown a correlation between the probability of a harm and the likelihood that an individual will underestimate the threat posed by that harm. See BARUCH FISCHHOFF ET AL., ACCEPTABLE RISK 29 (1981).
191. This is known as a “within subjects” design. The fact that survey respondents were unable to draw meaningful distinctions between different risk cases, even when they were presented simultaneously, renders these results all the more robust—not to mention irrational and counterintuitive.
194. Smith & Desvousges, supra note 183, at 99–100.
more for a reduction in the probability of death from an unspecified cause from 2 in 100,000 to 1 in 100,000 than they were for a reduction in the probability of death from a similarly unspecified cause from 20 in 100,000 to 15 in 100,000—despite the fact that the second reduction is fivefold greater. 197 It seems that individuals simply experience great difficulty at evaluating low probabilities with any consistency or accuracy. 198

Like its partner value inflation, probability insensitivity will tend to bias cost-benefit results systematically in favor of curtailing speech to protect against prospective harms. As probabilities of harm decrease, individuals pay less and less attention to fine gradations, pushing results towards the high-probability end of the spectrum. Failure to recognize or appreciate the true size of a small probability represents the type of cognitive error that tends to compel decision-makers to accept restrictions on otherwise beneficial activities that they would not permit under an accurate cost-benefit analysis.

3. The Tyranny of Small Mistakes

Compounding the errors introduced into low-probability cost-benefit analysis by the cognitive biases described above is the fact that when it comes to low-probability events—indeed, when it comes to small numbers generally—small mistakes can produce enormous consequences. Estimations of large-magnitude damages are relatively robust. Underwriters, actuaries, and other risk assessors have become adept at gauging the damage that a putative danger might cause within reasonable limits. Working values for the cost of human life, major injuries, or damage to particular types of property exist, and risk experts employ them widely. 199 But more to the point, small mistakes are dwarfed by the enormous monetary baselines employed in such risk assessments. A very conservative estimate might place the value of the damage from the September 11th attacks on the World Trade Center at approximately $25 billion. 200 Even if that figure is off-target by a substantial amount, such as $2 billion, the overall effect on any resulting computation will be less than 10%.

Probability assessments, on the other hand, introduce far greater uncertainty into any calculation. As this Article describes, speech harms

198. See Sunstein, supra note 135, at 73–74 ("For most of us, most of the time, the relevant differences—between, say, 1/100,000 and 1/1,000,000—are not pertinent to our decisions, and by experience we are not well equipped to take those differences into account.").
199. See generally Viscusi & Aldy, supra note 46. These estimations have become particularly common within the United States government, where executive orders and regulations from the Office of Management and Budget mandate cost-benefit pricing of most proposed regulations and analysts employ risk-risk analysis (a weighing of the risks involved in promulgating the regulation against the risks involved in not promulgating the regulation) in the remainder. See id. at 5–6, 53–54.
200. This calculation was based on approximately 2,700 deaths at a cost of $6.7 million per death and an order of magnitude estimate of property damage at $10 billion.
PROBABILITY THRESHOLDS depend upon the actions of one or more intervening parties, as well as any number of other compounding or confounding factors. The probabilities involved in these events—which themselves invoke questions regarding, for example, the motivations or capabilities of some terrorist or military organization—hardly conduce to easy rational estimation. There is a reason why these cases are discussed so frequently in qualitative terms and so rarely with reference to quantified probabilities.

Moreover, small errors in low-probability estimations introduce enormous variation into cost-benefit calculations. The mathematical point is both mundane and crucial: if the government believes that an event will occur with a probability of 2 in 100,000 if certain speech is allowed to take place, but the actual probability is, in fact, 1 in 100,000, then the statistical estimate of harm is off by 50%. When the uncertainties endemic to assessing speech-related harms are coupled with standard probability indifference, errors of this magnitude seem almost inevitable.

It is important to note that low-probability errors of this type are not themselves systematically biased toward either overestimation or underestimation of statistical harm. The mathematics of small probabilities work only as a lens, magnifying the effect of whatever errors have already taken place. Yet, as the rest of this Section describes, those errors are likely to be mistakes of over-estimation: miscalculations tending to inflate and overemphasize the dangers attendant to speech. Enhanced by the mathematics of small numbers, these upward biases will magnify ephemeral threats into constitutionally significant events.

201. See Moisan v. Loftus, 178 F.2d 148, 149 (2d Cir. 1949). Judge Hand wrote:

The injuries are always a variable within limits, which do not admit of even approximate ascertainment; and, although probability might theoretically be estimated, if any statistics were available, they never are; and, besides, probability varies with the severity of the injuries. It follows that all such attempts are illusory; and, if serviceable at all, are so only to center attention upon which one of the factors may be determinative in any given situation.

Id.

202. See, e.g., Ctr. for Nat'l Sec. Studies v. U.S. Dep't of Justice, 331 F.3d 918, 923 (D.C. Cir. 2003) (“[T]he declarations state that release of the requested information could hamper the ongoing investigation by leading to the identification of detainees by terrorist groups, resulting in terrorists either intimidating or cutting off communication with the detainees . . . .” (emphasis added)); United States v. Progressive, Inc., 467 F. Supp. 990, 993-94 (W.D. Wis. 1979) (“[T]he article could possibly provide sufficient information to allow a medium size nation to move faster in developing a hydrogen weapon. It could provide a ticket to by-pass blind alleys. The Morland piece could accelerate the membership of a candidate nation in the thermonuclear club.” (emphasis added)).

203. Here, I bracket all epistemological questions related to the “actual” probability of some event that depends on any number of path-independent factors. For purposes of this analysis, I simply assume that any given future event has some fixed probability of occurring given the presence or absence of antecedent events, including the speech act in question.
C. Dreadful Harms, Emotional Responses, and the Availability Heuristic

In addition to the purely mathematical errors that attend efforts to cope with small numbers and low probabilities, the types of low-probability, high-magnitude harms involved in free-speech cases often invoke strong emotional responses that further skew attempts to perform rational cost-benefit analysis. Two complementary cognitive effects are manifest. First, individuals tend to overreact to harms from "dreadful" or "unknown" sources or other types of harms that invoke a particularly significant emotional response. High-magnitude harms resultant from speech are almost always of this type; terrorism, riots, and the like are not the stuff of ordinary experience, and their effects upon the public mood is far greater than the number of casualties would indicate.

Second, individuals tend to overvalue harms that have special temporal salience, harms that resonate with recent experience, or threats that seem similar to ones they have heard about in the near past. The effect of this type of cognitive bias—the "availability heuristic"—is obviously context-specific; modern citizens are not likely to inflate the threat of a troop transport being sunk in the same fashion as Americans living during the Second World War might have. Yet, at least one class of potential high-magnitude speech harms, terrorism, remains of obvious salience today. Moreover, the low-probability threats that present themselves in any era—those threats that galvanize the government into attempts to curb speech—are likely to have great contemporaneous relevance, if for no other reason than for the fact that the government will attempt to make the citizenry aware of them as a part of its campaign to justify its restrictions on speech. High-magnitude, low-probability speech harms are thus, by their very nature, likely to tap into these heuristic biases. The result is a systematic overemphasis of low-probability threats, an effect that the First Amendment's probability threshold is meant crudely to counteract.

1. Emotions, Fear, and First Amendment Events

It is not surprising to learn that individuals respond more vociferously to emotionally charged threats or events. Emotion is, by definition, something that individuals experience outside of their purely rational modes of cognition—but that nevertheless influences individual preferences—and a phenomenon that taps into both rational and extrarational centers will undoubtedly produce some type of heightened effect. What is striking is the degree to which emotional appeals can penetrate what ought to be purely rational decision-making processes and the extent to which they can skew the outcomes of those endeavors.

Experiments have demonstrated that individuals are willing to pay substantial premiums to avoid emotionally laden dangers above and beyond what they would spend to eliminate banal risks of the same magnitude and probability. In one study, subjects were willing to pay as much as 45% more to avoid a risk that had been described to them in emotional terms than they were willing to pay to avoid the same risk—a risk of death with the same probability—when they had been offered the risk in emotion-neutral terms. Another study obtained similar results by looking at responses to threats of electric shock. These examples, alongside many others, reveal a more particular trend: individuals will respond more strongly to "dreadful" or "catastrophic" dangers and to dangers that they cannot control than they will to typical, everyday harms. The effect can become extremely pronounced in the context of improbable threats, as individuals "focus[] their attention on the outcome rather than the low probability of the harm." It is the "catastrophic potential" of a threat—not its low probability or the statistical risk it actually poses—that dominates individual assessments.

The most immediate application of this notion is to terrorism, and indeed, many commentators have concluded that mere invocation of the threat of terrorism "evokes vivid images of disaster, thus crowding out [rational] probability judgments" and enhancing the amount that individuals would sacrifice to avoid such a harm. But the principle extends to many of the types of low-probability, high-magnitude harms that might be expected to arise from speech. To some degree, the effect reaches all low-probability, high-impact harms; a "catastrophic" harm is simply one that is large, and individuals will naturally respond most strongly to large, fearsome threats of all types. But the harms associated with reckless speech are particularly susceptible to these types of emotional over-reactions, partly because they necessarily involve the machinations of faceless third parties who act upon the speech. Wars, riots, terrorism, military disasters, and the

205. See Sunstein, supra note 133, at 125. Sunstein's subjects were willing to pay, on average, $188.33 to avoid the emotionally charged risk and only $129.61 to dodge the unemotional version. Id.


207. See, e.g., Slovic et al., supra note 170, at 143, 148 (describing the influence that the dread, severity, and "catastrophic potential" of a harm have upon conceptions of that harm's likelihood).

208. CHARLES PERROw, NORMAL ACCIDENTS 324–28 (1999); see also Clark R. Chapman & David Morrison, Impacts on the Earth by Asteroids and Comets: Assessing the Hazard, 367 NATURE 38 (1994); Slovic et al., supra note 170, at 143; Sunstein, supra note 133, at 121.

209. Sunstein, supra note 135, at 100.

210. Slovic et al., supra note 170, at 148.

211. CASS R. SUNSTEIN, RISK AND REASON 45 (2002); Sunstein, supra note 133, at 128; Viscusi & Zeckhauser, supra note 24, at 99.
chaos of the mob—these speech-induced threats conjure up dreadful images and inspire fear in a way that even mass disasters such as earthquakes and floods apparently do not. Fear is a powerful inducement to action, and speech-borne threats catalyze reactions far beyond what quotidian risks such as car accidents might produce, whether or not they offer a comparably smaller statistical threat.

One intuitive consequence of this response is that individuals will tend to focus systematically upon the “worst case,” since it is that case that will trigger the strongest emotional response. In one experiment, subjects received information about a potential risk from two parties: industry and the government. For some subjects, the government described the risk as high and industry described it as low; for some subjects it was the opposite. Yet, in all cases, respondents viewed “the high risk information as being more informative,” regardless of the source. Experiments such as this one would make it seem that our skewed perspective on the probability of dreadful events might be triggered, in part, by our pessimistic willingness to believe that they may well occur—whether or not that willingness is attributable entirely to the vivid emotional picture that such harms paint. The likely consequence is a decision-making populace prepared to believe the worst whenever they are provided with competing characterizations of a level of risk. In speech cases, the worst-case scenario will of course be the one suggested by the censor. Therefore, it may be that even if the government did not hold an information monopoly over assessments of speech harms—and even if the government’s opinion were not entitled to

212. See Paul Slovic, Perception of Risk, 236 Sci. 280, 281–83 (1987); cf. John Rather, Dreading a Replay of the 1938 Hurricane, N.Y. TIMES, Aug. 28, 2005, at L11 (citing a study that found that before Hurricane Katrina, sixty-four percent of homes in the United States were underinsured against floods and hurricanes).

213. See, e.g., Posner & Vermeule, supra note 140, at 626–34.

214. Data strongly suggest that individuals tend to underestimate the risk they face from everyday dangers such as strokes (approximately 1 in 2,000) and automobile accidents (1 in 5,000). Viscusi, supra note 180, at 150.

215. These effects are undoubtedly exaggerated by the more general phenomenon that, as one commentator put it, “the costs of freedom of expression are often more salient than the benefits.” Posner, supra note 22, at 744. Posner attributes this imbalance to the fact that speech that challenges common assumptions can be painful in the immediate term but is “an unavoidable concomitant of social progress,” and so “the cost of heterodox speech is immediate and its benefit deferred.” Id.

216. Sunstein, supra note 135, at 82.


218. Id. at 1666; see also Sunstein, supra note 135, at 82–83.

219. Sunstein, supra note 135, at 120–21. Sunstein views this phenomenon as yet another manifestation of low-probability insensitivity. Id.

220. See supra Part IV.A.
special deference—"the mere fact that the government was forecasting the most severe outcome would tilt the scales against other predictions.

2. The Availability Heuristic

Operating alongside the overemphasis on "dreadful" or terrible harms is the tendency of individuals to overestimate the likelihood that an event will occur when an example of that event comes readily to mind. This effect, known as the "availability heuristic," is the product of the very human tendency to focus on whatever evidence is most cognitively salient at any given moment. It is by definition context-specific; what is news today—and therefore foremost in the minds of most individuals—may well not be news tomorrow. Thus, the availability heuristic may favor certain impressions on one day and a completely different set mere weeks or months later. Nor does the availability heuristic necessarily systematically favor the government or the speaker. A widely publicized story of police abuse—the unwarranted beating of a suspect, for instance—can trigger the availability heuristic and cause the public to misjudge the extent to which law-enforcement authorities are overstepping their lawful boundaries. One week later, news of the urban riot that erupted as a consequence of this act of police brutality could induce the same public to believe that the citizenry has run amok and that the authorities are doing an inadequate job of policing the community. The only factor is how easily a decision-maker can summon an instance of the event in question to mind.

It is worth noting also that the evidence and theory behind the availability heuristic would seem to conflict to some degree with the observation—offered by the same commentators who have recorded the enhanced public reaction to particularly dreadful or frightful events—that individuals respond more strongly to "unknown" dangers. Yet the disagreement is not, in fact, so stark. The answer is revealed through the types of risks that these commentators classify as "unknown": nuclear accidents, genetic mutations, food irradiation, and the like. The claim, then, is not the facially bizarre assertion that individuals are responding to risks that they do not know of; instead, they react most strongly to threats

221. See supra Part IV.A.
222. Sunstein, supra note 133, at 121; see also Stone, supra note 22, at 537–38.
224. Cf. Posner & Vermeule, supra note 140, at 622–25 (arguing that publicly salient examples of governmental over-reaction can catalyze expansions in civil liberties).
225. See Perrow, supra note 208, at 925–27.
226. See id.; Slovic et al., supra note 170, at 142. These risks are in contradistinction to such daily terrors as car accidents or workplace injuries.
that have been much discussed within the press but that are sufficiently complex or "scientific" that the average layperson cannot comprehend them. The availability heuristic would predict similar outcomes.

The impact of this tendency on how the American public perceives the types of low-probability harms that speech might engender is far from one-sided. Certain types of these threats would appear foreign or anachronistic to modern eyes. Recent American history is hardly full of examples of speech acts inciting urban riots or pogroms, and the United States has not had a troop transport sunk due to the publication of its sailing date in quite some time. The availability heuristic might, in many cases, lead decision-makers to underestimate the probability that those types of harms will materialize; these are among the types of catastrophic events that are hard to imagine taking place in the modern United States. In fact, the period of McCarthyism during the 1940s and 1950s, an era characterized by what are now viewed as excessive assaults on the freedom of speech, arguably retains greater salience than nearly any other series of events with such an obvious speech valence. The availability heuristic thus might augur generally greater protection for speech than conventional cost-benefit models would prescribe.

There is, however, at least one more powerful counter-consideration: the importance of terrorism. As of 2005, the terrorist threat remains perhaps the single most salient issue of public policy, and the events of September 11th maintain a position of prominence in the minds of people across the country. The availability heuristic thus would predict that decision-makers will systematically and severely inflate their estimates of the probability of a terrorist event as one or more memorable examples come immediately to mind. Not coincidentally, the vast majority of cost-benefit speech cases that have come before the courts in recent years—and the vast majority that are expected to arrive in courtrooms in the near future—are terrorism cases.


228. See Stone, supra note 22, at 311–426.

229. Sunstein, supra note 211, at 50–52. By way of illustration, a Lexis search of the Wall Street Journal for the words "terrorism" or "terrorist" produced 135 hits within the month of March 2006 alone. A similar search of the Atlanta Journal-Constitution produced 102 hits. The terrorist threat obviously retains preeminent salience within the public consciousness.

230. See generally, e.g., Ctr. for Nat'l Sec. Studies v. U.S. Dep't of Justice, 331 F.3d 918 (D.C. Cir. 2003); N. Jersey Media Group, Inc. v. Ashcroft, 308 F.3d 198 (3d Cir. 2002); Detroit Free Press v. Ashcroft, 303 F.3d 681 (6th Cir. 2002). Even the D.C. Circuit's recent decision denying the existence of a constitutional reporter-source privilege rooted in the First Amendment sounded in terrorism. In re Grand Jury Subpoena, Judith Miller, 397 F.3d 964, 965–67 (D.C. Cir. 2005). Whether a reporter-source privilege should exist is very much a question of the costs and benefits involved in providing reporters with a shield against forced disclosure of information. McKevitt v. Pallasch, 339 F.3d 550, 531 (7th Cir. 2003). The Judith Miller case appears against a national-security backdrop; reporters were attempting to use the privilege in that case to block
The availability heuristic may not be applicable ubiquitously, but it is likely to have a substantial impact in the most crucial of contexts.

D. QUANTIFYING THE PROBABILITY THRESHOLD

As the prior Sections describe, speech-induced harms and benefits remain notoriously difficult to quantify or to rate with any real accuracy. But the foregoing analysis of the systematic biases that underlie and justify the First Amendment's probability threshold reveals one salient, mathematical characteristic of this constitutional construct: it must operate at the level of orders of magnitude, not smaller probability comparatives.

The probability threshold cannot exist to separate events of probability 1 in 100,000 from events of probability 1 in 200,000, for instance; the coarse approximations involved in First Amendment adjudications cannot cope with such fine distinctions. Rather, wherever the probability threshold is drawn, it must be drawn so as to separate (as constitutionally significant or insignificant) events that differ in likelihood by one or more orders of magnitude: a probability of 1 in 100,000 versus a probability of 1 in 10,000, for instance. This mathematical description comports with our understanding of how humans gauge small probabilities; extraordinarily unlikely events do not succumb to more precise delineation. It thus may be more appropriate to conceptualize the probability threshold on a logarithmic scale, instead of a linear one. In graphical form, Figure 2 from Part I becomes:

the investigation of the leaking of a CIA operative’s name in conjunction with a public debate over the threat of terrorism that existed before the war in Iraq. In re Grand Jury Subpoena, 397 F.3d at 965–68.
The above graph is not meant to identify the exact probability range at which the threshold operates but, instead, only to describe the type of limitation it imposes. Courts need not strive to quantify the uncountable to levels of precision beyond what the qualitative descriptions of the issues before them will yield. Distinctions between events of, for instance, “small” and “extremely small” probability, representing nothing more than order-of-magnitude speculations, will be sufficient. The probability threshold thus transforms what would be intricate, error-sensitive cost-benefit balancing into the sort of rough approximations that conduce far more readily to qualitative estimation. Threat inflation by the executive branch, cognitive difficulties with small numbers, and systematic biases toward fearing dreadful and salient harms are countered by the probability threshold’s rough-and-ready screening mechanism.

V. THE DANGERS OF UNCHECKED BALANCING: THE PROBABILITY THRESHOLD AS SECOND-BEST CORRECTIVE

This Article describes the First Amendment probability threshold as a “crude” corrective to the systematic errors that pervade cost-benefit analysis of low-probability events. It is crude first because it is both over- and underinclusive. There may well be highly improbable harms that threaten such catastrophe that they should nonetheless trump the competing speech concerns but will fail to pass the probability threshold. And there may be
costs to speech that barely cross the threshold and—due to other cognitive errors—erroneously pass straightforward cost-benefit analysis as well.\textsuperscript{231} To some extent, these concerns are the natural epistemic product of rhetorically evaluating difficult-to-quantify costs and benefits, but, to some extent, they represent true flaws in the solution.

Second, the probability threshold is crude in that it is second-best: it would be preferable simply to eliminate the cognitive biases and structural flaws that contribute to these errors in the first instance. The behavioral-economics literature suggests that judges might be able to "de-bias" their analyses in the same fashion that ordinary people might accomplish the same feat: by gathering relevant experience in the field in which they work, becoming aware of their own cognitive tendencies, and taking steps to avoid perpetuating their systematic errors.\textsuperscript{232} (On the other hand, there is evidence to suggest that simply making judges aware of their own biases, absent any type of particularized training, will not serve as an effective cure.)\textsuperscript{233} But these are individual and personal correctives, not doctrinal or institutional ones. From the perspective of the Supreme Court, which is charged with developing doctrine without the capacity to ascertain the individual efforts of the lower-court judges, the probability threshold would appear to be a more reliable systemic solution. It is difficult to imagine the Supreme Court admonishing the lower courts to be careful not to allow their emotions to carry them away, providing pellucid advice on how to cope with their (and everyone's) tendency to inflate the anticipated effect of low-probability events, or forcing lower-court judges to attend weekend-long seminars on cognitive science.

Moreover, even effective de-biasing will not alter the governmental structures that place the executive in the dual roles of interested litigant and neutral information source and that lead irreducibly to low-probability threat inflation. Forced decoupling of these two functions is likely impossible. Nor can the judiciary simply decide to "doubt" (to some degree) the facts and estimations of harm that the executive places before it. Such a posture would run against centuries of intuitively sensible deference when matters of national security are involved.\textsuperscript{234} This is not even to mention the

\textsuperscript{231} The probability threshold is of course not meant as a full substitute for cost-benefit balancing, as it is certainly not the case that any likely harm—no matter how small in magnitude—provides an adequate justification for banning speech. Rather, an asserted threat suffices as a legitimate ground for suppressing speech only if it passes both the cost-benefit test and the probability threshold.


\textsuperscript{234} See, e.g., Korematsu v. United States, 323 U.S. 214, 218 (1944) ("[W]e cannot reject as unfounded the judgment of the military authorities and of Congress."); Hamdi v. Rumsfeld,
fact that the judiciary has no other reliable source of information. The only real alternative is the proverbial “thumb on the scale” on the side of speech, and it is that effect that the probability threshold attempts, somewhat clumsily, to replicate.

Yet, the difficulty in encapsulating this notion doctrinally should not be interpreted as an indication that a probability threshold is superfluous. As explained below, on several notable occasions, the courts have deviated from the doctrinal teachings of Brandenburg, Chaplinsky, and the law of prior restraints and upheld speech restrictions in light of potential harms that would not surpass the probability threshold. In so doing, they allowed their dread of dire consequences to trump logical analysis of the probabilistic threat at hand. As a matter of cost-benefit analysis, it is possible that these cases still were correctly decided, but they cannot be defended on the grounds advanced by the courts. Without a probability threshold to bind their decision-making, the courts have performed very poorly in the presence of low-probability threats.

A. UNITED STATES V. PROGRESSIVE

_United States v. Progressive_ is an unusual, almost unique, case. In 1978, an anti-war activist named Howard Morland authored an article for _The Progressive_ magazine, describing plans for construction of a fusion bomb (also known as a hydrogen bomb, or “H-bomb”) based purely on _publicly available sources_ in order to display precisely how fragile and “open” the nation’s nuclear secrets were. Fearing prosecution, the magazine sent a draft of the article to the Department of Energy, and the government responded by filing suit to enjoin publication. The government was faced with a difficult case: Morland had not gained access to any classified or restricted material, and everything in the article, indeed, had been gleaned either from public sources or represented Morland’s own analysis and guesswork. This placed the government in the awkward position of arguing that it was necessary to block publication because it contained “certain

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316 F.3d 450, 473 (4th Cir. 2003) (“To delve further into Hamdi’s status and capture would require us to step so far out of our role as judges that we would abandon the _distinctive deference_ that animates this area of law.” (emphasis added)); _N. Jersey Media_, 308 F.3d at 219 (“To the extent that the Attorney General’s national security concerns seem credible, we will not lightly second-guess them.”); _Detroit Free Press_, 303 F.3d at 707 (“[W]e defer to their judgment. These agents are certainly in a better position to understand the contours of the investigation . . . .”); _Padilla ex rel. Newman v. Bush_, 233 F. Supp. 2d 564, 608 (S.D.N.Y. 2002) (“[D]eference is due because of a principle captured in another ‘statement of Justice Jackson—that we decide difficult cases presented to us by virtue of our commissions, not our competence.’” (quoting _Dames & Moore v. Regan_, 453 U.S. 654, 661 (1981))).


236. Ian M. Dumain, _No Secret, No Defense: United States v. Progressive_, 26 _CARDozo L. Rev._ 1323, 1325 (2005) (explaining that the goal of the Article was to “puncture the secrecy mystique that surrounded nuclear weapons” (internal quotation marks and citation omitted)).
concepts never heretofore disclosed in conjunction with one another." In other words, it was Morland's own work—his synthesis, his analysis—that made the information within the article dangerous.

Faced with reams of conflicting affidavits and expert testimony debating the actual danger to national security of the challenged information, the Progressive court ultimately ruled in favor of the government and rested its holding on a series of unsubstantiated possibilities of dubious likelihood. The court wrote, "[T]he article could possibly provide sufficient information to allow a medium size nation to move faster in developing a hydrogen weapon. It could provide a ticket to by-pass blind alleys. The Morland piece could accelerate the membership of a candidate nation in the thermonuclear club." In the face of such ambiguity, the central thrust of the court's argument was the magnitude of the threatened catastrophe, and it dwelled upon that dreadful potential with all the vehemence that cognitive science would predict: "What is involved here is information dealing with the most destructive weapon in the history of mankind, information of sufficient destructive potential to nullify the right to free speech and to endanger the right to life itself." And, thus, without any real discussion of the probability that the Morland article would indeed cause harm—without so much as a nod in the direction of a probability threshold—the court hung its decision upon the vast disparity between the magnitudes of the cost and benefit that this expression offered, not the statistically likely outcome:

A mistake in ruling against The Progressive will seriously infringe cherished First Amendment rights. . . . It will infringe upon our right to know and to be informed as well.

A mistake in ruling against the United States could pave the way for thermonuclear annihilation for us all. In that event, our right to life is extinguished and the right to publish becomes moot. Once the court decided to balance along these lines, the case's resolution could not but quickly follow.

But how dangerous could the Progressive article really have been? Morland was not a scientist or engineer; he was an anti-nuclear activist. He did not even have a scientific degree. After majoring briefly in physics, he eventually graduated from Emory University with a Bachelor's degree in economics. His modest military experience did not include any special

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237. Progressive, 467 F. Supp. at 993; see also id. at 995 ("[N]ot all the data is available in the public realm in the same fashion, if it is available at all." (emphasis added)).
238. Id. at 993–94 (emphasis added).
239. Id. at 995.
240. Id. at 996.
242. Id. at 23.
technical training; he flew C-130 transport planes in Vietnam and had come into contact with nuclear weapons only once, when he witnessed a demonstration of how to load hydrogen bombs onto planes. Whatever analysis or intuition had transformed publicly available information into nationally sensitive data had been the work of little more than an intelligent layperson. The notion that a foreign government seeking to acquire the hydrogen bomb could not have easily achieved the same results is preposterous on its face.

Sure enough, Morland’s article was wrong on the essential details. A fusion reaction is triggered when isotopes of hydrogen are heated and compressed with great force, causing them to fuse together—hence the name of the weapon. This was common knowledge when Morland wrote his article, as was the fact that a fission reaction (a “standard” nuclear bomb) is needed to cause the compression. What was mysterious was the mechanism by which the fission reaction would apply the compressing force to the fusile materials. Morland’s original article, which the government sought to suppress, stated that the inside of the bomb casing was filled with “thousands of finely machined reflecting surfaces” that would redirect and center x-rays produced by the fission reaction on the hydrogen bomb’s fusile core, crushing it with “radiation pressure.”

Morland’s hypothesis was entirely off-base, as the government later admitted. An essential component of a fusion weapon is “an exotic, high-density polystyrene-type foam” that absorbs the blast of the fission reaction and transfers it to the fusile materials, triggering the fusion reaction. The “reflecting surfaces” were a figment of Morland’s imagination. Morland’s article would not have provided a shortcut to the creation of a hydrogen bomb; it would have produced a setback, as any nation or group that tried to follow it spent valuable time and resources chasing down what both sides of the case soon realized were dead-ends.

243. Id. at 24.
244. Nor could it have been of much value that Morland had collected all of the relevant sources. A thorough literature search requires negligible effort in comparison to the greater project of producing a nuclear weapon. See Progressive, 467 F. Supp. at 993 (“A number of affidavits make quite clear that a sine qua non to thermonuclear capability is a large, sophisticated industrial capability coupled with a coterie of imaginative, resourceful scientists and technicians. One does not build a hydrogen bomb in the basement.”).
246. Id.
248. Id.
250. See Dumain, supra note 236, at 1335 (“Perhaps surprisingly, all parties to The Progressive case agreed that there were significant inaccuracies in Morland’s article.”). In hindsight, Morland’s errors are almost laughably dramatic. On the second page of his article, he explained breathlessly that “[r]adiation pressure—a term never mentioned in the open
A near-contemporaneous technical analysis of Morland's work arrived at the same conclusion. The *Progressive* article drew substantially from an article on the hydrogen bomb (containing various diagrams) published in the 1974 edition of the Encyclopedia Americana; the author of this encyclopedia article was none other than the eminent physicist Edward Teller, often considered the father of the American hydrogen bomb. Though it may have appeared at first glance that Morland had expanded upon Teller's work, an examination by four scientists at Argonne National Laboratory demonstrated that this, in fact, was not the case:

Morland's diagrams, although conceptual, *appear* to contain considerably more information than the less detailed Teller diagrams. But do they? . . . [T]he information in the Morland article is scarcely more significant than the Teller diagram, in the sense that everything in Morland's work can be deduced from the Teller diagram or is incorrect or irrelevant, or speculative in the sense that a large experimental program would be needed for verification.

Any competent physicist, explained these Argonne scientists, could have quickly produced the same results. Their conclusion is stark: "It was self-deluding to believe that Morland's article would have accelerated proliferation . . . ."

The reader may wonder why the only reported opinion in this case comes from a district court. Three days after the case was argued to the Seventh Circuit, the *Madison Press Connection* published a letter from another amateur nuclear enthusiast that described the operation of a fusion weapon, including the essential role of this foam. In response to this letter—one that differed from Morland's article in this *crucial particular* (among other discrepancies)—the government "conceded that the secret was indeed out" and "announced that it was abandoning its case." In other words, the government's case that Morland's article posed a danger to national security was mooted by the disclosure of information contained nowhere within his work. The government never offered a satisfactory explanation as to what about Morland's *incorrect* description threatened the nation's security.

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252. *Id.* at 91–92.
253. *Id.* at 108–09.
254. *Id.* at 130.
255. Dumain, supra note 236, at 1331–32.
256. *Id.*
It seems almost certain that the government's proffer of proof would have failed the probability thresholds inherent to the Schenck/Brandenburg and prior-restraint doctrines had the court faithfully applied those doctrines. Additionally, adherence to the doctrines that operationalize the thresholds at least would have focused the court's attention on the minimal (or non-existent) increase in the probability of harm catalyzed by the article, rather than the tremendous magnitude of the threat that drove the court's decision. The result of this failure to implement the probability threshold might well have been the suppression of valuable speech that would have lessened the threat of nuclear war, not increased it. Howard Morland's stated purpose in penning his article had been to expose how easily an enemy nation might gather the information necessary to build a hydrogen bomb and, thus, to spur the U.S. government to act more effectively to prevent nuclear proliferation—without actually aiding any foreign nation in producing such a weapon. By writing a piece that drew attention to this issue but erred on critical questions, Morland may have succeeded in achieving precisely that purpose had the court not blocked publication of his work.

B. THE MODERN WAR ON TERROR AND THE DISCLOSURE OF SENSITIVE INFORMATION

1. The INS Detainee Cases

The judiciary's willingness to rely solely upon highly doubtful—either extremely low-probability or entirely non-existent—prospective harms is not a relic of the Cold War era of nuclear tension. Such an attitude of capitulation in the face of threats at the very end of the probability tail was again manifest in North Jersey Media v. Ashcroft and Detroit Free Press v. Ashcroft, recent Third and Sixth Circuit decisions that upheld the Immigration and Naturalization Service's ("INS") closure of "special interest" INS deportation hearings to the public and the media against First Amendment challenges. The executive branch had deemed these...
hearings "special" in the sense that they involved individuals that the Department of Justice had decided "might have connections to or knowledge of the September 11, 2001, terrorist attacks." As justification for barring access to the hearings, the Department of Justice asserted a number of national-security concerns, each of which relied on a combination of factors or pieces of information that might be employed in tandem by terrorist organizations. The government postulated (and the courts accepted the conclusion) that open hearings might reveal clues that may allow them to thwart the government's efforts to investigate and prevent future acts of violence. . . . [Open hearings] might allow the organization to know that the United States is not yet aware of the attack based on the evidence it presents at the open hearing. . . . [Additionally,] if a terrorist organization discovers that a particular member is detained, or that information about a plot is known, it may accelerate the timing of a planned attack, thus reducing the amount of time the government has to detect and prevent it.

The courts acknowledged that these putative harms were probabilistically uncertain, even as framed by the government. Yet, the likelihood that allowing the public access to these deportation hearings might place the nation's security in danger was not merely uncertain, it was demonstrably miniscule.

In both Detroit Free Press and North Jersey Media, the trial courts already had observed that these hypothetical national-security dangers might come to pass even under a regime of closed hearings. The detainees' attorneys (who had access to the detainees and would be present at the deportation hearings) were permitted to speak to the press and pass along any information they desired, irrespective of the fact that the hearings were closed to the public and to the media. As the District of New Jersey explained:

The problem with the [government's plan for closing the hearings] is that there is nothing in it to prevent disclosure of this very information by the "special interest" detainee or that individual's lawyer, both of whom are permitted to be present in the "special

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261. *N. Jersey Media*, 308 F.3d at 199.

262. Id. at 218.

263. Id. at 219 (“The Newspapers are undoubtedly correct that the representations of the Watson Declaration are to some degree speculative, at least insofar as there is no concrete evidence that closed deportation hearings have prevented, or will prevent, terrorist attacks.”).
interest" proceedings. Furthermore, if an appeal is taken, the transcript of the proceedings below would be disclosed in any event.\(^{264}\)

Any enterprising terrorist who cared sufficiently about the subjects of these hearings would have been able to assemble the same information via the subsequent paper record—and likely at lower cost, since the terrorist would not be required to attend every hearing, a practice that would have required significant expenditures of time and effort and subjected the terrorist to the threat of detection.

The two circuit courts compounded their errors by largely accepting the Department of Justice's allegations of harm at face value, despite the fact that the lower courts had already exposed the logical flaws contained within them. The circuit courts refused to scrutinize the government's assertions, pleading judicial ignorance in the face of superior executive expertise. As the Sixth Circuit explained, "Inasmuch as these agents' declarations establish that certain information revealed during removal proceedings could impede the ongoing anti-terrorism investigation, we defer to their judgment."\(^{265}\) This disengagement with the government's proffered rationales exacerbates the quandary that the probability threshold was meant to counter—an improbable governmental warning of danger, unexamined by judicial gatekeepers, might be employed by the government at any moment as justification for inhibiting speech.

The facts of these cases—and indeed, the district courts' treatment of those facts—reveal that, at best, only very slight marginal gains were available from sealing the hearings. The idea that any national-security risk might accrue beyond that already present seemed highly improbable. (Recall that the operative probability when conducting a cost-benefit analysis is not the simple chance that another act of terrorism will occur but the increase in probability of such an attack as a result of allowing the First Amendment activity to proceed.) Nonetheless, the Third and Sixth Circuits permitted the INS to shutter the deportation hearings, privileging dubious claims of harm in contravention of the probability threshold.

264. *N. Jersey Media*, 205 F. Supp. 2d at 301 (emphasis added); see also *Detroit Free Press*, 195 F. Supp. 2d at 947. The Michigan district court found that:

Each of the interests the government relies upon addresses the dangers associated with disclosing the name of the detainee, as well as the date and place of the detainee's arrest. With respect to the present matter, however, that information was made public from the outset. ... Furthermore, neither in the Creppy directive nor elsewhere does the Government prohibit detainees in special interest cases (or their counsel or families) from revealing that information to the press and public.

*Id.*

265. *Detroit Free Press*, 303 F.3d at 707 ("These agents are certainly in a better position to understand the contours of the investigation and the intelligence capabilities of terrorist organizations."); see also *N. Jersey Media*, 308 F.3d at 219.
2. Center for National Security Studies

Contemporaneously with the closures of INS deportation hearings that gave rise to *Detroit Free Press* and *North Jersey Media*, a number of independent organizations filed Freedom of Information Act ("FOIA") requests with the Department of Justice, seeking disclosure of the names of all individuals "detained in the wake of the September 11th terrorist attacks." The Department of Justice denied those requests, claiming that such information was exempted from disclosure under FOIA's statutory terms. A FOIA request is, of course, not equivalent to a First Amendment claim. But the principles underlying each type of case are the same: the court must balance the value to the public of forcing the government to release certain information against the statistically likely harm that might result. And by its very terms, FOIA imposes what looks very much like a doctrinal probability threshold. Under FOIA (as it is relevant to this terrorism case), the government may classify (and withhold) only:

(7) [R]ecords compiled for law enforcement purposes, or information which if written could be contained in such records, [that] . . . (A) could reasonably be expected to interfere with enforcement proceedings . . . (C) could reasonably be expected to constitute an unwarranted invasion of personal privacy . . . or (F) could reasonably be expected to endanger the life or physical safety of any individual.

In *Center for National Security Studies v. U.S. Department of Justice*, the D.C. Circuit refused to order the government to disclose this information. Providing the names of detainees, explained the court, could interfere with the government's prosecution of the war on terrorism in several ways:

[T]he declarations state that release of the requested information could hamper the ongoing investigation by leading to the identification of detainees by terrorist groups, resulting in terrorists either intimidating or cutting off communication with the detainees; by revealing the progress and direction of the ongoing investigation, thus allowing terrorists to impede or evade the investigation; and by enabling terrorists to create false or misleading evidence.

Just as in the INS detainee cases, the court did not stop to consider that "each of the detainees has had access to counsel, access to the courts, and

266. 5 U.S.C.A. § 552 (West 2005).
267. *Id.*
268. *Id.* at 937.
270. *Id.* at 923.
freedom to contact the press or the public at large" and, thus, that the prisoners themselves were at liberty to reveal all of the facts the Department of Justice maintained were so essentially worth guarding.\textsuperscript{272}

Terrorists probably would value an organized list of post-September 11th detainees more than they would the opportunity to attend the INS hearings at issue in \textit{North Jersey Media} and \textit{Detroit Free Press}. Because such a list has the virtue of aggregating all of the relevant information, terrorists would not be required to gather the data themselves, as they would in the case of either open or closed detainee hearings. Such a list might, therefore, induce a greater increase in the marginal probability of harm than would the opening of the INS hearings. Nonetheless, the marginal value of concealing this information from the public when it might easily escape through other channels was quite small, surely much smaller than the court of appeals was willing to admit.

The reason for the court's decision likely lay within the "magnitude" component of the cost-benefit equation and the possibility that this release could materialize into another terrorist attack. Judge David Tatel suggested as much in dissent: "Neither FOIA itself nor this circuit's interpretation of the statute authorizes the court to invoke the phrase 'national security' to relieve the government of its burden of justifying its refusal to release information under FOIA."\textsuperscript{273} Yet, it was that mere invocation of "national security" that allowed the executive to carry the day—the possibility of a dreadful catastrophe weighed more heavily upon the court than the statistically diminutive harm that the plaintiffs' FOIA request might have been expected to produce. Where a probability threshold might have weeded out this entirely improbable harm and denied it constitutional force (at least without further evidence to support it), the court's unadulterated adventure in balancing resulted in the suppression of speech that very well may have passed the cost-benefit threshold.

\section{VI. Conclusion}

Over the past decades, cost-benefit analysis has assumed an essential or even dominant position within both private- and public-law decisional analysis. Commentators have naturally extended cost-benefit analysis's reach to a variety of constitutional provisions that appear to call, either conceptually or doctrinally, for an explicit balancing of harms and benefits. Foremost among these fields is the First Amendment freedom of speech, which in many of the most important, borderline cases would seem to demand retail balancing of the harms and benefits that a particular act of speech is likely to generate. Commentators have thus read into the First

\textsuperscript{272} \textit{Id.} at 922.

\textsuperscript{273} \textit{Id.} at 939 (Tatel, J., dissenting).
Amendment a demand for precisely this type of straightforward cost-benefit analysis.

Yet the pivotal speech doctrines, as expounded by the Supreme Court, have taken quite a different direction. Rather than requiring unadulterated cost-benefit balancing, the clear and present danger, incitement, fighting words, and prior-restraints doctrines—which together encompass nearly all of the critical cases testing speech against the interests of civil peace and national security—incorporate probability thresholds: floors that define how likely a potential threat must be before it gains constitutional significance and the government can employ it as a justification for suppressing speech. Putative dangers of extremely high magnitude and extraordinarily low probability—contextually improbable wars, riots, or acts of terrorism, for instance—are screened out and shunted aside.

This doctrinal wrinkle presents a puzzle, as it would seem to protect a class of speech acts that would fail an even-handed welfare calculation. But there exists a triptych of reasons to distrust the conclusions that courts might reach were they allowed to balance harms and benefits at retail. First, the government is likely to exaggerate the harms posed by speech in the course of trying to prove its cases, and these inflated harms are more likely to come in the form of low-probability, high-magnitude threats. Second, decision-makers are prone to grave cognitive errors of estimation in the presence of very small probabilities, and when applied to high-magnitude threats, these small errors can have enormous consequences. And third, potential high-magnitude, low-probability harms—wars, riots, acts of terrorism, and the like—are frequently dreadful, fearsome events. Such potential threats tend to provoke strong emotional responses and trigger overwrought reactions from the individuals who must make decisions in their shadow, further skewing the results of such decision-making away from the proper balance between speech and security.

The low-probability threshold acts as a second-best corrective to these problems, screening out those improbable dangers that are most likely to lead courts astray. The alternative—the type of retail balancing that some lower courts stubbornly persist in performing—is a jurisprudence rife with systematic error, as United States v. Progressive and cases from the modern war on terrorism demonstrate. The First Amendment’s probability threshold may be a crude corrective, but it serves as a necessary antidote to our natural—and systematically flawed—cognitive tendencies.

The probability threshold is visible particularly at the boundaries of the First Amendment because the cases at the fringes of those doctrines pose most starkly the choice between the value of uninhibited speech and the dangers that it presents. But many other fields of law have evolved in the presence of common intuitions—if not sophisticated, empirical understandings—of the cognitive errors to which individuals frequently
succumb when confronting small numbers and events of extremely low probability.

Probability thresholds, and other behavioral correctives, may thus exist in many other areas of the law. For instance, commentators have linked such disparate legal doctrines as the business judgment rule and the warrant requirement to the threat of hindsight bias, i.e., the tendency of humans to view an event that has already occurred as more probable (ex ante) than it actually was.274 More particularly, the Equal Protection Clause of the Fourteenth Amendment may harbor yet-unearthed probability thresholds that bar courts from engaging in unencumbered cost-benefit balancing. Among the signature characteristics of equal protection’s heightened scrutiny doctrines is the principle that unproven, hypothesized governmental rationales will not suffice as justifications for upholding presumptively invalid laws that classify people along impermissible lines. A hypothetical justification, or one based on an unreliable prediction, will not suffice; even in cases of intermediate scrutiny, the “significant government interest” alleged must be known to exist to a relative certainty; it cannot be “a judgment hardly proved, a prediction hardly different from other ‘self-fulfilling prophecies.’”275

The importance in the Court’s dismissal of the issue in such a manner lies with the fact that no computation or balancing appears to be taking place. The Court does not weigh the harm’s or benefit’s expected utility as the product of its degree and probability. Rather, it simply disregards it as too improbable to warrant serious consideration. Further research will be required to explore these avenues of inquiry, and the modern behavioral picture of how humans make legally significant decisions demands nothing less.

Over the past decades, law and economics principles have established a place of prominence in private law and regulatory scholarship and a strong foothold in many fields of constitutional law. Courts presented with difficult close cases have turned toward law and economics for guidance as to when and how to balance the competing harms and benefits of constitutionally protected activities. Important work has been done to uncover those areas in which doctrine mirrors and adopts the insights of law and economics.

274. See, e.g., Roselink Investors, L.L.C. v. Shenkman, 386 F. Supp. 2d 209, 224 (S.D.N.Y. 2004) ("[T]he business judgment rule is intended to protect directors against just such attacks because their decisions are not to be second-guessed by courts with the benefit of hindsight."); William J. Stuntz, Warrants and Fourth Amendment Remedies, 77 VA. L. REV. 881, 911 (1991) ("In almost any after-the-fact system of adjudication, decisionmakers must determine whether behavior was appropriate after they know how the behavior turned out.").

275. United States v. Virginia, 518 U.S. 515, 542-43 (1996) (citing Miss. Univ. for Women v. Hogan, 458 U.S. 718, 730 (1982)). The implication is that, regardless of the potential level of harm (and in Virginia, the government’s witnesses had predicted nothing less than the destruction of the very character and importance of the Virginia Military Institute), the harm must reach a certain (high) level of probability for it even to become judicially cognizable.
Important work remains in discovering and critiquing those spheres in which doctrine deviates from the standard predictions of law and economics and draws upon even deeper insights into the contours of boundedly rational decision-making.