

TRUE AND FALSE SPEECH

CHRISTOPHER P. GUZELIAN*

Abstract: First Amendment law is structurally unstable because it does not adequately distinguish true and false speech. Free speech law, therefore, is “unpredictable,” meaning that speakers cannot accurately predict whether their contemplated speech will suffer sanction. Unpredictable law causes the Rule of Law’s collapse. This Article demonstrates that an effective first step in improving First Amendment law would be to create well-defined liability for false speech. We conclude that, in particular, scientific speech—a form of speech readily determined to be true or false—must face additional scrutiny. Anticipating serious objections to formalized false-speech liability, we then show that these objections, interestingly, apply with equal force to *any* form of legal liability. The implication of this fact is that rejection of this Article’s modifications to First Amendment law requires deep reconsideration about how we should administer most legal liability, not only First Amendment law.

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[T]here is no constitutional value in false statements of fact.

—Gertz v. Robert Welch, Inc., 418 U.S. 323, 340 (1974)

INTRODUCTION

This Article explores the tension between two of the First Amendment's major goals: protecting speech from legal liability and permitting government-sanctioned liability for false speech.¹ To strike the appropriate balance of these competing First Amendment interests, establishing standards for determining whether a particular speech is true or false is essential. This Article demonstrates, however, that there is disturbingly little discussion in First Amendment law or literature about either the need for or the nature of standards that distinguish truth and falsity of speech.

First Amendment law, like all law, must be *predictable* to function. By predictable, we mean that anyone who could be subjected to liability understands *prior to* acting or speaking what the legal implications of her act or speech will likely be. Predictable First Amendment law is not possible so long as there is vast disparity and confusion about what speech is "true" and what speech is "false." We accordingly present a careful method for determining whether a particular speech is "true" or "false." A major implication of our efforts to establish this method is that *true scientific speech* and *false scientific speech* should each become a stand-alone First Amendment speech category because scientific speech is perhaps the best example of a statement of fact.

To clarify the distinction between true and false speech, this Article must necessarily make other novel proposals. For instance, to determine the truth or falsity of scientific speech, we show that the use of systematic rules for appraising the quality of scientific evidence—collectively called evidence-based rules—is necessary to properly ad-

¹ Many people refer to the need to protect "free speech." The expression "free speech" must be defined carefully, but often is not. It can have multiple, mutually exclusive meanings. Under the most extreme understanding of "free speech," *any* legal liability for speech is, by definition, undercutting "free speech," and thus every case that upholds a government restriction of speech is decried as a dreaded "chilling of speech." There is another understanding of "free speech" that refers to the process of properly balancing the value of leaving speech maximally free of liability yet regulating unprotected speech. Under this understanding, "chilling of speech" does not occur in every instance when speech regulations by the government are upheld, but only when the balancing of a speech's harms and benefits is improperly conducted. Principled study of settled First Amendment jurisprudence reveals that *only* the latter definition of "free speech" has been judicially recognized. See, e.g., *Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n*, 447 U.S. 557, 564 (1980); *United States v. O'Brien*, 391 U.S. 367, 382 (1968).

judicate whether a given scientific claim is true or false. Judicial adoption of such evidence-based protocols would largely eliminate reliance on scientific expert opinions in court. This Article also scrutinizes the current patchwork of rules (such as the famous *New York Times Co. v. Sullivan* actual malice standard) by which First Amendment law attempts to prevent “boundless” liability for false speech. Finding this hodgepodge of current limitations on false-speech liability to be either ineffective or unpredictable, this Article proposes the use of so-called “predictable negligence” rules, which limit liability to avoidable and unnecessary false speech that is empirically demonstrated to have resulted in injury. This Article demonstrates that if predictable negligence were to replace current standards such as actual malice, First Amendment law will be theoretically better at deterring the most objectionable instances of false speech while still ensuring adequate free speech protections.

Unsurprisingly, we anticipate significant objections to the proposed modifications of First Amendment law. Indeed, we ourselves present several obvious concerns.² Nevertheless, this Article demonstrates that the most serious objections to the proposals apply to *any* form of liability, not just First Amendment cases. Therefore, a reader should realize that if one rejects the efforts to clarify true- and false-speech liability, the necessary alternative is deep reconsideration about whether and how most legal liability, not simply First Amendment liability, should be wielded.

This Article is sequential—it is best read straight through. Part I examines why it is vital in law that liability be predictable,³ and Part II explains the need for predictability in a First Amendment context.⁴ Part III reveals that defamation, a supposedly well-settled area of First Amendment law involving false speech, is actually unpredictable at its core.⁵ Expanding on the previous section, Part IV examines false speech in general (not just defamation) and how law that addresses false speech can be made predictable.⁶ Part V then concludes that to make First Amendment law more predictable, true and false scientific speech in particular should become explicit categories of First Amendment speech content, receiving greater and lesser constitu-

² See *infra* notes 153–160 and accompanying text.

³ See *infra* notes 12–24 and accompanying text.

⁴ See *infra* notes 25–35 and accompanying text.

⁵ See *infra* notes 36–56 and accompanying text.

⁶ See *infra* notes 57–101 and accompanying text.

tional protections, respectively.⁷ Part V also states that to adjudicate effectively the truth or falsity of scientific speech, systematic evidentiary rules known as evidence-based rules must replace the current system of expert testimony in court.⁸ Part VI then examines how liability can be limited in free speech cases without resorting to the current ineffective or unpredictable hodgepodge of legal rules that create limitations on liability.⁹ Part VII points out that those key concepts introduced in this Article—those having to do with clarifying true and false speech distinctions—are universally applicable concepts for improving the predictability of *any* form of law, First Amendment or otherwise.¹⁰ Part VIII indicates that even the most ideally predictable liability in theory may not translate to *predicted* liability in practice.¹¹ As a consequence, it is conceded that theoretical improvements to law may not cause the public to improve its response to threats of legal liability in practice.

I. PREDICTABLE LIABILITY

In the 1930s, Nobel Laureate Friedrich Hayek famously cautioned that one thing separates a democracy's "Rule of Law" from totalitarianism: a collective social commitment to enact and respect *predictable laws*—laws whose application could be predicted by social actors *at the time of their actions*.¹² Predictable law, Hayek said, would allow social actors to refrain from unnecessarily and avoidably risky behavior.¹³ Hayek contended that *unpredictable laws*, by contrast, are perceived as (and often are) political instruments designed and used to further political ends and cronyism.¹⁴ Hayek's famous insight was that the introduction of numerous unpredictable laws ultimately leads to the collapse of the Rule of Law in society.¹⁵

Despite Hayek's and many others' lucid advocacy of predictable law, some still claim that law properly serves purposes apart from or

⁷ See *infra* notes 102–112 and accompanying text.

⁸ See *infra* notes 102–108 and accompanying text.

⁹ See *infra* notes 113–126 and accompanying text.

¹⁰ See *infra* notes 128–152 and accompanying text.

¹¹ See *infra* notes 153–160 and accompanying text.

¹² F.A. HAYEK, *THE ROAD TO SERFDOM* 54–65 (7th prtg. 1946). Hayek originally referred to neutral laws instead of predictable laws. See *id.*

¹³ *Id.* at 56, 60.

¹⁴ *Id.* at 56–57.

¹⁵ *Id.* at 59.

even contradictory to predictability.¹⁶ At least one scholar in fact contends that law cannot be predictable. Nathan Adams, for instance, has recently penned a satire in which a law that restricts driving to the right-hand side of the road in the fictional Land of Idd gradually gives way to social revolt and fails.¹⁷ The reason for this outcome, he says, is that there is no objective truth as to “which side [of the road] is the correct one to drive on”¹⁸ To Adams, moral relativism is the only truth.¹⁹ Every law involves arbitrary choices of a standard, and every law is therefore unpredictable, meaning that laws are simply a reflection of the ruling authority’s political whim.²⁰

Is Hayek right or is Adams right? Although Adams may be right to say that all laws are more or less arbitrary bundles of rules, it does not follow, as Professor Eugene Volokh has demonstrated, that all laws are equally unpredictable and equally susceptible to “slippery slope” collapse because of social, political, and economic self-interests.²¹ Adams’s own parable undermines his point: American laws confining drivers to the right-hand side of the road have not weakened or collapsed and neither have British laws restricting drivers to the left-hand side. Thus, even if laws are always somewhat arbitrary, they need not be unpredictable.

So if laws can be predictable, what makes them so? We suggest that predictability is improved if a law is fashioned wherever possible upon relevant *objective* facts (i.e. knowledge). This is because people must be able to ascertain whether their contemplated behavior will cause an unnecessary and avoidable risk. Only then can they decide whether to modify their behavior to avoid liability for it. We can use Adams’s example to make this point: the fact that no two cars can occupy the same space at the same time compels a lane rule for traffic orderliness to avoid the dual risks of gridlock and collisions. If that

¹⁶ See, e.g., *infra* notes 17–21 and accompanying text. But a modern rise in the number of unpredictable laws has caused numerous legal scholars to begin restating Hayek’s caution about safeguarding the Rule of Law. See Christopher P. Guzelian, *The Kindynamic Theory of Tort*, 80 IND. L.J. 987, 990, 1007–09 (2005) [hereinafter Guzelian, *Kindynamic Theory*] (quoting theorists who reject the concept that legitimate law may have contradictory aims).

¹⁷ Nathan A. Adams, IV, *Jurisprudence Without Moral Consensus: Constitutional Arguments in Idd for Driving on the Right or Left Side of the Road*, 13 CONST. COMMENT. 101, 101–05 (1996).

¹⁸ *Id.* at 106.

¹⁹ See *id.*

²⁰ See *id.* at 103–06. See generally THOMAS GEOGHEGAN, *THE LAW IN SHAMBLES* (2005) (discussing the ways that politics has undercut the Rule of Law in American courts).

²¹ See Eugene Volokh, *The Mechanisms of the Slippery Slope*, 116 HARV. L. REV. 1026, 1029 (2003) (contending that not all laws and rules are equally susceptible to collapse).

fact were unknown, obscured by people's beliefs, rejected because of outright skepticism that objective facts exist, or became false (say, because technological advances permitted cars to pass through each other harmlessly), a right-hand side lane restriction would not just be seen as arbitrary, but as unpredictable.²²

Why we are discussing the need for predictable liability may still seem vague right now. This paper gradually fills in details. What can be said here is that common law (e.g. tort) and even constitutional jurisprudence have fostered the creep of unsavory politics by creating many unpredictable laws—rules formulated in disregard of objective facts.²³ An example of this is First Amendment false speech law, but as we shall show, the principle is more general. Where possible, laws should instead conform to facts to resist the forces of political expediency and moral relativism.²⁴

II. THE NEED FOR PREDICTABLE CONSTITUTIONALIZED SPEECH LIABILITY

The reason we have begun this Article with a discussion of *general* liability principles is because speech liability (i.e. First Amendment law) is closely related to regular liability. We can gain great insight into general liability principles by understanding free speech law principles.²⁵

Before our discussion of speech liability can begin, we must pause to note that we will be treading in a territory that is uncomfortable to many First Amendment scholars. In this author's experience, most Americans are "absolutist" free speech advocates who become fussy at any discussion of speech liability. There are two types of absolutists: *orthodox* and *semi-strong*. Orthodox absolutists question whether *any*

²² Cf. *United States v. Causby*, 328 U.S. 256, 260–61 (1946) (overturning ancient aerial property laws abruptly because of the invention of airplanes).

²³ Some liability creep may be attributable to an inevitable human tendency to rely on intuition about what attributes are relevant in determining the blameworthiness of a behavior. See Paul H. Robinson, *Some Doubts About Argument by Hypothetical*, 88 CAL. L. REV. 813, 823–25 (2000). The problem is that intuition often rests upon factually incorrect inferences. See *id.* at 820–21.

²⁴ Equally important, philosophical skeptics cannot be permitted to wreck social stability by claiming, in practical legal settings, the right to dispute that humans have access to objective knowledge. See Keith DeRose, *Contextualism and Knowledge Attributions*, 52 PHIL. & PHENOMENOLOGICAL RES. 913, 924–28 (1992) (arguing that contextually invariant skepticism is an inappropriate rhetorical tactic).

²⁵ In Part VII, we will be able to generalize some of our conclusions about predictable speech liability to *all* forms of liability. See *infra* notes 128–152 and accompanying text.

legal liability for speech is permissible under the First Amendment.²⁶ But the Supreme Court has repeatedly and clearly stressed that *some* speech liability is constitutionally valid.²⁷ The camp of semi-strong absolutists is different from orthodox absolutists in that it acknowledges that legal liability is appropriate for some speech.²⁸ But it also asserts that all speech liability requires stronger or different justification than liability for all other forms of behavior *because of the First Amendment*.²⁹

In one sense, semi-strong absolutists are correct that speech liability should be different than other liability. Thankfully, our Constitution does explicitly assure us a freedom of speech, apart from the regulation of other forms of behavior. *Marbury v. Madison* allowed the Supreme Court to discover (i.e. establish) First Amendment law through the power of judicial review.³⁰ The Court, in other words, is the final authority in setting speech regulations. Yet in another sense, what semi-strong absolutists fail to see is that just because the Court has exclusive power to *constitutionalize* rules governing free speech, this does not mean that the rationale by which the Court limits speech liability should differ from its rationales for limiting other forms of liability *if the*

²⁶ See, e.g., Howard Rheingold, *Why Censoring Cyberspace Is Futile*, 6 COMPUTER UNDERGROUND DIG., at file 2 (1994), <http://cu-digest.org/CUDS6/cud6.40> (arguing that absolutely no government regulation of cyberspace speech is acceptable).

²⁷ See, e.g., *Gertz v. Robert Welch, Inc.*, 418 U.S. 323, 341 (1974) (“The need to avoid self-censorship by the news media is, however, not the only societal value at issue. If it were, this Court would have embraced long ago the view that publishers and broadcasters enjoy an unconditional and indefeasible immunity from liability . . .”); *Chaplinsky v. New Hampshire*, 315 U.S. 568, 571–72 (1942) (holding that certain categories of speech content had always been denied First Amendment protection).

²⁸ From experience, most self-proclaimed “absolutists” are not orthodox absolutists, but rather semi-strong. What “absolutists” usually mean by their label is that their *valuation* of unfettered free speech is so large that no *additional* government restrictions on speech should be permitted beyond those currently in existence. The way to tell whether you are speaking to an orthodox absolutist or rather a semi-strong absolutist is to ask, “Do you reject *any* restrictions on speech, including any that the Supreme Court has constitutionalized? For example, was the Supreme Court in *New York Times Co. v. Sullivan* wrong to allow *any* form of libel action for public officials? Or are fraud and perjury charges unconstitutional?” If the person says “yes,” you are speaking to an orthodox absolutist. If the person says “no,” it means the person’s valuation of speech is not infinite, just very large!

²⁹ See FREDERICK SCHAUER, *FREE SPEECH: A PHILOSOPHICAL ENQUIRY* 8 (1982) (“[I]f the state needs no stronger justification for dealing with speech than it needs for dealing with other forms of conduct, then the principle of freedom of speech is only an illusion.”).

³⁰ See *generally* 5 U.S. (1 Cranch) 137 (1803) (establishing the Court’s power of judicial review). Years later, the Court stated: “It matters not that [a speech restriction] has been applied in a civil action and that it is common law only The test is not the form in which state power has been applied but, whatever the form, whether such power has in fact been exercised.” *N.Y. Times Co. v. Sullivan*, 376 U.S. 254, 265 (1964).

*Court were to render liability predictable.*³¹ The point of predictable liability is that *anyone* (not just Supreme Court justices) should be able to accurately discover the pertinent rules for a given speech. Although the Supreme Court has final authority to check lower courts' speech decisions, it does not bestow the Court with the ability to create unpredictable rules where predictable rules are possible.

Absolutists should, therefore, at least recognize the concept that we advance throughout the remainder of this Article: speech law and other forms of law are actually quite similar conceptually, and rules for governing conduct and speech should therefore be more uniform than they are currently. Indeed, speech can cause the same legally cognizable injuries as can other forms of behavior: fear, emotional distress, physical injury or loss of life (e.g. by incitement, fighting words, or misleading product marketing), aiding/abetting criminal conduct, property damage (including cyber-property), invasion of privacy, commercial injury, disclosure of sensitive government secrets, intellectual property dilution or loss, forgery, damage to reputation (through defamation), financial loss (through fraud or unfair competition or accounting error), or misled juries (through perjury). From these examples, it is readily apparent that speech, just like conduct, can be the cause of a civilly or criminally punishable injury. For this Article's purposes, let us call such an injury a "speech tort."³²

Commentators and scholars frequently debate whether courts strike the right First Amendment balance in speech torts. It is easy to talk about or criticize such balancing in the abstract. The hard task for courts is to assess whether and what imposition of liability in a particular speech tort is appropriate.³³ A silly example confirms why predict-

³¹ Also, do not misunderstand our discussion as suggesting either that: (1) constitutionalization of speech liability established by the common law is inappropriate; or (2) bygone common-law defamation rules were better proxies of predictable rules than constitutionalized standards have been. In response to the first matter, constitutionalization of all common-law speech liability must and will happen; the First Amendment compels it. *See* U.S. CONST. amend I. Regarding the second matter, few states have common-law tort rules that even partly conform to predictable liability principles. *See infra* notes 45–56 (citing a variety of contexts in which unpredictable liability rules arise).

³² *See* Ronald B. Standler, Infotorts 2 (2006) (unpublished manuscript, <http://www.rbs2.com/infotort.pdf>) (discussing a new class of torts, in which communicated information harms someone). The *injury* complained of in a speech tort could also be the basis of a judicially recognized *non-speech* tort or criminal action. It all depends on what caused that injury: speech or omission of speech, or conduct or omission of conduct.

³³ Others have made similar observations about the need to create workable standards for *specific* applications of *general* constitutional decrees. *See, e.g.*, ANTONIN SCALIA, A MATTER OF INTERPRETATION: FEDERAL COURTS AND THE LAW 148 (1997). Justice Scalia states:

able rules are necessary for effective First Amendment balancing. Suppose the following rule were discovered by the Supreme Court to be based on the Constitution:

Octogenarians with purple mohawks are automatically liable for alleged speech tort injuries. All other speakers are absolved of liability.

This rule is unpredictable. It determines First Amendment speech protections by determining three particular facts about a speaker: age, hair color, and hairstyle. There would not be a lot of speech liability if all speech torts turned on this rule. The resulting rarity of speech liability might tempt us, particularly if we are of an absolutist bent, to think we are upholding our free speech values and that we have struck the correct First Amendment balance. We are not and we have not, though.³⁴ There just are not many octogenarian punk rockers to sue. (And those who do exist will be forced silent by the threat of liability under an unjust First Amendment rule.)

So, even if the Supreme Court has the constitutional authority to do otherwise, it must avoid constitutionalization of unpredictable rules.³⁵ Yet as the next section will show, this has not occurred.

I certainly do not assert that [the Equal Protection Clause] permits discrimination on the basis of age, property, sex, "sexual orientation," or for that matter even blue eyes and nose rings. Denial of equal protection on *all* of these grounds is prohibited—but that still leaves open the question of what *constitutes* a denial of equal protection. Is it a denial of equal protection on the basis of sex to have segregated toilets in public buildings, or to exclude women from combat?

Id.

³⁴ Categorically silencing eighty-year-olds with spiked purple hair will do little (if anything) to deter significant speech tort injuries. Simultaneously, nearly all of the value of these octogenarians' free speech is lost if they perceive the threat of liability as credible.

³⁵ Once judicially adopted, unpredictable rules have constitutional precedent. *See, e.g., Sullivan*, 376 U.S. at 279–80. That is problematic because constitutionalization makes it considerably harder to back up and replace unpredictable rules with predictable rules (which themselves must continuously evolve, as we will see, to accommodate the evolution of knowledge). Eventually cases will arise in which predictable and unpredictable liability lead to *different* liability conclusions. At that point, the Court will either ignore the "hard" outlier instances of regulated speech (which only delays the inevitable day when it must hear them), try to patch up the "hard" cases with additional unpredictable rules, or admit that its constitutionalized unpredictable rules were not so desirable after all.

III. DEFAMATION & ACTUAL MALICE: AN UNPREDICTABLE CONSTITUTIONALIZED CORE RULE

Among speech torts, defamation has experienced the most extensive constitutionalization by far. Prior to the U.S. Supreme Court's 1964 decision in *New York Times Co. v. Sullivan*, each state had its own common-law defamation laws.³⁶ *Sullivan* kicked off the constitutionalization of defamation.³⁷ A spate of subsequent constitutional defamation decisions (each applying or modifying the "core" *Sullivan* rules for other litigated speeches) has largely displaced common-law defamation rules.³⁸

Many commentators say that they like the balance struck in the Supreme Court's defamation cases. One is forced to respond by saying something that initially sounds completely heretical: established defamation precedent is wrong.³⁹ Before you elect to smite this author with a legal locust swarm or cast him into juristic purgatory, please take note what we are not claiming. We are not saying that the Court thus far has reached the wrong outcomes in its constitutionalized

³⁶ See 376 U.S. 254, 268–69 (1964).

³⁷ See *id.* at 269. The Court stated that:

[W]e are compelled by neither precedent nor policy to give any more weight to the epithet "libel" than we have to other "mere labels" of state law. Like . . . various other formulae for the repression of expression that have been challenged in this court, libel can claim no talismanic immunity from constitutional limitations. It must be measured by standards that satisfy the First Amendment.

Id. (citation omitted).

³⁸ See, e.g., *Gertz v. Robert Welch, Inc.*, 418 U.S. 323, 350 (1974) (utilizing the actual malice standard set forth in *Sullivan* for a libel action with presumed or punitive damages); *Monitor Patriot Co. v. Roy*, 401 U.S. 265, 277 (1971) (utilizing the actual malice standard for a libel action involving a public official's private conduct). Justice White in his dissent in *Gertz* pointed out that "using . . . [the First] Amendment as the chosen instrument, the [*Sullivan*] Court, in a few printed pages, has federalized major aspects of libel law by declaring unconstitutional in important respects the prevailing defamation law in all or most of the 50 States." 418 U.S. at 370 (White, J., dissenting).

Once or twice the Court has asserted that defamations under certain factual circumstances *did not* require constitutionalization. See, e.g., *Dun & Bradstreet, Inc. v. Greenmoss Builders, Inc.*, 472 U.S. 749, 761 (1985) (holding that the actual malice standard did not apply in a defamation case not involving matters of public concern). In actuality, the Court *did* constitutionalize defamation; under similar fact patterns to these rare cases, "constitutionalization" means leaving defendants at the mercy of state common law. Presumably, if state common law were modified to impose excessive liability in similar factual circumstances, the Court could revisit its decision to "leave" regulation of that speech to states.

³⁹ Christopher P. Guzelian, *Scientific Speech*, 93 IOWA L. REV. 881, 910–17 (2008) [hereinafter Guzelian, *Scientific Speech*].

defamation jurisprudence.⁴⁰ We are making no claim whatsoever about the propriety of those outcomes. The objection is that in getting those results, the Court constitutionalized unpredictable rules.

One example of an unpredictable core defamation rule is the “actual malice” standard from *Sullivan* and *Gertz v. Robert Welch, Inc.*⁴¹ As a practical matter, this standard offers the media nearly insurmountable protection from suits by public figures and punitive damage claims by private figures. Granted, we American absolutists do not want a lot of defamation suits to prevail as a consequence of our regard for freedom of speech. Yet just like an unpredictable rule that turns on a speaker’s age or hair color, a speaker’s *intent* is uncorrelated with the *risk* of his speech’s resulting in injury.⁴² Justice Byron White perceived this point well: “Why a defamatory statement is more apt to cause injury if the lie is intentional than when it is only negligent, I fail to understand. I suggest that judges and juries who must live by these rules will find them equally incomprehensible.”⁴³

What is worse is that precisely because the First Amendment requires the Court to constitutionalize other speech torts, the temptation will be to adopt these same unpredictable defamation standards for other causes of action.⁴⁴ Indeed, some lower courts are doing ex-

⁴⁰ See, e.g., *Phila. Newspapers, Inc. v. Hepps*, 475 U.S. 767, 776 (1986) (refusing to apply common-law defamation rules and instead requiring that the private figure plaintiff bear the burden of showing falsity and fault before recovering damages); *Gertz*, 418 U.S. at 348–50; *Sullivan*, 376 U.S. at 283–84.

⁴¹ *Gertz*, 418 U.S. at 334; *Sullivan*, 376 U.S. at 279–80.

⁴² See *infra* notes 59–79 and accompanying text.

⁴³ *Gertz*, 418 U.S. at 395 (White, J., dissenting). One might respond that the actual malice rule exists only to preserve the benefits of free speech, and has nothing to do with the speech’s risks. But if speech rules truly were concerned only with preserving the benefits of speech, the appropriate rule would still not be the actual malice standard. It would instead be: “No speech liability, ever” —the orthodox absolutist standard that the Supreme Court has long rejected. See *supra* notes 26–27 and accompanying text.

Contrast the actual malice rule with the public/private figure defamation rule, which logically seems much more like a rule designed to optimally balance deterrence of speech harms and preservation of speech benefits. In other words, the rule seems to be a predictable rule. (Whether the public/private figure defamation rule *is* a predictable rule is an empirical question.) The Court has observed that public figures have a greater capacity to defend themselves against libel (the *risk* of character injury is allegedly lower for attacks on public figures because of their ability to publicly offset the allegations), and speaking out against public figures is believed to be worthy of greater First Amendment protection than speech relating to private figures (the *benefit* of speech against public figures, even if libelous, is higher). See *Gertz*, 418 U.S. at 345 (“[P]rivate individuals are not only more vulnerable to injury than public officials and public figures; they are also more deserving of recovery.”).

⁴⁴ See *infra* notes 45–56 and accompanying text.

actly this by applying the actual malice rule to other types of First Amendment claims, such as intentional infliction of emotional distress and commercial speech suits.⁴⁵ Courts are entertaining numerous other speech torts and crimes besides defamation, and the specter of unpredictable rules can arise in various contexts: commercial injuries,⁴⁶ unfair competition or trademark law,⁴⁷ fraud,⁴⁸ trade libel,⁴⁹ perjury,⁵⁰ group libel,⁵¹ obscenity or child pornography,⁵² incitement,⁵³ intimidation,⁵⁴ invasions of privacy,⁵⁵ and negligent or intentional infliction of emotional distress or fear.⁵⁶

⁴⁵ See Guzelian, *Scientific Speech*, *supra* note 39, at 913–17. See generally Alfred C. Yen, *A First Amendment Perspective on the Construction of Third-Party Copyright Liability*, 50 B.C. L. REV. 1481 (2009) (applying First Amendment liability theories to third-party copyright liability).

⁴⁶ See *Va. State Bd. of Pharmacy v. Va. Citizens Consumer Council, Inc.*, 425 U.S. 748, 771–72 (1976) (“Obviously, much commercial speech is . . . deceptive or misleading. We foresee no obstacle to a State’s dealing effectively with this problem. The First Amendment, as we construe it today, does not prohibit the State from ensuring that the stream of commercial information flow cleanly as well as freely.”) (footnote omitted).

⁴⁷ See *McNeil-PPC, Inc. v. Pfizer, Inc.*, 351 F. Supp. 2d 226, 251 (S.D.N.Y. 2005) (finding Lanham Act claim of mouthwash’s equal effectiveness in removing plaque to be misleading advertising because clinical studies were not “sufficiently reliable to permit one to conclude with reasonable certainty that Listerine is as effective as floss in fighting plaque and gingivitis”).

⁴⁸ See *Collins v. Morgan Stanley Dean Witter*, 224 F.3d 496, 501 n.7 (5th Cir. 2000) (construing Texas law to require the following elements for a fraud action: “(1) that a material representation was made; (2) that it was false; (3) that the speaker knew it was false when made or that the speaker made it recklessly without any knowledge of the truth and as a positive assertion; (4) that he made it with the intention that it be acted upon by the other party; (5) that the party acted in reliance upon it; and (6) damage”) (emphasis omitted).

⁴⁹ See *Auvil v. CBS “60 Minutes,”* 800 F. Supp. 928, 931, 933–35 (E.D. Wash. 1992) (allowing disparagement claims against CBS by apple farmers, even though none of the statements in the broadcast was “of and concerning” any of the specific 4700 members of the state’s red apple farming industry).

⁵⁰ See *United States v. Dunnigan*, 507 U.S. 87, 96 (1993) (“[A] defendant’s right to testify does not include a right to commit perjury.”).

⁵¹ See *Beauharnais v. Illinois*, 343 U.S. 250, 258, 263 (1952) (finding contentions that implicate an entire race’s behavioral attributes “libelous”).

⁵² See *Miller v. California*, 413 U.S. 15, 24–25 (1973) (defining obscenity as “(a) whether ‘the average person, applying contemporary community standards’ would find that the work, taken as a whole, appeals to the prurient interest; (b) whether the work depicts or describes, in a patently offensive way, sexual conduct specifically defined by the applicable state law; and (c) whether the work, taken as a whole, lacks serious literary, artistic, political, or scientific value”) (citation omitted).

⁵³ See *Brandenburg v. Ohio*, 395 U.S. 444, 447 (1969) (per curiam) (striking down a state statute as too broad because incitement occurs only when “advocacy is directed to inciting or producing imminent lawless action and is likely to incite or produce such action”).

⁵⁴ See *Virginia v. Black*, 538 U.S. 343, 362–63 (2003) (upholding a statute permitting felony convictions of individuals who burned crosses with intent to intimidate).

Given how remarkably precedent-based law tends to be, it is quite important that the constitutionalization of these torts be predictable wherever possible so that precedent has a sound basis. Our subsequent aim in this Article will be to think critically about how to constitutionalize laws that are predictable for a major subcategory of speech torts, so-called “false speech torts,” of which defamation is but one member.

IV. THREE PROBLEMS WITH CURRENT LEGAL UNDERSTANDINGS OF “FALSE” SPEECH

Defamation is a fascinating speech tort. Besides being the most constitutionalized, it belongs to a class of speech torts called the false speech torts (e.g. defamation, fraud, false advertising, false light, or some fear or emotional distress lawsuits). Because the question of a speech’s falsity or truthfulness arises commonly in speech torts, it is a core question in First Amendment cases.⁵⁷

⁵⁵ See *Time, Inc. v. Hill*, 385 U.S. 374, 385 n.9 (1967) (“Many ‘right of privacy’ cases could in fact have been brought as ‘libel per quod’ actions, and several have been brought on both grounds.”).

⁵⁶ See *Hustler Magazine, Inc. v. Falwell*, 485 U.S. 46, 53, 57 (1988) (recognizing value of intentional infliction of emotional distress claim in general, but rejecting specific claim where jury had found that the speaker made no assertion of fact); *Cowras v. Hard Copy*, 56 F. Supp. 2d 207, 211 (D. Conn. 1999) (holding media defendants liable under a negligent infliction of emotional distress claim because they “made no attempt to ascertain the truth for fear of killing what they believed was a ‘great story’”). But cf. Karen Markin, *The Truth Hurts: Intentional Infliction of Emotional Distress as a Cause of Action Against the Media*, 5 COMM. L. & POL’Y 469, 488–91 (2000) (noting that many courts award intentional infliction of emotional distress (“IIED”) damages for specific newsgathering activities, but that few have thus far recognized content-based IIED harms by the media). See generally Christopher P. Guzelian, *Liability & Fear*, 65 OHIO ST. L.J. 713 (2004) [hereinafter Guzelian, *Liability & Fear*] (arguing that misleading risk communication can cause legally cognizable fear or emotional distress harms).

⁵⁷ Curiously, not all courts appear to agree yet with the principle that the truth or falsity of a speech can be a relevant consideration in determining whether to hold a speech liable for injuries that it causes. For instance, in 1985 in *American Booksellers Ass’n v. Hudnut*, the U.S. Court of Appeals for the Seventh Circuit (years after the Supreme Court held in *Gertz v. Robert Welch, Inc.* that “there is no constitutional value in false statements of fact”) held that:

Under the First Amendment the government must leave to the people the evaluation of ideas. Bald or subtle, an idea is as powerful as the audience allows it to be. A belief may be pernicious—the beliefs of Nazis led to the death of millions, those of the Klan to the repression of millions. A pernicious belief may prevail . . . [because] *the Constitution does not make the dominance of truth a necessary condition of freedom of speech*. . . . Under the First Amendment, . . . there is no such thing as a false idea, so the government may not restrict speech on the ground that in a free exchange truth is not yet dominant.

Precisely because liability in false speech torts requires speech to be “false,” it is important that we understand what about “false speech” is false. Curiously, there seems to be no clear legal agreement. The term is understood at some gross level of abstraction. For example: we publish something “false” about an actress having extramarital affairs, and subscribers read it and believe us. The actress ultimately suffers a material injury to reputation: “defamation.” By contrast, displaying child pornography can result in speech liability, but it is not a false speech tort.⁵⁸ Thus, it is quite easy to determine whether a speech tort *turns on* a truth or falsity rule. But it is a far more difficult matter to

Am. Booksellers Ass’n v. Hudnut, 771 F.2d 323, 327–28, 330, 331 (7th Cir. 1985) (emphasis added) (citation omitted); *see also* Gertz v. Robert Welch, Inc., 418 U.S. 323, 340 (1974).

Such jurisprudential rhetoric—a violently negative reaction to the concept that the First Amendment can function to restrict false speech—is astonishingly broad. It seems to imply that the First Amendment is a suicide pact for truth. Modern legal scholars, however, criticize thinking such as the Seventh Circuit’s as outdated attempts to adhere to the flawed “marketplace model” of speech, in which the government’s dominant strategy is not to intervene to ensure that truth prevails. For example, Professor Jeff Stake notes that not all transmissible ideas (often called “memes”) are equally well perceived, and that regulation may be necessary to ensure that good speech (i.e. true speech) prevails:

It becomes harder to defend the position that we should let any and all ideas exist once we know that it is impossible for all ideas to coexist in one environment and that some ideas will work to kill off others. By stopping the replication of some ideas, we may be able to preserve many more from extinction. Herbert Spencer proclaimed that survival of the fittest was not just nature’s way, it ought to be our way. That fallacy, of drawing “ought” from “is,” is just as morally wrong for memes as it is for genes. . . .

. . . Jefferson, Holmes, and Brandeis believed that bad speech can be countered with good speech. . . . When they wrote, evolutionary theory had not yet been applied to ideas. It is time to replace the marketplace metaphor with a better one, the primeval soup. In this primeval soup, some ideas survive and some do not. And we are part of the soup, the environment, and have some power to influence the results. But we are not in complete control of our memes. And the ideas that eventually survive in this primeval soup will not necessarily be our friends.

Jeffrey Evans Stake, *Are We Buyers or Hosts? A Memetic Approach to the First Amendment*, 52 ALA. L. REV. 1213, 1243, 1266–67 (2001); *see also* Oliver R. Goodenough, *Cultural Replication Theory and Law: Proximate Mechanisms Make a Difference*, 30 VT. L. REV. 989, 992–93, 1002–04 (2006) (explaining how cultural transmissions occur through the replication of actions divorced from ideas which can have implications for the kind of information the law transmits); Deana Pollard Sacks, *Speech Torts* (forthcoming 2010) (arguing that where speech can be objectively verified as factually false, it is entitled to less exacting First Amendment scrutiny).

⁵⁸ Child pornography is not “false”; the reason it is civilly or criminally sanctioned is because it employs underage actors in sexual acts. *See* New York v. Ferber, 458 U.S. 747, 756–64 (1982) (listing reasons why states have more latitude to regulate child pornography). *But cf.* Ashcroft v. Free Speech Coal., 535 U.S. 234, 250–51, 258 (2002) (protecting computer-generated, “virtual” child pornography).

know what standard to apply to determine truth or falsity. As we shall see below, “falsity” as currently administered by courts is an unpredictable rule. This is quite disturbing, insofar as the protection of much speech under the First Amendment turns in large part on its “truth” or “falsity.”

Upon closer examination, we shall discover that there are three problems with current legal definitions of “falsity” that make it an unpredictable rule. Each of the next three subsections highlights one of these problems.

A. *Bullshit*

Suppose Joe says, “John shot his wife,” and we know John has never handled a weapon. Most say the statement is false. Simple, right? Look at the literal words and determine their truth. But say John is a photographer who took his wife’s picture while Joe watched. Is Joe’s statement still false? The statement itself did not change. It is the same literal words. But we now have additional details that make the speech true. If we lacked that background knowledge at the time we heard the speech, but were later informed of it, we might well say Joe’s statement was “misleading.”

So what does it mean when we say that speech is “misleading”? It means that the *perception* the audience takes away—or to say it differently, the speech’s *implication*—was false. Too often, casual judicial reference to “false speech” or “false and misleading speech” or “false or misleading speech” confuses literal falsity and false perceptions. The two forms of falsity are not the same. Although frequently not followed, the Supreme Court has established that perceptions are what ultimately matter for First Amendment purposes.⁵⁹

In law, “false speech” or “misleading speech” means *only* that a speech causes false perception. We cannot say how many fine judges and First Amendment scholars repeatedly make the serious mistake of exam-

⁵⁹ *Masson v. New Yorker Magazine, Inc.*, 501 U.S. 496, 517 (1991) (noting that the test of falsity is whether a speech “would have a different effect on the mind of the reader from that which the pleaded truth would have produced” (quoting ROBERT D. SACK, LIBEL, SLANDER, AND RELATED PROBLEMS 138 (2d prtg. 1980))); *see also* 1 ROBERT D. SACK, SACK ON DEFAMATION: LIBEL, SLANDER, AND RELATED PROBLEMS § 2.4.2.1, at 2-18, § 2.4.5, at 2-32 to -33 (3d ed. 2009) [hereinafter SACK, SACK ON DEFAMATION] (“Particular words must be read in the context of the communication as a whole A publisher is, in general, liable for the implications of what he or she has said or written, not merely the specific, literal statements made.”).

ining only literal aspects of speech to determine “falsity.”⁶⁰ The best way of seeing that only false perceptions matter under the First Amendment is with a grid, with literal communication juxtaposed against perception, to form four distinct potential rules regarding falsity:

		Literal Communication	
		False	True
Perception	True	II Literally false and Perceived true	I Literally true and Perceived true
	False	III Literally false and Perceived false	IV Literally true and Perceived false

Figure 1: What “False” Speech Is: Perception, Not Literal Communication

Each of the four boxes represents a pair of speech attributes that individually or jointly could form a potential rule. Most legal authorities distinguish the “truth” or “falsity” of a speech by its literal words. Nevertheless, as we will now see, settled constitutional law indicates that only perception, not literal communication, is a speech attribute from which a rule should be inferred.⁶¹

Box 1: Literally true words, True perception. Where both literal speech and the perceived implication of a communication in context are true, there is no liability under the First Amendment.⁶²

Box 2: Literally false words, True perception. If a statement is literally false, but the communication is perceived as true in context, even pre-

⁶⁰ See *infra* note 91 and accompanying text.

⁶¹ See *supra* note 59 and accompanying text.

⁶² SACK, SACK ON DEFAMATION, *supra* note 59, § 2.1.1, at 2-7 (noting that falsity “is usually considered . . . a prerequisite for recovery as a matter of constitutional law in virtually all cases”).

Sullivan common law indicates that there is no false speech tort liability solely for *literal* falsities contained in the communication.⁶³

Box 3: Literally false words, False perception. A statement that is literally false *and* perceived false is usually the least controversial case in proving the “falsity” element of a false speech tort. (Do not assume, however, that just because falsity has been proved, liability is forthcoming. All other requirements of the tort must likewise be met.)

Box 4: Literally true words, False perception. Can literally true words result in defamation liability? The answer is yes.⁶⁴ Literally true words contained within the context of a communication, which involves many elements beyond those words but still within the speaker’s control or awareness (e.g. tone, juxtaposition of statements, emphasis, innuendo, graphic images, symbolism, the omission of key facts,⁶⁵ body language,⁶⁶ etc.), can cause false perceptions.

Indeed, many scholars remark that communication in this multimedia era has become largely visual and auditory.⁶⁷ This shift in

⁶³ See *N.Y. Times Co. v. Sullivan*, 376 U.S. 254, 272–73 (1964) (citing cases). Literal falsities in a speech sometimes are the main source of a false perception, but their presence alone does not guarantee false perceptions. See, e.g., *Masson*, 501 U.S. at 516 (“The common law of libel takes but one approach to the question of falsity It overlooks minor inaccuracies and concentrates upon substantial truth.”); *Currier v. W. Newspapers, Inc.*, 855 P.2d 1351, 1354 (Ariz. 1993) (“A technically false statement may nonetheless be considered substantially true if, viewed ‘through the eyes of the average reader,’ it differs from the truth ‘only in insignificant details.’” (quoting *Zerangue v. TSP Newspapers, Inc.*, 814 F.2d 1066, 1073 (5th Cir. 1987))); SACK, SACK ON DEFAMATION, *supra* note 59, § 4.4.2, at 4–65 (“In determining whether facts upon which a comment is based are accurate, the rules of construction applicable to the proof of truth come into play. Minor errors of fact . . . do not constitute falsity, so long as the ‘gist’ or ‘sting’ of the factual allegations is accurate.”) (footnotes omitted).

⁶⁴ See *infra* note 98 and accompanying text.

⁶⁵ See *Midwest Commerce Banking Co. v. Elkhart City Ctr.*, 4 F.3d 521, 524 (7th Cir. 1993) (citing cases and noting that “[o]missions are actionable as implied representations when the circumstances are such that a failure to communicate a fact induces a belief in its opposite”).

⁶⁶ See ALLAN & BARBARA PEASE, *THE DEFINITIVE BOOK OF BODY LANGUAGE* 10 (2006) (estimating that between sixty and eighty percent of communication is transmitted through body language, not vocal communication).

⁶⁷ See David L. Altheide, *The News Media, the Problem Frame, and the Production of Fear*, 38 Soc. Q. 647, 664 (1997). Altheide states that:

[C. Wright] Mills . . . urged sociologists to distinguish between *personal troubles* and *social issues*. The great Mills was not wrong. He just lived in a period dominated more by print than electronics. Everyday life is increasingly mediated by information technology as we experience events in an ecology of communication. Information technology and its varied communication formats (“media logic”) are part of our “effective environment” which we become accustomed to and take for granted. And just as humans in new environments (e.g., high-

communicative format is not accidental; these formats are far more emotive and therefore far more capable of influencing audience perception.⁶⁸ The overall social impact of literal text, even in staid formats such as newspapers (which, interestingly, are now supplemented with graphics, photographs, charts, etc.), is waning.⁶⁹

It is no coincidence that a Princeton University philosopher, Harry Frankfurt, has published recently a bestselling academic essay that notes a disturbing modern surge in the intensity and amount of *misleading advocacy* (he calls misleading advocates “bullshitters”).⁷⁰

altitude mountain climbing) “learn” to breathe differently and soon do it routinely, postmodern media users “learn” to adjust to new information technology and communication formats, soon taking them for granted.

Media materials contribute to public perceptions . . . whether as “priming,” agenda setting, or shaping public discourse through news formats.

Id. (citations omitted); see also Ann Bostrom & Ragnar E. Löfstedt, *Communicating Risk: Wireless and Hardwired*, 23 RISK ANALYSIS 241, 245 (2003) (“[W]ords are becoming bit players on the risk communication stage, where graphical depiction of risk is increasingly common.”). As Northwestern University scholar Les Friedman has said, “there are no neutral images in film.” Lester D. Friedman, *High Anxiety: Medicine, Morals and the Media*, Lecture at Stanford University School of Medicine (Oct. 1, 2003) (notes from lecture on file with author); see also Celio Ferreira et al., *From Vision to Catastrophe: A Risk Event in Search of Images*, in RISK, MEDIA, AND STIGMA: UNDERSTANDING PUBLIC CHALLENGES TO MODERN SCIENCE AND TECHNOLOGY 283, 298–99 (James Flynn et al. eds., 2001) (concluding that visual images by their nature are better suited to converting neutral objects to stereotypes than text or radio); George Gerbner, *Reclaiming Our Cultural Mythology: Television’s Global Marketing Strategy Creates a Damaging and Alienated Window on the World*, IN CONTEXT, Spring 1994, at 40, <http://www.context.org/ICLIB/IC38/Gerbner.htm> (“[T]elevision is a mythology—highly organically connected, repeated every day so that the themes . . . run through all programming and news [and] have the effect of cultivating conceptions of reality.”); cf. *Armstrong v. H & C Commc’ns, Inc.*, 575 So. 2d 280, 280, 281, 283 (Fla. Dist. Ct. App. 1991) (reversing the trial court’s dismissal of a tort of outrage claim brought by parents of abducted and murdered daughter against television station that broadcast images of girl’s skull on her memorial service day).

⁶⁸ Psychologists and neuroscientists report that emotional communication can have dramatic, often unconscious, influences on perception. See Guzelian, *Scientific Speech*, *supra* note 39, at 901 n.68.

⁶⁹ See Guzelian, *Liability & Fear*, *supra* note 56, at 759–62; see also *Gitlow v. New York*, 268 U.S. 652, 673 (1925) (Holmes, J., dissenting). Justice Holmes states:

Every idea is an incitement. It offers itself for belief and if believed it is acted on unless some other belief outweighs it or some failure of energy stifles the movement at its birth. The only difference between the expression of an opinion and an incitement in the narrower sense is the speaker’s enthusiasm for the result. Eloquence may set fire to reason.

Id.

⁷⁰ HARRY G. FRANKFURT, ON BULLSHIT 62–67 (2005). The American Dialect Society voted “truthiness” (“the quality of stating concepts one wishes or believes to be true, rather than concepts or facts known to be true”) as the 2005 Word of the Year. Press Release, Am.

Bullshitters speak with an exclusive focus on achieving their goals, whatever those goals may be: getting votes, selling a product, or reporting racy news.⁷¹

In a world of totally protected speech, bullshitters would use whatever form(s) of speech they believe best suited to achieve their particular goal. But differing levels of First Amendment protection based on speech's truth or falsity force bullshitters to engage in a more complicated cost-benefit analysis. Because First Amendment law offers less protection for Box III speech, most bullshitters avoid (or quickly learn to avoid) it. And where bullshitters believe they are most likely to achieve their goals through First Amendment-protected Box I or II speech, they will. Thus, not all bullshit is false. Some of it happens, fortuitously or intentionally, to result in true audience perceptions.

Bullshitters, however, sometimes believe that their goals are best achieved by Box IV speech.⁷² They speak literal truths, but by presenting them in a certain style (perhaps with visual and auditory cues that overwhelm those literal truths and create a different perception) or by omitting relevant facts, or through other elements of communication under their control, they either intentionally or inadvertently cause injuriously false perception in seeking to meet their goals. Literally accurate bullshitters accused of spewing falsehoods typically protest that they have said nothing false, and may feel justified because of their literal honesty, but this defense is not an adequate *First Amendment* defense. First Amendment falsity does not turn on a speaker's intent; it is gauged by perception.⁷³

Accordingly, the First Amendment does not offer greater protection for literally-true-but-falsely-perceived speech (Box IV speech) than it does for literally-false-and-falsely-perceived speech (Box III speech). Consider, for example, a constitutionally validated defamation cause of action called "defamation by implication." Justice Byron

Dialect Soc'y, *Truthiness* Voted 2005 Word of the Year By American Dialect Society (Jan. 6, 2006), http://www.american-dialect.org/Words_of_the_Year_2005.pdf. This word appears to be synonymous with Frankfurt's philosophical conception of *bullshit*. See FRANKFURT, *supra*, at 33–34, 47–48.

⁷¹ See FRANKFURT, *supra* note 70, at 56.

⁷² Alternatively, bullshitters may sometimes estimate that Box III speech would be the most likely to achieve their goals, but one must also recognize that this speech carries the greatest risk of liability. Because courts often seem to (incorrectly) apply appreciably disparate standards of First Amendment protection for Box III and IV speech, and because Box IV speech is as effective as Box III speech when a false perception is required to achieve particular goals, would-be Box III bullshitters can be predicted to become Box IV bullshitters.

⁷³ See *supra* note 59 and accompanying text.

White, sitting by designation on the U.S. Court of Appeals for the Eighth Circuit, explained this concept well:

“[D]efamation by implication” occurs when a defendant “(1) juxtaposes a [literal] series of facts so as to imply a defamatory connection between them, or (2) creates a defamatory implication by omitting facts, [such that] he may be held responsible for the defamatory implication, unless it qualifies as an [honest] opinion, even though the particular facts are correct.” Thus, the touchstone of implied defamation claims is an artificial juxtaposition of two true statements or the material omission of facts that would render the challenged statement(s) non-defamatory. Under this definition, a defendant does not avoid liability by simply establishing the [literal] truth of the individual statement(s); rather, the defendant must also defend the juxtaposition of two statements or the omission of certain facts.⁷⁴

Numerous courts have recognized defamation-by-implication,⁷⁵ including the U.S. Supreme Court.⁷⁶ In 1990, in *Milkovich v. Lorain Journal Co.*, the Supreme Court acknowledged that literally-true-but-misleading statements are not First Amendment-protected speech any more than are literally-false-and-misleading statements of fact: “[e]ven if the speaker states the facts upon which he bases his

⁷⁴ *Toney v. WCCO Television*, Midwest Cable & Satellite, 85 F.3d 383, 387 (8th Cir. 1996) (alterations in original) (citations omitted) (applying Minnesota law).

⁷⁵ See, e.g., *Dodds v. ABC, Inc.*, 145 F.3d 1053, 1064 (9th Cir. 1998); *Chapin v. Knight-Ridder, Inc.*, 993 F.2d 1087, 1093 (4th Cir. 1993) (finding that implication must be a reasonable one and author must intend to convey it); *White v. Fraternal Order of Police*, 909 F.2d 512, 520 (D.C. Cir. 1990); *McNeil-PPC, Inc. v. Pfizer, Inc.*, 351 F. Supp. 2d 226, 249 (S.D.N.Y. 2005) (holding, in the context of a Lanham Act false advertising claim, that “the district court must . . . evaluate whether the message is false or likely to mislead or confuse, and may consider factors such as the commercial context, the defendant’s prior advertising history, and the sophistication of the advertising audience. Of course, the court must also consider the text and images used in the advertisement . . .”) (citation omitted); *Clark v. Pearson*, 248 F. Supp. 188, 191 (D.D.C. 1965); *Strada v. Conn. Newspapers, Inc.*, 477 A.2d 1005, 1012 (Conn. 1984) (noting that defamatory implication must arise from a material omission); *Cochran v. Indianapolis Newspapers, Inc.*, 372 N.E.2d 1211, 1217 (Ind. Ct. App. 1978); *Memphis Publ’g Co. v. Nichols*, 569 S.W.2d 412, 420 (Tenn. 1978); *Turner v. KTRK Television, Inc.*, 38 S.W.3d 103, 115 (Tex. 2000); *Mohr v. Grant*, 68 P.3d 1159, 1163 (Wash. Ct. App. 2003), *rev’d on other grounds*, 108 P.3d 768 (Wash. 2005).

⁷⁶ See *Milkovich v. Lorain Journal Co.*, 497 U.S. 1, 21 (1990) (turning on the falsity of an implication that the plaintiff committed perjury). The Court found that “the connotation [implied by an opinion] that petitioner committed perjury is sufficiently factual to be susceptible of being proved true or false.” *Id.*

[statement], if those [literal] facts are . . . incomplete, or if his assessment of them is erroneous, the statement may still imply a false assertion of fact.”⁷⁷

The conceptual thrust of defamation-by-implication is not restricted to defamation. Our point in this section has been to show that for “false” speech, “falsity” is determined by audience perception, not by the correctness of literal words.⁷⁸ This point has become obscured because courts often (incorrectly) judge the falsity of literal statements as a proxy for a judgment about false perceptions.⁷⁹

B. *Semiotics (Speech Causation)*

So far, we have learned that falsity is determined by perception, not by literal speech, but confusion about this point has led to unpredictable application of the “falsity” rule. A second contributor to falsity’s unpredictability is *semiotics*—the determination of whether speech *caused* the injurious perception.

Semiotics is the study of symbolic meaning, either in verbal language or in other forms of communication. Semiotics has a rich and complex literature, spearheaded by some of the twentieth century’s famous philosophers and linguists like Ludwig Wittgenstein, George Orwell, Noam Chomsky, and Ferdinand de Saussure.⁸⁰ A superficial discussion of semiotics is all that we need here. We can demonstrate it through Rene Magritte’s famous “This is not a pipe” painting (entitled *The Treachery of Images*):

⁷⁷ *Id.* at 18–19.

⁷⁸ *See, e.g.*, *Metabolife Int’l, Inc. v. Wornick*, 264 F.3d 832, 849 (9th Cir. 2001) (finding, in a commercial disparagement claim, that “[a] statement is not ‘substantially true’ if it ‘would have a different effect on the mind of the reader [or viewer] from that which the pleaded truth would have produced’” (quoting *Masson*, 501 U.S. at 517) (alteration in original)).

⁷⁹ *See infra* note 91 and accompanying text.

⁸⁰ For examples of this literature, see FERDINAND DE SAUSSURE, *COURSE IN GENERAL LINGUISTICS* (Charles Bally & Albert Sechehaye eds., Roy Harris trans., Open Court 12th prtg. 2002) (1972); EDWARD S. HERMAN & NOAM CHOMSKY, *MANUFACTURING CONSENT: THE POLITICAL ECONOMY OF THE MASS MEDIA* (1988); GEORGE ORWELL, *NINETEEN EIGHTY-FOUR* (Alfred A. Knopf 1992) (1949); LUDWIG WITTGENSTEIN, *PHILOSOPHICAL INVESTIGATIONS* (G.E.M. Anscombe trans., Blackwell Publishers 3d ed. 2001) (1953).



Figure 2: A Semiotic Painting

Magritte's point was to remind viewers that his representation—oil smeared on parchment—is not a pipe. It is a symbol. The semiotic meaning of Magritte's painting is achieved by a visual combination of the picture with the text "this is not a pipe." Magritte intends viewers who do perceive a pipe to be reminded that what they are seeing is not a pipe. In other words, Magritte's intent is for his audience to perceive semiotics.

It is important to understand that a speaker's intended implication for his speech may not be the audience's perception. There are many perceptions derivable from Magritte's painting, all depending on who is looking.⁸¹ To an astute French speaker who knows what a pipe looks like, the painting is about the complexity of semiotics. A less astute francophone may think that the painting is proof that the artist is weird. To a French speaker who does not know what a pipe is, the painting offers little meaning. A non-French speaker simply perceives a pipe and may search for additional meaning by inquiring what the French text means. To a blind person, there is no perception. And any single person may well perceive multiple meanings in a painting.

Semiotics presents an uncomfortable problem for First Amendment law in general and for false speech torts in particular. If false-speech liability is to be *predictable*, a prospective speaker must be able to

⁸¹ Cf. *W. Va. State Bd. of Educ. v. Barnette*, 319 U.S. 624, 632–33 (1943) ("A person gets from a symbol the meaning he puts into it, and what is one man's comfort and inspiration is another's jest and scorn.").

anticipate whether his speech will *cause* an injuriously false perception.⁸² Yet the formation of perception is not always even causal. Subtle or chance variation in the conditions surrounding communication can have theoretically dramatic impacts on societal perceptions and future conveyance of ideas.⁸³ Some false perceptions are also certainly caused by audiences. A careless or distracted audience, an exhausted or stressed audience, a hostile audience, an audience that unsuccessfully attempts to perceive a technical communication beyond its capacity to comprehend—there are so many ways by which the process of formulating perception from a communication could be infused with audience error. There are also strong social incentives on the part of both speakers and audiences for speech to be indirect, which can lead to miscommunication.⁸⁴

Semiotics, however, does not mean that the formation of a perception is always chaotic and outside any voluntary control of a speaker. A speaker does (at least partly or sometimes) *cause* audience perceptions.⁸⁵ If the formation of perception were always predominantly influenced by factors beyond a speaker's conscious control, there would be no advertising industry. Propaganda would never work, except by chance. There would be no consistent neurobiological evidence that a wide majority of people perceive a better taste to Coke than Pepsi after seeing the logos, but not in blind taste tests.⁸⁶ There would be no debates, no attempts to persuade.

Mere general recognition of the principle that speakers can cause injury is not enough, however. In each speech tort, it must be *known* through empirical evidence that speech caused the litigated injury.

⁸² See Guzelian, *Kindynamic Theory*, *supra* note 16, at 998–1000 (describing competing von Kriesian (causal) and von Burian (holistic) conceptions of liability).

⁸³ See, e.g., Susan Blackmore, *The Power of Memes*, 283 SCI. AM. 64, 65–68 (2000) (discussing how factors such as traditions and religion shape human behavior); W. Garrett Mitchener & Martin A. Nowak, *Chaos and Language*, 271 PROC. ROYAL SOC'Y LONDON B 701, 701 (2004) (discussing how small changes and interaction with other languages lead to dramatic changes in languages); Martin A. Nowak & David C. Krakauer, *The Evolution of Language*, 96 PROC. NAT'L ACAD. SCI. 8028, 8028–31 (1999) (explaining the evolution of language through evolutionary game theory).

⁸⁴ See Steven Pinker et al., *The Logic of Indirect Speech*, 105 PROC. NAT'L ACAD. SCI. 833, 834–38 (2008) (explaining a three-part theory of indirect speech involving plausible deniability, relationship negotiation, and language as a digital medium).

⁸⁵ See Timothy Zick, *Cross Burning, Cockfighting, and Symbolic Meaning: Toward a First Amendment Ethnography*, 45 WM. & MARY L. REV. 2261, 2335–89 (2004) (arguing for judicial use of interpretative ethnographic standards in identifying the most plausible contextual perception of symbols).

⁸⁶ See Samuel M. McClure et al., *Neural Correlates of Behavioral Preference for Culturally Familiar Drinks*, 44 NEURON 379, 380–85 (2004).

Judges, not surprisingly, have struggled to objectively adjudicate questions of speech causation. In a renowned 1987 case, *Tavoulareas v. Piro*, the U.S. Court of Appeals for the District of Columbia Circuit was divided as to whether the literal language of an article was libelous.⁸⁷ The majority accused the dissent of a “tortured attempt to discern some dark, hidden meaning” in the speech.⁸⁸ In another curious instance, in 1996, the Pennsylvania Supreme Court in *McDermott v. Biddle* upheld a jury verdict that found three allegedly defamatory articles to be true when published in the *Philadelphia Inquirer*, but false when republished in a tabloid.⁸⁹ The court noted that the different publication venues could plausibly account for the jury’s simultaneous findings of truth and falsity.⁹⁰

Indeed, because the evidentiary determination of how a perception has formed is difficult, courts often duck the semiotics question by concentrating only on whether a speech contains literal falsehoods. This reluctance to engage in empirical analysis of a speech’s impact may well explain why courts focus on literalism rather than perceptions. Thus, we are witnessing a trend *away* from the penalization of literally true bullshitters (Box IV speakers) at exactly the time when mass multimedia have enabled them to mislead dramatically:

If unrestrained . . . the theory of libel by implication would allow a jury to draw whatever inferences it wished from [literal] statements of fact. It would thereby permit liability for the perceived tone of a publication, [or] for statements that are in substance opinion or [literally] true

In recent years, therefore, courts have increasingly imposed limitations on recovery for libel by implication.⁹¹

This is folly. *All defamation suits are defamation by implication suits. All false speech is false by implication.* Some false speech involves literal falsehoods. Other false speech does not. But literal falsehoods are not the cause of injuries. False perceptions are. Bullshitters recognize this,⁹² but

⁸⁷ See 817 F.2d 762, 766–67 (D.C. Cir. 1987) (en banc); *id.* at 810–11 (MacKinnon, J., dissenting).

⁸⁸ *Id.* at 781 (majority opinion).

⁸⁹ 674 A.2d 665, 665, 669 (Pa. 1996).

⁹⁰ *Id.* at 669.

⁹¹ SACK, SACK ON DEFAMATION, *supra* note 59, § 2.4.5, at 2-34 (footnotes omitted).

⁹² See, e.g., Third World Traveler, Media Control and Censorship, <http://www.thirdworldtraveler.com/Media/MediaCensorship.html> (last visited Mar. 6, 2010). In the words of an anonymous former Soviet correspondent:

the law is ignoring the logic of its own core rule about false speech.⁹³ Courts simply must engage in the empirical analysis necessary to determine whether a speech has caused an alleged injury.⁹⁴

Empirical linguistic research is in its infancy. Even as it advances, it is unlikely that it will ever be possible to know *specific* causal relationships—that is, that *this* particular speech caused *this* particular plaintiff to contract an injuriously false perception.⁹⁵ Outlier false perceptions are im-

I have the greatest admiration for your propaganda. Propaganda in the West is carried out by experts who have had the best training in the world—in the field of advertising—and have mastered the techniques with exceptional proficiency Yours are subtle and persuasive; ours are crude and obvious I think that the fundamental difference between our worlds, with respect to propaganda, is quite simple. You tend to believe yours . . . and we tend to disbelieve ours.

Id.

⁹³ Countering this general trend, some courts have clearly recognized that perception is the key to determining the harmfulness of speech. At least two courts have been willing to focus on *subtle* matters of speech causation, such as harms caused by subliminal speech. Those courts held that subliminal speech that results in death is unprotected speech, as it attempts to control an audience by circumventing normal, conscious modes of persuasion. See *Waller v. Osbourne*, 763 F. Supp. 1144, 1148, 1149 (M.D. Ga. 1991) (characterizing subliminal messages as speech that “sneaks into the brain,” making it unprotected under the First Amendment), *aff’d* 958 F.2d 1084 (11th Cir. 1992); *Vance v. Judas Priest*, Nos. 86-5844, 86-3939, 1990 WL 130920, at *1, *23 (Nev. Dist. Ct. Aug. 24, 1990) (holding that subliminal messages advocating suicide contained within music are not protected under the First Amendment from lawsuits by decedents’ families).

⁹⁴ The same concerns about acquiring evidentiary knowledge of causation apply to all forms of conduct, not just speech. See *infra* notes 128–146 and accompanying text.

⁹⁵ This issue of *general* causal knowledge versus *specific* causal knowledge is hardly limited to matters of speech causation. Scientific inquiry is always reductionist (i.e. it constantly seeks to narrow the scope of prediction), but rarely perfectly so. Most scientific causal conclusions are general (i.e. stereotypical) and may be inapplicable to a particular individual or circumstance. Occasionally, individual or subgroup-specific scientific knowledge is available. (In medicine, for example, so-called “N of 1” trials or high-power, well-designed studies can elicit refined causal knowledge, where it is ethical to do so. See Gordon Guyatt et al., *Determining Optimal Therapy—Randomized Trials in Individual Patients*, 314 N. ENG. J. MED. 889, 889–92 (1986).) Naturally, “general” scientific conclusions should always be as individually tailored as suitable evidence permits. See Richard Peto et al., *Large-Scale Randomized Evidence: Large, Simple Trials and Overviews of Trials*, 48 J. CLINICAL EPIDEMIOLOGY 23, 34–39 (1995) (discussing how large-scale randomized evidence can best be generated and interpreted).

Law, on the other hand, emphasizes individual rights and duties and demands utopian reductionism that usually exceeds science’s current capabilities. A good attorney can nearly always speculate why a general scientific conclusion is unsuitable for a particular instance or plaintiff. It is usually difficult to *know* whether that speculation is correct. See *id.* at 35. This concern, however, has been reduced by new systematic reviews. For instance, in eighty-two percent of fifty-five located studies that matched experimental and control treatments for patients both inside and outside controlled clinical trial settings, outside patients fared similarly to or better than in-trial patients. David L. Sackett, Editorial, *Participants in Research: Neither Guinea Pigs Nor Sacrificial Lambs, but Pointers to Better Health Care*, 330 BRIT. MED. J.

possible for speakers to prevent even if they wished to. First Amendment focus, therefore, should be centered on preventing speech that can be reliably predicted to lead to injuriously false *mainstream* perceptions. Indeed, courts are beginning to approach semiotics by employing a “common false perception” standard (sometimes set as low as twenty percent of an audience) in commercial injury or unfair competition suits to

1164, 1164 (2005); Gunn Elisabeth Vist et al., *Outcomes of Patients Who Participate in Randomised Controlled Trials Compared to Similar Patients Receiving Similar Interventions Who Do Not Participate*, COCHRANE DATABASE OF SYSTEMATIC REVIEWS 1, 9 (2008), available at <http://mrw.interscience.wiley.com/cochrane/clsysrev/articles/MR000009/frame.html>; Gunn Elisabeth Vist et al., *Systematic Review to Determine Whether Participation in a Trial Influences Outcome*, 330 BRIT. MED. J. 1175, 1176 (2005). Consider these objective findings alongside the overwhelming evidence indicating the following:

(a) Expert opinions reflect numerous unintended biases. See Colin F. Camerer & Eric J. Johnson, *The Process-Performance Paradox in Expert Judgment: How Can Experts Know So Much and Predict So Badly?*, in TOWARD A GENERAL THEORY OF EXPERTISE: PROSPECTS AND LIMITS 195, 196 (K. Anders Ericsson & Jacqui Smith eds., 1991); THOMAS GILOVICH, *HOW WE KNOW WHAT ISN'T SO: THE FALLIBILITY OF HUMAN REASON IN EVERYDAY LIFE* 49–72 (1993); Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, in JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES 3, 4 (Daniel Kahneman et al. eds., 1982); Paul Slovic et al., *Risk as Analysis and Risk as Feelings: Some Thoughts About Affect, Reason, Risk, and Rationality*, 24 RISK ANALYSIS 311, 316–19 (2004).

(b) Expert error is independent of an expert's confidence in his opinion. See Camerer & Johnson, *supra*, at 211–12; Robyn M. Dawes et al., *Clinical Versus Actuarial Judgment*, 243 SCIENCE 1668, 1672 (1989).

(c) General causal knowledge or decision analyses are better predictors for individual outcomes than are expert opinions. See Dawes et al., *supra*, at 1673; see also Lee Goldman et al., *A Computer Protocol to Predict Myocardial Infarction in Emergency Department Patients with Chest Pain*, 318 N. ENG. J. MED. 797, 802 (1988); D.L. Rosenhan, *On Being Sane in Insane Places*, 179 SCIENCE 250, 252, 257 (1973); Harold C. Sox, Jr., Editorial, *Decision Analysis: A Basic Clinical Skill?*, 316 N. ENG. J. MED. 271, 271 (1987). See generally READINGS ON THE PRINCIPLES AND APPLICATIONS OF DECISION ANALYSIS (Ronald A. Howard & James E. Matheson eds., 1989) (collecting papers on both the theory and application of decision analysis).

One may preliminarily conclude that general scientific knowledge: (1) *does* typically describe an individual plaintiff's circumstances accurately; and (2) is more likely to predict those circumstances correctly than individual or group opinions can. The foregoing discussion does not imply that experts (or groups of experts) cannot sometimes outdo generally applicable evidence-based conclusions in making predictions about individual plaintiffs. The point is that in the (rare) instances when experts *do* choose to deviate from generalized scientific recommendations, experts have been shown to be incapable of reliably predicting that their deviation will be beneficial. The unintuitive implication of these findings is that use of expert testimony to improve upon existing general, evidence-based causal conclusions is undesirable.

gauge speech's misleadingness.⁹⁶ Some courts also consider semiotics an antitrust matter, holding that false speech is conduct subject to antitrust liability under the Sherman Act in which audiences can be "monopolized" much as product markets can be.⁹⁷ Such standards—and the empirical analysis of speech that accompanies them—offer at least a starting point for objectively predicting when speech causes injury.

C. *Provably False Speech*

We have thus far looked at two aspects—literalism and semiotics—that hinder courts from arriving at predictable results in adjudicating issues of falsity. A third questionable practice that obscures the distinction between true and false speech is that the Supreme Court has held, at least for media defendants, that an alleged defamation must be "provably" false to be actionable under the First Amendment.⁹⁸ "Prov-

⁹⁶ See, e.g., *McNeil-PPC*, 351 F. Supp. 2d at 249. The court explained:

Typically, an implied claim [of falsehood] is proven through the use of a consumer survey that shows a substantial percentage of consumers are taking away the message that the plaintiff contends the advertising is conveying. Cases have held that 20% would constitute a substantial percentage of consumers. Survey results are useful and have "evidentiary value" if the surveys are properly designed and objectively and fairly conducted—for example, they employ "filters" to screen out individuals whose responses may distort the results; the questions are directed to the "real issues"; and the questions are not leading or suggestive.

Id. (citations omitted). Ahead of the courts in evidentiary methodology, some social scientists are advocating use of randomized trials to determine perceptions of advertising. See REX BRIGGS & GREG STUART, *WHAT STICKS: WHY MOST ADVERTISING FAILS AND HOW TO GUARANTEE YOURS SUCCEEDS* 243–50 (2006); see also Guzelian, *Scientific Speech*, *supra* note 39, at 901 n.68 (listing psychological metrics citations).

⁹⁷ *Heary Bros. Lightning Prot. Co. v. Lightning Prot. Inst.*, 287 F. Supp. 2d 1038, 1048 (D. Ariz. 2003) ("Different courts have taken different positions on whether speech that is . . . false or misleading may constitute 'improper' or unreasonable conduct that can form the basis of antitrust liability.").

⁹⁸ *Milkovich*, 497 U.S. at 19–20; see also *Vogel v. Felice*, 26 Cal. Rptr. 3d 350, 360, 361 (Ct. App. 2005) ("[I]n order to support a defamation claim, the challenged statement must be found to convey 'a provably false factual assertion.' . . . If the meaning conveyed cannot by its nature be proved false, it cannot support a libel claim."). The Court in *Milkovich* found its earlier decision in *Phila. Newspapers, Inc. v. Hepps*, 475 U.S. 767, 776 (1986), to mean that:

[A] statement on matters of public concern must be provable as false before there can be liability under state defamation law, at least in situations . . . where a media defendant is involved. Thus, unlike the statement, "In my opinion Mayor Jones is a liar," the statement, "In my opinion Mayor Jones shows his abysmal ignorance by accepting the teachings of Marx and Lenin," would not be actionable.

ability” is an evidentiary standard. Yet current legal rules of evidence are not actually intended to distinguish truth from falsity, despite common assumptions to the contrary. What can be “proven”—that is, what will convince a jury or judge—is not necessarily true, and what can be proven false is not necessarily false.⁹⁹ Therefore, the Supreme Court has invoked an *unpredictable* rule of evidence in stating that speech content must be “provably” false.

There is, however, an evidentiary rule that would distinguish falsity from truthfulness predictably: *knowably* false speech.¹⁰⁰ Scientific speech in particular can be determined to be knowably false.¹⁰¹ Therefore, false scientific speech liability is the most, if not the only, predictable false-speech liability.

V. FALSE SCIENTIFIC SPEECH = PREDICTABLE FALSE SPEECH

In the previous Parts, we saw that a predictable definition of false speech requires: (1) a focus on audience perception, not literal speech; (2) that it be known that the speaker *caused* the false perception; and (3) that the speech content be *known* to be false. Only one form of false speech clearly meets these requirements: *false scientific speech*. Let us consider reasons why false scientific speech better meets the predictable definition of false speech than other forms of speech.

Knowable Falsity. Science has unique principles and methods that allow anyone not just to *prove*, but, by systematically appraising the best available scientific evidence, to transparently and accurately *know* the truth or falsity of an implicated scientific proposition.¹⁰² It is worth taking a minute to explain what is meant when we say science is unique in having “knowable” propositions.

There are two categories of false perceptions that can give rise to false scientific speech liability: (1) a perception that *science* has resolved a particular causal relationship to be a fact or impossibility, when science has not; or (2) a perception that *science* has not reached a conclusion about a proposition, when it has. Notice that we have emphasized in the previous two sentences that the issue of whether something is

Milkovich, 497 U.S. at 19–20 (footnote omitted).

⁹⁹ See Guzelian, *Scientific Speech*, *supra* note 39, at 886–93; see also Christopher P. Guzelian, *Did Daubert Rid Courtrooms of Advocacy Science?*, in SCIENTIFIC EVIDENCE REVIEW: CURRENT ISSUES AT THE CROSSROADS OF SCIENCE, TECHNOLOGY AND THE LAW 39, 41–43 (Cynthia H. Cwik & Helen E. Witt eds., 2006) [hereinafter Guzelian, *Advocacy Science*].

¹⁰⁰ See Guzelian, *Scientific Speech*, *supra* note 39, at 889–91.

¹⁰¹ See *id.* at 890–91.

¹⁰² See *id.* at 886–93.

known depends on what *science* says. Determining whether scientific speech is true or false does not turn on a judgment about the truth of what is *actually* happening out there in the universe. It turns on a judgment about the truth of what science can say is going on out there in the universe. These two previous sentences may sound the same because science supposedly describes what actually goes on out there in the universe. But they are not.

An absurd example can clarify the difference. Say we humans really live in *The Matrix*.¹⁰³ That is, we are brains hooked up to a diabolical supercomputer that manipulates our thoughts to make it *seem* like we are living in a world full of air, water, gravity, and blathering law review articles. Say scientists' brains that are plugged into this Matrix convince the scientists that they are gathering extensive scientific evidence that indicates it is a *scientific fact* that light reflected from a rock causes an image to form on the back of your retina. Thus, although *in actuality* a rock does not cause a projection onto your retina (because neither rock nor light nor retina exists in the Matrix), it is nevertheless a *known scientific fact* that reflected light projects onto your retina (because the supercomputer convinced the scientists' brains that they had conducted "dispositive experiments").

Most people regard scientific facts as depicting reality, but as our absurd example shows, it is possible (in a high-road, deep, and abstract philosophical sense) that they do not. So what must be known about a causal claim underlying any scientific speech is not its immutable truth, but rather, that science has conclusively generated an answer to it (making the claim a scientific fact or scientific impossibility) or has not yet done so (making the claim a scientific uncertainty).¹⁰⁴ And this knowledge is derivable through evidence-based analysis.

¹⁰³ See *THE MATRIX* (Warner Bros. Pictures 1999).

¹⁰⁴ Cf. STEPHEN EDELSTON TOULMIN, *THE USES OF ARGUMENT* 255 (1964). Toulmin states that:

What has to be recognized . . . is that validity is an intra-field, not an inter-field notion. Arguments within any field can be judged by standards appropriate within that field, and some will fall short; but it must be expected that the standards will be field-dependent, and that the merits to be demanded of an argument in one field will be found to be absent . . . from entirely meritorious arguments in another.

Id. Nevertheless, it is critical to recognize that although Toulmin's concept of intra-field limitations is fine, his concept of inter-field limitations does not apply to science as it does to any other topic, because science has no limits to its possible ontological domain. This aspect of science makes it unlike most (or possibly all) other forms of "argument."

Evidence-based analysis is skyrocketing in scientific fields as varied as medicine, human toxicology, engineering, dentistry, social sciences, and even baseball, precisely because scientists and policymakers are realizing that “opinion, experience, intuition, judgment, and scientific inference”—even from the most respected authorities—simply do not allow knowledge of facts, impossibilities, and uncertainties.¹⁰⁵ Yet courts, legislatures, and regulatory agencies currently still employ a witches’ brew of legal rules of scientific evidence said to permit scientific causation to be proven.¹⁰⁶ Almost never, however, are these practices equivalent to evidence-based analysis and the acquisition of scientific knowledge. Instead, most are some combination of: (1) various non-scientific burden-of-proof standards (sometimes even misleadingly termed “scientific standards”); and (2) officials’ or juries’ authoritative opinions about the relative plausibility of opposing expert witnesses’ scientific opinions.¹⁰⁷ Evidence-based analysis, by contrast, through a critical systematic

¹⁰⁵ Philip S. Guzelian & Christopher P. Guzelian, Letter to the Editor, *Authority-Based Explanation*, 303 SCIENCE 1468, 1468, 1469 (2004) [hereinafter Guzelian & Guzelian, *Authority-Based Explanation*].

¹⁰⁶ See *infra* note 107 and accompanying text.

¹⁰⁷ With particular focus on the judiciary, suggestions increasingly are voiced that the present adversarial expert witness system is not a suitable institutional environment for evidence-based logic (“EBL”). See, e.g., Guzelian, *Advocacy Science*, *supra* note 99, at 49–51; David H. Garabrant & Robert C. James, Letter to the Editor, *Trichloroethylene and Cancer in Humans: Recognizing the Need for an Evidence Based Analysis*, 212 TOXICOLOGY 80, 81–82 (2005) (demonstrating in-court bias through a case study, judged against Evidence-Based standards, of an expert toxicologist); Joseph N. Gitlin et al., *Comparison of “B” Readers’ Interpretations of Chest Radiographs for Asbestos Related Changes*, 11 ACAD. RADIOLOGY 843, 855 (2004) (noting that plaintiff-retained experts identified chest radiographs of asbestos claimants as positive in 95.9% of cases; neutral readers not retained in litigation identified as positive in 4.5% of instances); Nathan A. Schachtman, *Silica Litigation: Screening, Scheming & Suing* (Wash. Legal Found. Working Paper Series No. 135, 2005) (reviewing statistical analysis that uncovered apparent attorney-coordinated mass expert witness fraud by B-readers in silica mass tort litigation).

Institutional obstacles to determining scientific knowledge are not limited to the judicial branch, however. Cf. John F. Pfaff & Christopher P. Guzelian, *Evidence Based Policy* 45–59 (Fordham Law Legal Studies Research Paper No. 976376, 2007), available at <http://ssrn.com/abstract=976376> (discussing how EBL can be included in the review of legislation and agency regulations); Alastair J.J. Wood et al., *A Sad Day for Science at the FDA*, 353 NEW ENG. J. MED. 1197 (2005) (scrutinizing the FDA’s delay in deciding whether to allow emergency contraception, despite the absence of adverse safety data); Harvey Silverglate, *Science and the Au Pair Trial*, WALL ST. J., Nov. 11, 1997, at A18 (“Courts and legislatures have proved themselves not up to the task of developing a judicial method for reliably sifting out hard science from junk science. Perhaps this is a task that should not be undertaken by instruments of the state. Perhaps the medical and scientific communities should make themselves heard, and fill the breach.”). EBL, like science itself, is more communal than capitalistic—it is a monolithic, systematic, semi-altruistic coordinated endeavor to produce a single public good: scientific knowledge. Like any public good, knowledge is subject to illegitimate capture. What organ-

review of the best available scientific evidence, distinguishes scientific pronouncements as either: (1) authority-based opinions (derived from expert intuition, experience, judgment, or inference based on evidence of insufficient quality); or (2) evidence-based conclusions (statements of objective scientific fact based exclusively upon a systematic analysis of the best available evidence).¹⁰⁸ To be predictable, law must end its reliance on expert scientific opinions and adopt an evidence-based analysis of any scientific issues before it, including those involved in scientific speech cases. Doing so will allow courts to know the truth or falsity of a proposition at issue.

Avoiding Semiotics Problems. Another reason that scientific speech is a more predictable form of speech is because it creates fewer worries about semiotics than does most false speech. (Semiotics, recall, suggests that false perceptions can arise for nearly any speech, and may be beyond the control of even the most cautious speaker.) Let's consider an example to see why.

Imagine a speaker announces to a town meeting, "Let's talk about the amount of arsenic found in your drinking water," and also has an overhead picture of an arsenic poisoning victim displayed when saying this. A false perception of many in the audience may be that their drinking water will kill them. Even if the audience members believe that false message, there is no false *scientific* speech liability unless the audience perceived that it is scientifically known that their arsenic dosages put them in jeopardy.¹⁰⁹ To a greater extent than other perceptions, a belief that something is true because of a perception that science has established it as a known fact is something the audience can consciously ar-

izational behavior experts must therefore determine is what institutional structure—private or public, large or small, with redundant checks or not, constituted by which experts with which obligations, subject to what sort of staff turnover, etc.—is best capable of resisting inevitable and sustained politically or economically motivated efforts to subvert accurate evidence-based determinations of what is scientific fact, impossibility, or uncertainty. Whether a case involves scientific speech or toxic torts, we have to ensure that evidence-based standards for assessing scientific causal knowledge are firmly in place up front, and that these rules, unlike so many rules, not change because of self-interests.

¹⁰⁸ Guzelian & Guzelian, *Authority-Based Explanation*, *supra* note 105, at 1468.

¹⁰⁹ Theoretically, there could be tort liability besides false scientific speech tort liability if a non-scientific perception (e.g. a historical occurrence) were knowably false. The U.S. Supreme Court, for instance, has held that the historical question of whether someone has committed perjury is a "provably" false issue. *Milkovich v. Lorain Journal Co.*, 497 U.S. 1, 20 (1990). We do not consider in this Article which other forms of, or under which circumstances, false-speech liability should exist.

ticulate.¹¹⁰ Survey data and other psychological metrics are therefore more credible in measuring perceptions of scientific speech.¹¹¹

In sum, false scientific speech meets the predictable definition of false speech better than other forms of speech because the speech's falsity is knowable and because the issue of whether the speech actually caused the injurious, false perceptions can be more accurately determined. For that reason, false scientific speech is the premier example of *predictable* false speech.

Finally, it is important to mention that this Article does not assess how the First Amendment could more predictably adjudicate *non-scientific* false speech. The problem with any non-scientific proposition is precisely how to fashion a set of evidentiary rules that permit one to know its truth or falsity. Indeed, there is considerable philosophical debate about whether the falsity of any speech besides false scientific speech is "knowably," not just "provably," false.¹¹² We leave it to others to pick up that epistemological debate, which is central to improving the predictability of *non-scientific* speech liability.

VI. REPLACING ACTUAL MALICE WITH PREDICTABLE NEGLIGENCE: LIMITING LIABILITY TO UNNECESSARY, AVOIDABLE SPEECH

Having addressed the problematic treatment that the definition of falsity receives in courts, it is essential that we return to another issue that is inextricably intertwined through precedent with false speech: actual malice. Since the U.S. Supreme Court's decision in *New York Times Co. v. Sullivan* in 1964, a plaintiff in false speech cases usually cannot prevail simply by showing that the defendant's speech is false. Instead, a demonstration of actual malice is also typically necessary.¹¹³

¹¹⁰ See Guzelian, *Scientific Speech*, *supra* note 39, at 901 n.68 (citing articles that question use of surveys as reliable psychological metrics for unconscious preferences).

¹¹¹ *See id.*

¹¹² *See id.* at 893–98 (discussing historical, holistic, and political propositions, all of which cannot be known to be true or false). If no such speech were deemed to be knowable, however, and the "knowability" evidentiary rule replaced "provability" as a requirement for all false speech lawsuits, we acknowledge that traditionally granted false-speech liability that turns on whether historical events have occurred might be precluded under the First Amendment. *Cf.* Groden v. Random House, Inc., No. 94 Civ. 1074 (JSM), 1994 U.S. Dist. LEXIS 11794, at *18–21 (S.D.N.Y. Aug. 22, 1994) (rejecting false advertising claim because theory of a "grassy knoll shooter" in John F. Kennedy assassination is an unknowable historical proposition, and thus the proposition must be left open to public interpretation under the First Amendment).

¹¹³ *E.g.*, *N.Y. Times Co. v. Sullivan*, 376 U.S. 254, 281–82 (1964) ("[A]ny one claiming to be defamed by the communication must show actual malice or go remediless. This privilege

Why is the unpredictable actual malice rule so frequently invoked in First Amendment cases? A simple but jaded answer suffices: because the rule makes it hard for plaintiffs to win First Amendment suits. As we showed early in this Article, actual malice is an unpredictable rule, so the actual malice rule has nothing to do with proper justice. But like our previous hypothetical rule that exonerates any speaker who is not an octogenarian with a purple mohawk, the rule is effective at quashing lawsuits (never mind that it does so for the wrong reasons).

The free speech absolutist retorts that without an accompanying rule of actual malice, false speech—even if rigorously defined as we have suggested in this Article—would suffer from something akin to strict liability, something even more unacceptable than unpredictable liability on First Amendment grounds.¹¹⁴ To avoid both strict liability and the unpredictable actual malice rule, some courts now invoke a negligence standard in some First Amendment contexts,¹¹⁵ yet commentators frequently lament how unpredictable (and thus unsatisfactory) negligence is as a rule, too.¹¹⁶ This is why, undoubtedly, negligence has not yet found—and will probably never find—widespread usage as a First Amendment standard.

If actual malice is unacceptably unpredictable and strict liability is unacceptably broad, another rule must be constitutionalized to limit false-speech liability in a predictable way. More recently, a rigorous, predictable standard—“predictable” negligence—has been described in the academic literature. Predictable negligence prioritizes and limits liability by examining empirical evidence to eliminate only that risky behavior that is both (1) *avoidable* and (2) *unnecessary*. Though the general concept of predictable negligence has been reviewed extensively elsewhere,¹¹⁷ we shall briefly explain the concepts of avoidable or unavoidable risks, and necessary or unnecessary risks as applied to the First Amendment context.

extends to a great variety of subjects, and includes matters of public concern, public men, and candidates for office.” (quoting *Coleman v. MacLennan*, 98 P. 281, 285 (Kan. 1908))).

¹¹⁴ See RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 19 cmt. d (1998) (“Most courts express[] concern that imposing strict liability for the dissemination of false and defective information would significantly impinge on free speech . . .”).

¹¹⁵ See Guzelian, *Scientific Speech*, *supra* note 39, at 914–15.

¹¹⁶ See Guzelian, *Kindynamic Theory*, *supra* note 16, at 1007–08. At least one scholar, however, proposes that “constitutional” negligence be adopted in First Amendment contexts. See Sacks, *supra* note 57. This form of negligence would amount to a First Amendment balancing test as ostensibly envisioned in *Sullivan* and its progeny cases. See *id.*

¹¹⁷ See Guzelian, *Kindynamic Theory*, *supra* note 16, at 1016–21; Guzelian, *Scientific Speech*, *supra* note 39, at 911–17.

A. Unavoidable Speech

The primary purpose of liability is to deter or force modification of risky behavior—whether speech, conduct, or product manufacture—such that the same kinds of mistakes will be avoided in the future.¹¹⁸ It makes no sense, therefore, to penalize unavoidable mistakes—mistakes that systematically recur *regardless of whether liability is imposed*.¹¹⁹ When liability is imposed on unavoidable false speech, the message sent is that people should omit from speaking at all, or worse, speak in a guarded, uncertain, and fearful fashion that will not eradicate the unavoidable errors, yet can paradoxically increase the frequency of other mistakes.¹²⁰ We suggest that false speech is avoidable if it is (1) serially made and (2) significantly captivating.¹²¹ Why these criteria? The first criterion exists because penalizing only serial false speech prevents catastrophic sanctions for one-time slips of the tongue.¹²² And the second criterion—significantly captivating speech—permits penalization of speech that causes false perceptions only in large or mainstream, not small or fringe, audiences, which is appropriate because speech causing outlier injuries

¹¹⁸ See Guzelian, *Kindynamic Theory*, *supra* note 16, at 991.

¹¹⁹ It is a complicated and critical task to reliably identify exactly which specific risks created by a tortfeasor are irreducible. See University of Michigan Center for the Study of Complex Systems, The Study of Complex Systems, <http://www.cscs.umich.edu/old/complexity.html> (last visited Mar. 6, 2010) (identifying common characteristics of a complex system). But see SCOTT D. SAGAN, *THE LIMITS OF SAFETY: ORGANIZATIONS, ACCIDENTS, AND NUCLEAR WEAPONS* 28 (1993) (“The belief that intelligent design and management will result in complex organizations that are capable of safely operating . . . is an illusion . . .”).

¹²⁰ W. Edwards Deming, a renowned statistician and corporate consultant who revolutionized Japanese industry after World War II, stressed that punishing individuals (other than managers) for their communications and actions would doom corporations to failure. See W. EDWARDS DEMING, *OUT OF THE CRISIS* 18–96 (1986) (discussing the Deming Management Method’s “Fourteen Points,” including “drive out fear” from individuals for their personal mistakes).

¹²¹ Guzelian, *Scientific Speech*, *supra* note 39, at 911 n.93.

¹²² Unfortunately, *catastrophes* (speech that only rarely results in injury, but has widespread and/or significant impact when it does) are sometimes unavoidable, too. See RICHARD A. POSNER, *CATASTROPHE: RISK AND CATASTROPHE* 21–71 (2004) (describing natural and unintended man-made catastrophes). The problem with catastrophe deterrence is that the particularly stubborn psychological response to *any* catastrophe, even unavoidable ones, is to assign liability—and yet it is no more sensible to hold someone liable for an irreducible catastrophic error than it is for an irreducible trivial one. Leading scholars observe that courts are at least weakly sensitive to public sentiment and emotion. See Lawrence Lessig, *Eric-Effects of Volume 110: An Essay on Context in Interpretive Theory*, 110 HARV. L. REV. 1785, 1795 (1997). If that is true, it suggests that liability may be less predictable precisely when serious injuries *do* occur. See *id.* at 1801–11 (discussing “contested” versus “uncontested” issues and Supreme Court decision making).

cannot be accurately predicted.¹²³ (It may also not be worth expending judicial resources on inconsequential injuries.) Thus, as has been said:

[Determining whether false speech is avoidable] could turn on a speaker's *communicative reach*—her capacity to “captivate” audiences with a false implication. In the context of risk communication, for instance[,] “[t]here might be merit to allowing risk communicators with *smaller* ‘reach’ (i.e., audience size) more leeway to make mistakes because they affect fewer listeners. . . . Conversely, . . . [less tolerance will be shown] for the mass media, which have large ‘reach.’” . . .

. . . [A] speaker with “significant” communicative reach has the ability by speaking (perhaps on a series of occasions) to increase the number of people who take her opinion as scientific fact, or, vice versa, are persuaded by her speech that another's recitation of a scientific fact is only that individual's personal opinion. The more a society values freedom of speech, the higher the threshold of audience capture will need to be before the misleading opinion is said to have “significant” reach.¹²⁴

Appropriate protocols for this empirical, antitrust-like approach to speech must obviously be developed in detail, but the point is clear: false speech that can be avoided, should be. It is also clear, though, that law must make allowances to prevent incidental or inconsequential speech from being penalized, lest too much proper speech be deterred through liability.

¹²³ See *supra* notes 80–97 and accompanying text (discussing general and specific causation for speech). Justice White favored this rationale in determining what speech should be assessed liability: “[I]t makes no sense to give the most protection to those publishers who reach the most readers and therefore pollute the channels of communication with the most misinformation and do the most damage” *Dun & Bradstreet, Inc. v. Greenmoss Builders, Inc.*, 472 U.S. 749, 773 (1985) (White, J., concurring). Note that Justice White focuses upon those actors who most significantly add pollution to the stream of information, rather than those actors who generate the pollution in the first place. White's First Amendment rationale comports well with the modern judicial position that the First Amendment does not grant a “neutral reportage privilege” (i.e. First Amendment protection where the media act merely as a conduit and report in accurate fashion another individual's false statement). See, e.g., *Norton v. Glenn*, 860 A.2d 48, 57 (Pa. 2004). Compare STEPHEN BREYER, *BREAKING THE VICIOUS CIRCLE: TOWARD EFFECTIVE RISK REGULATION* 59–68 (1993) (calling for risk management prioritization as a result of decreasing marginal returns in the reduction of risks), with CASS R. SUNSTEIN, *RISK AND REASON: SAFETY, LAW, AND THE ENVIRONMENT*, at viii–x, 8–9 (2002) (extolling a sensible system of risk regulation found in the idea of a cost-benefit state).

¹²⁴ Guzelian, *Scientific Speech*, *supra* note 39, at 920, 921 (quoting Guzelian, *Liability & Fear*, *supra* note 56, at 845–46) (footnotes omitted).

B. *Necessary Speech*

Predictable liability exists only for speech or other behavior that amounts to needless, not necessary, risks.¹²⁵ A necessary risky behavior (either speech or conduct) is exempted from liability because the injurious speech or conduct is on balance necessary. This means that there is no presently known way to make the speech or behavior safer without an unacceptable loss of accompanying benefits or an unacceptable increase in accompanying risks.

In tort law, courts often consider concurrent risks and benefits when determining whether to impose liability on particular conduct. Eliminating one avoidable significant risk can give rise to another significant risk. For example, designing a lamp pole to collapse easily in a vehicular collision decreases the risk of injury to drivers, but the modification may simultaneously convert a previously insignificant risk of injury to nearby pedestrians into one that is significant.¹²⁶ If that is the case, it is sometimes better to accept the original behavior without modification. The riskiness of the conduct or product is, in other words, *necessary*.

Similar thinking could apply to false speech. Elimination of some instances of significantly injurious, avoidable false speech might force so much useful truthful information that is simultaneously being broadcast to be lost that it is not appropriate to punish the false speech. Thus, despite the fact that the false speech is avoidable and injurious, it might be necessary in some instances to accept it because accompanying benefits would have otherwise been lost, or other still-worse harms would have been incurred, had the speech been modified or entirely omitted.

C. *Summary Remarks on Predictable Negligence*

From our brief discussion, one can see that “avoidable-and-unnecessary risk” liability (i.e. predictable negligence) is conceptually

¹²⁵ See Guzelian, *Kindynamic Theory*, *supra* note 16, at 1016–21. The author invokes the term “proximate risk” to describe a “needless risk” in the *Kindynamic* article, but the concept is the same. See *id.* at 1017–18.

¹²⁶ See *Bernier v. Boston Edison Co.*, 403 N.E.2d 391, 396–98 (Mass. 1980) (concluding that pedestrian risk of injury became too significant and hence defendant was negligent for designing breakaway pole to protect drivers). But see *Ind. Consol. Ins. Co. v. Mathew*, 402 N.E.2d 1000, 1003 (Ind. Ct. App. 1980) (finding no negligence where defendant immediately fled plaintiff’s garage after mower caught fire instead of pushing mower outside first, because the expected risk of harm to the garage was less than the expected risk of injury from tending to a potentially explosive mower).

different from both traditional negligence and strict liability. Unlike strict liability, predictable negligence limits liability. Unlike actual malice, predictable negligence does not turn on a speaker's intent, but rather on how effectively the speech has spread a pernicious false idea. And unlike traditional negligence, predictable negligence does not turn on a subjective "reasonability" standard, but rather on a quantified, evidence-based standard designed to deter avoidable, unnecessary risks. False-speech liability, therefore, should be associated with predictable negligence, rather than with strict liability or actual malice standards.¹²⁷

VII. PREDICTABILITY IS A UNIVERSAL LEGAL IMPERATIVE, NOT JUST A FIRST AMENDMENT ONE

In this Article so far, we have discussed several ways in which to modify the legal understanding of "falsity," and have discussed how to limit liability so that legal liability for false speech can be more predictable. In this section, however, we demonstrate that many of these considerations are not limited to false speech or even First Amendment cases. They are instead necessary factors in making *any* form of liability more predictable. Thus, the factors that make false-speech liability predictable are not a set of special legal considerations for First Amendment cases, but are, for the most part, the same factors that generally comprise predictable legal liability.

A. *The Universal Judicial Need to Know Facts*

As was noted previously, a major challenge in making any speech liability more predictable is semiotics (speech causation).¹²⁸ One must know that a perception did not simply arise out of unpredictable chaos, but that the speaker's particular kind of communication *caused* that in-

¹²⁷ A recent U.S. Supreme Court case has cautioned strongly against the indiscriminate application of a balancing test: "Whether a given category of speech enjoys First Amendment protection depends upon a categorical balancing of the value of the speech against its societal costs." *United States v. Stevens*, No. 08-769, slip op. at 7 (U.S. Apr. 20, 2010). The predictable negligence test we are proposing here, however, which admittedly engages in a form of balancing, is nevertheless permissible because the *category* of the speech being dealt with—false speech such as fraud or defamation—is traditionally recognized as unprotected speech by the Court. *See id.* at 8 (permitting a balancing test when the analysis is historically "grounded . . . in a previously recognized, long-established category of unprotected speech" content).

¹²⁸ *See supra* notes 80–97 and accompanying text.

jurious perception.¹²⁹ If that is not known, speech liability will not be predictable.¹³⁰

The difficulties that courts are facing with the speech causation issue are, not surprisingly, influencing courtroom evidentiary standards. At the heart of several First Amendment challenges, most recently violent video game lawsuits, courts are requiring a heightened evidentiary showing of speech causation before imposing speech liability.¹³¹ Courts effectively require that speech be *known* to cause a litigated harm before liability is imposed, as the U.S. Court of Appeals for the Eighth Circuit

¹²⁹ Chaos theorists have not yet convincingly demonstrated that chaotically formed results, if they in fact exist in reality, are *predictable* from computer and experimental modeling methodologies. If that changes some day, the additional category—predictable chaos—might allow for additional liability to be placed upon speakers. See generally JAMES GLEICK, CHAOS (1988) (discussing the study of chaos).

¹³⁰ This statement would be subject to revision if complexity and chaos scientists could reliably predict how speech in a condition-sensitive (chaotic) environment influences an emergent perception. To date, they have been unable to do so. See *id.*

¹³¹ See, e.g., Interactive Digital Software Ass'n v. St. Louis County, 329 F.3d 954, 959 (8th Cir. 2003) (enjoining enforcement of statute limiting sales or rentals of violent video games to minors because county failed to present "substantial supporting evidence" of an empirical nature for its belief that the games caused psychological harm to minors); Am. Amusement Mach. Ass'n v. Kendrick, 244 F.3d 572, 576 (7th Cir. 2001) ("We must consider whether the City of Indianapolis has . . . grounds for thinking that violent video games cause harm either to the game players or . . . the public at large. The grounds must be compelling and not merely plausible."); Am. Booksellers Ass'n v. Hudnut, 771 F.2d 323, 328–29, 330–31 (7th Cir. 1985) (holding that state is not permitted to selectively regulate pornographic speech on the basis of state's perception of "truth" about potential for dehumanization of and violence against women). But see United States v. Schiff, 379 F.3d 621, 623, 630 (9th Cir. 2004) (upholding injunction prohibiting author from publishing and distributing a book advising readers that federal income taxes are illegal and that taxpayers can legally avoid paying them); Rice v. Paladin Enters., Inc., 128 F.3d 233, 255, 263–65 (4th Cir. 1997) (holding that publisher of an instruction manual on murder could be found liable for aiding and abetting the commission of a crime and that cause of action was not barred by the First Amendment because *Brandenburg v. Ohio* did not protect the publisher); Weirum v. RKO, 539 P.2d 36, 40 (Cal. 1975) (holding radio station liable for hosting on-air contest that resulted in a fatal car race).

With regard to false commercial speech, the Supreme Court interestingly has created a First Amendment distinction between speech that is *actually* misleading, and speech that is only *potentially* misleading. (Actually or inherently misleading commercial speech may be prohibited entirely, but "[s]tates may not completely ban potentially misleading speech if narrower limitations can ensure that the information is presented in a nonmisleading manner." *Ibanez v. Fla. Dep't of Bus. & Prof'l Regulation*, 512 U.S. 136, 152 (1994); see also *In re R.M.J.*, 455 U.S. 191, 203 (1982).) *Actually* misleading commercial speech seems to require scientific *knowledge* that the speech *caused* injurious false perceptions. What is unclear, however, is what modicum of scientific evidence (short of scientific knowledge) suffices to say that commercial speech is *potentially* misleading—that is, that the speech has *potentially* caused injurious false perceptions, but is not *known* to have done so. Predictable tort rules generally do not permit liability if an alleged source of an injury is not known to cause the injury. See Guzelian, *Kindynamic Theory*, *supra* note 16, at 1010–16.

held in its 2003 decision in *Interactive Digital Software Ass'n v. St. Louis County*:

[A] psychologist . . . stated that a recent study that he conducted indicates that playing violent video games “does in fact lead to aggressive behavior in the immediate situation . . . that more aggressive thoughts are reported and there is frequently more aggressive behavior.” But this vague generality falls far short of a showing that video games are psychologically deleterious. . . .

Before the County may *constitutionally* restrict the speech at issue here, the County must come forward with empirical support for its belief that “violent” video games cause psychological harm to minors. . . . [It] has failed to present the “*substantial supporting evidence*” of harm that is required before an ordinance that threatens protected speech can be upheld. . . . [T]he County may not simply surmise that it is serving a compelling state interest because “[s]ociety in general believes that continued exposure to violence can be harmful to children[.]” Where first amendment rights are at stake, “the Government must present more than anecdote and supposition.”¹³²

The Eighth Circuit asserts that it is the First Amendment that requires speech causation to be, in effect, *known*. Judicial expectations that facts be known are hardly limited to First Amendment cases, however.¹³³ By an increasingly common reasoning, judicial liability *always* requires knowledge of facts. For example, the Eighth Circuit’s “First

¹³² *Interactive Digital Software Ass'n*, 329 F.3d at 958–59 (emphasis added) (citations omitted).

¹³³ In a rough analogy to semiotics, products liability tort suggests that consumer expectations may be assessed *intersubjectively*, although courts often misleadingly refer to these beliefs as “objective.” See *Nanut v. Kimberly-Clark Corp.*, No. 94-16948, 1996 U.S. App. LEXIS 15342, at *5–6 (9th Cir. June 24, 1996). In *Nanut* the court held that a woman suing for recovery as a result of an allegedly defective tampon design, after contracting toxic shock syndrome, failed to demonstrate defect because:

[t]he declaration set forth [the plaintiff’s] *subjective* beliefs of the risk of harm associated with the use of tampons. Under the consumer expectations test, the court need consider only the expectations of the “ordinary” consumer. This test is a purely objective standard. “In determining whether a product’s safety satisfies . . . [consumer expectations], the jury considers the expectations of a hypothetical, reasonable consumer, rather than those of the particular plaintiff in the case.”

Id. (quoting *Campbell v. Gen. Motors Corp.*, 649 P.2d 224, 233 n.6 (Cal. 1982)) (citation omitted).

Amendment” evidentiary standard of causation is quite similar to the standard of causal knowledge that the Texas Supreme Court required in its 1997 decision in the toxic tort case *Merrell Dow Pharmaceuticals, Inc. v. Havner*.¹³⁴

Yet outside of a First Amendment context, some jurists still vehemently resist this concept that facts must be *known* before liability can be imposed. In *In re Ephedra Products Liability Litigation*, a 2005 case regarding an alleged causal relationship between consumption of the diet drug Ephedra and cardiac injuries, Judge Jed Rakoff of the U.S. District Court for the Southern District of New York clarified that non-definitive scientific evidence can be used to establish a causal relationship.¹³⁵ Judge Rakoff’s accommodation of expert *speculation* about scientific propositions contradicts Judge Posner’s and the Texas Supreme Court’s beliefs that legal liability should “lag” science *in any context*—First Amendment or otherwise. Judge Rakoff’s view implies that, at least in some circumstances, liability should be imposed even if litigated questions of fact cannot be definitively answered. In other words, Judge Rakoff believes that liability for scientific *uncertainties* (“uncertainty liability”) is sometimes appropriate.¹³⁶

This foregoing debate about whether to permit uncertainty liability raises critical questions: If the standards for determining a question of fact vary depending on whether a lawsuit is a First Amendment, personal injury tort, or antitrust matter, does that variation cause liability to be unpredictable? Is it appropriate that courts require scientific *knowledge* about some factual propositions (e.g. speech causation matters) because “fundamental” constitutional rights are on the line (e.g. freedom of speech), but permit liability based on purely *subjective speculation*¹³⁷ about scientific uncertainties if “inferior” constitutional rights

¹³⁴ 953 S.W.2d 706, 727, 728 (Tex. 1997) (“Courts should not embrace inferences that good science would not draw. . . . As Judge Posner has said, ‘[l]aw lags science; it does not lead it.’” (quoting *Rosen v. Ciba-Geigy Corp.*, 78 F.3d 316, 319 (7th Cir. 1996)) (citations omitted)).

¹³⁵ 393 F. Supp. 2d 181, 190, 194 (S.D.N.Y. 2005) (finding that “[i]nconclusive science is not the same as junk science”).

¹³⁶ Judge Rakoff writes: “Although this [uncertainty] legal standard may lead to what some scientists might consider an unacceptably high error rate in jury verdicts, the law has tolerated the jury error rate for centuries because it has not yet found a better way of adjudicating disputes.” *Id.* at 193. *But see* Guzelian, *Scientific Speech*, *supra* note 39, at 886–93 (explaining how evidence-based logic can establish scientific truth). Whether Judge Rakoff believes uncertainty liability for questions of speech causation is appropriate is not clear.

¹³⁷ Despite some creative attempts, currently no known objective standards exist by which to reliably judge how likely a scientific uncertainty is of being true. *See, e.g.*, Sanya Mitaim & Bart Kosko, *The Shape of Fuzzy Sets in Adaptive Function Approximation*, 9 IEEE

or statutory rights are at issue? Should courts even be permitted to sometimes impose liability based on expert opinions that *contradict* scientific facts?¹³⁸

False scientific speech is an ideal vehicle for seeing the trouble with using subjective, non-scientific standards to evaluate questions of scientific fact—regardless of whether speech or conduct is at issue. False scientific speech always involves at least two questions of fact: (1) the validity of the speech causation question (“Did the speech cause the alleged injury?”), and (2) the validity of the scientific proposition or propositions that constitute the speech’s content (“Is the proposition contained in the speech true?”). Thus, when it is said the First Amendment requires “substantial supporting [scientific] evidence” to permit speech liability, it means there must be knowledge about not only the speech causation question, but also the scientific proposition or propositions embedded in the speech’s *content*.

Let us say we were to adopt Judge Rakoff’s view that uncertainty liability is permissible, depending on the type of lawsuit. (For instance, uncertainty liability is okay for toxic tort suits, but not for First Amendment suits.) The unsettling implication of such reasoning is that the *same* question of fact—say, whether it is true that a single physical blow to the chest can cause breast cancer¹³⁹—could be at issue in a false scientific speech case *and* in a torts case, but based solely on the *type* of lawsuit being litigated, there would be *different* answers to that *same* sci-

TRANSACTIONS ON FUZZY SYSTEMS 637, 637 (2001) (attempting to identify best fuzzy set shapes for identifying engineering function attributes under uncertainty, but suggesting that even partly successful approximations are best achieved through complex fuzzy sets whose shapes—determined from incomplete evidence—are not descriptively or philosophically intuitive); Paolo F. Ricci et al., *Precautionary Principles: A Jurisdiction-Free Framework for Decision-Making Under Risk*, 23 HUM. & EXPERIMENTAL TOXICOLOGY 579, 589–95 (2004) (presenting decision analysis framework that offers reproducibility and formal structure for making precautionary decisions about uncertainties). Assessments of the truth or falsity of scientific uncertainties are therefore always rank speculation, even if these assessments are couched in probabilistic terms. See Philip S. Guzelian et al., *Evidence-Based Toxicology: A Comprehensive Framework for Causation*, 24 HUM. & EXPERIMENTAL TOXICOLOGY 161, 187–92 (2005) (cautioning against quantification of uncertainty likelihoods).

¹³⁸ Cf. Ronald J. Allen, *Factual Ambiguity and a Theory of Evidence*, 88 NW. U. L. REV. 604, 618, 619 (1994) (arguing that “[t]he hope to systematize proof . . . will happen in science, as in the law, only when we already know all there is to know, and thus only when scientific and legal inquiry no longer serve a purpose”).

¹³⁹ See *Dempsey v. Hartley*, 94 F. Supp. 918, 919–20 (E.D. Pa. 1951) (permitting damages against defendant driver for an automobile accident plaintiff who suffered a bruised sternum and sore breasts that resulted in “considerable . . . pain” while breathing and fear of breast cancer, despite own expert physician’s testimony that breast cancer is not caused by physical impact).

entific question. The upshot of permitting uncertainty liability is that courts will reach different conclusions about the same questions of fact, depending only on what type of lawsuit is being heard.¹⁴⁰ Uncertainty liability is unpredictable liability.

Indeed, even those who favor uncertainty liability, like Judge Rakoff, appear to recognize how unpredictable uncertainty liability can be because they affirm that testifying experts must not be allowed to represent scientific uncertainties as facts in court. “[Courts must] prohibit an expert witness from testifying that causality has been established ‘to a reasonable degree of scientific certainty’ when the very exacting standards for determining scientific certainty have not been met.”¹⁴¹

Judge Rakoff’s latter statement brings us to another critical point. Regardless of their views about permitting uncertainty liability, judges seem to be in agreement that the judiciary must be as truthful and transparent as possible about the fact that uncertainty liability is based on subjective beliefs, not science.¹⁴² Indeed, courts perpetually and successfully represent themselves to the citizenry as the government institutions that dispassionately decide “truth.” Most laypeople take that statement at its face value—that courts investigate and determine, perhaps no less rigorously than scientists at a conference might, whether a particular contention is a fact. This view of legal “truth” was one held by Supreme Court Justice Felix Frankfurter in his dissent in *Johnson v. United States*.¹⁴³ But more recently, a shift in jurists’ conception of truth

¹⁴⁰ This result is even more problematic when one considers that such findings of fact not only influence future case rulings, but are binding on some third-party litigants via collateral estoppel.

¹⁴¹ *In re Ephedra*, 393 F. Supp. 2d at 190. Observe that Judge Rakoff mistakenly looks to a literal aspect of expert testimony—whether experts state that their conclusions reflect “a reasonable degree of scientific certainty”—to decide its propriety. Literalism is not the legal test of a speech’s truth or falsity; audience (here, jury) perception is. See *supra* notes 59–79 and accompanying text.

¹⁴² Some may object and say that without being able to mislead the citizenry, no uncertainty or precautionary liability will be possible, because people do not fear uncertainties sufficiently to motivate them to act. Though this psychological phenomenon may be true, validating false perceptions is not a democratically legitimate way to engender political and social support for preemptive actions. See *Time, Inc. v. Hill*, 385 U.S. 374, 405 n.2 (1967) (Harlan, J., concurring in part, dissenting in part). Justice Harlan clarifies:

It is undeniable that falsity may be published, especially in the political arena, with what may be considered “good” motives—for example a good-faith belief in the absolute necessity of defeating an “evil” candidate. *But the Court does not remove state power to control such conduct, thus underlining the strong social interest in discouraging false publication.*

Id. (emphasis added).

¹⁴³ 333 U.S. 46, 53–54 (1948) (Frankfurter, J., dissenting). Justice Frankfurter states:

seems to be occurring. Judge Robert D. Sack of the U.S. Court of Appeals for the Second Circuit views legal “truth” as a legal fiction to dispose of a disputed matter, not as an end purpose of litigation.¹⁴⁴

True, courts settle disputes, but the perception of most non-lawyers is that en route to dispute settlement, courts accurately identify facts. Few non-lawyers understand a legal “finding of fact,” like “Chemical X causes cancer,” to be referring merely to an expensive, time-consuming, legally binding, arbitrary (or worse, subjective) process of selecting between competing expert opinions, which is no more likely than a coin flip of being correct, and done only to ensure expeditious case administration. Moreover, almost no one would accept as “truth” that the same scientific finding of fact could differ depending only on what sort of lawsuit—First Amendment or otherwise—were at issue.

In close, we must recognize three things about fact-finding. First, uncertainty liability is unpredictable and undermines the Rule of Law.¹⁴⁵ Second, the judiciary is probably the inappropriate government

While a court room is not a laboratory for the scientific pursuit of truth, a trial judge is surely not confined to an account, obviously fragmentary, of the circumstances of a happening . . . when he has at his command the means of exploring them fully, or at least more fully, before passing legal judgment. A trial is not a game of blind man’s buff; and the trial judge . . . need not blindfold himself . . . simply because the parties, for reasons of trial tactics, choose to withhold . . . testimony.

Federal judges are not referees at prize-fights but functionaries of justice. As such they have a duty of initiative to see that the issues are determined within the scope of the pleadings, not left to counsel’s chosen argument. . . . [A judge] surely has the duty to do so before resorting to guesswork in establishing liability for fault.

Id. (citations omitted).

¹⁴⁴ SACK, SACK ON DEFAMATION, *supra* note 59, § 3.12, at 3-30 to -33. Judge Sack states:

[A]t the end of a trial in which facts are contested, irrespective of what the trier of fact concludes, each side’s “truth” is likely to be diametrically opposite from what the other side is equally sure is true. Trials rarely change that conviction. Nor should they.

The purpose of litigation is to settle disputes, not to establish truth.

....

... Truth . . . is a construct, a legal fiction, decided with finality so that the matter may be disposed of and [litigants] may get on with their lives.

Id.

¹⁴⁵ In defense of uncertainty liability, one can protest that practical limitations sometimes frustrate the acquisition of scientific knowledge. This is true. Still, the existence of such limitations—ethics, cost, time, or the difficulty (or impossibility) of adequate study design—does not grant us the freedom to move the evidentiary goalposts closer in deciding what is scientifically certain. We simply must admit that science does not, and perhaps cannot, know. Understandably, scientists, public advocacy groups, crisis managers, and safety experts may still

branch to enforce or endorse uncertainty liability because of courts' credibility as the "apolitical" branch.¹⁴⁶ Third, and most importantly for this Article's purposes, it is not the First Amendment that generates the need that facts be known before liability is imposed. It is a universal need that stems from courts' general function as adjudicators of truth.

B. *The Universal Judicial Means to Know Facts*

In this Article, we described evidence-based analysis as necessary for knowing, not simply proving, scientific speech's truth or falsity.¹⁴⁷ Nevertheless, evidence-based analysis is necessary for identifying scientific facts in any area of law, not just in scientific speech cases. Such practice is necessary in predictably adjudicating false scientific speech. But it is equally important in any other area of law in which the determined answer to a scientific question will influence the outcome of a case. And if courts, as we pointed out in the last section, are responsible for being purveyors of truth, then they should welcome and adhere to evidence-based analysis in *all* areas of law, not just in matters of scientific speech and First Amendment law.

C. *The Universal Need to Establish Predictable Limitations on Liability*

It is an incorrect but common understanding that concerns about strict liability for false speech spring from a First Amendment origin. Instead, worries about unlimited liability arise whenever liability can be imposed.¹⁴⁸ Obviously, neither First Amendment nor tort law holds

want or need to make pronouncements on an inferential or speculative basis. Journalists may be inclined to report on such uncertainties to the general population, too. Actions and communication about uncertain harms are defended by reference to the Precautionary Principle: "it is better to be safe than sorry." See V. Dethlefsen et al., *The Precautionary Principle: Towards Anticipatory Environmental Management*, in CLEAN PRODUCTION STRATEGIES: DEVELOPING PREVENTIVE ENVIRONMENTAL MANAGEMENT IN THE INDUSTRIAL ECONOMY 41, 41–62 (Tim Jackson ed., 1993) (examining the impetus for the emergence of the precautionary principle and different formulations of the principle). But such speculation has no place in the judiciary—whether in a First Amendment context or otherwise.

¹⁴⁶ How courts should review *other* branches' uncertainty liability decisions and legislative enactments is still not clear, and merits much more extensive discussions. At least one Supreme Court decision seems to suggest, in passing, that those branches too may have to limit themselves to liability or regulation based on scientific certainties. See *Indus. Union Dep't v. Am. Petroleum Inst.*, 448 U.S. 607, 656 n.62 (1980) ("[A regulatory agency] must support its finding that a certain level of risk exists by substantial evidence . . .").

¹⁴⁷ See *supra* notes 102–112 and accompanying text.

¹⁴⁸ See Michael I. Krauss, *Tort Law and Private Ordering*, 35 ST. LOUIS U. L.J. 623, 645–46 (1991) (explaining how the theory of absolute liability as a cheap risk-spreading device to help poor consumers is "based on incompetent notions of what insurance is"). Professor

every instance of every behavior strictly liable. Law instead frequently fashions liability-limiting rules to avoid strict liability. Upon closer inspection, however, many of these rules—in contexts other than the First Amendment—are as unpredictable as the actual malice rule.¹⁴⁹

Earlier in this Article, we saw that Justice Byron White criticized the actual malice rule as unpredictable.¹⁵⁰ Thus, even if strict liability has considerable problems, putting unpredictable limitations (like actual malice) on it is not a solution, regardless of whether the context is a First Amendment suit or instead a tort or criminal liability matter. Instead, predictable negligence, which we have described above in a First Amendment context,¹⁵¹ has also been proposed as a mechanism for improving the predictability of liability and at the same time limiting liability appropriately in general tort and criminal contexts.¹⁵²

Krauss may be correct to pin partial responsibility for the expansion of strict liability on early scholars like Prosser or James, but it was really the law and economics movement that guaranteed strict liability's proliferation. Prominent law and economics scholars theorized that, under rational economic assumptions, quite often there is either no difference in the deterrent effects of *strict liability* and *negligence liability* or that strict liability is economically preferable to negligence liability. See, e.g., GUIDO CALABRESI, *THE COST OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS* 18–20 (1970) (noting that it is a myth that there is one unalterable economic law stating the “right” way to distribute accident losses); STEVEN SHAVELL, *ECONOMIC ANALYSIS OF ACCIDENT LAW* 5–46 (1987) (demonstrating that in many instances, the answer to whether a negligence or strict rule is economically preferable is indeterminate under rational choice assumptions); Richard A. Posner, *A Theory of Negligence*, 1 J. LEGAL STUD. 29, 32–34 (1972) (arguing that responsibility, especially in civil law, should be placed on the person who is in the best place to most cheaply avoid the loss). But see A. MITCHELL POLINSKY, *AN INTRODUCTION TO LAW AND ECONOMICS* 123 (3d ed. 2003) (“When all of the effects of product liability rules are taken into account—on the producers’ care, on the victims’ care, on industry output, and on risk allocation—it is clear that, in general no one [liability] rule will be best in every respect.”). By gutting the traditional distinction between negligence and strict liability, law and economics created a common intuition that many injurious behaviors should be subjected to various forms of strict liability.

¹⁴⁹ Guzelian, *Kindynamic Theory*, *supra* note 16, at 1009 (using the “zone of danger” rule as an example of an unpredictable rule and one that “maintain[s] the false public belief that individual justice is being done”). For related ideas, see LAWRENCE LESSIG, *CODE VERSION 2.0*, at 132–36 (2006) (discussing illegitimacy and dangers of indirect laws and regulations); Meir Dan-Cohen, *Decision Rules and Conduct Rules: On Acoustic Separation in Criminal Law*, 97 HARV. L. REV. 625, 665–67 (1984) (contending that selective transmission to the public of rules governing decisionmakers’ adjudications is a questionable practice).

¹⁵⁰ See *supra* note 43 and accompanying text. This is because actual malice is not a risk-based rule. It is instead focused on *intent*, which has little to do with the riskiness of a behavior or speech.

¹⁵¹ See *supra* notes 113–126 and accompanying text.

¹⁵² See Guzelian, *Kindynamic Theory*, *supra* note 16, at 1016–21; Pfaff & Guzelian, *supra* note 107, at 31–45.

D. *Summary Remarks About the Universality of Predictable Liability*

This section has described the *universal* need for trustworthy judicial derivation of truth and falsity, not just in a First Amendment context. Moreover, we have shown here and elsewhere that the *means* for distinguishing between true and false scientific statements of fact are the same in any legal context. Thus, objections to the modifications we are endorsing in a First Amendment context—even if they are couched as “defenses of free speech”—are logically indistinguishable from objections to a trustworthy means of distinguishing scientific truth and falsity in *any* legal context.

Secondly, we have proposed reliable limitations upon liability in a First Amendment context that departs from the current unpredictable precedent of actual malice and other unreliable standards. Similar departure from unpredictable precedent is required in tort and criminal law to achieve rational limitations upon liability. Thus, the matter is again not one of First Amendment origin, and cannot be protested on First Amendment grounds. Instead, it requires reconsideration of how liability is limited as a *general* legal matter.

VIII. WORRIES ABOUT LIABILITY: IS PREDICTABLE LIABILITY PREDICTED?

No matter what precautions we take, some readers will misunderstand this Article—particularly its proposals about adopting new categories of false scientific speech liability—as a radical call to “devalue” the freedom of speech. Let us be clear: this Article does *not* suggest that the government should restrict more speech. Rather, it urges the adoption of *predictable* speech liability that should, if anything, heighten the freedom of speech and could potentially result in fewer successful First Amendment suits. These assurances notwithstanding, many readers may remain upset about this Article. Even if they cannot themselves articulate why they are distressed, they are not without good reason. Indeed, the author himself has concerns about the inherent tensions that First Amendment law must in one way or another address.

We incompletely sketch these worries below; involved discussions could require several articles. From this brief exposé, we hope it will nevertheless be apparent that the most trenchant objections to speech liability are equally applicable to *all* legal liability, even when that liability is made predictable.

Laws work well if they transmit a predictable and correctly perceived signal that indicates which individual behavioral norms people should adopt or reject if they wish to avoid similar punishment. (On

the flip side of the coin, the absence of legal prohibition on a behavior sends a predictable and correctly perceived signal about which behaviors are freedoms.) Professor Larry Lessig explains that laws have to be subjectively internalized to shape individuals' behavior.¹⁵³

Stated simply, liability must be correctly internalized as an individual's behavioral norm to be effective. Thus, liability is far more than just a monetary penalty or incarceration. Liability is *speech* intended to signal what behaviors are socially acceptable and unacceptable. As speech, the intended message of any liability (including predictable liability) may be misperceived. Consequently, people may misconstrue the contexts or behaviors to which liability applies, overestimate or underestimate the amount of liability faced, or disregard or even intentionally flout the threat of liability.¹⁵⁴ There are many reasons why even predictable liability may not be predicted. One reason in particular is common to nearly all liability—enforced laws send a general, well-perceived, but crude *emotional* message: “You will be punished for your bad behavior.”

Whether intended or not, liability criticizes. Liability threatens. Liability causes fear. Liability is government-backed intimidation.¹⁵⁵ Yet Dale Carnegie, a giant in the self-help movement, recognized long ago

¹⁵³ LESSIG, *supra* note 149, at 344 (“As a subjective constraint, [laws] constrain[] us before we act. . . . Law and norms are more efficient the more subjective they are, [and] they need some minimal subjectivity to be effective at all.”).

¹⁵⁴ See Paul H. Robinson & John M. Darley, *The Role of Deterrence in the Formulation of Criminal Law Rules: At Its Worst When Doing Its Best*, 91 GEO. L.J. 949, 976–89 (2003) (describing why criminal liability fails to function properly in its intended deterrence role).

¹⁵⁵ Physical intimidation presently receives less First Amendment protection than other forms of speech, largely because the costs of that speech are believed to outweigh its benefits. See *Virginia v. Black*, 538 U.S. 343, 363 (2003); *R.A.V. v. City of St. Paul*, 505 U.S. 377, 395–96 (1992); *Watts v. United States*, 394 U.S. 705, 707–08 (1969) (per curiam). Interestingly, emotional intimidation is not itself usually recoverable in tort. See *Tiller v. St. Louis & S.F.R. Co.*, 189 F. 994, 996, 1000–01 (W.D. Okla. 1911) (holding no recovery for fright attributable to negligent burning of plaintiff's dwelling); *Erich v. Menezes*, 981 P.2d 978, 987 (Cal. 1999) (“[E]motional distress damages in connection with property damages are not compensable.” (quoting *Blagrove v. JB Mech., Inc.*, 934 P.2d 1273, 1277 (Wyo. 1997))). But see *Rodrigues v. State*, 472 P.2d 509, 520 (Haw. 1970) (allowing recovery for emotional injuries where negligence caused flooding of house plaintiff had built himself), modified by HAW. REV. STAT. ANN. § 663-8.9 (LexisNexis 2007) (barring liability for negligent infliction of emotional distress if based solely on property damage).

If fear of economic damages were legally compensable, an interesting question would arise: could people sue currently litigating parties for provoking specific or general fears of being sued? Could people sue for *irrational* fears of being sued? Note that many irrational fears are presently compensable in tort. See Guzelian, *Liability & Fear*, *supra* note 56, at 766–804 (explaining four forms of restrictions to limit liability for emotional harms related to physical injury).

that humans rarely respond to condemnation in the intended way: criticism often fails to create lasting change and instead creates resentment.¹⁵⁶

Carnegie's insight about how humans respond to criticism or threats applies no less equally to law. A law's intimidating emotional signal can completely block perception of that law's intended message: the unacceptability (or acceptability) of a behavioral norm in a specific context. If bombarded with many such emotional signals, people would gradually acquire general free-floating anxiety—not necessarily linked or restricted to a specific behavior—about their own future liability without knowing which “wrongful” behaviors of theirs may trigger that future liability. Economists commonly dismiss such fears and resulting behaviors as “irrational.” Whether “rational” or not, these feelings occur, making liability a double-edged sword with an unintended, but sharp, emotional edge.¹⁵⁷ The upshot of this is that *any* attempt to impose liability, rather than, say, letting local norms resolve the matter, may do more unintended harm than good. In other words, even predictable liability—a theoretically optimal form of liability—may result in unpredicted, harmful results.

We also note that commentators complain that law in a globalizing world is displacing informal, local social norms as the default norm for social interactions.¹⁵⁸ If local social norms are waning, and reliance on law is increasing, liability's intimidating emotional signals may be con-

¹⁵⁶ DALE CARNEGIE, *HOW TO WIN FRIENDS & INFLUENCE PEOPLE* 5–6 (rev. ed. 1981) (“Criticism is futile because it puts a person on the defensive and usually makes him strive to justify himself. Criticism is dangerous, because it wounds a person's precious pride, hurts his sense of importance, and arouses resentment.”).

¹⁵⁷ See Gerald L. Clore, *For Love or Money: Some Emotional Foundations of Rationality*, 80 CHI-KENT L. REV. 1151, 1152 (2005) (contending that emotions must be taken into account to complement rational choice theory in formulating a more accurate theory of behavior); Cass R. Sunstein, *Misfearing: A Reply*, 119 HARV. L. REV. 1110, 1111 (2006) (arguing that “cultural cognition” largely results from bounded rationality to the extent it produces factual judgments). See generally JOSEPH LEDOUX, *THE EMOTIONAL BRAIN: THE MYSTERIOUS UNDERPINNINGS OF EMOTIONAL LIFE* (1996) (providing an excellent but dated review of neurobiological and psychological evidence about how fear conditioning occurs and how people behaviorally respond to fears).

¹⁵⁸ See, e.g., PHILIP K. HOWARD, *THE DEATH OF COMMON SENSE: HOW LAW IS SUFFOCATING AMERICA* 185–87 (1994) (contending that law has gradually displaced social norms, leading to confusion and more strife in society); cf. ROBERT AXELROD, *THE EVOLUTION OF COOPERATION* 73–87 (1984) (reporting that frequent rotation of World War I troops through raids caused informal cooperative social norms between adversarial forces to collapse); ROBERT C. ELLICKSON, *ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES* 82–103, 283 (1991) (indicating in empirical case review of cattle grazing that social norms can be displaced by legal norms because of people's unfamiliarity with each other).

tributing to a noted increase in social fear, without necessarily creating additional safety when people speak or act.¹⁵⁹ Moreover, to the extent that local norms are still strong and do conflict with law, they may embolden individuals to reject law, or even intentionally flout it.¹⁶⁰

The upshot of this analysis is that even if law is made more predictable (in theory), it is not necessarily assured that people will actually *predict* the legal implications of their behavior and modify that behavior accordingly in practice.

CONCLUSION

False speech is a problem.¹⁶¹ This Article has proposed steps that land a first blow in addressing that problem in a predictable fashion. Multiple modifications to current legal understandings of “falsity” are necessary to achieve this predictability. In particular: (1) focusing on audience perception rather than the literal words of speech, (2) establishing through objective empirical knowledge that a speaker has caused injurious false perceptions, (3) modifying legal rules of evidence to en-

¹⁵⁹ See MALCOLM GLADWELL, *THE TIPPING POINT: HOW LITTLE THINGS CAN MAKE A BIG DIFFERENCE* 7–14 (2002) (presenting theory of why epidemics like teen smoking, drug use, etc. are not deterred by laws); BARRY GLASSNER, *THE CULTURE OF FEAR: WHY AMERICANS ARE AFRAID OF THE WRONG THINGS*, at xi–xiv (1999) (noting increase in general social fears in America).

¹⁶⁰ Robinson & Darley, *supra* note 154, at 986. The authors state:

If the community comes to view the law as being irrelevant to justice—or worse, as violating justice—then a lawbreaker will not be stigmatized by the community. He or she may even be regarded as a Robin Hood, working to produce what the community considers to be justice, in defiance of the unjust legal system and its enforcers. According to this analysis, distributing punishment in a way that conflicts with shared lay intuitions of justice undercuts the criminal law’s moral authority and thereby reduces its crime reduction effect.

Id.

¹⁶¹ Although not *itself* desirable, *some* false scientific speech is an unavoidable by-product of any attempt to gain scientific knowledge. In science, false conjectures considered in isolation *are* worthless if the goal is truth. The *process* of gaining scientific knowledge, though, is messy and imperfect and generates many false conjectures because humans are imperfect. If one forbade the give-and-take of scientific conjectures entirely, there would be no way, given our human nature, to identify scientific facts. Thus, the tricky goal is to *encourage* people *in some contexts* to make absurd or preposterous scientific speculation—understanding that the vast majority of it will prove to be false, and simultaneously *prevent* those untested conjectures from being accepted as certainties or even semi-certainties until there is sufficient scientific evidence to do so. There are no hard lines in the sand in science—the border of practical scientific knowledge is fuzzy. Nevertheless, a fuzzy strike-zone does not prevent an umpire from generally calling balls and strikes reliably, nor should fuzzy boundaries of knowledge prohibit the practical delimitation of scientific knowledge in most instances.

sure that judicial findings of fact accurately reflect current scientific knowledge will all make liability more predictable, and (4) using the best available empirical evidence to establish which speeches cause avoidable, needless injuries should be done to limit First Amendment liability in a predictable fashion. (We call this form of limited liability “predictable negligence.”)

Taken together, these modifications suggest that special focus should be dedicated to false scientific speech, for which predictable liability can be most successfully applied. Some commentators suggest that there are constitutional barriers to replacing aspects of liability that might seem to make this sort of suggestion politically impossible.¹⁶² But predictable liability—the sole means to upholding the Rule of Law—is a concept far older than the Constitution, and one with which the Constitution, properly interpreted, surely does not interfere. What we simply cannot afford to lose sight of in all of this is that the problem of false speech is quite real and has been immeasurably enabled by the proliferation of communication technologies. It must be addressed, and it must be addressed predictably. Formal, predictable liability for false scientific speech is a first step in remedying the currently unpredictable state of First Amendment affairs.

No solution is capable of offering us a completely truthful world. There will always be liars and bullshitters. But the wonderful advances in our scientific knowledge and information technology offer us an unprecedented opportunity to advance our collective consciousness, and perhaps to leave behind many of the superstitions, prejudices, and illusions that have inflamed humanity’s hearts and led to many of our most evil deeds since time immemorial. Law should and must reflect these advances to remain predictable; if it does not, we risk creating a society that will lose respect for the Rule of Law.

¹⁶² Compare John C.P. Goldberg, *The Constitutional Status of Tort Law: Due Process and the Right to a Law for the Redress of Wrongs*, 115 YALE L.J. 524, 583–626 (2005) (arguing that the Constitution prohibits certain tort reforms), with Philip K. Howard, *A Remedy Without a Wrong*, 115 YALE L.J. POCKET PART 30, 31–33 (2005), <http://www.yalelawjournal.org/images/pdfs/25.pdf> (rebutting Goldberg’s article).