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ARE PRIVACY POLICIES INFORMATIONAL OR IDEOLOGICAL?

Jane Bambauer*

I. INTRODUCTION

Consumer privacy is predominantly regulated through disclosure.¹ The Federal Trade Commission (FTC) strongly urges American businesses to notify consumers about their privacy practices, and the agency is considering requiring “just-in-time” disclosure that would make these notices more salient and aggressive.² Many states, including California, require companies to provide a privacy policy on their websites, making mandated disclosure the de facto law for the whole country.³ Although privacy policies have inspired a rich set of legal and empirical research,⁴ the literature has not situated privacy in the general landscape of mandated disclosure law and policy.

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1. This Article addresses compelled disclosures of privacy policies. It does not concern enforcement of promises voluntarily made by companies, which so far have made up much of the FTC’s privacy enforcement docket. Such enforcement is trans-substantive and merely clears the market of fraud. See Daniel J. Solove & Woodrow Hartzog, *The FTC and the New Common Law of Privacy*, 114 COLUM. L. REV. 583, 617 (2014).

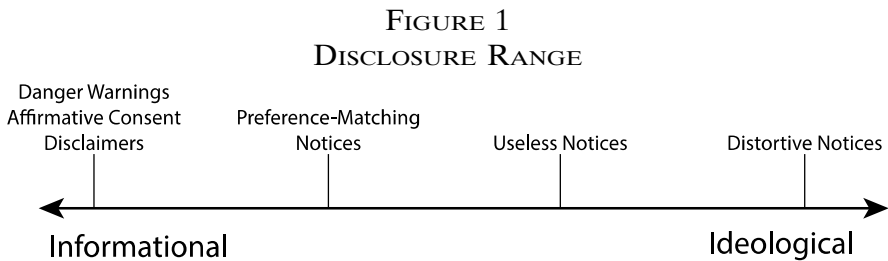
2. FED. TRADE COMM’N, PROTECTING CONSUMER PRIVACY IN AN ERA OF RAPID CHANGE: RECOMMENDATIONS FOR BUSINESSES AND POLICY MAKERS 48, 61 (2012) [hereinafter FTC, RAPID CHANGE], <https://www.ftc.gov/sites/default/files/documents/reports/federal-trade-commission-report-protecting-consumer-privacy-era-rapid-change-recommendations/120326privacyreport.pdf>; see also Children’s Online Privacy Protection Act of 1998 (COPPA), 15 U.S.C. §§ 6501–6506 (2012); Gramm-Leach-Bliley Act (Financial Services Modernization Act of 1999), 15 U.S.C. §§ 6801–6809, 6821–6827 (2012).

3. See Online Privacy Protection Act of 2003, CAL BUS. & PROF. CODE §§ 22575–22579 (West 2015); Notice of Intent to Sell Nonpublic Personal Information Act, UTAH CODE ANN. §§ 13-37-101 to -203 (LexisNexis 2013).

4. See Solove & Hartzog, *supra* note 1, at 583; see also Daniel J. Solove, *Introduction: Privacy Self-Management and the Consent Dilemma*, 126 HARV. L. REV. 1880 (2013); Janice Y. Tsai et al., *The Effect of Online Privacy Information on Purchasing Behavior: An Experimental Study*, 22 INFO. SYS. RES. 254 (2011). See generally Patrick Gage Kelley et al., *A “Nutrition Label” for Privacy*, in PROCEEDINGS OF THE FIFTH SYMPOSIUM ON USABLE PRIVACY & SECURITY (2009); ALAN LEVY & MANOJ HASTAK, CONSUMER COMPREHENSION OF FINANCIAL PRIVACY NOTICES: A REPORT ON THE RESULTS OF THE QUANTITATIVE TESTING (2008), https://www.ftc.gov/system/files/documents/reports/quantitative-research-levy-hastak-report/quantitative_research_-_levy-hastak_report.pdf; JOSEPH TUROW ET AL., THE TRADEOFF FALLACY: HOW MARKETERS ARE MISREPRESENTING AMERICAN CONSUMERS AND OPENING THEM UP TO EXPLOITATION (2015), https://www.asc.upenn.edu/sites/default/files/TradeoffFallacy_1.pdf.

American law has a famously abundant number of mandated disclosure rules.⁵ For example, companies must provide notice of attributes as diverse as interest rates and calorie counts. The legitimacy of these mandated disclosures falls along a spectrum. Some disclosures are indisputably good policy because they alert consumers about material risks that all would agree are bad, such as product warnings about latent dangers. These long-accepted “informational” disclosures are within the compelled speech doctrine of the First Amendment.⁶ Other mandated disclosures are arguably poor policy because they mislead consumers and cause foreseeable overreactions. For example, mandated disclosures about the presence of mercury in vaccines, about the foreign origins of products, or about raw correlations between depression and abortion technically consist of factual statements.⁷ Nevertheless, they should be treated as “ideological” disclosures running afoul of the compelled speech doctrine.⁸

Much less is known about the middle of the range. These mandated disclosures do not have the virtue of alerting consumers to risks because they concern attributes that consumers do not consistently see as positive or negative. Some disclosures are useful for preference-matching where consumers value a product more after learning about an attribute, while others value it less. Other disclosures are useless, meaning that consumers informed about the attribute do not change their valuation at all. These are wasteful, but not fraudulent or distortive.



5. See Omri Ben-Shahar & Carl E. Schneider, *The Failure of Mandated Disclosure*, 159 U. PENN. L. REV. 647, 681–83 (2011). See generally MARY GRAHAM, *DEMOCRACY BY DISCLOSURE: THE RISE OF TECHNOPOPULISM* (2002).

6. See *infra* notes 19–20 and accompanying text (discussing *Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio*, 471 U.S. 626 (1985)).

7. See Jane Bambauer et al., *A Bad Education*, 2017 U. ILL. L. REV. 109 (2017); Daniel I. Rees & Joseph J. Sabia, *The Relationship Between Abortion and Depression: New Evidence from the Fragile Families and Child Wellbeing Studies*, MED. SCI. MONITOR (Oct. 1, 2007), <https://www.ncbi.nlm.nih.gov/pubmed/17901849>; see also *infra* note 76 and accompanying text (discussing Right to Know Act, AB-1291, 2013–2014 Legis., Reg. Sess. (Cal. 2013)).

8. See *infra* notes 21–46 and accompanying text.

Compelled speech precedents leave a good deal of uncertainty about whether mandated disclosures in the middle range are constitutional.⁹ This uncertainty leaves American privacy law in some doubt, as privacy disclosures fall in this middle range.¹⁰ Mandated privacy disclosures rarely make a difference to the material interests of consumers as a whole. At best, privacy policies provide a tool for preference-matching, and in some cases they add no value to consumer decision-making. For new services that challenge data-collecting and data-mining conventions, privacy disclosures could be distortive by focusing the consumer's attention only on loss-of-data control without explaining the tradeoffs—the functionality or other benefits that flow to the user.

This Article presents a theory and practical instrument for distinguishing between informational and ideological mandated disclosures. In previous work, I have developed a theoretical and empirical framework for assessing whether mandated disclosures are good public policy.¹¹ This Article adapts that work to answer a different question: How should courts use empirical evidence to define the limits of unconstitutional compelled speech? The constitutional limits will not match the contours of optimal public policy; rather, they will mark a lower bound for suboptimal mandated disclosures. I argue that compelled disclosures that cause consumers to overreact—to avoid a product or service that they would prefer to have if there had been better, more balanced information—are clearly unconstitutional, and that compelled disclosures that have no effect on consumers at all are constitutionally suspect.

Using this framework, the Article presents results from a proof-of-concept experiment that suggest mandated privacy disclosures may be constitutionally suspect. Although privacy notices do not cause consumer overreaction, neither do they have the hallmarks of a useful notice regime. These results raise questions about why privacy attributes are selected for special attention by regulators for mandated disclosure. One explanation is that even if consumers do not respond negatively to privacy-related notices, they wish to know about a company's data practices before making a consumption decision. This is descriptively correct—the experimental results show that research subjects clearly preferred to receive mandated disclosures about pri-

9. Putting constitutionality aside, the literature on mandated disclosure has not illuminated whether these are worthwhile uses of state power.

10. See *infra* notes 11–47 and accompanying text.

11. The experiment is described in more detail in Bambauer et al., *A Bad Education*, *supra* note 7.

vacy. However, the experiment also shows that subjects had a preference for mandated disclosures of all product features that were tested, including disclosures about the presence of mercury in vaccines and whether foods have been genetically modified. In other words, consumers *always* favor disclosure. Privacy is not special.

An alternative explanation for selecting privacy for special attention, even when consumers do not use the information to change their conduct, is that disclosure laws attempt to shape consumers' future preferences and nudge companies toward privacy-preserving practices. The FTC has not been subtle about this mission. It has used disclosure rules as an alternative to the direct regulations of data practices that it would prefer.¹² This use of compulsory disclosure is divorced from any neutral mission to simply inform consumers, and it flirts with the boundary of ideological compelled speech.

This Article proceeds with a description of the compelled speech doctrine and its uncertain application to privacy disclosures in Part II. Part III introduces a clean and testable theory for identifying ideological mandated disclosures and applies the test to disclosures about privacy and other product attributes. Part IV concludes with some remarks about factors that regulators should consider, in addition to the constitutional constraints, when devising a mandated disclosure scheme about privacy (or anything else).

II. THE LAW OF COMPELLED FACTUAL DISCLOSURES

At first blush, it would seem that legal requirements for companies to clearly state what their data practices are would be wholly uncontroversial. It requires nothing more than a statement of factual information. Compelled disclosure of accurate facts, however, can be deceptively ideological. As the Supreme Court has stated:

[W]e would not immunize a law requiring a speaker favoring a particular government project to state at the outset of every address the average cost overruns in similar projects, or a law requiring a speaker favoring an incumbent candidate to state during every solicitation that candidate's recent travel budget. Although the foregoing factual information might be relevant to the listener, and, in the latter case, could encourage or discourage the listener from making

12. See FTC, *RAPID CHANGE*, *supra* note 2, at i (“Although companies use this information to innovate and deliver better products and services to consumers, they should not do so at the expense of consumer privacy.”); see also Julie Brill, Fed. Trade Comm’r, Protecting Consumer Privacy in an Era of Rapid Change: A Discussion of the FTC’s Privacy Report, Remarks Before the Direct Mktg. Ass’n (Mar. 26, 2012), https://www.ftc.gov/sites/default/files/documents/public_statements/protecting-consumer-privacy-era-rapid-change-discussion-ftcs-privacy-report/120326dma.pdf.

a political donation, a law compelling its disclosure would clearly and substantially burden the protected speech.¹³

The government has more latitude to compel factual disclosures from commercial speakers than political speakers, but this too has significant limits. This Part fleshes out the spectrum of factual disclosures from clearly informational to clearly ideological.

A. *Warnings and Consent*

At the secure end of the constitutional spectrum are product warnings about latent dangers and instructions for safe use. These include both warning obligations developed under the common law, as well as federal regulations like Food & Drug Administration (FDA) drug labeling. Instructions on dosage for an over-the-counter drug or warnings about the dangers of electrical currents alert consumers about risks—potential consequences that everybody agrees are bad. Safety warnings do more than simply inform consumers; they satisfy generally applicable rules about efficient precautions. When viewed as part of overall product design, warnings provide an excuse for manufacturers to sell something that could otherwise be illegal.¹⁴ One way to recognize these clearly informational mandated disclosures is by asking whether the underlying law would have prompted the disclosure to satisfy generally applicable legal duties.

The same ideas govern disclosures made in the process of obtaining consent.¹⁵ For example, the underlying law would treat surgery as a battery if the patient is not made aware of material risks to their health. Thus, laws compelling disclosure about certain types of medical risks, or even about a sexual partner's HIV status, formalize what basic principles of battery law already require.

Mandated privacy disclosures could have this same result if they are narrowly confined to situations in which a person or company needs actual consent to lawfully collect or share personal data. For example, common law and wiretap statutes prohibit secret interceptions of

13. *Riley v. Nat'l Fed'n of the Blind of N.C., Inc.*, 487 U.S. 781, 798 (1988).

14. In fact, under the Third Restatement, warnings may not even be sufficient to discharge liability if the product could have been cost-effectively designed to avoid the danger. RESTATEMENT (THIRD) OF TORTS § 2 cmt. i (AM. LAW INST. 1998); *see also* Uniroyal Goodrich Tire Co. v. Martinez, 977 S.W.2d 328, 335 (Tex. 1998). This diverges from the Second Restatement approach, which treated warnings as presumptively heeded. RESTATEMENT (SECOND) OF TORTS § 402A cmt. j (AM. LAW INST. 1965) (“Where warning is given, the seller may reasonably assume that it will be read and heeded; and a product bearing such a warning, which is safe for use if it is followed, is not in defective condition, nor is it unreasonably dangerous.”).

15. The law of “informed consent” sweeps broader than consent, and, therefore, raises more questions about the necessity of compelled disclosure.

other peoples' phone calls.¹⁶ A mandate requiring companies to alert customers when their personal communications will be intercepted does nothing more than respect the substantive rights that consumers already have in the confidentiality of their communications.

Note that the substantive law itself may be poorly designed. Wiretap laws, for example, may be overly resistant to technological change, as recent litigation challenging the legality of Gmail has illustrated,¹⁷ but these are problems related to the underlying rights and responsibilities of the parties involved rather than with a disclosure rule. A mandated disclosure rule would be unobjectionable because it does nothing more than codify what the law already requires. Most data practices governed by mandated disclosure rules do not implicate established rights of the data subject. The practices of collecting Internet browsing data or retaining purchasing data are not illegal and do not require affirmative consent from consumers.¹⁸

B. *Disclaimers*

Danger warnings and consent requirements do not exhaust the universe of valuable and constitutional disclosure rules. Government can also use disclosure rules to correct for misimpressions that consumers are likely to have about the consequences of a transaction. For example, in *Zauderer v. Office of Disciplinary Counsel*,¹⁹ the Supreme Court upheld a law requiring law firms that use contingency fee structures to make clear that if the client loses, she may still have to pay costs (even if there is no fee for attorney services). The Court applied only rational basis scrutiny because the disclosure law concerned "purely factual and uncontroversial information" that was "reasonably related to the State's interest in preventing deception of consumers."²⁰ Thus, the state can mandate disclosures that function as disclaimers. These disclaimers correct impressions that are wrong in

16. 18 U.S.C. § 2511 (2012); *Nader v. Gen. Motors Corp.*, 255 N.E.2d 765, 770 (N.Y. 1970).

17. *In re Google Inc. Gmail Litig.*, No. 13-MD-02430-LHK, 2013 WL 5423918, at *19 (N.D. Cal. Sept. 26, 2013).

18. I have questioned whether some new and invasive practices might qualify as an illegal intrusion upon seclusion under a modern understanding of that tort. See Jane Yakowitz Bambauer, *The New Intrusion*, 88 NOTRE DAME L. REV. 205, 255–56 (2012). The meaning of "intrusion" would nevertheless have a narrower scope than the full range of data practices subject to disclosure by COPPA and by FTC guidance documents.

19. *Zauderer v. Office of Disciplinary Counsel of the Supreme Court of Ohio*, 471 U.S. 626, 653 (1985).

20. *Id.* at 651.

some “material respect.”²¹ However, outside of rules that reduce consumer deception, mandated disclosure laws are open to constitutional challenge.

C. Ideological Factual Disclosures

Courts are inconsistently hostile to factual-disclosure requirements that attempt to bypass rational decision making processes. For example, a D.C. Circuit panel recently struck down a FDA regulation that would have required cigarette packaging to contain graphic images of health problems caused by smoking.²² A mockup of the FDA disclosure is below.²³

FIGURE 2
PROPOSED FDA DISCLOSURE



21. JAMES C. MILLER III, FED. TRADE COMM’N, FTC POLICY STATEMENT ON DECEPTION § IV (Oct. 14, 1983), https://www.ftc.gov/system/files/documents/public_statements/410531/831014deceptionstmt.pdf (appended to *Cliffdale Assocs., Inc.*, 103 F.T.C. 110, 174 (1984)).

22. *R.J. Reynolds Tobacco Co. v. FDA*, 696 F.3d 1205, 1218 (D.C. Cir. 2012), *overruled by Am. Meat Inst. v. USDA*, 760 F.3d 18 (D.C. Cir. 2012) (en banc) (holding that the disclosures were too burdensome under the *Zauderer* analysis).

23. Mockup created by David LaFontaine for FairWarning. See Myron Levin, *Tobacco Industry Batting a Thousand with Federal Judge, While FDA Strikes Out*, FAIRWARNING (Sept. 29, 2014), <https://www.fairwarning.org/2014/09/fda-batting-o-3-federal-judge/>.

The D.C. Circuit struck down the regulation because the government's primary goal was to "discourage nonsmokers from initiating cigarette use and to encourage current smokers to consider quitting."²⁴ Yet the line between informing and encouraging is not bright. Indeed, the Sixth Circuit considered an identical challenge and found that the FDA rule was constitutional.²⁵

The appellate court precedents in the wake of *Zauderer* are incoherent, but three factors emerge from the mess as likely guideposts for future cases. First, courts tend to disfavor mandated disclosures that evoke an emotional response and potentially override rational decision-making. The D.C. Circuit Court struck down the graphic cigarette warning law in part because it "shocked" consumers rather than informing them.²⁶ As Caroline Corbin points out, the government might wish to evoke emotional responses to nudge consumer behavior: "It is not surprising that the state would want to trigger an emotional response. Studies have shown that information linked to emotion is more persuasive than the information alone."²⁷ It is also not surprising that courts would give these types of disclosure laws extra scrutiny because they are designed to bypass what Professor Kahneman²⁸ calls "slow" and deliberate thinking, in favor of "fast" decisions.²⁹ Disclosure rules that appeal to emotions may diverge from the "purely factual" disclosure mandates that receive lower scrutiny under *Zauderer*.

A second, related factor is the judiciary's disfavor for secret evangelizing. In the cigarette labeling case, the D.C. Circuit was concerned that the government was using tobacco manufacturers as a mouthpiece (or "billboard") for the government's anti-smoking campaign.³⁰ This was also a significant determinant of the D.C. Circuit's decision to invalidate a Securities and Exchange Commission (SEC) rule on conflict minerals. The SEC rule required public corporations to disclose if any of their product materials originated from the Congo and, if so, if the purchase of the minerals may have funded civil wars.³¹ Although the disclosures would have been factual, the court found

24. *R.J. Reynolds Tobacco*, 696 F.3d at 1218 (quoting Required Warnings for Cigarette Packages and Advertisements, 76 Fed. Reg. 36,630 (June 22, 2011)).

25. *Discount Tobacco City & Lottery, Inc. v. United States*, 674 F.3d 509, 569 (6th Cir. 2012).

26. *R.J. Reynolds Tobacco*, 696 F.3d at 1216.

27. Caroline Mala Corbin, *Compelled Disclosures*, 65 ALA. L. REV. 1277, 1289 (2014).

28. Renowned Professor of Psychology at Princeton University.

29. DANIEL KAHNEMAN, THINKING FAST AND SLOW 20–21; see also Dan M. Kahan, *Two Conceptions of Emotion in Risk Regulation*, 156 U. PA. L. REV. 741, 747 (2008).

30. *R.J. Reynolds Tobacco*, 696 F.3d at 1211.

31. *Nat'l Ass'n Mfrs. v. SEC*, 748 F.3d 359, 363 (D.C. Cir. 2014), *overruled by* *Am. Meat Inst. v. USDA*, 760 F.3d 18 (D.C. Cir. 2012) (en banc).

that they were also ideological because the law “requires an issuer to tell consumers that its products are ethically tainted.”³²

More generally, courts have shown increasing willingness to investigate and infer whether the government has some ulterior policy objective outside of correcting consumer deception. However, this principle is not consistently followed. Other circuit courts have upheld mandated factual disclosures that were just as motivated to persuade consumers away from certain products. For example, a Texas law requiring physicians who provide abortions to show their patients an ultrasound image of the fetus was upheld against a First Amendment challenge, even though the state legislature was openly opposed to abortion and was trying to reduce its incidence.³³

The third factor is distortion. Compelled disclosures, even factual disclosures, can introduce error by causing consumers to overreact to the information.³⁴ This aspect of the compelled speech doctrine simply requires the government to abide by the same rules that the law of false advertising demands from private parties: It should not force companies to mislead consumers about a material aspect of the transaction.³⁵

This factor seems to be the most promising because, in addition to its common sense, it is utilitarian (looking at results rather than bad intent) and testable. Unfortunately, this too is mired in conflicting precedent. For example, in 1987 the Supreme Court upheld a law requiring films produced by foreign governments to be labeled as “political propaganda” even though the Court acknowledged that “propaganda” typically has a negative connotation.³⁶ The Court at that time was willing to take a lenient stance, finding that the statute avoided classification as ideological because it defined “propaganda” in a nonperjorative manner.³⁷ More recently, the D.C. Circuit, sitting en banc, upheld a federal statute requiring all foreign meat to be labeled with its country of origin even though the court recognized that many consumers would wrongly assume that meats externally pro-

32. *Id.* at 371. Note that the first indicator the D.C. Circuit used to find a mandated disclosure rule ideological was that it was not related to preventing consumer deception.

33. *Tex. Med. Providers Performing Abortion Servs. v. Lakey*, 667 F.3d 570, 584 (5th Cir. 2012). For a thoughtful discussion of this and similar cases, see Jennifer M. Keighley, *Physician Speech and Mandatory Ultrasound Laws: The First Amendment's Limit on Compelled Ideological Speech*, 34 *CARDOZO L. REV.* 2347, 2357 (2013).

34. Corbin, *supra* note 27, at 1294.

35. *Pizza Hut, Inc. v. Papa John's Int'l*, 227 F.3d 489, 495 (5th Cir. 2000).

36. *Meese v. Keene*, 481 U.S. 465, 490 (1987).

37. *Id.* at 480–81.

duced are not under supervision of U.S. regulators.³⁸ In fact, the USDA itself had previously stated that country-of-origin labeling does not serve any health or safety interests.³⁹ These mandated disclosures very likely introduced distortion by misleading consumers into anticipating risks that did not exist.

Privacy disclosure laws may implicate the second and third factors, and the FTC's proposed just-in-time disclosure might raise all three. Although some of the FTC's public statements emphasize consumer choice,⁴⁰ much of it reveals a clear preference for achieving certain results: minimizing data-collection and data sharing.⁴¹

Most scholars writing in the area share this end goal. Much of the literature on the efficacy of privacy disclosures treat a consumer's willingness to share personal information as evidence of a failure of rational decision-making, and conversely the literature treats consumer reserve as a success.⁴² These scholars are motivated to solve what is known as the "privacy paradox"—the fact that consumers consistently and consciously give their personal data away for little to no money despite consistent assertions that they highly prize their data privacy.⁴³ Privacy researchers are eager to overcome the paradox by finding fault with the decisions that consumers make (i.e., exposing their data) rather than with the abstract statements that they make in favor of privacy.⁴⁴ A nascent body of research is now finding that however

38. *Am. Meat Inst. v. USDA*, 760 F.3d 18, 24 (D.C. Cir. 2014) (en banc). The court gave several reasons that the labeling law promoted a substantial state interest including a long history of country-of-origin labeling, the ability to track and avoid foods from countries that have a food contamination problem, and simply enabling consumer preferences to "buy American." *Id.*

39. *Id.* at 25.

40. FTC, *RAPID CHANGE*, *supra* note 2, at 60.

41. *Id.* at 15, 23–24.

42. Idris Adjerid et al., *Sleights of Privacy: Framing, Disclosures, and the Limits of Transparency*, in *PROCEEDINGS OF THE NINTH SYMPOSIUM ON USABLE PRIVACY AND SECURITY* (2013). Although the authors make clear in the analysis section that their Experiment 1 is only a test of framing effects, the introduction and conclusion of the paper uses this evidence to argue that privacy disclosures fail to adequately steer consumers away from disclosing information. *Id.*; see also Leslie K. John et al., *Strangers on a Plane: Context-Dependent Willingness to Divulge Sensitive Information*, 37 *J. CONSUMER RES.* 858, 858–59 (2011) (concluding that cues and context cause people to divulge more sensitive information by "downplaying" privacy concerns without questioning whether the more direct contexts could overemphasize privacy); Tsai et al., *supra* note 4.

43. Alessandro Acquisti et al., *The Economics of Privacy*, *J. ECON. LIT.*, June 2016, at 1, 37–38; see also Alessandro Acquisti, *Privacy in Electronic Commerce and the Economics of Immediate Gratification*, in *EC '04 PROCEEDINGS OF THE 5TH ACM CONFERENCE ON ELECTRONIC COM.* 21 (2004) [hereinafter *Economics of Immediate Gratification*].

44. See Adjerid et al., *supra* note 42; see also Alessandro Acquisti et al., *Gone in 15 Seconds: The Limits of Privacy Transparency and Control*, *IEEE SECURITY & PRIVACY*, July 2013, at 72; Alessandro Acquisti & Ralph Gross, *Imagined Communities: Awareness, Information Sharing, and Privacy on the Facebook*, in *PRIVACY ENHANCING TECHS. SYMP.* 36 (George Danezis &

consumers may feel about “privacy” in the abstract, they are making decisions consistent with their preferences when faced with real-world tradeoffs.⁴⁵ Just-in-time privacy disclosure may be an attempt by the FTC to use disclosure rules to scare consumers into making more data-cautious choices. It may be, in other words, an appeal to emotions or policy evangelism.

Privacy disclosures also run some risk of introducing distortions by misleading consumers about the costs and benefits of a transaction. The proposed, but unenacted, amendment to California’s Online Privacy Protection Act would have required companies to state in fewer than one hundred words what their data collection and dissemination practices will be.⁴⁶ This leaves no opportunity for companies to explain what consumers would lose if data collection were minimized. These statements will leave consumers insecure about the loss of data control. Yet the warnings may not serve their interests because most consumers greatly prefer free Internet content, which is currently underwritten by advertisers and data aggregators.⁴⁷

Although privacy disclosures are purely factual, mandates may nevertheless be controversial. The next Part presents a model for testing whether compelled disclosures about privacy and other attributes are ideological.

Philippe Golle eds., 2006); Acquisti, *Economics of Immediate Gratification*, *supra* note 43; Alessandro Acquisti & Jens Grossklags, *Privacy and Rationality in Individual Decision Making*, IEEE SECURITY & PRIVACY, Jan./Feb. 2005, at 26; Laura Brandimarte et al., *Misplaced Confidences: Privacy and the Control Paradox*, in NINTH WORKSHOP ON THE ECON. OF INFO. SECURITY (2010).

45. Ben-Shahar, *supra* note 5, at 650, 696; Soren Preibusch, *The Value of Privacy in Web Search*, IEEE SEC. & PRIVACY, Sept./Oct. 2015, at 24 (finding that well-informed consumers value privacy protections much less than convenience and functionality). See generally Lior Jacob Strahilevitz & Matthew B. Kugler, *Is Privacy Policy Language Irrelevant to Consumers?*, 45 J. LEGAL STUD. 69 (2017) (finding that consumers understand that they are exchanging control of their data for functionality and services they want).

46. CAL. BUS. & PROF. CODE §§ 22575–22579 (West 2016).

47. See generally Arslan Aziz & Rahul Telang, *What Is a Digital Cookie Worth?* (2016) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2757325. Even the downstream uses of personal data may be far less unfavorable than consumers generally assume—some studies have found that poor and minority data subjects enjoy a net benefit when employers and creditors use Big Data to make decisions. See James C. Cooper, *Separation, Pooling, and Big Data* (Geo. Mason Legal Studies, Research Paper No. LS 15-15, 2016), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2655794 (credit); see also Bambauer, *The New Intrusion*, *supra* note 18, at 269–70 (credit); Lior Jacob Strahilevitz, *Privacy Versus Antidiscrimination*, 75 U. CHI. L. REV. 363, 369–71 (2008) (wages); Lior Jacob Strahilevitz, *Toward a Positive Theory of Privacy Law*, 126 HARV. L. REV. 2010 (2013) (generally).

III. INFORMATIONAL AND IDEOLOGICAL FACTUAL DISCLOSURES

This Part proposes a model that can sort factual disclosures along the range between informational to ideological. I describe both the theory and results of a proof-of-concept study administered using Amazon's Mechanical Turk.⁴⁸


Throughout this Part, I use reserve prices (the most that a person would be willing to pay for a product or service) to measure the effects of disclosure. In the abstract, I would like to know what a consumer with a fixed set of preferences would pay for an item under three different conditions: (1) an unwarned consumer who makes a valuation decision without any disclosure about the attribute selected for study; (2) a warned consumer who makes the decision with disclosure about the attribute; and (3) the perfectly informed consumer who makes the decision with perfect information about both the costs and the benefits of the attribute—benefits typically consisting of the functionality that would be lost if the company were to avoid the attribute. Perfectly informed consumers have more information than warned consumers because mandated disclosures rarely supply consumers with details about the scale of the risks, and companies almost never provide information about the benefits that would be lost. Comparing these three states (unwarned, warned, perfectly informed) can reveal whether a disclosure is serving a useful function and whether it causes an overreaction.

Of course, the perfectly informed consumer does not exist, not even in experimental settings. We use a moderately well-educated consumer as a proxy for the perfectly informed consumer. These respondents were given the same notice that the “warned” subjects received, but in addition, the moderately well-educated consumer received some basic information about the scale of risks and benefits of the attribute.

We randomly assigned research subjects to a product and a disclosure level (unwarned, warned, or well-educated) and then presented a vignette—a short description that asks the subject to imagine they are making a decision about buying a good or service. We then asked the respondent for their reserve price. As an illustration, here is what the subjects assigned to the DNA Kit scenario would have seen:

48. “Amazon Mechanical Turk is a marketplace for work that requires human intelligence. The Mechanical Turk service gives businesses access to a diverse, on-demand, scalable workforce and gives Workers a selection of thousands of tasks to complete whenever it’s convenient.” *General Questions*, AMAZON, https://www.mturk.com/mturk/help?helpPage=overview#what_is (last visited Jan. 29, 2017).

FIGURE 3
DNA KIT WARNINGS

	
Unwarned	You can buy a DNA testing service. The service takes a sample of your saliva and creates a profile of your ancestry and your chances of developing certain medical conditions.
Warned	NOTICE: The company offering this service sells access to its customers' DNA data to pharmaceutical companies.
Well-Educated (risk)	Your identifying information is not included in the database that pharmaceutical companies can access. The pharmaceutical companies use the data to conduct medical research that may lead to the development of new treatments.
(benefit)	By selling access to the DNA database, this DNA service can afford to offer the testing kit for sale directly to you. Previously, DNA health analysis was available only at a doctor's office.
	Above which price would you definitely not buy the service because you did not think it was worth the money?

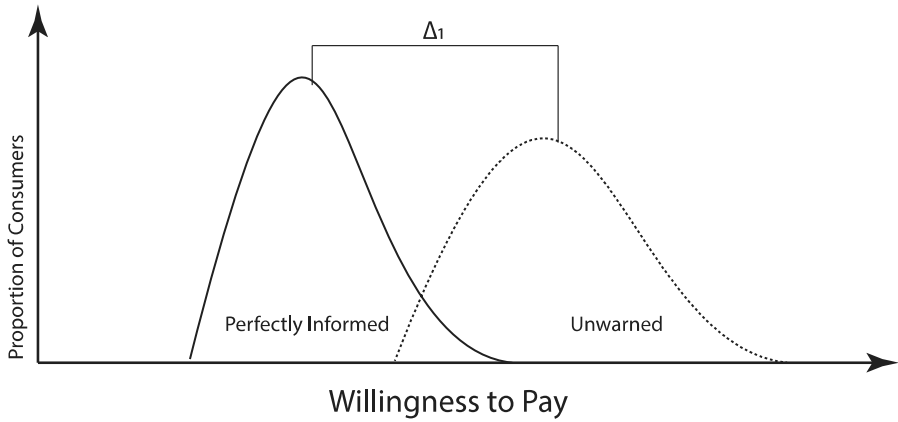
A. *Clearly Informational Disclosures*

A clearly informational disclosure should provide information about a material attribute without causing an overreaction. To be material, the perfectly educated consumer should have a different valuation from the unwarned consumer. If, on average, the perfectly informed consumers have lower reserve prices than the unwarned consumers, then materiality will be met.⁴⁹ Materiality would look something like this:⁵⁰

49. We use differences in averages to define materiality. However, because willingness to pay is usually skewed right (like income), in our experiment we use averages of the natural log of the reserve price. The function "*ln(price)*" produces a distribution that is much closer to normal. Throughout this Article, we report prices in dollars rather than log-dollars for the sake of readability, but for our analyses of statistical significance, we use mean log-price.

50. Bambauer et al., *Bad Education*, *supra* note 7, at 22.

FIGURE 4
MATERIALITY OF DISCLOSURE

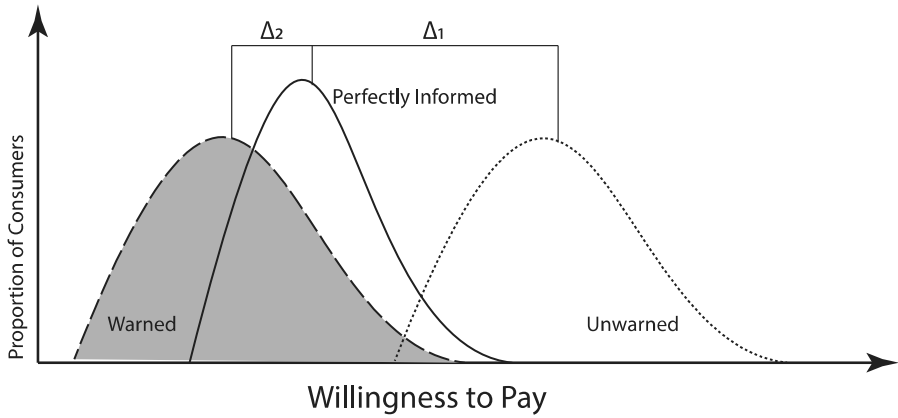


The shift in the distributions (Δ_1) shows that many consumers overvalue the product because they do not understand a latent negative feature. It is not necessarily the case that *all* consumers will value the product less with proper information, but the gap between the medians of the distributions suggests that, on average, disclosure would help consumers make more accurate assessments of a product's value.

The inquiry is not over. Even if an attribute is material to consumers' valuation of a good or service, a disclosure may cause an overreaction. Disclosures are necessarily crude and focus attention on risk, so they will provide a net benefit only if a warned consumer who receives disclosure makes consumption decisions more similar to the perfectly informed consumer than does the unwarned consumer. A clearly informational disclosure could produce distributions like this:⁵¹

51. Bambauer et al., *Bad Education*, *supra* note 7, at 25.

FIGURE 5
CLEARLY INFORMATIONAL DISCLOSURE



The disclosure both addresses a material attribute and does so in a way that is not unduly distortive because the bias from overcorrection is smaller than the bias when there is no disclosure at all ($\Delta_2 < \Delta_1$).

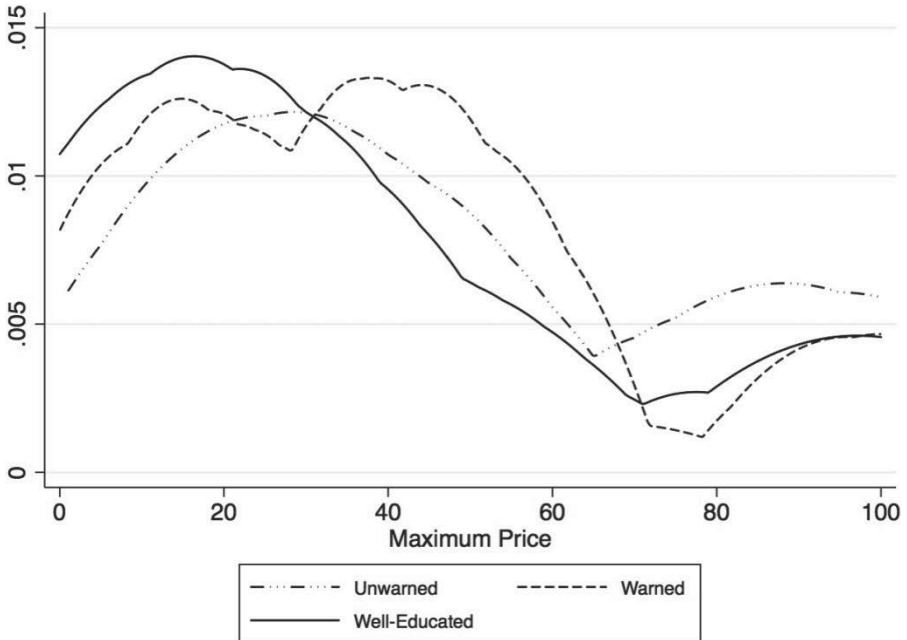
Our proof-of-concept study found that pharmaceutical drug warnings can have this quality. We tested consumer reactions to notices about the drug Vioxx (without using its name).⁵² This pain drug was removed from the market in 2004 after a post-market studies showed that the drug doubled its user's risk of heart attack and stroke.⁵³ The results of our study show that the risks posed by Vioxx's side effects are material and that the notice did not cause consumer overreaction. In fact, consumers may have underreacted to the disclosure.⁵⁴

52. Text: "You have the opportunity to buy a drug to help manage pain caused by your arthritis. / NOTICE: This drug has side effects that can increase the chance of heart attack and stroke. / This drug nearly doubles the chance that you will suffer a heart attack or stroke. This drug has a lower chance of causing ulcers and holes in your stomach than the other available painkillers." Bambauer et al., *Bad Education*, *supra* note 7, at 36.

53. Steven Reinberg, *Vioxx's Heart Risk Lingered Long After Use Ended*, WASH. POST (Oct. 14, 2008, 12:00 AM), <http://www.washingtonpost.com/wp-dyn/content/article/B2008/10/13/AR2008101302259.html>.

54. *Id.*

FIGURE 6
VIOXX DISCLOSURE



	Median Price	Proportion of \$0 Value
Unwarned (40)	\$67.50**	0.0%
Warned (39)	\$40.00	7.7%
Well-Educated (40)	\$27.50	7.5%

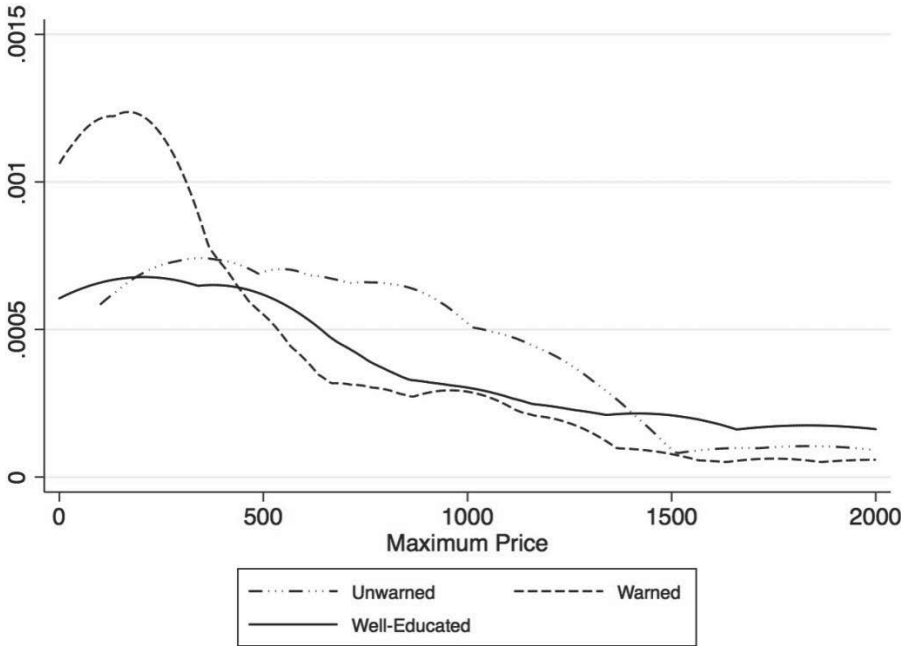
* = statistically significant difference from the Well-Educated group at the 5% level; ** p<.01; *** p<.001.

Interestingly, in contrast to the D.C. Circuit opinion in *NAM v. SEC*,⁵⁵ our results for disclosures about conflict diamonds also met the standards for an informational disclosure (although a replication with more power may find that disclosure causes an overreaction).⁵⁶

55. 800 F.3d 518 (D.C. Cir. 2015).

56. Bambauer et al., *Bad Education*, *supra* note 7, at 38.

FIGURE 7
CONFLICT DIAMOND DISCLOSURE



	Median Price	Proportion of \$0 Value
Unwarned (39)	\$800.00*	0.0%
Warned (40)	\$300.00	12.5%
Well-Educated (37)	\$500.00	2.5%

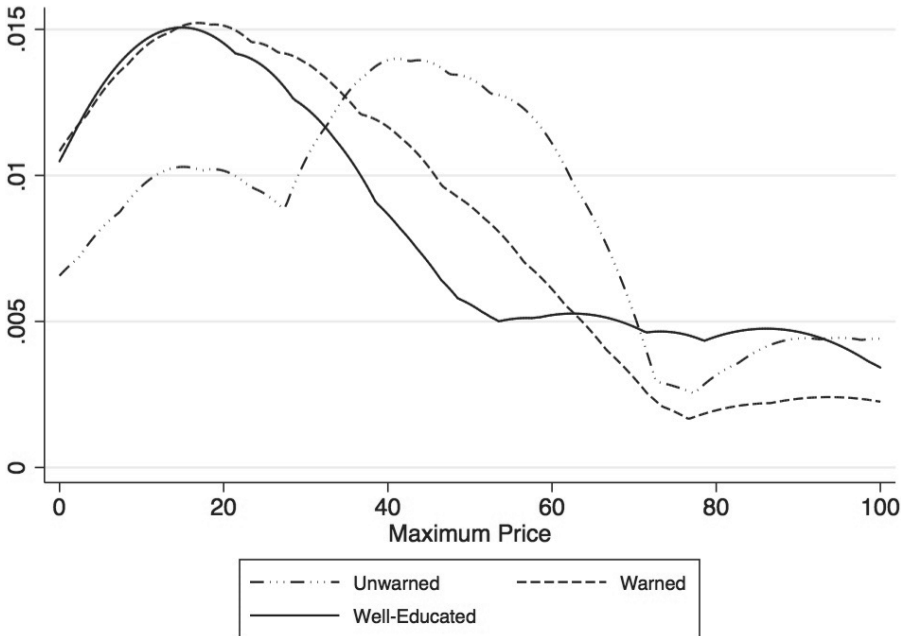
* = statistically significant difference from the Well-Educated group at the 5% level; ** p<.01; *** p<.001.

The only scenario related to the collection of personal data we tested that met the standards for a clearly informational disclosure was a notice about data security rather than privacy. The vignette concerned a vulnerability that allowed hackers to discover the geolocation of Skype users.⁵⁷ Both the warned and well-educated respondents valued the service less than the unwarned subjects, consistent with a valuable disclosure.⁵⁸

57. Text: “You can buy a service that makes and receives phone calls for you over the internet. / NOTICE: The service exposes your location data from the last call you made. / A person who wanted to harass you would have to know your account username and where to look for this exposed information. / The service can avoid exposing location data. The quality of the phone calls would have been very slightly lowered.”

58. Bambauer et al., *Bad Education*, *supra* note 7, at 49.

FIGURE 8
SKYPE DATA SECURITY



	Median Price	Proportion of \$0 Value
Unwarned (39)	\$50.00*	2.6%
Warned (40)	\$27.50	10.0%
Well-Educated (40)	\$25.00	12.5%

* = statistically significant difference from the Well-Educated group at the 5% level; ** p<.01; *** p<.001.

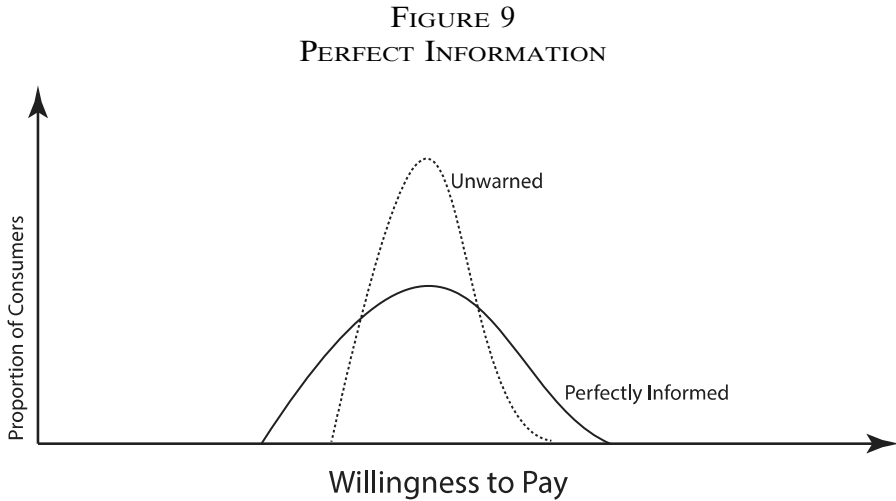
Of course, mandated disclosure may not be the correct regulatory response to any of these problems. There are many alternatives to mandated disclosure that would better suit the dangers of poor data security. As with Vioxx, consumer choice is not a compelling value with respect to the risk of data hacking and unintentional data spills, so direct regulations through negligence or specially designed cybersecurity laws may be a better fit. None of the privacy scenarios met the definition of “clearly informational.”

B. Potentially Informational Disclosures: Preference-Matching

Mandated disclosures could affect consumer choices without meeting the materiality test described above. Consumers may have varying responses to new information such that some value the product less while others value it more. If, on average, the curve shifts one way or

the other, materiality would be met, and it would mean that the attribute is, on net, either (1) a feature or (2) a bug. If, however, accurate information changes the shape of the distribution curve *without* shifting the median price consumers are willing to pay,⁵⁹ then the attribute is neither positive nor negative.

Here is an example in which perfect information about an attribute would spread consumers out along the willingness-to-pay axis even though the curves are still centered around the same average:⁶⁰



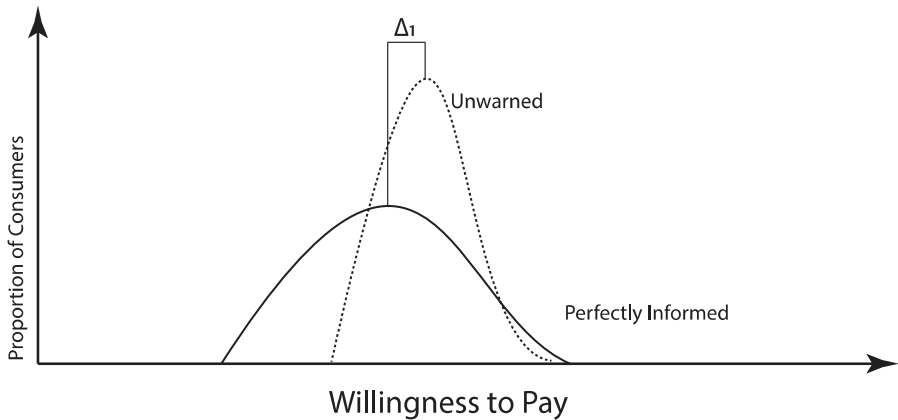
These attributes are influential for consumers even if they are not material. It is well worth keeping in mind that the indifference to variance in our definition of materiality only applies to situations in which there is no difference in medians. As long as consumers are spread out by better information in a way that shifts the curve to center around slightly lower prices, materiality will be met. For example, materiality would be met in this case:⁶¹

59. Note that because reserve prices are usually right-skewed, I use median as the best measure of the first moment. To test statistical significance, I used t-tests on the average of the $\log(\text{price})$. Taking the natural log removed most of the skew.

60. Bambauer et al., *Bad Education*, *supra* note 7, at 23.

61. *Id.* at 25.

FIGURE 10
MATERIALITY



For attributes that change the shape of the valuation curve without changing the mean reserve price, the curves for the warned group must not shift the curve at all. That is, the three curves for warned, unwarned, and informed consumers must produce results for which $\Delta_1 = \Delta_2 = 0$. Otherwise, the disclosure will cause a consumer overreaction that is larger than any salutary effect disclosure could have caused.

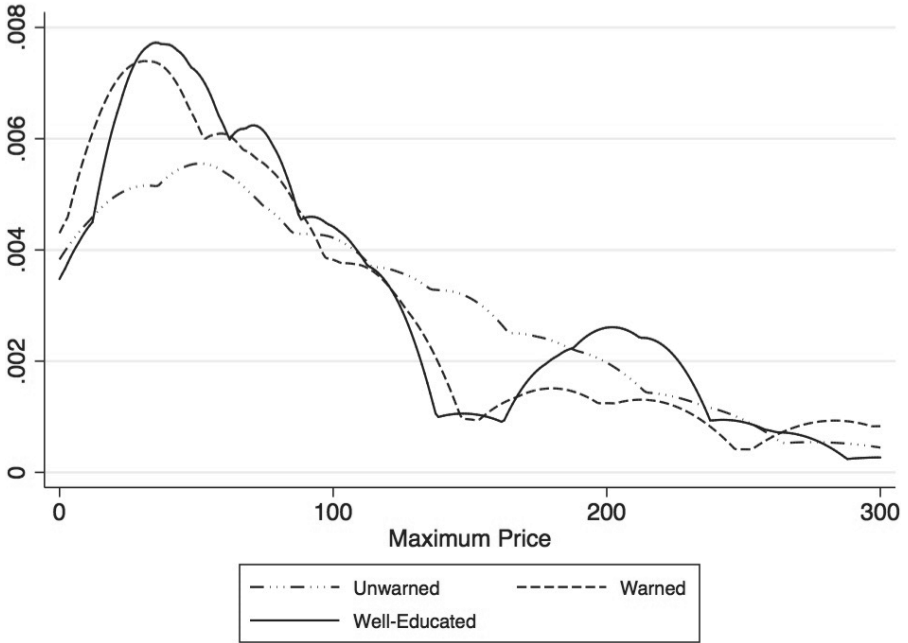
Even when a disclosure avoids consumer overreaction, it is not clear that the First Amendment would tolerate mandated disclosures of nonmaterial attributes. The practice could be seen as an attempt by government to shape future preferences or to serve the interests of a minority of consumers who have idiosyncratic preferences about a feature that is not clearly harmful. Disclosures about nonmaterial attributes may also lack a good policy rationale. Firms of course have the option of providing voluntary disclosures to distinguish themselves and attract the consumers who value the attribute, and the minority of consumers who see the attribute as a negative flaw can do their own research without burdening the entire market.

In our experiment, disclosures about testing a cosmetic product on animals produced these type of nonmaterial but influential results.⁶² Our test of data selling by a 23andMe style of DNA kit did so as well.⁶³

62. *Id.* at 45.

63. Text: "You can buy a DNA testing service. The service takes a sample of your saliva and creates a profile of your ancestry and your chances of developing certain medical conditions. / NOTICE: The company offering this service sells access to its customers' DNA data to drug companies. / Your identifying information is not included in the database that drug companies can access. The drug companies use the data to conduct medical research that may lead to the

FIGURE 11
DNA DATA SELLING



	Median Price	Proportion of \$0 Value
Unwarned (77)	\$100.00	1.3%
Warned (79)	\$50.00	2.5%
Well-Educated (78)	\$72.50	1.3%

* = statistically significant difference from the Well-Educated group at the 5% level; ** p<.01; *** p<.001.

The results for the DNA kit confirm that reactions to data privacy are bi-modal—for some, loss of control of their data detracts from the value of the product while others respond to it positively, perhaps because they assume the services will improve faster and give them benefits down the road.

C. Potentially Ideological Disclosures: Useless Notices

Moving further in the ideological direction, we next consider disclosures about attributes for which the graphical distribution curves do not change at all, not even in shape or variance. These attributes are

development of new treatments. / By selling access to the DNA database, this DNA service can afford to offer the testing kit for sale directly to you. Previously, DNA health analysis was available only at a doctor’s office.”

nonmaterial *and* noninfluential.⁶⁴ As with the potentially informational category discussed in Part II.B, if a disclosure discussed in this sub-Part causes a consumer overreaction it will fall into the category of patently ideological. This category of potentially ideological disclosures will produce curves that are virtually identical to each other for unwarned, warned, and perfectly informed consumers:

FIGURE 12
IDEOLOGICAL DISCLOSURES



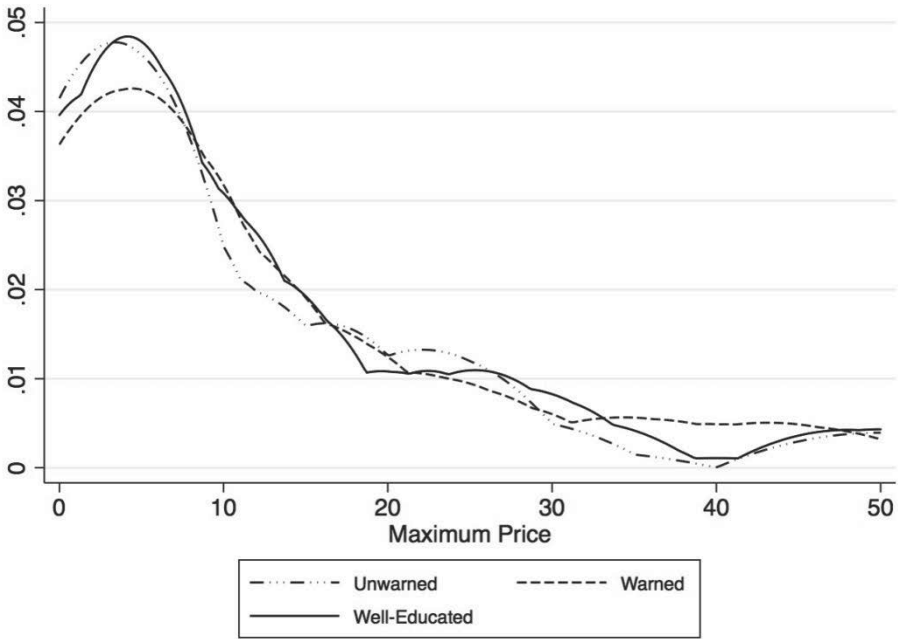
These types of disclosures beg questions about what purpose they serve and whether the costs of disclosure regimes are demonstrably greater than their value. In addition, they may suggest that the government is engaged in evangelism, attempting to inspire public concern where little currently exists.

Two out of three of the privacy scenarios we tested in our proof-of-concept study had the quality of a potentially ideological disclosure. Here are the results for disclosures about automated scanning of emails for behavioral advertising by a Gmail-style service:⁶⁵

64. It is theoretically possible that consumers could swap positions within the curve in a perfect mirror image, but this is so unlikely that the default interpretation, without evidence to the contrary, should be that the attribute is not relevant to consumer decisions.

65. Text: "You can buy a service that stores, sends, and receives emails for you online. The service can conveniently be accessed online from any computer. / NOTICE: The company offering this service automatically scans your emails to predict your preferences and to target advertisements to you. / The company will be able to predict a wide range of your qualities and future behaviors. It will not disclose your communications to other companies. / The company uses the scans of your emails and the extra revenues from advertisers to improve the security of your email, to filter out spam emails, and to provide better tools to write and organize your emails."

FIGURE 13
GMAIL DISCLOSURE



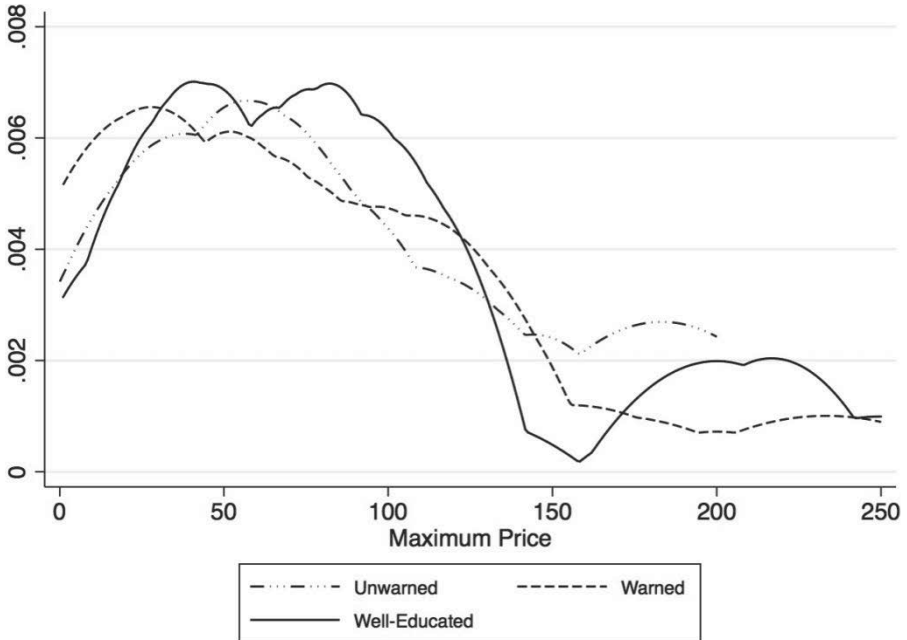
	Median Price	Proportion of \$0 Value
Unwarned (83)	\$5.00	14.5%
Warned (82)	\$5.00	12.2%
Well-Educated (81)	\$5.00	21.0%

* = statistically significant difference from the Well-Educated group at the 5% level; ** p<.01; *** p<.001.

The change in the number of consumers valuing the experiment at \$0 were not significant, but they do suggest that with greater power, some evidence of materiality could emerge. On the other hand, they may be explained by tech-savvy qualities of the experiment subjects. For these consumers, perhaps they see access to their personal data as payment enough for Google’s services. Our study also tested the effects of disclosures that elaborated at a greater length on the uses and data-sharing practices of the firm, which were more like privacy policies commonly employed at present. They too produced similar results.

Disclosure about the risk of re-identifying anonymous DNA data⁶⁶ are similarly nonmaterial:⁶⁷

FIGURE 14
DNA REIDENTIFICATION RISK



	Median Price	Proportion of \$0 Value
Unwarned (77)	\$100.00	1.3%
Warned (39)	\$99.00	0.0%
Well-Educated (40)	\$87.50	0.0%

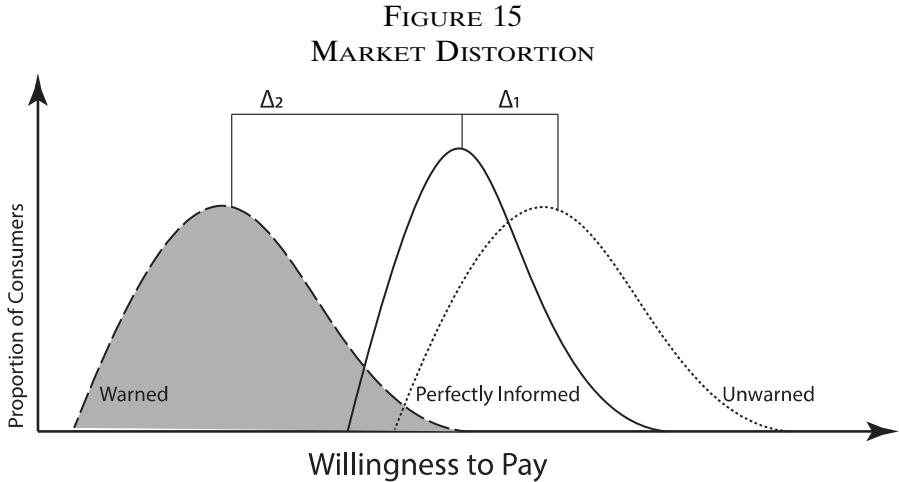
* = statistically significant difference from the Well-Educated group at the 5% level; ** p<.01; *** p<.001.

66. Bambauer et al., *Bad Education*, *supra* note 7, at 47. Text: “You can buy a DNA testing service. The service takes a sample of your saliva and creates a profile of your ancestry and your chances of developing certain medical conditions. / NOTICE: Although your data is stored without any identifying information, somebody with access to the data might be able to figure out your identity. / The people who will access the DNA database are health researchers. To date, there have been no known malicious reidentification attacks of genomic data. / By retaining the data, the service can conduct research that might lead to new medical and ancestry discoveries.” We tested this because reidentification risk is a hotly contested policy topic. Compare Paul Ohm, *Broken Promises of Privacy: Responding to the Surprising Failure of Anonymization*, 57 UCLA L. REV. 1701, 1704, 1736, 1776 (2010), with Felix T. Wu, *Defining Privacy and Utility in Data Sets*, 84 U. COL. L. REV. 1117, 1128, 1177 (2013), and Jane Yakowitz, *Tragedy of the Data Commons*, 25 HARV. J.L. & TECH. 1, 2, 9-10, 62 (2011).

67. Bambauer et al., *Bad Education*, *supra* note 7, at 47 & n.136.

D. Patently Ideological Disclosures: Distortion

Finally, if a disclosure regime causes the distributions to shift such that the bias with disclosure is worse than the bias from nondisclosure ($\Delta_2 > \Delta_1$), then a mandated disclosure law would do worse than nothing. It would cause market distortion and consumer overreaction.⁶⁸

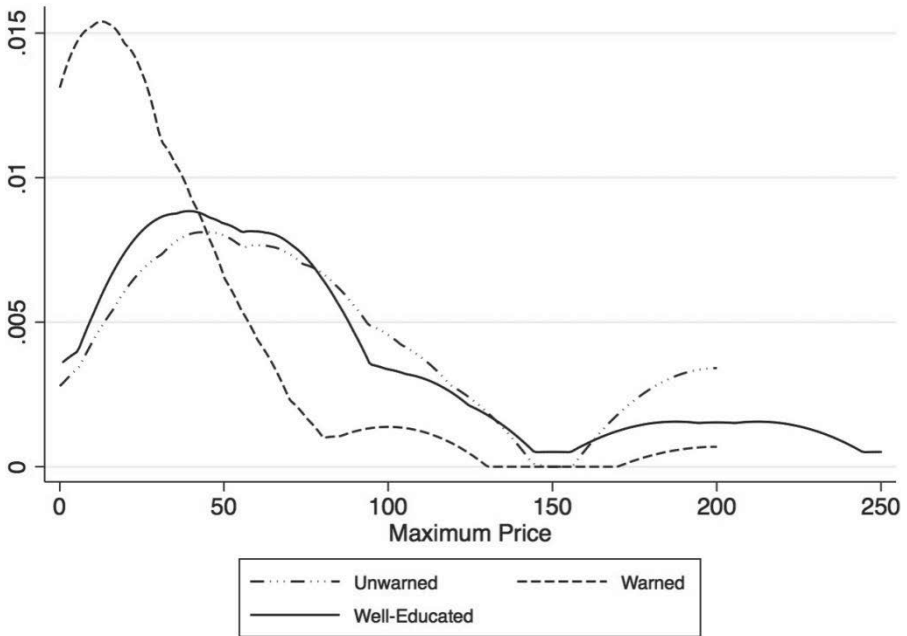


Many of the scenarios we tested had the quality of a patently ideological disclosure, including the disclosure of a randomly selected chemical in shaving cream, trace levels of naturally occurring arsenic in rice, genetically modified foods, and mercury in vaccines. Here are the results for vaccines as an example:⁶⁹

68. *Id.* at 26.

69. *Id.* at 41.

FIGURE 16
VACCINE



	Median Price	Proportion of \$0 Value
Unwarned (40)	\$75.00	2.5%
Warned (40)	\$20.00***	10.0%
Well-Educated (38)	\$50.00	0.0%

* = statistically significant difference from the Well-Educated group at the 5% level; ** p<.01; *** p<.001.

In early beta-testing, initial results showed a statistically-significant-consumer-overreaction to a privacy disclosure, suggesting that mandatory just-in-time disclosure ran a risk of scaring consumers away from services that they would likely value had they been better informed.⁷⁰ However, after improving our instrument and collecting new data, none of our privacy scenarios had the hallmarks of a patently ideological disclosure. Thus, at least for the three privacy scenarios we tested, none suggest that mandated privacy policy laws are distortive and clearly ideological.

The privacy disclosures tested in this small study fall somewhere between potentially informational and potentially ideological. Evidence about the actual motives of regulators could therefore have a

70. These initial results came from a survey that used willingness to consume (a binary “yes/no” decision) rather than the continuous variable of willingness to pay.

decisive impact on the constitutional analysis. If privacy regulators demonstrate an intent to either incite fear among consumers or shape future values, then mandated disclosures may be in First Amendment hot water.⁷¹

The next Part steps away from the constitutional analysis and offers guidance on good public policy. The standards for an informational disclosure should be treated as minimum requirements for sound disclosure rules. They are not sufficient on their own to justify a new disclosure regime.

IV. “INFORMATIONAL” STATUS AS A MINIMUM THRESHOLD

As regulators consider a possible mandated disclosure regime, the compelled speech doctrine should mark the bare minimum for a suitable rule. Even if a disclosure meets the constitutional standard for an informational disclosure under *Zauderer*, it is not necessarily wise to compel it.

This Part briefly addresses three factors that can make an informational disclosure more or less appealing from a policy perspective. First, even fully informed consumers can make decisions that are predictably irrational. If consumers are likely to have biased judgment despite (or because of) full information, regulators should consider other options—either regulatory boldness or restraint. Second, regulators should take no comfort in reports that a particular disclosure is “popular” or that consumers “demand to know.” Every type of information disclosure has resounding popular support. Third, for broad-disclosure regimes that cover a large subset of products or services, regulators should ensure that a sizable portion of those disclosures will be material and nondistortive—that is, that they are “clearly informational” using the model in Part II.

A. *Competing Paternalism*

Conventional wisdom is that even consumers who have all of the relevant and necessary information can make bad choices for themselves. A number of heuristics and biases can cause the autonomous choices of consumers to depart from what regulators and society can tolerate. For example, the FDA will remove a drug from the mar-

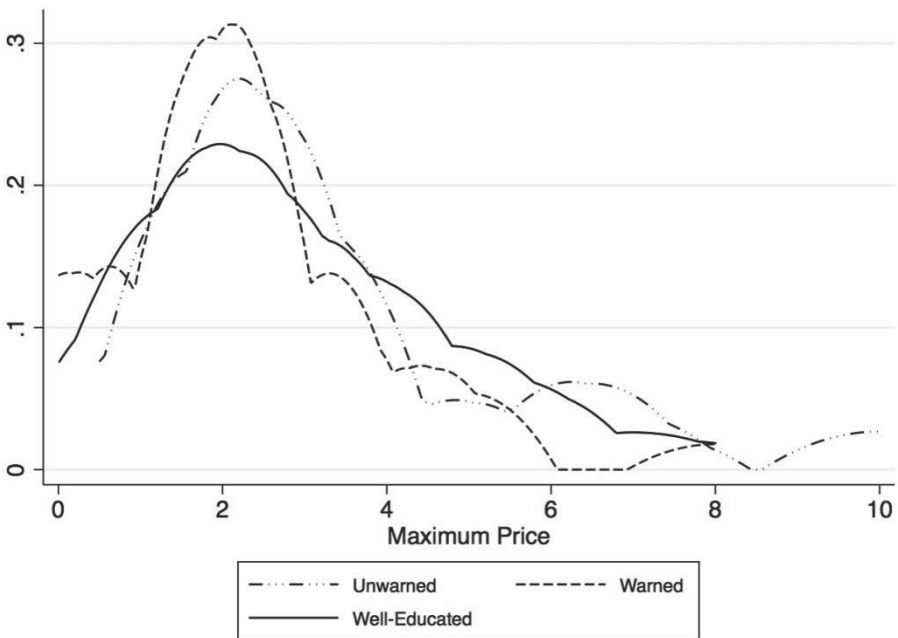
71. An additional problem, which other areas of mandated disclosure do not typically have, is that the direct regulation of privacy may itself be unconstitutional. Scholars disagree on this question. See Jane Bambauer, *Is Data Speech?*, 66 *STAN. L. REV.* 57, 60–61 (2014); Neil M. Richards, *Why Data Privacy Law Is (Mostly) Constitutional*, 56 *WM. & MARY L. REV.* 1501, 1505 (2015); Felix T. Wu, *The Constitutionality of Consumer Privacy Regulation*, 2013 *U. CHI. L. REFORM* 69, 72–73 (2013).

ket—rather than rely solely on drug labeling—if the drug’s dangerous side effects outweigh its utility for all patients. Likewise, if consumers make poor decisions about the revelation of their personal data that cause significant downstream harm to themselves, government should use direct regulations to override consumer choice.

Biases can also run the other way. A consumer with complete information may nevertheless overreact to a factor that poses no credible risk. For example, the “naturalism” bias affects consumers’ perception of genetically engineered foods (also known as GMOs), causing them to disfavor GMOs even though the scientific evidence shows that they are equally safe and more environmentally friendly than traditional foods. For that reason, the FDA declined to impose mandatory GMO labeling despite significant consumer and industry pressure.⁷²

Our experimental results show that even the well-educated research subjects had some misgivings:⁷³

FIGURE 17
GMO



72. *Guidance for Food Industry: Voluntary Labeling Indicating Whether Foods Have or Have Not Been Derived from Genetically Engineered Plants*, U.S. FOOD & DRUG ADMIN., <http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/ucm059098.htm> (last visited Aug. 15, 2016).

73. Bambauer et al., *Bad Education*, *supra* note 7, at 42.

Status quo and anti-technology biases will affect how consumers react to services that collect or use personal data in a new way. For example, when Caller ID was first introduced to the market, consumer advocates objected and demanded legal prohibitions because of perceived privacy invasions,⁷⁴ but the service is now well-loved. Likewise, just-in-time disclosures may have stopped or stunted the growth of Gmail was first introduced, even though it is now clear that consumers value the free service despite the creepy contextual advertising.⁷⁵ Thus, even new, material privacy attributes may be inappropriate subjects for mandated disclosure if consumers are likely to react with technophobic instincts. Of course, it is difficult to tell in the moment whether a new technology's transgression of social norms is causing fleeting resentment or lasting damage.

B. All Disclosure Laws Are Popular

One tempting justification to support mandated disclosures about privacy is that even if disclosures ultimately affect decisions very little, consumers like disclosure, and consumers feel that they have a "right to know."⁷⁶ However, this provides no limiting principle, as consumers consistently approve of disclosure no matter the subject.⁷⁷ In our study, we found that the *lowest* approval rating for mandatory disclosure laws across all of our scenarios was 77% (for disclosure of GMOs). Most scenarios had approval ratings over 80%, including notices about harmless components in vaccines, trace amounts of arsenic in rice, and a randomly selected ingredient in shaving cream (i.e., our test of a purely arbitrary notice).⁷⁸ Privacy and drug-side-effect disclosures had the greatest support with approval above 90%, but these may have received a bump in support from the fact that mandated disclosure rules already exist.

Consumers have great enthusiasm for mandated disclosure because they see each disclosure as practically costless for the companies and potentially useful for some consumer. As it turns out, they may think

74. Anthony Ramirez, *Caller ID: Consumer's Friend or Foe?*, N.Y. TIMES (Apr. 4, 1992), <http://www.nytimes.com/1992/04/04/news/caller-id-consumer-s-friend-or-foe.html>.

75. Frederick Lardinois, *Gmail Now Has 900M Active Users, 75% on Mobile*, TECHCRUNCH (May 28, 2015), <https://techcrunch.com/2015/05/28/gmail-now-has-900m-active-users-75-on-mobile/>.

76. Right to Know Act, AB-1291, 2013–2014 Legis., Reg. Sess. (Cal. 2013).

77. For a thorough critique of this justification for mandated disclosures, see Jonathan H. Adler, *Compelled Commercial Speech and the Consumer "Right to Know,"* 58 ARIZ. L. REV. 421, 437 (2016).

78. Moreover, mandated disclosure was popular no matter what level of information disclosure the research subject saw in their vignette.

that that consumer will eventually be themselves. Our study tested an emerging theory in the mass communications literature called the “first person effect.” The theory predicts that most people believe they will make better use of information than the average person.⁷⁹ It is a special case of the more general “optimism bias” by which nearly all people believe they are above average. Our study asked respondents in randomized order how well they believed they themselves would make use of a disclosure about the tested attribute and how well they believed the average person would make use of the disclosure. On a seven-point scale (with seven being the highest), respondents gave themselves a 5.21 and the average consumer a 4.85—a highly statistically significant gap. As such, when regulators are considering which of an infinite universe of product attributes to select for special attention in mandated disclosures, popularity does not help much.

C. *Variance Across Attributes and Products*

Finally, many disclosure regimes cover a range of attributes across an array of products or services. The disclosure regime as a whole may be valuable even if specific disclosures within the scheme are useless or distortive. Mandatory nutrition labels and ingredients lists, for example, may be very illuminating for consumers in some instances (e.g., high calorie foods) and useless in others. Drug labeling would probably have the same quality—that disclosures for many drugs are material even if some are not. For a broad-sweeping mandatory disclosure scheme, regulators should have reason to think that a majority or significant minority of the disclosures will satisfy the standards for a clearly informational disclosure. We were not able to test a large range of privacy-related disclosures, which is a limitation of our proof-of-concept empirical study. We selected three privacy scenarios that we thought were representative of a few common concerns, but they do not offer definitive evidence that the majority of privacy disclosures are nonmaterial or useless. However, on the limited evidence available, privacy disclosure mandates affect a wide swath of industries and services without evidence that they add significant value to consumers in the typical cases.

79. Guy J. Golan & Anita G. Day, *The First-Person Effect and Its Behavioral Consequences: A New Trend in the Twenty-Five Year History of Third-Person Effect*, 11 *MASS COMM. & SOC'Y* 539, 541–42 (2008).

V. CONCLUSION

This Article proposes a theory that courts may adopt to differentiate informational compelled disclosures from ideological ones. Mandated disclosures that are useless to consumers or, worse still, that mislead consumers by giving a distorted sense of risk, should violate the basic principles of the compelled speech doctrine. Disclosures that alert consumers about a material attribute of the good or service and cause appropriate changes in behavior, by contrast, should be treated as purely informational disclosures that are consistent with Supreme Court precedent. A middle category of disclosures—those that merely help consumers match goods to their preferences—are constitutionally suspect (though the courts have not yet worked out whether they conflict with free speech rights).

Laws that require companies to disclose privacy policies may be informational in some contexts, and may be merely preference-matching or even ideological in others. The results of a proof-of-concept experiment suggest that most privacy policies are at best preference-matching, and at times useless. If these results are representative, they indicate that federal and state laws mandating privacy disclosures are vulnerable to constitutional challenge.

