

1-1-2015

The Conforming Effect: First Amendment Implications of Surveillance, Beyond Chilling Speech


Margot E. Kaminski

Ohio State University Moritz College of Law

Shane Witnov

U.C. Berkely School of Law

Follow this and additional works at: <https://scholarship.richmond.edu/lawreview>

 Part of the [First Amendment Commons](#), [Law and Society Commons](#), [Legislation Commons](#), and the [National Security Law Commons](#)

Recommended Citation

Margot E. Kaminski & Shane Witnov, *The Conforming Effect: First Amendment Implications of Surveillance, Beyond Chilling Speech*, 49 U. Rich. L. Rev. 465 (2015).

Available at: <https://scholarship.richmond.edu/lawreview/vol49/iss2/4>

This Article is brought to you for free and open access by the Law School Journals at UR Scholarship Repository. It has been accepted for inclusion in University of Richmond Law Review by an authorized editor of UR Scholarship Repository. For more information, please contact scholarshiprepository@richmond.edu.

THE CONFORMING EFFECT: FIRST AMENDMENT IMPLICATIONS OF SURVEILLANCE, BEYOND CHILLING SPEECH

Margot E. Kaminski *
Shane Witnov **

*"[T]he threat of surveillance exerts a powerful influence over behavior, beliefs, and feelings, whether or not that threat is realized."*¹

INTRODUCTION

Intellectual inquiry has long been a private activity, protected by norms, laws, and physical constraints. Librarians have shielded readers' records; states have passed reader privacy laws; and printed books do not track your favorite passages unless you underline them. But the advent of the search engine, public video platforms, and the e-book have resulted in a drastic reduction in the normative and structural constraints that once protected the privacy of our intellectual endeavors.²

Several scholars have touted the importance of reader and viewer privacy, explaining that legislation is necessary to protect

* Assistant Professor of Law, Ohio State University Moritz College of Law. J.D., Yale University; B.A., Harvard University.

** Practicing attorney in California. J.D., U.C. Berkeley School of Law; B.A., Stanford University; M.S., Stanford University.

The authors wish to thank Chris Wolf of Hogan Lovells for workshopping a draft of this paper at the Privacy Law Scholars Conference. Many thanks also go to Marc J. Blitz, Yan Fang, Anne Klinefelter, Ron Lee, William McGeeveran, Neil Richards, Lior Strahilevitz, and other participants at PLSC. Thank you also to Matthew Cushing, Mike Frank, and Rachel Mackenzie.

1. Gregory L. White & Philip G. Zimbardo, *The Effects of Threat of Surveillance and Actual Surveillance on Expressed Opinions Toward Marijuana*, 111 J. SOC. PSYCHOL. 49, 59 (1980).

2. BJ Ard, *Confidentiality and the Problem of Third Parties: Protecting Reader Privacy in the Age of Intermediaries*, 16 YALE J.L. & TECH. 1, 3 (2013); see Harry Surden, *Structural Rights in Privacy*, 60 SMU L. REV. 1605, 1617 (2007).

First Amendment values.³ Courts and legislators are divided, however, on the connections between privacy and free speech. Some judges conclude that a lack of privacy causes First Amendment chilling effects. Others evince skepticism over the effects of surveillance, and suggest that chilling occurs only in response to specific threats of retaliation. Similarly, legislators have recently split on the value of protecting reader and viewer privacy. For example, California enacted a new reader privacy law extending protection to e-books, even as the federal government weakened the Video Privacy Protection Act of 1988 (“VPPA”), which protects privacy in viewer records.⁴ And the federal government notoriously passed section 215 of the PATRIOT Act, permitting those conducting foreign intelligence investigations to obtain reader records.⁵

These disagreements reflect vastly differing understandings of the effects of surveillance on intellectual queries and intellectual development. One side of the judicial debate believes that people change their behavior in First Amendment-relevant ways only when they fear retaliation. The other side intuits that chilling effects are more universal and occur even in the absence of specific threats. However, both sides’ justifications are based largely on intuition and fail to cite empirical evidence for their claims. While judges are by no means required or even expected to rely on social science, social science can help clarify which of the intuited effects of surveillance on First Amendment activity is supported by verifiable observations.

This article brings First Amendment theory into conversation with social science research. The studies surveyed here show that

3. See, e.g., Ard, *supra* note 2, at 3–4; Marc Jonathan Blitz, *Constitutional Safeguards for Silent Experiments in Living: Libraries, the Right to Read, and a First Amendment Theory for an Unaccompanied Right to Receive Information*, 74 UMKC L. REV. 799, 799–809 (2006); Julie E. Cohen, *A Right to Read Anonymously: A Closer Look at “Copyright Management” in Cyberspace*, 28 CONN. L. REV. 981, 981–83 (1996); Neil M. Richards, *Intellectual Privacy*, 87 TEX. L. REV. 387, 387–93 (2008).

4. See California Reader Privacy Act, CAL. CIV. CODE § 1798.90 (Deering, LEXIS through 2013 legislation). Compare Video Privacy Protection Act of 1988, 18 U.S.C. § 2710 (2006), with Video Privacy Protection Act Amendments Act of 2012, Pub. L. No. 112-258, 126 Stat. 2414 (2013) (allowing viewers to consent to disclosure over a longer period of time).

5. 50 U.S.C. § 1861 (2012) (permitting the FBI to make “an application for an order requiring the production of library circulation records, library patron lists, book sales records, book customer lists”).

surveillance has certain effects that directly implicate the theories behind the First Amendment, beyond merely causing people to stop speaking when they know they are being watched. Specifically, this article finds that social science research supports the protection of reader and viewer privacy under many of the theories used to justify First Amendment protection.

If the First Amendment serves to foster a marketplace of ideas, surveillance thwarts this purpose by preventing the development of minority ideas. Research indicates that surveillance more strongly affects those who do not yet hold strong views than those who do.

If the First Amendment serves to encourage democratic self-governance, surveillance thwarts this purpose as well. Surveillance discourages individuals with unformed ideas from deviating from majority political views. And if the First Amendment is intended to allow the fullest development of the autonomous self, surveillance interferes with autonomy. Surveillance encourages individuals to follow what they think others expect of them and conform to perceived norms instead of engaging in unhampered self-development.

Thus, this article concludes that privacy in intellectual endeavors is worth protecting through law, in the growing absence of practical constraints.⁶ Judges who evaluate the surveillance of readers and viewers should take into account the First Amendment implications of surveillance, without requiring a specific showing of retaliation. States should continue to enact privacy statutes that protect intellectual inquiries. The contours of those statutes would benefit from further research, and this article concludes by pointing to several areas for future legal and empirical study.

This article begins, in Part I, by examining reader and viewer surveillance and identifying the forces driving its recent increase. Part II considers how courts and legislatures understand this surveillance, and how divisions in understandings of surveillance drive divisions in legal approaches. Part III surveys the relevant social science research on surveillance and conformity. Part IV

6. See generally Surden, *supra* note 2 (considering the interplay between privacy, law, and societal norms as new technologies arise and circumvent traditional latent structural constraints).

brings this social science into conversation with legal analysis, identifying what it adds to the legal understanding of the “tyranny of the majority.” Part V considers how this fuller understanding of the consequences of surveillance fits into First Amendment theory. Part VI concludes with recommendations for courts and legislatures and a call for further research.

I. WHAT DRIVES THE SURVEILLANCE OF READERS AND VIEWERS?

A changing technological and social environment has driven a recent massive increase in the surveillance of readers, viewers, and Internet browsers. Many different parties are interested in peoples’ reading habits. Amazon, book sellers, publishers, and intermediaries are all interested in what readers purchase so they can better predict what consumers will want to buy next.⁷ These companies use data on readers to better sell books and to publish more relevant books.⁸ Even a third-party intermediary like Adobe that does not sell or publish books tracks what users read on and off of its platform.⁹ Schools use data to track student engagement in material and homework, potentially as part of their grade.¹⁰ E-textbooks can even report on how much time students spend reading.¹¹ And, of course, advertisers for businesses of all types use the content of webpages and web history to target viewers with related advertising.¹²

Big Data companies track what people read so they can sell other companies lists of consumers who buy certain products, including romance novels or bibles and devotional books.¹³ Acxiom,

7. See Alexandra Alter, *Your E-Book Is Reading You*, WALL ST. J. (July 19, 2012), <http://online.wsj.com/news/articles/SB10001424052702304870304577490950051438304>.

8. *Id.*

9. Nate Hoffelder, *Adobe is Spying on Users, Collecting Data on Their eBook Libraries*, DIGITAL READER (Oct. 6, 2014), <http://the-digital-reader.com/2014/10/06/adobe-spying-users-collecting-data-ebook-libraries#.VGywHsk6qn7>.

10. Marc Parry, *Now E-Textbooks Can Report Back on Students’ Reading Habits*, THE CHRON. OF HIGHER EDUC. (Nov. 8, 2012), <http://chronicle.com/blogs/wiredcampus/now-e-textbooks-can-report-back-on-students-reading-habits/40928>.

11. *Id.*

12. See Molly Wood, *Sweeping Away a Search History*, N.Y. TIMES (Apr. 2, 2014), http://www.nytimes.com/2014/04/03/technology/personaltech/sweeping-away-a-search-history.html?_r=0.

13. *Epsilon TargetSource U.S.-Reading Preference*, EPSILON, <http://lists.epsilon.com/market?page=research/datacard&id=352909> (last visited Nov. 25, 2014) (offering to sell

a data broker, claims to have data on 500 million consumers worldwide, including over 500 predictions for nearly every U.S. consumer.¹⁴

One extremely valuable piece of information for Big Data companies and retailers is whether a consumer is undergoing a major life change, such as getting married, having a child, buying a house, or getting divorced, because spending habits are easier to alter during these times.¹⁵ Not only is a consumer more likely to be convinced to change brands or stores, but changes made during major life events may last a lifetime.¹⁶ For example, Experian sells lists of expectant parents and families with newborns.¹⁷ Birth records are public, but knowing who is going to give birth before it becomes public record is a huge competitive advantage.¹⁸ Personal data on a pregnant person is worth about fifteen times that of a non-pregnant person.¹⁹

Reading habits can be a strong indication of impending life changes. If a person starts buying books on raising children, she may be expecting a child. If a person reads websites on divorce or borrows a book on the subject from the library, she may be contemplating a divorce. This information is valuable to marketers.

Advocacy groups have also sought reader information, either to target those in opposition or to target potential supporters. In 1982, the Moral Majority sought the names of those who checked

email and mailing address information for \$85 per thousand consumers based on reading preference); Lois Beckett, *Everything We Know About What Data Brokers Know About You*, PROPUBLICA (June 13, 2014), <http://www.propublica.org/article/everything-we-know-about-what-data-brokers-know-about-you>.

14. ACXIOM, 2012 ANNUAL REPORT 8 (2012), available at <http://investors.acxiom.com/secfiling.cfm?filingid=733269-12-15&cik=733269>; see also Natasha Singer, *You For Sale: Mapping, and Sharing, the Consumer Genome*, N.Y. TIMES, June 16, 2012, at BU1, available at <http://www.nytimes.com/2012/06/17/technology/acxiom-the-quiet-giant-of-consumer-database-marketing.html>.

15. Charles Duhigg, *How Companies Learn Your Secrets*, N.Y. TIMES, Feb. 16, 2012, (Magazine), at 30, available at <http://www.nytimes.com/2012/02/19/magazine/shopping-habits.html>; Beckett, *supra* note 13.

16. Duhigg, *supra* note 15.

17. Beckett, *supra* note 13.

18. See Duhigg, *supra* note 15; Nathalia Holt, *Bump Tracker: Nine Months of Big Data*, ATLANTIC (Aug. 12, 2014), <http://www.theatlantic.com/technology/archive/2014/08/the-bump-effect-nine-months-of-big-data/375820/>.

19. Sarah Gray, *One Woman's Attempt to Hide Her Pregnancy from Big Data—It's More Difficult Than You'd Expect*, SALON (Apr. 28, 2014), http://www.salon.com/2014/04/28/one_womans_attempt_to_hide_her_pregnancy_from_big_data/.

out a film on sexuality.²⁰ More recently, the 2012 Obama presidential campaign used detailed individual TV viewing records to help win re-election.²¹ Viewer and reader habits can indicate who is likely to support an organization, and who espouses views that the organization might want to target.

The government has had a longstanding interest in reader data. In the 1970s, the FBI had a Library Awareness Program, prompting a battle between law enforcement and librarians.²² More recently, librarians fought the expansion of warrantless government surveillance capabilities in the PATRIOT Act.²³ Since Edward Snowden's revelations, section 215 of the FISA Amendments Act has become widely known as the statutory justification for the dragnet surveillance of U.S. citizens' call records.²⁴ But librarians protested section 215 because it allowed the Director of the FBI to apply for an order for the production of "tangible things," which extends to library records.²⁵

20. *Film Borrowers' Names Sought by Moral Majority*, ASSOC. PRESS (Feb. 8, 1981), available at <http://www.nytimes.com/1981/02/08/us/around-the-nation-film-borrowers-names-sought-by-moral-majority.html>.

21. Jim Rutenberg, *Data You Can Believe In*, N.Y. TIMES, June 20, 2013, (Magazine), at 22, available at <http://www.nytimes.com/2013/06/23/magazine/the-obama-campaigns-digital-masterminds-cash-in.html>. The campaign created a list of 15 million "persuadable" voters in swing states. *Id.* The campaign targeted these voters in a variety of ways including on TV. *Id.* To do this, the campaign bought a huge dataset of individual TV viewing habits and matched this data with its fifteen million voters to create a database of the individualized viewing habits of the people the campaign was most interested in targeting, which it used for making TV ad purchasing decisions. *Id.* Although the campaign "anonymized" the records, they were still making targeted decisions based upon viewing habits. *Id.*

22. See HERBERT N. FOERSTEL, *SURVEILLANCE IN THE STACKS: THE FBI'S LIBRARY AWARENESS PROGRAM* 14, 54–71 (1991) (discussing the existence of the FBI's Library Awareness Program and recounting various instances of confrontation between FBI agents and librarians regarding the program).

23. June Kronholz, *Patriot Act Riles an Unlikely Group: Nation's Librarians*, WALL ST. J. (Oct. 28, 2003), <http://online.wsj.com/articles/SB106729549398054200>; see also Joan Airoldi, *Case Study: A Grand Jury Subpoena in the PATRIOT Act Era*, 20 LIBRARY LEADERSHIP & MANAGEMENT 26, 26–27 (2006), available at <https://journals.tdl.org/llm/index.php/llm/article/view/1607/887>.

24. Ellen Nakashima, *Federal Appeals Court Hears Arguments over NSA's Bulk Collection of Phone Records*, WASH. POST (Sept. 2, 2014), http://www.washingtonpost.com/world/national-security/federal-appeals-court-hears-arguments-over-nasas-bulk-collection-of-phone-records/2014/09/02/cc75ef62-32df-11e4-a723-fa3895a25d02_story.html.

25. See Press Release, Sen. Patrick Leahy, *Leahy Renews Effort to Extend Expiring PATRIOT Act Authorities, Increase Oversight* (Jan. 26, 2011), available at <http://www.leahy.senate.gov/press/leahy-renews-effort-to-extend-expiring-patriot-act-authorities-increase-oversight>.

The government's use of reader records goes beyond its fights with libraries. Independent Counsel Kenneth Starr subpoenaed Monica Lewinsky's book purchase records from Kramerbooks and Barnes & Noble as part of his investigation into the Clinton-Lewinsky scandal.²⁶ The FBI attempted to obtain the book purchase records of former New Jersey Senator Robert Torricelli while investigating him for campaign finance abuses.²⁷ The U.S. Attorney subpoenaed Amazon for the used book purchase records of over 24,000 people as part of an investigation into the possible tax evasion and fraud perpetuated by a single person.²⁸ Two years earlier, law enforcement in Colorado sought the book purchase records of a suspected drug manufacturer to prove the mens rea element of a drug crime.²⁹ In rural Washington, the FBI subpoenaed the names of everyone who checked out a biography of Osama Bin Laden after discovering a handwritten note in the margin of the book quoting one of Bin Laden's public statements.³⁰ In Ohio, law enforcement tried to subpoena the identities of everyone in the greater Cleveland area who purchased two CDs "Cyborgasm I" and "Cyborgasm II" as part of a stalking investigation.³¹ Similarly, the Drug Enforcement Agency subpoenaed a publisher for the identities of all Arizona residents who purchased a book on how to grow marijuana.³² The IRS has asked organizations seeking nonprofit status about their reading lists.³³

26. See *In re Grand Jury Subpoena to Kramerbooks & Afterwords Inc.*, 26 MED. L. RPTR. 1599, 1599 (D.D.C. 1998).

27. Bob Tedeschi, *The Patriot Act Has Led Online Buyers and Sellers to Watch What They Do. Could It Threaten Internet Business?*, N.Y. TIMES (Oct. 13, 2003), <http://www.nytimes.com/2003/10/13/business/e-commerce-report-patriot-act-has-led-online-buyers-sellers-watch-what-they.html>.

28. Sealed Order at 1, *In re Grand Jury Subpoena to Amazon.com*, No. 07-GJ-04 (W.D. Wis. Aug. 7, 2006), available at <http://dig.csail.mit.edu/2007/12/In-re-grand-jury-subpoena-amazon.PDF>; Ryan J. Foley, *U.S. Withdraws Subpoena Seeking Identity of 24,000 Amazon Customers Sought as Witnesses*, ASSOC. PRESS, Nov. 27, 2007.

29. Tattered Cover, Inc. v. City of Thornton, 44 P.3d 1044, 1061 (Colo. 2002).

30. Airoldi, *supra* note 23, at 26.

31. J. Michael Kennedy, *To Bookseller, Officers' Try at a Search Warrants a Fight*, L.A. TIMES (Mar. 27, 2002), <http://articles.latimes.com/2002/mar/27/news/lv-methbook27>.

32. Henry K. Lee, *Dope on Pot Book Buyers Sought: DEA Subpoenas Publisher for List of Manual Purchasers*, S.F. CHRON., Oct. 29, 1997, at A19, available at <http://www.sfgate.com/news/article/Dope-on-Pot-Book-Sought-DEA-Subpoenas-2824507.php>.

33. Abby D. Phillip, *IRS Asks for Reading List, Tea Party Group Sends Constitution*, ABC NEWS (May 14, 2013), <http://abcnews.go.com/blogs/politics/2013/05/irs-asks-for-reading-list-tea-party-group-sends-constitution/>.

Police have used Internet viewing activity to help establish the state of mind of a defendant.³⁴

Records of intellectual queries now encompass more than the list of books a person reads. The documents that Edward Snowden released show that the government is engaged in broad data collection, including tracking the Internet activities of most Americans.³⁵ The XKeyscore program is described as a tool to collect “nearly everything a user does on the internet.”³⁶ Former long-time NSA employees have made similar characterizations that the NSA was and is collecting extensive data on just about everyone.³⁷ This level of data collection is consistent with the NSA’s construction of a massive data center in Utah capable of storing roughly a hundred years’ worth of the world’s communications.³⁸ And, of course, other government agencies want to use what the NSA collects.³⁹

What the government does with this mass of information is unclear. Documents that Snowden released suggest that the NSA has monitored pornography viewing habits of suspected radicalizers as a deliberate means of potentially harming their reputations.⁴⁰ It is also likely that the information is data-mined to re-

34. See Elliott C. McLaughlin & Dana Ford, *Police: Father Was ‘Sexting’ as Son Was Dying in Hot Car*, CNN (July 4, 2014), <http://www.cnn.com/2014/07/03/justice/georgia-hot-car-toddler-death/>.

35. See generally *The NSA Files*, GUARDIAN, <http://www.theguardian.com/us-news/the-nsa-files> (last visited Nov. 25, 2014) (summarizing everything that is known to date about the NSA’s monitoring programs).

36. Glenn Greenwald, *XKeyscore: NSA Tool Collects ‘Nearly Everything a User Does on the Internet’*, GUARDIAN (July 31, 2013), <http://www.theguardian.com/world/2013/jul/31/nsa-top-secret-program-online-data>.

37. Interview by Judy Woodruff with William Binney and Russell Tice, former NSA analysts, for PBS Newshour (Aug. 1, 2013), <http://www.pbs.org/newshour/rundown/ex-nsa-analysts/>.

38. *Id.* at 5:17; see also James Bamford, *The NSA Is Building the Country’s Biggest Spy Center (Watch What You Say)*, WIRED (Mar. 15, 2012), available at http://www.wired.com/2012/03/ff_nsadatacenter/all.

39. Eric Lichtblau & Michael S. Schmidt, *Other Agencies Clamor for Data N.S.A. Compiles*, N.Y. TIMES, Aug. 4, 2013, at A1 (“Agencies working to curb drug trafficking, cyber attacks, money laundering, counterfeiting and even copyright infringement complain that their attempts to exploit the security agency’s vast resources have often been turned down because their own investigations are not considered a high enough priority, current and former government officials say.”)

40. See Glenn Greenwald, Ryan Gallagher & Ryan Grim, *Top-Secret Document Reveals NSA Spied on Porn Habits as Part of Plan to Discredit ‘Radicalizers’*, HUFFINGTON POST (Nov. 26, 2013), http://www.huffingtonpost.com/2013/11/26/nsa-porn-muslims_n_4346128.html.

veal patterns about reader interests and behavior. One of the documents that Snowden released suggests that the government identifies targets by looking for anomalous Internet activity like “searching the web for suspicious stuff.”⁴¹

Readers, however, continue to expect and value their privacy even in the face of widespread monitoring.⁴² In 2012, *Fifty Shades of Grey*, a kinky romance novel, became a best-seller.⁴³ One reason for its stunning success was the widespread adoption of e-readers, which allowed people to read the book without anyone around them knowing what they were reading.⁴⁴ A person reading an e-book also did not have to interact with anyone to buy the book.⁴⁵ It was only after the book became a widely discussed phenomenon that more people felt comfortable buying the physical book and being seen with it.⁴⁶ A *Saturday Night Live* skit spoofed the phenomenon in a fake Amazon commercial.⁴⁷ The ad showed well-meaning fathers and children rushing into bedrooms, bathrooms, and living rooms with surprise Mother’s Day gifts for their wives

41. NSA, XKeyscore, PowerPoint Presentation, Feb. 25, 2008, slide 15, in *XKeyscore Presentation from 2008*, GUARDIAN (July 31, 2013), <http://www.theguardian.com/world/intrusive/2013/jul/31/nsa-xkeyscore-program-full-presentation>.

42. See, e.g., Lee Rainie et al., *Anonymity, Privacy, and Security Online*, PEW RESEARCH INTERNET PROJECT (Sept. 5, 2013), <http://www.pewinternet.org/2013/09/05/anonymity-privacy-and-security-online/> (finding “86% of internet users have taken steps online to remove or mask their digital footprints” and “55% of internet users have taken steps to avoid observation by specific people, organizations, or the government”).

43. See *Best Sellers: Paperback Trade Fiction*, N.Y. TIMES (Mar. 25, 2012), <http://www.nytimes.com/best-sellers-books/2012-03-25/trade-fiction-paperback/list.html>.

44. Noah Berlatsky, *Porn on the Kindle: A Catch-22*, ATLANTIC (July 24, 2013), <http://www.theatlantic.com/sexes/archive/2013/07/porn-on-the-kindle-a-catch-22/278075/>; Emanuella Grinberg, *Explaining ‘Fifty Shades’ Wild Success*, CNN (July 17, 2012), <http://www.cnn.com/2012/07/13/living/fifty-shades-buzz-50-shades-success/index.html> (“E-books have also helped to ease the transition by offering newcomers to the genre a way to read in virtual anonymity.”); Frederic Happe, *Ebooks Enhance Erotic Literature Sales*, INQUIRER.NET (Oct. 14, 2012), <http://technology.inquirer.net/18934/ebooks-enhance-erotic-literature-sales> (“With no cover on display, an ereading device such as a Kindle makes the literature anonymous to the outside world.”).

45. Berlatsky, *supra* note 44; Happe, *supra* note 44.

46. The book first made the *New York Times* Best Seller List as an e-book and only later became a best-selling physical book. *Compare Best Sellers: E-Book Fiction*, N.Y. TIMES (Mar. 4, 2012), <http://www.nytimes.com/best-sellers-books/2012-03-04/e-book-fiction/list.html>, with *Best Sellers: Paperback Trade Fiction*, N.Y. TIMES (Mar. 25, 2012), <http://www.nytimes.com/best-sellers-books/2012-03-25/trade-fiction-paperback/list.html>.

47. *Saturday Night Live: Amazon Mother’s Day Ad* (NBC television broadcast May 5, 2012), available at <http://www.nbc.com/saturday-night-live/video/amazon-mothers-day-ad/n13488>.

and mothers.⁴⁸ To everyone's surprise, the families discovered the mothers in compromising positions reading *Fifty Shades of Grey*.⁴⁹ The ad ended with the suggestion that what Mom really wanted for Mother's Day was a Kindle, so no one would know what she was reading.⁵⁰

Although giving Mom a Kindle may provide her privacy from her prying family or passengers on the bus, Amazon knows what page she is on and how many times she has re-read it.⁵¹ The success of the *Fifty Shades of Grey* e-book suggests either that readers did not know Amazon was following their reading, or that they did not care, or perhaps that the book would have sold even better with improved privacy protections.

Several studies suggest that Americans have changed their online habits in response to Snowden's revelations.⁵² The percentage of Internet users worried about online privacy increased 19% between June and July of 2013, during the seven weeks after the first Snowden story ran in *The Washington Post* and *The Guardian*.⁵³ The percentage of users who adjusted browser privacy settings grew in that same period by 16%, and users reported editing social media profiles and blocking cookies in their Internet browsers.⁵⁴

In November 2013, PEN America released a study of over 500 writers, which indicated that many writers engage in self-censorship because of concerns over surveillance.⁵⁵ Twenty-eight percent had curtailed social media activities while 24% had delib-

48. *Id.*

49. *Id.*

50. *Id.*

51. See Alter, *supra* note 7.

52. ANNALECT, ANNALECT Q2 2013 ONLINE CONSUMER PRIVACY STUDY: AMERICANS' CONCERNS ABOUT THE PRIVACY OF ONLINE INFORMATION JUMP IN THE WAKE OF NSA DISCLOSURES 2-3 (2013), http://www.annalect.com/wp-content/uploads/2013/08/Annalect_ConsumerOnlineStudy_Q2_2013.pdf; see also THE FDR GROUP & PEN AMERICAN CTR., CHILLING EFFECTS: NSA SURVEILLANCE DRIVES U.S. WRITERS TO SELF-CENSOR 3-4 (Nov. 12, 2013) [hereinafter THE FDR GROUP], available at http://www.pen.org/sites/default/files/Chilling%20Effects_PEN%20American.pdf (discussing a survey that shows writers' self-censorship online as a result of Snowden's study of NSA surveillance).

53. ANNALECT, *supra* note 52, at 3.

54. *Id.* at 2-3.

55. THE FDR GROUP, *supra* note 52, at 3; see also WILLIAM H. DUTTON ET AL., WORLD ECONOMIC FORUM, THE INTERNET TRUST BUBBLE: GLOBAL VALUES, BELIEFS AND PRACTICES 10 (2013), available at http://www3.weforum.org/docs/WEF_InternetTrustBubble_Report2_2014.pdf.

erately avoided certain topics in phone and email conversations.⁵⁶ A 2012 survey conducted before the Snowden revelations also showed significant global concern over online surveillance activities, with 63% of users concerned about government monitoring and 71% saying they are careful about what they do or say online.⁵⁷ Only 54% responded that the Internet is a safe place to express opinions.⁵⁸

II. WHERE COURTS AND LEGISLATURES HAVE DIVIDED

As technologies that enable others to glean fine-grained information about readers' habits have spread, a number of legal scholars have articulated First Amendment foundations for a right to reader or viewer privacy grounded in Supreme Court jurisprudence.⁵⁹ First Amendment privacy has been termed freedom of thought, intellectual privacy, and "freedom of intimate self-definition."⁶⁰ It has also been justified as part of the more general First Amendment right to receive information.⁶¹

Legal scholars have found that the First Amendment supports privacy protection in a number of ways. The first is through the protection of the First Amendment right to receive information.⁶² Several cases point to a right to receive information in private.⁶³ However, the scope of the jurisprudence is limited in several ways. First, the Court has generally recognized First Amendment

56. THE FDR GROUP, *supra* note 52, at 3.

57. DUTTON ET AL., *supra* note 55, at 10, 13.

58. *Id.* at 10.

59. See Cohen, *supra* note 3, at 1012 (noting that the "material conditions for non-anonymous reading . . . have only recently come to exist"); see also Blitz, *supra* note 3, at 876 (noting that the First Amendment provides a right to receive that allows individuals to exercise their freedoms "without saying a word about what they believe"); Richards, *supra* note 3, at 412 (noting that the Supreme Court has called freedom of thought a foundation of the First Amendment and of a free society).

60. Seth F. Kreimer, *Sunlight, Secrets, and Scarlet Letters: The Tension Between Privacy and Disclosure in Constitutional Law*, 140 U. PA. L. REV. 1, 12, 69–71 (1991); Richards, *supra* note 3, at 416–17.

61. See Blitz, *supra* note 3, at 800; Cohen, *supra* note 3, at 1015.

62. See Cohen, *supra* note 3, at 1015.

63. See *Stanley v. Georgia*, 394 U.S. 557, 564 (1969) (observing that it is "now well established that the Constitution protects the right to receive information and ideas"); *Lamont v. Postmaster General*, 381 U.S. 301, 305 (1965) (finding registration requirements for receipt of communist mail to be unconstitutional); *Martin v. Struthers*, 319 U.S. 141, 146, 149 (1943) (holding that banning door-to-door distribution of circulars interfered with the listeners' right to receive information).

privacy only when the government has affirmatively required a person to do something, such as put a name on a handbill, reveal a membership list, or register before door-to-door petitioning.⁶⁴ In this way, jurisprudence on First Amendment privacy resembles jurisprudence on compelled speech: the government cannot compel a person to identify herself. It is not clear whether these protections extend to circumstances where no affirmative act is required, and several cases suggest they might not.⁶⁵

Second, there is a divide between Justices and between courts of appeals over whether a person must show that she has sustained or is likely to sustain injury in order to benefit from First Amendment privacy protection.⁶⁶ This split is likely grounded in differing empirical assumptions about the effects of surveillance on First Amendment activity, and can be informed by referring to social science.

Scholarly support for First Amendment privacy has been strong. Seth Kreimer has articulated the notion of a freedom of intimate self-definition, explaining that privacy allows a person to experiment with different identities and escape public pressure to conform.⁶⁷ Julie Cohen has identified that readers have been neglected in First Amendment theory, and conceives of reader privacy as a protection for the right to receive, which is a necessary complement to the right to speak.⁶⁸ Marc J. Blitz has focused on the importance in a free society of providing citizens with institutions, such as libraries, that can provide an escape from social pressures and allow for experiments in ideological formation.⁶⁹ Blitz's philosophical approach builds on ideas articulated in John Stuart Mill's *Essay on Liberty*.⁷⁰

64. See *Watchtower Bible & Tract Soc'y of New York, Inc. v. Vill. of Stratton*, 536 U.S. 150, 167–69 (2002); *McIntyre v. Ohio Elections Comm'n*, 514 U.S. 334, 355–57 (1995); *NAACP v. Alabama*, 357 U.S. 449, 465–66 (1958).

65. See *Laird v. Tatum*, 408 U.S. 1, 10 (1972) (finding no standing where complainant alleged that exercise of First Amendment rights was “being chilled by the mere existence . . . of a government investigative and data-gathering activity that is alleged to be broader in scope than is reasonably necessary for the accomplishment of a valid government purpose”).

66. See *id.* at 13 (citing *Ex parte Levitt*, 302 U.S. 633, 634 (1937)).

67. See Kreimer, *supra* note 60, at 69–71 (noting that “[t]he citizen who is truly free in forming her identity should have the opportunity to experiment with roles she does not wish to adopt in public”).

68. See Cohen, *supra* note 3, at 1015.

69. Blitz, *supra* note 3, at 820, 879.

70. *Id.* at 818–20.

Neil Richards situates reader privacy within a larger concept of “intellectual privacy,” which protects records of intellectual activities and includes not only the protection of readers, but also the protection of spatial privacy, confidential communications, and other related areas.⁷¹ More recently, several scholars have written about the contours of statutory protection for reader and viewer privacy.⁷²

These scholars are correct that Supreme Court First Amendment jurisprudence supports some sort of First Amendment right to privacy. They are also correct in recognizing that there are significant doctrinal limitations to that right.⁷³ The First Amendment right to privacy is a real, but tenuous, thing. This article does not aim to posit a doctrinal resolution, but rather to identify the splits in the doctrine to explain why a reference to social science can be helpful in this space.

The Supreme Court has, in a number of cases, used language that should lead to sweeping support for reader privacy protection. The Court has indicated that reader privacy is protected as part of the penumbra of First Amendment rights necessary for foundational rights to be properly protected.⁷⁴ The First Amendment protects not only speech, but “the right to distribute, the right to receive, the right to read and freedom of inquiry, freedom of thought, and freedom to teach Without those peripheral rights the specific rights would be less secure.”⁷⁵ As part of the

71. Richards, *supra* note 3, at 408.

72. See generally Ard, *supra* note 2 (noting that overcoming reader confidentiality problems requires that protective obligations are defined by the content that needs protection rather than the actors who may possess it); Margot Kaminski, *Reading over Your Shoulder: Social Readers and Privacy Law*, 2 WAKE FOREST L. REV. ONLINE 13 (2012), available at <http://www.wakeforestlawreview.com/2012/03/reading-over-your-shoulder-social-readers-and-privacy-law/#> (explaining that a prevalent battle in privacy law concerns the right to consume content without a third party having access to that activity); Bruce M. Kennedy, *Confidentiality of Library Records: A Survey of Problems, Policies, and Laws*, 81 LAW LIBR. J. 733 (1989) (analyzing government use of individuals' library records to enhance law enforcement, public safety, and national security, and to spy on lawful research activity); William McGeeveran, *The Law of Friction*, 2013 U. CHI. LEGAL F. 15 (2013) (proposing a solution to the “friction” that keeps individuals from disclosing personal information online).

73. Richards, for example, calls intellectual privacy a First Amendment value, recognizing that First Amendment doctrine may not require it. Richards, *supra* note 3, at 428–29.

74. See *Griswold v. Connecticut*, 381 U.S. 479, 483 (1965).

75. *Id.* at 482–83 (citations omitted).

protection of necessary conditions for speech, “the First Amendment has a penumbra where privacy is protected from governmental intrusion.”⁷⁶

The Court has also reasoned that reader privacy is based on the overlapping of two distinct rights: the right to receive information and the right to privacy.⁷⁷ Individuals have a “right to receive information and ideas, regardless of their social worth.”⁷⁸ They also have “the right to be free, except in very limited circumstances, from unwanted governmental intrusions into one’s privacy.”⁷⁹

The right to receive information in private is part of a more general right to be left alone by government. Justice Louis Brandeis, dissenting in *Olmstead v. United States*, reasoned about privacy in terms of restricting government power.⁸⁰ Justice Brandeis famously characterized privacy as the “right to be let alone” by government.⁸¹

The most frequent line of Supreme Court reasoning as to why the First Amendment protects privacy rests on a concern that people will be deterred from speaking—that is, that people will experience “chilling effects.”⁸² Without privacy, a person will be deterred from exercising her right to receive information, or her right of association, or her right of distribution. For example, when the government required addressees to affirmatively request communist literature, the Supreme Court was concerned that this affirmative obligation to contact the government would have “a deterrent effect, especially as respects those who have sensitive positions.”⁸³ The Court recognized that “any addressee is likely to feel some inhibition in sending for literature which federal officials have condemned.”⁸⁴ The Court has elsewhere recognized that “identification and fear of reprisal might deter perfect-

76. *Id.* at 483.

77. *Stanley v. Georgia*, 394 U.S. 557, 564 (1969).

78. *Id.*

79. *Id.*

80. 277 U.S. 438, 474–76, 478 (1928) (Brandeis, J., dissenting).

81. *Id.* at 478.

82. See, e.g., Daniel J. Solove, *The First Amendment as Criminal Procedure*, 82 N.Y.U. L. REV. 112, 142–43 (2007).

83. *Lamont v. Postmaster General*, 381 U.S. 301, 307 (1965).

84. *Id.*

ly peaceful discussions of public matters of importance.”⁸⁵ Laws that deter discussion by creating a fear of reprisal violate the First Amendment.⁸⁶

In recent cases, members of the Court have appeared to recognize First Amendment implications of digital surveillance in the context of Fourth Amendment challenges. Justice Sonia Sotomayor, in her concurrence in the GPS surveillance case *United States v. Jones*, noted that “[a]wareness that the Government may be watching chills associational and expressive freedoms.”⁸⁷ Chief Justice John Roberts, writing for the majority in the cell phone search-incident-to-arrest case *Riley v. California*, cited Justice Sotomayor’s concurrence and noted that “[a]n Internet search and browsing history . . . could reveal an individual’s private interests or concerns—perhaps a search for certain symptoms of disease, coupled with frequent visits to WebMD.”⁸⁸

But when the Court recently faced First and Fourth Amendment challenges to mass surveillance in *Clapper v. Amnesty International*, it rejected the case for lack of standing.⁸⁹ This and other jurisprudential trends indicate that reader privacy has more tenuous doctrinal support than the Supreme Court’s reasoning and dicta might suggest. Neil Richards and others have consequently referred to reader privacy as a First Amendment value—a concept articulated by Jack Balkin to describe the values necessary for First Amendment rights, but not fully enshrined in First Amendment doctrine.⁹⁰

The first prong of skepticism in the doctrine is over whether surveillance by itself constitutes an injury in the First Amendment space. As noted above, most of the First Amendment privacy cases concern an affirmative requirement that the recipient of information identify herself or otherwise be revealed: a request to

85. *Talley v. California*, 362 U.S. 60, 65 (1960).

86. *See id.*; *Shelton v. Tucker*, 364 U.S. 479, 487 (1960).

87. *United States v. Jones*, 565 U.S. ___, ___, 132 S. Ct. 945, 956 (2012) (Sotomayor, J., concurring).

88. *Riley v. California*, 573 U.S. ___, ___, 134 S. Ct. 2473, 2490 (2014).

89. 568 U.S. ___, ___, 133 S. Ct. 1138, 1143 (2013).

90. Richards, *supra* note 3, at 416–19, 428–29; Jack M. Balkin, *Digital Speech and Democratic Culture: A Theory of Freedom of Expression for the Information Society*, 79 N.Y.U. L. REV. 1, 50–52 (2004) (“Free speech rights are rights of individuals enforceable by courts. Free speech values are values that we seek to promote through legislative and administrative regulation and through technological design.”).

receive mail, the revelation of membership lists, or a signature on a handbill.⁹¹ When the Court in *Laird v. Tatum* faced a challenge to widespread government surveillance that lacked an affirmative requirement of action, the five-judge majority found that allegations of a subjective chill due to overbroad government surveillance did not constitute a cognizable injury for purposes of standing.⁹² The majority distinguished the broad government surveillance in *Laird* from the “affirmative obligation” that receivers of communist mail identify themselves in *Lamont v. Postmaster General*.⁹³

Laird is a decision about standing, but it shows the majority’s skepticism about the harms of surveillance, especially where “the information gathered is nothing more than a good newspaper reporter would be able to gather.”⁹⁴ In the more recent *Clapper* case, the Court again rejected First Amendment challenges to mass surveillance for lack of standing.⁹⁵ In *Clapper*, the Court hinged its finding of a lack of standing on the fact that challengers could not show they had been targeted and surveilled.⁹⁶ The Court cited *Laird* for the proposition that fear of surveillance alone is insufficient to create standing.⁹⁷ A plaintiff has to show a “certainly impending” threatened injury, traceable to the challenged law.⁹⁸ Justice Stephen Breyer, in his dissent, pointed out that the communications at issue were private telephone and email conversations, unlike the public communications in *Laird*.⁹⁹ This distinction between publicly accessible and private information may make a difference when the programs that Snowden revealed end up back in front of courts.

The second point of frailty in the doctrinal support for First Amendment privacy rests in the question of whether challengers

91. See *supra* note 63 and accompanying text.

92. *Laird v. Tatum*, 408 U.S. 1, 13–14 (1972).

93. *Id.* at 12 (citing *Lamont v. Postmaster Gen.*, 381 U.S. 301, 307 (1965)).

94. *Id.* at 9 (quoting *Tatum v. Laird*, 444 F.2d 947, 953 (D.C. Cir. 1971)).

95. *Clapper v. Amnesty Int’l*, 568 U.S. ___, ___, 133 S. Ct. 1138, 1152 (2013).

96. *Id.* at 1147–50 (stating that threatened injury must be “certainly impending” and traceable to the law challenged).

97. *Id.* at 1152 (citing *Laird*, 408 U.S. at 10–15).

98. *Id.* at 1143 (citing *Whitmore v. Arkansas*, 495 U.S. 149, 158 (1990)).

99. Compare *id.* at 1155 (Breyer, J., dissenting) (emphasizing that telephone and email communications were at issue), with *Laird*, 408 U.S. at 2, 6 (considering the Army’s data-gathering system which utilized principle sources such as news media and publications in general circulation).

must show that they have been subject to specific threats of retaliation for their viewpoints. Some judges have found that the First Amendment protects privacy only when the plaintiff can show a colorable fear of reprisal that will prevent her from speaking or seeking information.¹⁰⁰ Justice Antonin Scalia, dissenting in *McIntyre v. Ohio*, a case about anonymous speech, interpreted the Court's jurisprudence as recognizing a right to anonymity only for "someone who could show a 'reasonable probability' that the compelled disclosure would result in 'threats, harassment, or reprisals from either Government officials or private parties.'"¹⁰¹ While the majority in *McIntyre* did not require a showing of possible reprisals to overturn the government's identification requirement for political handbills, Justice Scalia noted that reprisal showings might be required in other circumstances.¹⁰²

Examining other Supreme Court cases shows that Justice Scalia's reprisal requirement does have doctrinal foundations. In *NAACP v. Alabama*, a dispute over whether Alabama could require the NAACP to reveal its membership lists, the Court noted that the petitioner had "made an uncontroverted showing that on past occasions revelation of the identity of its rank-and-file members has exposed these members to economic reprisal, loss of employment, threat of physical coercion, and other manifestations of public hostility."¹⁰³ The Court found that "the crucial factor is the interplay of governmental and private action, for it is only after the initial exertion of state power represented by the production order that private action takes hold."¹⁰⁴ This language could be read to mean that the NAACP received First Amendment protection because it could show private threats of reprisals against its members. Similarly, in *Talley v. California*, a challenge to a requirement that persons print their names on handbills, the Court reasoned that laws that deter discussion by creating a fear of re-

100. See, e.g., *Moore v. City of East Cleveland*, 431 U.S. 494, 495–96, 504–506 (1977); *Am. Knights of the Ku Klux Klan v. City of Goshen*, 50 F. Supp. 2d 835, 841 (N.D. Ind. 1999).

101. *McIntyre v. Ohio Elections Comm'n*, 514 U.S. 334, 379 (1995) (Scalia, J., dissenting) (quoting *Buckley v. Valeo*, 424 U.S. 1, 74 (1976) (per curiam)).

102. *Id.* at 355–57; *id.* at 379 (Scalia, J., dissenting) (quoting *Buckley*, 424 U.S. at 74 (per curiam)).

103. 357 U.S. 449, 462 (1958).

104. *Id.* at 463.

prisal violate the First Amendment.¹⁰⁵ Both *NAACP* and *Talley* came before *McIntyre*, however, so *McIntyre* appears to control.¹⁰⁶

In the more recent case of *Doe v. Reed*, a challenge to the disclosure of the signatories of referendum petitions, the majority of the Court appeared to adopt Justice Scalia's requirement of a showing of reprisals.¹⁰⁷ The majority found that plaintiffs had failed to show "a reasonable probability that the compelled disclosure . . . will subject them to threats, harassment, or reprisals from either Government officials or private parties."¹⁰⁸ However, the majority several times emphasized that *Doe v. Reed* occurred in the context of election law, and thus there is no indication that the Court intended to replace its analysis in *McIntyre*.¹⁰⁹

Lower courts have split over whether plaintiffs must show that they have been or will be subject to threats or reprisals to obtain protection of their First Amendment privacy.¹¹⁰ Several courts do not require a showing of reprisals, instead assuming that chilling effects will occur.¹¹¹ However, others require, or at least acknowledge, a record before them showing specific evidence of threatened or likely reprisals.¹¹²

This judicial skepticism about the extent of chilling effects points to empirical assumptions about the effects of surveillance. The above cases indicate that at least some members of the judiciary believe surveillance in itself is not harmful, and that chills occur only when people have a fear of something beyond surveillance.¹¹³ Social science can play an important role in informing this understanding.

105. See 362 U.S. 60, 60, 65 (1960).

106. See *supra* notes 101, 103, 105, noting the date of each respective decision.

107. 561 U.S. ___, ___, 130 S. Ct. 2811, 2818 (2010). Chief Justice Roberts pointed out that the lowered standard of exacting scrutiny applies in the electoral context. *Id.*

108. *Id.* at ___, 130 S. Ct. at 2820 (quoting *Buckley v. Valeo*, 424 U.S. 1, 74 (1976)).

109. *Id.* at ___, 130 S. Ct. at 2818–19, 2821.

110. Margot Kaminski, *Real Masks and Real Name Policies: Applying Anti-Mask Case Law to Anonymous Online Speech*, 23 *FORDHAM INTELL. PROP. MEDIA & ENT. L.J.* 815, 875 (2013).

111. See, e.g., *Ghafari v. Municipal Court for the City and Cnty. of San Francisco*, 150 Cal. Rptr. 813, 818 (Cal. Ct. App. 1978); *Aryan v. Mackey*, 462 F. Supp. 90, 92 (N.D. Tex. 1978).

112. See, e.g., *Am. Knights of the Ku Klux Klan v. City of Goshen*, 50 F. Supp. 2d 835, 841 (N.D. Ind. 1999) (acknowledging the record of retaliation as an important factor in concluding a city ordinance restricted the group's freedom of expression).

113. See, e.g., *Laird v. Tatum*, 408 U.S. 1, 13–14 (1972).

Legislators appear similarly split over the harms of surveillance in the reader and viewer context. While California enacted a statute protecting digital reader privacy in 2012, the federal government revised the VPPA to reduce statutory protections for viewers at the federal level.¹¹⁴ Section 215 of the PATRIOT Act also underplays First Amendment concerns, giving the government access to reader records even while clarifying that individuals cannot be targeted solely based on First Amendment rights.¹¹⁵ Legislatures could similarly stand to be informed by social science research in this space.

III. SOCIAL SCIENCE ON SURVEILLANCE AND CONFORMITY

The traditional story of chilling effects is that individuals make a conscious decision to self-censor in order to avoid some perceived or explicit consequence.¹¹⁶ Social psychology research into conformity and decision-making suggests a more complicated and widespread chill that subtly affects many people, even without their awareness of its influence. There may well be a chilling effect on speech; however, a conforming effect is likely the more pernicious element at play.

Social psychology has shown that: (1) people are strongly influenced by group behavior;¹¹⁷ (2) this influence can have long-lasting effects on opinion, perceptions, and beliefs;¹¹⁸ (3) even the suggestion of observation can reinforce a group's influence;¹¹⁹ and (4) people being influenced may not realize that they have been influenced.¹²⁰

114. See Video Privacy Protection Act Amendments Act of 2012, Pub. L. No. 112-258, 126 Stat. 2414 (2013); CAL. CIV. CODE § 1798.90 (Deering, LEXIS through 2013 legislation).

115. 50 U.S.C. § 1861(a)(1) (2012).

116. See, e.g., Leslie Kendrick, *Speech, Intent and the Chilling Effect*, 54 WM. & MARY L. REV. 1633, 1652-53 (2013).

117. See, e.g., Gregory S. Berns et al., *Neurobiological Correlates of Social Conformity and Independence During Mental Rotation*, 58 BIOLOGICAL PSYCHIATRY 245, 245 (2005).

118. See, e.g., J.H. Rohrer et al., *The Stability of Autokinetic Judgments*, 49 J. ABNORM. SOC. PSYCHOL. 595, 597 (1954).

119. See, e.g., Aaron M. Watson et al., *When Big Brother Is Watching: Goal Orientation Shapes Reactions to Electronic Monitoring During Online Training*, 98 J. APPLIED PSYCHOL. 642, 643-44, 650 (2013).

120. See Solomon E. Asch, *Effects of Group Pressure Upon the Modification and Distortion of Judgments*, in *GROUPS, LEADERSHIP AND MEN* (Harold Guetzkow ed., 1951), re-

Widespread surveillance is likely to subtly increase the majority's influence such that, in some situations, people will decide not to read a given book or article or explore a new topic. This conforming effect need not be based on direct threats or even awareness by a given individual that she has been influenced.

While the chilling effect plays an enormous role in First Amendment doctrine, its empirical basis has been questioned by scholars.¹²¹ Leslie Kendrick has discussed the chilling effects doctrine in its more traditional context: overbroad laws.¹²² Kendrick has pointed out the practical impossibility of designing experiments to determine the effect of overbroad laws on speakers.¹²³ She writes that "[i]t is difficult to establish either the presence or the absence of a chilling effect."¹²⁴ Analysis of the chilling effect in doctrine is an example of one of the "dilemma[s] of ignorance" identified by Frederick Schauer in which judges have to decide in a space where they may never be practically informed.¹²⁵

Although much more research into the societal effects of surveillance should be conducted, existing studies suggest that surveillance causes conforming and other potential harms to First Amendment values. There need not be a dilemma of ignorance with respect to surveillance's effects on First Amendment values. Empirical research shows that privacy may be important for the development of new ideas, for challenges to the status quo, for change, and for a vigorous democracy.

That said, none of the studies outlined here were designed to specifically test the consequences of surveillance of media consumption on intellectual development. In light of Edward Snowden's disclosures revealing significant surveillance by the United States and other governments, and increased public awareness of government and commercial surveillance, additional studies on

printed in DOCUMENTS OF GESTALT PSYCHOLOGY 222, 223–28 (Mary Henle ed., 1961) [hereinafter Asch 1951].

121. See Kendrick, *supra* note 116, at 1637–38; Frederick Schauer, *Fear, Risk and the First Amendment: Unraveling the "Chilling Effect,"* 58 B.U. L. REV. 685, 688–89 (1978).

122. See Kendrick, *supra* note 116, at 1653.

123. *Id.* at 1675–83.

124. *Id.* at 1675.

125. Frederick Schauer, *The Dilemma of Ignorance: PGA Tour, Inc. v. Casey Martin,* 2001 S. CT. REV. 267, 268–69 (2001).

the effects of surveillance are essential to understanding the societal costs of such programs.

The following sections first examine studies that provide a background on conforming behavior. Second, they consider related studies, which suggest that the effects of widespread surveillance go beyond chilling effects. Finally, in light of the various First Amendment theories, these studies provide support for stronger privacy protections.

A more thorough understanding of basic social psychology will help judges and legislatures better understand the possible consequences of widespread surveillance. One of the basic lessons of social psychology is that people have a tendency to change their behavior to conform to group norms.¹²⁶ One psychology scholar summarized this point: “[I]ndividuals assume and are motivated to assume that the majority is correct.”¹²⁷ The conforming effect can be so strong that people will deny their own perceptions.¹²⁸ Understanding the conforming effect is important because surveillance is likely to encourage conformity with group norms, which has costs under any theory of the First Amendment.

A. *Foundational Experiments on Conformity*

Two seminal studies on conformity were conducted by Muzafer Sherif in the 1930s and Solomon Asch in the 1950s.¹²⁹ Both studies found that individuals are highly susceptible to being influenced by groups.¹³⁰

In Sherif’s study, subjects were put in a dark room with a single small point of light on a wall and asked how much the point of

126. SAUL KASSIN, STEVEN FEIN & HAZEL ROSE MARKUS, *SOCIAL PSYCHOLOGY* 224 (7th ed. 2008) (stating that individuals alter their “perceptions, opinions, and behavior in ways that are consistent with group norms”).

127. Charlan Jeanne Nemeth, *Differential Contributions of Majority and Minority Influence*, 93 *PSYCHOL. REV.* 23, 25 (1986).

128. See DANIEL T. GILBERT, SUSAN T. FISKE & GARDNER LINDZEY, *THE HANDBOOK OF SOCIAL PSYCHOLOGY* 166 (4th ed., Oxford Univ. Press 1998); Morton Deutsch & Harold B. Gerard, *A Study of Normative and Informational Social Influences Upon Individual Judgment*, 51 *J. ABNORMAL & SOC. PSYCHOL.* 629, 635 (1955).

129. MUZAFER SHERIF, *THE PSYCHOLOGY OF SOCIAL NORMS* (1936); Asch 1951, *supra* note 120. For a summary of both experiments see KASSIN, FEIN & MARKUS, *supra* note 126, at 224–26.

130. KASSIN, FEIN & MARKUS, *supra* note 126, at 226.

light moved.¹³¹ Although the light never moved, individuals generally claimed there was some amount of movement.¹³² Over successive rounds of the experiment, a given individual usually settled on reporting that the light moved about the same amount.¹³³

After reporting individually, the subjects were again run through the same experiment—except this time, they observed the light and reported the amount of movement out loud in a group of three people.¹³⁴ Over three rounds of group observations and reporting with the same group of people, the individual subject's statement of how much the light moved converged towards the same response for everyone in the group, showing conformity to the norm that developed in that particular group.¹³⁵ Sherif found about a 70% conformity rate.¹³⁶

In Asch's experiment, subjects were asked to judge the length of a line relative to three possible matches, where the correct answer was obvious.¹³⁷ The participants gave their answers out loud, one-at-a-time, in a group.¹³⁸ However, all but one of the "subjects" were confederates of the experimenter.¹³⁹ After a couple of uneventful rounds, the confederates started selecting the same obviously incorrect option.¹⁴⁰ The subjects in the study would conform to the obviously incorrect judgment of the rest of the group 37% of the time.¹⁴¹ Later researchers conducting similar experiments explained that the results were "not particularly optimistic for those

131. *Id.* at 224.

132. *Id.*

133. *Id.*

134. *Id.*

135. SHERIF, *supra* note 129, at 104; see KASSIN, FEIN & MARKUS, *supra* note 126, at 224–25.

136. KENNETH S. BORDENS & IRWIN A. HOROWITZ, *SOCIAL PSYCHOLOGY* 245 (2d ed. 2002).

137. Solomon E. Asch, *Opinions and Social Pressure*, 193 *SCI. AM.* 31, 33 (1955) [hereinafter Asch 1955]. In the control group, individuals gave the incorrect response less than 1% of the time. *Id.* at 33–34.

138. *Id.* at 33.

139. *Id.* In successive experiments, the number of confederates varied, but the results did not significantly vary for any number of confederates above three. See Asch 1951, *supra* note 120, at 233.

140. Asch 1955, *supra* note 137, at 33.

141. *Id.* at 33–34.

who place a high value on the ability of an individual to resist group pressures which run counter to his individual judgment."¹⁴²

B. *Types of Conformity*

Social psychologists recognize two main types of conforming influences: informational influences and normative influences.¹⁴³ Informational influences cause people to conform because they accept information from others as evidence about reality.¹⁴⁴ This influence is especially strong in situations where people engage in difficult or ambiguous tasks.¹⁴⁵ Discussion and the sharing of arguments and factual information are types of informational influences.¹⁴⁶ Normative influences cause people to conform because they want to avoid the negative social consequences of appearing deviant.¹⁴⁷ This effect is particularly strong when the majority is unanimous.¹⁴⁸

Social psychology also recognizes two types of conformity: private conformity and public conformity.¹⁴⁹ Private conformity describes when the influences of others cause a person to change her mind to conform to the group influence.¹⁵⁰ Public conformity, or compliance, describes when a person only acts as the group acts, but may not actually agree with it.¹⁵¹

In Sherif's experiment, where the correct answer was ambiguous, the influence tended to be informational and led to private acceptance.¹⁵² The group provided information, and individuals accepted that information as evidence of reality and privately believed their conforming decisions to be true.¹⁵³ Sherif confirmed

142. Deutsch & Gerard, *supra* note 128, at 635.

143. *See id.* at 629; BORDENS & HOROWITZ, *supra* note 136, at 238; *see also* GILBERT, FISKE & LINDZEY, *supra* note 128, at 157; KASSIN, FEIN & MARKUS, *supra* note 126, at 226-27.

144. *See* Deutsch & Gerard, *supra* note 128, at 629.

145. *See* KASSIN, FEIN & MARKUS, *supra* note 126, at 226-27.

146. *See* BORDENS & HOROWITZ, *supra* note 136, at 239.

147. *See* KASSIN, FEIN & MARKUS, *supra* note 126, at 227.

148. *See* Asch 1951, *supra* note 120, at 230-33.

149. *See* KASSIN, FEIN & MARKUS, *supra* note 126, at 227.

150. *See id.* at 228.

151. *See id.*

152. *See id.* at 229, Table 7.1.

153. *See id.* at 228-29 & Table 7.1.

this effect by retesting the subjects privately at the end of the experiment.¹⁵⁴ Even when removed from the group, individuals' estimates continued to reflect the norm established in their group.¹⁵⁵ Subsequent researchers confirmed that the influence still existed a year later.¹⁵⁶

The reasons given for conformity in Asch's experiment were more mixed. In follow-up interviews, some subjects reported that they thought the group was incorrect, but conformed so as not to appear as a deviant within the group.¹⁵⁷ Other subjects reported that they conformed to the group because they decided that their perceptions were inaccurate.¹⁵⁸ The remaining subjects reported that they perceived the majority's clearly incorrect answer to be correct—that is, the group influence appeared to have actually changed their private perceptions.¹⁵⁹ A more recent follow-up experiment using fMRIs suggests that the group influence can in fact alter private perceptions.¹⁶⁰

These studies form the foundation for most social psychology research into conformity and majority influences. Later studies on conformity show that individuals are influenced by their perception of majority norms, even without the group being present or announcing its opinion.¹⁶¹

154. See *id.* at 228.

155. See *id.*

156. See Rohrer et al., *supra* note 118, at 596.

157. Asch 1951, *supra* note 120, at 229.

158. *Id.*

159. *Id.*

160. See Berns et al., *supra* note 117, at 251.

161. For example, in a study of alcohol use and perceptions on campus, researchers found that the average male student was less comfortable with alcohol use on campus than he perceived the average student to be—meaning, of course, that the actual comfort with alcohol on campus was much less than students believed—but male students moved towards the perceived norm of being more comfortable with alcohol consumption over time. Deborah A. Prentice & Dale T. Miller, *Pluralistic Ignorance and the Perpetuation of Social Norms by Unwitting Actors*, in 28 *ADVANCES IN EXPERIMENTAL SOC. PSYCHOL.* 161, 172–75 (1996). Similarly, in studies of what motivates people to conserve, researchers found that telling individuals how the majority behaves was more effective than giving reasons for conserving. Noah J. Goldstein, Robert B. Cialdini & Vladas Griskevicius, *A Room With a Viewpoint: Using Social Norms to Motivate Environmental Conservation in Hotels*, 35 *J. CONSUMER RES.* 472, 474, 477 (2008); Vladas Griskevicius, Robert B. Cialdini & Noah J. Goldstein, *Social Norms: An Underestimated and Underemployed Lever for Managing Climate Change*, 3 *INT'L J. SUSTAINABILITY COMM'N* 5, 10–11 (2008). The researchers specifically looked at how to increase reuse of towels in a hotel to promote conservation. *Social Norms* at 10. The researchers placed cards in hotel bathrooms that said

C. *Surveillance-Related Studies*

The above studies on conformity show that individuals often wish to conform to perceived group norms. But what are the effects of surveillance, and how do they connect to the tendency to conform?

The perception that one is being observed is enough to cause a change in behavior.¹⁶² This knowledge that observation affects behavior has been used and studied as a management tactic.¹⁶³ Surveillance can encourage accountability and even moral behavior—but accountability to the majority might not always be desirable and might have unintended consequences.¹⁶⁴ Recently, police officers in Los Angeles, whose cars were outfitted with voice recording devices and in-car video cameras, tampered with the record-

one of the following: “Help Save the Environment,” “Partner with Us to Help Save the Environment,” and “Join Your Fellow Guests in Helping to Save the Environment.” *Id.* at 10. The last card, which also stated that the majority of hotel guests reuse towels, was the most influential, increasing reuse by 34%. *Id.* Similarly, a researcher found that merely telling an individual how much energy neighbors with comparable houses consume will get that individual, if she is above the norm, to reduce energy by approximately 2%. Hunt Allcott, *Social Norms and Energy Conservation*, 95 J. PUB. ECON. 1082, 1082–83 (2011). Consumption changed relative to the norm. *Id.* at 1093. Households in the top decile reduced consumption by 6.3%. *Id.* at 1090. The mean was about 2%. *Id.* at 1087. Of course, norms are not necessarily good. Other studies have shown that providing information on the norm can actually cause individuals consuming less energy than the norm to increase their consumption. P. Wesley Schultz et al., *The Constructive, Destructive, and Reconstructive Power of Social Norms*, 18 PSYCHOL. SCI. 429, 432 (2007). Other studies have found this effect relatively easy to counter by giving additional “injunctive norms” which convey that the below-norm behavior is pro-social. Allcott, *supra* at 1083. In Allcott’s study this was accomplished by adding a “smiley face” next to the norm information when it indicated that a consumer was below the norm. *Id.*

162. See John R. Aiello, *The Effects of Computer Monitoring, Standards, and Rewards on Work Performance, Job Satisfaction, and Stress*, 23 J. APPLIED SOC. PSYCHOL. 499, 502–03 (1993); John R. Aiello & Kathryn J. Kolb, *Electronic Performance Monitoring and Social Context: Impact on Productivity and Stress*, 80 J. APPLIED PSYCHOL. 339, 348 (1995); Watson et al., *supra* note 119, at 650; see also M. Ryan Calo, *Against Notice Skepticism in Privacy (and Elsewhere)*, 87 NOTRE DAME L. REV. 1027, 1039 (2012) (recognizing the effect of observation on behavior).

163. See, e.g., Aiello, *supra* note 162, at 502–03; Aiello & Kolb, *supra* note 162, at 348; Kirstie Ball & David C. Wilson, *Power, Control and Computer-Based Performance Monitoring: Repertoires, Resistance and Subjectives*, 21 ORG. STUD. 539, 561–62 (2000); Nick Kinnie, Sue Hutchinson & John Purcell, *‘Fun and Surveillance’: The Paradox of High Commitment Management in Call Centres*, 11 INT’L J. HUM. RESOURCE MGMT. 967, 968 (2000); Watson et al., *supra* note 119, at 650.

164. John R. Aiello & Carol M. Svec, *Computer Monitoring of Work Performance: Extending the Social Facilitation Framework to Electronic Presence*, 23 J. APPLIED SOC. PSYCHOL. 537, 543 (1993).

ing equipment to avoid being monitored while on duty.¹⁶⁵ The equipment was intended to deter police misconduct, increase transparency, build trust in the communities in which the police operated, and defend officers against false accusations of misconduct.¹⁶⁶ But officers may have decided not to change their behavior, or that being monitored had other costs and effects.

There are other compelling examples of awareness of surveillance changing individual behavior. In a study of over 100,000 voters in the 2006 primary election in Michigan, researchers were able to increase voter turnout just by sending a single letter informing voters they were being studied.¹⁶⁷ The knowledge that someone was observing their behavior caused potential voters to behave in a way they considered more socially desirable.¹⁶⁸ Similarly, a number of researchers have found that people were more likely to conform to perceived acceptable behavior when a picture of a pair of eyes was present (although the effect lasted only a short time).¹⁶⁹ In one study, putting a picture of eyes above a box collecting money to pay for office coffee and tea caused people to contribute nearly three times as much money as they did without the eyes.¹⁷⁰ In another study, researchers observed a 60% drop in bicycle thefts by placing a pair of eyes above a bicycle rack with the words "Cycle Thieves, We Are Watching You."¹⁷¹ A third study found the odds of littering halved in a university cafeteria in the presence of posters with eyes.¹⁷² Another study predicted and

165. See Joel Rubin, *Officers Tamper with In-Car Devices*, L.A. TIMES, Apr. 8, 2014, at A1.

166. *Id.*

167. Alan S. Gerber, Donald P. Green & Christopher W. Larimer, *Social Pressure and Voter Turnout: Evidence from a Large-Scale Field Experiment*, 102 AM. POL. SCI. REV. 33, 38–39 (2008).

168. *Id.* at 39–40.

169. Melissa Bateson, Daniel Nettle & Gilbert Roberts, *Cues of Being Watched Enhance Cooperation in a Real-World Setting*, 2 BIOLOGY LETTERS 412, 412 (2006); Daniel Nettle, Kenneth Nott & Melissa Bateson, 'Cycle Thieves, We Are Watching You': Impact of a Simple Signage Intervention Against Bicycle Theft, 7 PLOS ONE, Dec. 2012, at 1–2, available at <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0051738>. See generally Adam Sparks & Pat Barclay, *Eye Images Increase Generosity, But Not for Long: The Limited Effect of a False Cue*, 34 EVOLUTION & HUM. BEHAV. 317, 318 (2013) (summarizing the "eye image" studies).

170. *Cues of Being Watched*, *supra* note 169, at 412.

171. *Cycle Thieves*, *supra* note 169, at 2.

172. Max Ernest-Jones, Daniel Nettle & Melissa Bateson, *Effects of Eye Images on Everyday Cooperative Behavior: A Field Experiment*, 32 EVOLUTION & HUM. BEHAV. 172, 174–75 (2011).

found that participants exposed to surveillance cues such as a picture of eyes “would provide stronger endorsements of moral norms by rating moral transgressions as more serious than control participants.”¹⁷³ These studies demonstrate that even the suggestion of being watched can have a strong impact on human behavior,¹⁷⁴ and that the change in behavior may be involuntary and subconscious.¹⁷⁵

The most relevant study on surveillance’s effects on opinion formation and articulation was conducted by Gregory White and Philip Zimbardo in the late 1970s, during another period of widespread public concern about surveillance.¹⁷⁶ The researchers told the subjects (students at University of California Los Angeles (“UCLA”)) that they were conducting a study on student movements and asked each subject to prepare and give a short talk on whether “[m]arijuana possession in small quantities should be a misdemeanor, but in large quantities should be a felony.”¹⁷⁷ The researchers told the subjects that the talks would be videotaped.¹⁷⁸ A little more than half of the subjects were also told that copies of the videotapes would be provided to the police and FBI for training purposes; the other half were told the videotapes would just be used by the researchers.¹⁷⁹ Only a subset of each group was actually videotaped.¹⁸⁰ The researchers told the other subsets that the video camera had broken and they would just use a tape recorder, which would not be shared with the police and FBI.¹⁸¹ The researchers analyzed the talks and post-talk mood questionnaires of over seventy subjects.¹⁸²

173. Pierrick Bourrat, Nicolas Baumard & Ryan McKay, *Surveillance Cues Enhance Moral Condemnation*, 9 *EVOLUTIONARY PSYCHOL.* 193, 194 (2011).

174. Of course, *images* of eyes are not watching anyone, which some researchers argue is the reason that other studies have found limited or no effect from images of eyes on behavior. See Sparks & Barclay, *supra* note 169, at 317–18. Nevertheless, most studies have found an effect, *id.* at 318, which strongly suggests that the belief in widespread surveillance, especially when coupled with a surveillance cue, will lead people to change behavior.

175. *See id.* at 320–21.

176. White & Zimbardo, *supra* note 1, at 49–50.

177. *Id.* at 52–53.

178. *Id.* at 51.

179. *Id.*

180. *Id.*

181. *Id.* at 53.

182. *Id.* at 52, 55.

Surveillance or even the threat of it had a significant effect. Pretest questionnaires revealed that students at UCLA at the time were split roughly evenly as to whether they agreed with the advocacy statement.¹⁸³ However, of the subjects in the experiment, only 44% of those in the surveillance group advocated for the legalization of marijuana, while 73% of the group not subject to surveillance advocated for legalization.¹⁸⁴ Nevertheless, 67% of all subjects reported using marijuana in the past.¹⁸⁵ Furthermore, those in the surveillance group tried to distinguish themselves from their arguments, consistently using second and third person pronouns rather than the first-person that other subjects generally used.¹⁸⁶ The researchers concluded that those under surveillance were less likely to advocate legalization or reduction in penalties.¹⁸⁷

White and Zimbardo also found that those who had been told that they were going to be surveilled by the police, but then were not because the “camera broke,” remained influenced by the mere threat of surveillance.¹⁸⁸ The researchers concluded that the “experiment demonstrates that the threat of surveillance exerts a powerful influence over behavior, beliefs, and feelings, whether or not that threat is realized.”¹⁸⁹ Interestingly, both the subjects of the actual surveillance and the surveillance-threat self-reported that they performed honestly, and did not believe that the surveillance had influenced their opinion or statements even though the results of the study strongly suggested that it did.¹⁹⁰

These studies establish that a desire to conform to social norms (or perceived social norms) causes individuals to alter their behavior and even their beliefs. Further, awareness of being observed or even the suggestion of observation can be enough to alter behavior. This provides a strong foundation to suspect that surveillance of a person’s Internet and reading activity could have an impact on what that person reads and could even influence be-

183. *Id.* at 54.

184. *Id.* at 58.

185. *Id.* at 59.

186. *Id.* at 57, 59.

187. *Id.* at 59.

188. *Id.*

189. *Id.*

190. *See id.* at 56, 59–60.

liefs. These studies support the intuitions of those legislatures and judges who believe that chilling effects exist.

IV. THE TYRANNY OF THE MAJORITY, OR THE CONFORMING EFFECT

The idea that surveillance has a conforming effect, and that this conforming effect might have First Amendment consequences, has not gone unremarked in either the Supreme Court's jurisprudence or the legal literature. But the legal understanding of this conforming effect is limited. This section identifies how the Supreme Court and legal scholars have understood the "tyranny of the majority" and explain what social science adds to this understanding.

A. *Legal Analysis of the Tyranny of the Majority*

The core of modern First Amendment doctrine, under any theory of the First Amendment, is the protection of minority viewpoints. The Supreme Court has repeatedly explained that the First Amendment protects even the most unpopular or distasteful ideas, and the Court is highly skeptical of viewpoint discrimination and other attempts to instill intellectual conformity.¹⁹¹ For example, the Court has stated that "[i]f there is any fixed star in our constitutional constellation, it is that no official, high or petty, can prescribe what shall be orthodox in politics, nationalism, religion, or other matters of opinion."¹⁹²

In a foundational case supporting the right to receive information, the Supreme Court connected the right to receive information to the protection of minority views from community attempts at instilling conformity.¹⁹³ In *Martin v. City of Struthers*, the Court found a prohibition on door-to-door distribution of leaflets unconstitutional.¹⁹⁴ The Court explained that this particular method of distribution is protected by the First Amendment, reasoning that "[d]oor to door distribution of circulars is essential to

191. See, e.g., *Terminiello v. Chicago*, 337 U.S. 1, 4–5 (1949).

192. *W. Va. State Bd. of Educ. v. Barnette*, 319 U.S. 624, 642 (1943).

193. *Martin v. City of Struthers*, 319 U.S. 141, 146–47 (1943).

194. *Id.* at 142, 149.

the poorly financed causes of little people.”¹⁹⁵ In other words, society must allow the distribution of circulars if poorly funded minority speech is to reach an audience. And protecting minority speech serves the core purpose of the First Amendment: “The authors of the First Amendment knew that novel and unconventional ideas might disturb the complacent, but they chose to encourage a freedom which they believed essential if vigorous enlightenment was ever to triumph over slothful ignorance.”¹⁹⁶ The Court found that the ordinance was unconstitutional because it did not allow for true heterogeneity of opinion.¹⁹⁷ The ordinance impermissibly “substitute[d] the judgment of the community for the judgment of the individual householder.”¹⁹⁸

The Court’s perhaps most well-known case supporting a right to read in private, *Stanley v. Georgia*, also emphasizes the centrality of protecting diversity of thought rather than allowing for state control and conformity.¹⁹⁹ The Court stated, “Whatever the power of the state to control public dissemination of ideas inimical to the public morality, it cannot constitutionally premise legislation on the desirability of controlling a person’s private thoughts.”²⁰⁰ Georgia’s assertion that it should be permitted to protect an individual’s mind from the consequences of viewing obscenity is “wholly inconsistent with the philosophy of the First Amendment.”²⁰¹ An individual has a “right to read or observe what he pleases,” at least within the privacy of his home.²⁰² The Court in *Stanley* emphasized protection from government control, not majority influence, though the government can be understood as standing in on the part of the majority.²⁰³

The jurisprudence around the right to receive and the right to receive information privately thus acknowledges the centrality of protecting minority points of view. The state cannot condemn a minority viewpoint, and it cannot make it more difficult for an

195. *Id.* at 146.

196. *Id.* at 143.

197. *Id.* at 149.

198. *Id.* at 143–44.

199. 394 U.S. 557, 565 (1969).

200. *Id.* at 566.

201. *Id.* at 565–66.

202. *See id.* at 568.

203. *See id.* at 565–66.

individual to access information about a particular minority viewpoint. But, what if the state merely participates in revealing to the public that a person holds that minority point of view?

The Supreme Court has stated that laws that deter the expression of minority viewpoints by airing the identities of their holders are also unconstitutional.²⁰⁴ In *Lamont*, the Court found unconstitutional a requirement that mail recipients write in to request communist literature.²⁰⁵ The state had an impermissible role in identifying this minority viewpoint and condemning it.²⁰⁶ The Court reasoned that “any addressee is likely to feel some inhibition in sending for literature which federal officials have condemned as ‘communist political propaganda.’”²⁰⁷ The individual’s inhibition stems from the state’s obvious condemnation, but also from a fear of social repercussions (by the state as an employer).²⁰⁸ The Court found that the requirement that a person identify herself as a communist “is almost certain to have a deterrent effect.”²⁰⁹

The Court has recognized that action by private parties can deter individuals from holding minority viewpoints—and that the state can spur private action by revealing the identity of those in the minority.²¹⁰ In *NAACP v. Alabama*, the Court observed that “compelled disclosure of affiliation with groups engaged in advocacy may constitute a[n] effective [] restraint on freedom of association.”²¹¹ This is true “particularly where a group espouses dissident beliefs.”²¹² However, the Court’s reason for finding that the holders of minority viewpoints might withdraw or be dissuaded from joining that viewpoint is not because of mere social pressure to conform to a majority view. It is, as discussed above, because

204. *Lamont v. Postmaster Gen.*, 381 U.S. 301, 309 (1965) (Brennan, J., concurring) (“[I]nhibition as well as prohibition against the exercise of precious First Amendment rights is a power denied to government.”).

205. *Id.* at 307.

206. *Id.*

207. *Id.*

208. *Id.*

209. *Id.*

210. *NAACP v. Alabama*, 357 U.S. 449, 463 (1958).

211. *Id.* at 462.

212. *Id.*

the plaintiffs made an “uncontroverted showing” of “economic reprisal, loss of employment, threat of physical coercion, and other manifestations of public hostility.”²¹³

The Supreme Court famously stated that “[a]nonymity is a shield from the tyranny of the majority.”²¹⁴ But the tyranny of the majority that the Court has envisioned often seems to stem from the possibility of retaliation (even though *McIntyre* was not required to make a showing of a likelihood of retaliation, and neither was the anonymous door-to-door speaker in *Watchtower Bible & Tract Society of New York, Inc. v. Village of Stratton*). An intolerant society may retaliate against a speaker, thus suppressing minority ideas. Anonymity “exemplifies the purpose behind the Bill of Rights, and of the First Amendment in particular: to protect unpopular individuals from retaliation—and their ideas from suppression—at the hand of an intolerant society.”²¹⁵

There is thus substantial jurisprudential support for the ideas that: (1) minority speech should in particular be protected; and (2) the majority often attempts to encroach on or eviscerate minority points of view. Nevertheless, while recognizing that the majority can exert tyrannical control over minority views, the Court leans heavily on actual threats of retaliation.²¹⁶ Courts often recognize that the majority limits minority viewpoints only when the majority actively tries to suppress minority views by punishing their holders.²¹⁷ This jurisprudential characterization might explain why some (including members of the Court) are skeptical of the need to protect First Amendment privacy. If you do believe that the holders of minority viewpoints are repressed only when the majority retaliates against them, and you believe that minorities do not always face actual retaliation, then why protect minority speakers or readers from view?

A number of legal scholars, by contrast, assume that a conforming effect exists.²¹⁸ The tyranny of the majority is not solely based

213. *Id.*

214. *McIntyre v. Ohio Elections Comm'n*, 514 U.S. 334, 357 (1995).

215. *Id.*

216. *See id.*

217. *NAACP*, 357 U.S. at 462–63.

218. *See* Julie E. Cohen, *Examined Lives: Informational Privacy and the Subject as Object*, 52 STAN. L. REV. 1373, 1426 (2000) (explaining that being watched “will constrain, ex ante, the acceptable spectrum of belief and behavior”); Julie E. Cohen, *Privacy, Visibility,*

on threats of retaliation; when people's viewpoints are exposed, they will be innately drawn towards the majority view.²¹⁹ Drawing on Michel Foucault's depiction of Jeremy Bentham's famous *Panopticon*, these scholars wholeheartedly subscribe to the understanding that surveillance can cause conformity to the group's norms.²²⁰ People behave, or at least behave differently, when they know they are being watched.

Only a few in legal literature, however, have noted the extent of support for this view in the social science. And their focus has been primarily on the tendency of people to conform to group norms, not on the relationship between surveillance and the conforming effect.²²¹ Cass Sunstein has noted a general human tendency towards conformity, with the view towards using that conforming tendency to nudge behavior in desirable ways.²²²

Transparency, and Exposure, 75 U. CHI. L. REV. 181, 186 (2008) ("Surveillance in the pan-optic sense thus functions both descriptively and normatively. It does not simply render personal information *accessible* but rather seeks to render individual behaviors and preferences *transparent* by conforming them to preexisting frameworks."); Richards, *supra* note 3, at 403–04 ("The knowledge that others are watching (or may be watching) tends the preference of the individual towards the bland and the mainstream. Thoroughgoing surveillance, whether by public or private actors, has a normalizing and stifling effect."); Paul M. Schwartz, *Internet Privacy and the State*, 32 CONN. L. REV. 815, 838–43 (2000) (discussing how social pressure can result in individuals misrepresenting their genuine wants to join perceived majorities, and how this can be manipulated for political ends); see also Christopher Slobogin, *Public Privacy: Camera Surveillance of Public Places and the Right to Anonymity*, 72 MISS. L.J. 213, 240–41, 245 (2002) (discussing Foucault and Bentham and noting that the "small amount of social science research specifically aimed at assessing the impact of concerted surveillance tends to verify that [surveillance inhibits behavior]").

219. Richards, *supra* note 3, at 403–04.

220. See MICHEL FOUCAULT, *DISCIPLINE AND PUNISH: THE BIRTH OF THE PRISON* 217 (Alan Sheridan trans., Vintage Books 2d ed. 1995) (1977). See generally JEREMY BENTHAM, *Panopticon; or, The Inspection House*, in 4 THE WORKS OF JEREMY BENTHAM 37 (John Bowring ed., 1787).

221. See, e.g., Dan M. Kahan, *Social Influence, Social Meaning, and Deterrence*, 83 VA. L. REV. 349, 352–59 (1997) (citing extensive social science research that seeks to understand why people do or do not commit crimes, and the social influences that can affect these outcomes); Richard H. McAdams, *The Origin, Development, and Regulation of Norms*, 96 MICH. L. REV. 338, 341, 343 (1997) (discussing the importance of social norms in influencing behavior and arguing that privacy can be used to circumvent the effects of norms).

222. See CASS R. SUNSTEIN, *WHY SOCIETIES NEED DISSENT* 1 (2003) (arguing that the human tendency to conform can lead to harmful outcomes); Cass R. Sunstein, *Social Norms and Social Roles*, 96 COLUM. L. REV. 903, 907, 967 (1996) (arguing that lawmakers must understand the influence of norms on human behavior and that laws and regulations can be used to shape norms which can influence behavior in beneficial ways).

Blitz comes closest in recognizing the value of social science for informing the legal understanding of the relationship between conformity and surveillance. Blitz has touted the important function libraries serve as institutions that protect individuals from the constraints of social interactions and allow deviance from the majority view.²²³ Blitz cites the Solomon and Asch studies discussed previously for the proposition that people fear being regarded as different, or as disagreeing with the group consensus.²²⁴ Protecting libraries as a space for private contemplation and exploration allows individuals to both hold nonconforming views in private and explore new viewpoints.²²⁵ However, Blitz does not extend these studies to discuss their broader implications for more wholesale treatment of reader and viewer privacy.

B. *Social Science Research and the Conforming Effect*

Social science research provides substantially more support for the connection between surveillance and conformity than the legal literature or doctrine has heretofore acknowledged. Courts, theorists, and legislatures have long worried about chilling effects. Anecdotal evidence,²²⁶ studies,²²⁷ and a growing chorus of authors and journalists²²⁸ support the existence of chilling effects. Much of this research, however, focuses on identifying writers

223. Blitz, *supra* note 3, at 826–27.

224. *Id.* at 824 (citing studies conducted by Muzafer Sherif and Solomon Asch); *see supra* Part III.A.

225. Blitz, *supra* note 3, at 803.

226. *See, e.g.*, Mike Masnick, *22 Examples of NSA Surveillance Creating Chilling Effects*, TECHDIRT (Nov. 8, 2013), <https://www.techdirt.com/articles/20131108/10430625184/22-examples-nsa-surveillance-creating-chilling-effects.shtml>.

227. THE FDR GROUP, *supra* note 52, at 3. In another study on the effects of the extensive surveillance of students in the United Kingdom, researchers concluded that “[f]or some pupils surveillance had a ‘chilling effect’ in that it made them acutely aware that their actions were being monitored and led them to change ‘legitimate’ forms of behaviour or activities due to a concern that their actions could be misinterpreted by the ‘surveyors.’” Michael McCahill & Rachel Finn, *The Social Impact of Surveillance in Three UK Schools: ‘Angels,’ ‘Devils’ and ‘Teen Mums,’* 7 SURVEILLANCE & SOC’Y 273, 283 (2010), available at <http://library.queensu.ca/ojs/index.php/surveillance-and-society/article/view/4156/4159>. Some students reported being particularly nervous using computers. *Id.*

228. *International Bill of Digital Rights: Call from 500 Writers Around the World*, GUARDIAN, Dec. 9, 2013, at 28, available at <http://www.theguardian.com/world/2013/dec/10/international-bill-digital-rights-petition-text>; *Open Letter to Senate Leadership: Mass Surveillance Is Censorship*, THE HILL (July 24, 2014), <http://thehill.com/blogs/congress-blog/civil-rights/213132-open-letter-to-senate-leadership-mass-surveillance-is>.

who are aware that they have self-censored.²²⁹ A true understanding of the consequences of surveillance requires asking more broadly how individuals may be influenced to change their behavior, including those not aware of any change.

In our review of the existing social psychology research, we could find no studies that definitely measured chilling effects as they are discussed in the legal literature. However, social psychologists have clearly shown that people are influenced by group norms, sometimes to the point of invalidating their own judgments—even without any threat of retaliation or other harm. The White and Zimbardo study suggested that political speech was chilled by surveillance, or even the threat of it.²³⁰ The studies discussed above that employed a picture of eyes to change behavior demonstrate that the mere suggestion of surveillance influences people, even when there is no actual surveillance.²³¹

Although more research needs to be done in this area, the existing evidence is strong enough to conclude that widespread surveillance, or even the belief in it, is damaging to the development of diverse viewpoints, without any additional clear threat of injury or retaliation. The existing research also indicates who is most likely to be chilled by surveillance—the undecided—and that the consequences of surveillance extend beyond traditional chilling effects.

This article names these consequences “the conforming effect.” Four features of the conforming effect go beyond chilling speech, while still strongly implicating First Amendment concerns. First, surveillance tends to more strongly influence those who are undecided in their beliefs.²³² Second, surveillance can increase anxiety and unease, which makes it more difficult for people to form intellectual thoughts.²³³ Third, surveillance can encourage people to change their beliefs by creating cognitive dissonance in those who

229. THE FDR GROUP, *supra* note 52, at 6–8.

230. See White & Zimbardo, *supra* note 1, at 59.

231. *Cues of Being Watched*, *supra* note 169, at 412; Gerber, Green & Larimer, *supra* note 167, at 33–34.

232. See Deutsch & Gerard, *supra* note 128, at 634.

233. See White & Zimbardo, *supra* note 1, at 56.

self-censor.²³⁴ Fourth, surveillance weakens minority influence.²³⁵ In sum, surveillance encourages less reasoned majority rule.

1. The Undecided

Although individuals with strong minority opinions and beliefs may be most aware of surveillance and feel the chilling effect, social science research in fact suggests that surveillance most influences the person who is undecided.²³⁶ Most distressingly, an undecided person is unlikely to be aware that she is being influenced by surveillance, even while the influence is happening.

Social psychologists have found that “the more uncertain the individual is about the correctness of his judgment, the more likely he is to be susceptible to social influences in making his judgment.”²³⁷ Surveillance will not have as significant of an effect on people who feel strongly about what they are doing or are confident in their positions, especially those that have already taken a public position on a subject.²³⁸ In the White and Zimbardo study of student positions on marijuana use, students who had participated in any group that advocated for legalization were less anxious, less inhibited, and more honest in their responses.²³⁹

A similar effect is seen in the differences between the Asch and Sherif studies. In Asch’s study, a surprising number of people conformed to an obviously incorrect answer, but the majority of the time, the individuals resisted the norm and selected the obviously correct answer.²⁴⁰ In Sherif’s study, where there was no obviously correct answer and thus subjects were truly undecided, the vast majority of people conformed to the norm.²⁴¹ In a follow-up to Asch’s experiment, other researchers performed the same basic experiment, but had people commit to their answers in var-

234. See BORDENS & HOROWITZ, *supra* note 136, at 221.

235. See KEITH N. HAMPTON ET AL., SOCIAL MEDIA AND THE ‘SPIRAL OF SILENCE,’ PEW RESEARCH CTR. 8, 23 (2014), http://www.pewinternet.org/files/2014/08/PI_Social-networks-and-debate_082614.pdf.

236. See Deutsch & Gerard, *supra* note 128, at 634.

237. *Id.*

238. See *id.* at 633.

239. White & Zimbardo, *supra* note 1, at 57.

240. Asch 1955, *supra* note 137, at 34.

241. BORDENS & HOROWITZ, *supra* note 136, at 245 (noting Sherif found conformity rates of about 70%).

ious ways, such as by having each individual write down her answer before anyone in the group gave her answer out loud.²⁴² This commitment to an answer also had a significant effect on reducing conformity.²⁴³

All of this suggests that while we should be concerned with chilling the speech of individuals who are already advocates for a minority position, we should also be concerned about the effect of surveillance on those who are not yet committed to a position. Someone only interested in or curious about a controversial idea is the type of person most likely to be influenced by surveillance's conforming influence. In the absence of surveillance, a curious person might do a Google search to investigate a new topic, but in the presence of surveillance the same person might not feel comfortable even asking the question.

2. Anxiety and Unease

There is evidence that surveillance can increase anxiety and unease.²⁴⁴ An increase in these emotions can in turn inhibit cognitive abilities, learning, and complex decision-making.²⁴⁵

In the White and Zimbardo study of students' opinions on the legalization of marijuana, those students who were told they were being surveilled reported being angry and uneasy, and scored higher on anxiety and inhibition factors.²⁴⁶ In general, feeling uneasy can cause a person to be less honest and less willing to disclose socially undesirable thoughts and behaviors.²⁴⁷ Researchers

242. Deutsch & Gerard, *supra* note 128, at 631–32.

243. *Id.* at 633.

244. White & Zimbardo, *supra* note 1, at 56.

245. Aiello & Kolb, *supra* note 162, at 348–49; Paul Dolan et al., *Influencing Behaviour: The Mindspace Way*, 33 J. ECON. PSYCHOL. 264, 271 (2012); White & Zimbardo, *supra* note 1, at 50–51.

246. White & Zimbardo, *supra* note 1, at 56 & Table 1, 59. Those that had already taken a public position on legalization were less anxious and less inhibited. *Id.* at 57. Anecdotally, surveillance can have extreme consequences. Mary Chesney Lardern, an actress blacklisted during the McCarthy Era described the threat of surveillance as affecting her ability to make friends and build trusting relationships. David Cunningham & John Noakes, "What If She's from the FBI?" *The Effects of Covert Forms of Social Control on Social Movements*, in 10 SOCIOLOGY OF CRIME, LAW AND DEVIANCE: SURVEILLANCE AND GOVERNANCE: CRIME CONTROL AND BEYOND 175, 176 (Mathieu Deflem ed., 2008).

247. See Adam L. Alter & Daniel M. Oppenheimer, *Suppressing Secrecy Through Metacognitive Ease: Cognitive Fluency Encourages Self-Disclosure*, 20 PSYCHOL. SCI. 1414, 1414–15 (2009).

have attributed the relative unwillingness of citizens in Italy and Germany to express political views after World War II to those countries' legacies of surveillance.²⁴⁸

Studies on workplace surveillance find that surveillance can increase distress and unease, negatively impacting learning.²⁴⁹ Researchers have shown that surveillance in the workplace specifically affects workers' abilities to perform tasks.²⁵⁰ Some studies have shown increases in efficiency and accuracy in low-complexity clerical tasks, but significant impairments on the ability to complete complex tasks.²⁵¹ Another study found that increased surveillance leads to less effective brainstorming.²⁵²

Surveillance's effects on emotion have cognitive impacts, as emotion can have a powerful influence on decision-making. A person often makes a decision based upon emotional reaction without a cognitive evaluation.²⁵³ The consequences of anxiety or anger can be significant. Anxiety tends to make a person more risk-averse and more conservative.²⁵⁴ Anger, on the other hand, leads to reduced perceptions of risk.²⁵⁵ Anger also tends to make people less thoughtful.²⁵⁶

Again, more research is required to understand the consequences of surveillance, but the existing research suggests that

248. Samuel J. Best, Brian S. Krueger & Shanna Pearson-Merkowitz, *Al Qaeda Versus Big Brother: Anxiety About Government Monitoring and Support for Domestic Counterterrorism Policies*, 34 POL. BEHAV. 607, 611 (2011) (citing GABRIEL A. ALMOND & SIDNEY VERBA, *THE CIVIC CULTURE: POLITICAL ATTITUDES AND DEMOCRACY IN FIVE NATIONS* 81–82 (1963)).

249. See, e.g., Aiello, *supra* note 162, at 501; Aiello & Kolb, *supra* note 162, at 348–49; Watson et al., *supra* note 119, at 643, 652–53, 655.

250. Aiello & Kolb, *supra* note 162, at 348–49.

251. See Aiello & Svec, *supra* note 164, at 538, 543, 545; see also Nemeth, *supra* note 127, at 25 (“[T]he high degree of stress reported by persons exposed to the opposing majority view may well cause narrowing of attention and poorer performance on complex tasks. . .”).

252. See Paul B. Paulus, Timothy S. Larey & Anita H. Ortega, *Performance and Perceptions of Brainstormers in an Organizational Setting*, 17 BASIC & APPLIED SOC. PSYCHOL. 249, 258 (1995) (finding group brainstorming half as effective as individual brainstorming).

253. Dolan et al., *supra* note 245, at 271.

254. See Leonie Huddy, Stanley Feldman & Erin Cassese, *On the Distinct Political Effects of Anxiety and Anger*, in *THE AFFECT EFFECT: DYNAMICS OF EMOTION IN POLITICAL THINKING AND BEHAVIOR* 202, 228 (W. Russell Neuman et al. eds., 2007).

255. See *id.*

256. See *id.* at 226.

surveillance could both impair thinking and influence people's assessments of risk.

3. Subconsciously Changing Beliefs

As previously noted, social psychologists have observed two kinds of conformity: public conformity and private conformity.²⁵⁷ A person who publicly conforms does not change her underlying beliefs; she only puts on a performance for others.²⁵⁸ However, studies suggest that even if surveillance causes public conformity, cognitive dissonance can cause a person to gradually change her underlying beliefs to match her opinions to her public performance.

People often use their own public behavior as a heuristic by which they judge what they stand for.²⁵⁹ Thus, repeated actions can define what a person believes and sometimes change what a person believes. If a person's actions are inconsistent with her attitudes, this generally creates an uncomfortable psychological state that she will be motivated to reduce.²⁶⁰ Social psychologists have named this state "cognitive dissonance."²⁶¹ Cognitive dissonance theory states that when attitudes and behavior conflict, it causes a negative motivational state that will cause a person to either rationalize the inconsistency or change her attitude or behavior.²⁶² Dissonance arises when a person makes a choice and when that choice is inconsistent with her beliefs.²⁶³

257. See KASSIN, FEIN & MARKUS, *supra* note 126, at 228.

258. *See id.*

259. BORDENS & HOROWITZ, *supra* note 136, at 221; *see also* Robert B. Cialdini & Noah J. Goldstein, *Social Influence: Compliance and Conformity*, 55 ANN. REV. PSYCHOL. 591, 602 (2004) ("People have a strong need to enhance their self-concepts by behaving consistently with their actions, statements, commitments, beliefs, and self-ascribed traits.")

260. Cialdini & Goldstein, *supra* note 259, at 604.

261. Eddie Harmon-Jones & Judson Mills, *An Introduction to Cognitive Dissonance Theory and an Overview of Current Perspectives on the Theory*, in COGNITIVE DISSONANCE: PROGRESS ON A PIVOTAL THEORY IN SOCIAL PSYCHOLOGY 3, 3 (Eddie Harmon-Jones & Judson Mills eds., 1999).

262. BORDENS & HOROWITZ, *supra* note 136, at 216; Harmon-Jones & Mills, *supra* note 261, at 4.

263. Darwyn E. Linder, Joel Cooper & Edward E. Jones, *Decision Freedom as a Determinant of the Role of Incentive Magnitude in Attitude Change*, 6 J. PERSONALITY & SOC. PSYCHOL. 245, 245 (1967).

For example, in the classic study of the phenomenon, subjects were asked to complete an extremely boring series of tasks over the course of an hour.²⁶⁴ At the end of the hour, each subject was asked to tell a new subject—actually a researcher—that the experiment was enjoyable.²⁶⁵ Different groups of subjects were offered \$1 or \$20 if they agreed to say that the experiment was enjoyable.²⁶⁶ Then, all of the subjects were asked to fill out a survey about the experiment.²⁶⁷ Those in the control group who were not asked to describe the experiment to anyone rated the tasks as boring on the survey, as did those who received \$20.²⁶⁸ However, those who were only paid \$1 rated the tasks as enjoyable.²⁶⁹ The researchers theorized that because \$20 was quite a bit of money in 1959, when the experiment was conducted, those who received \$20 were easily able to justify lying to the “new subjects” that the experiment was enjoyable in order to receive the substantial financial award.²⁷⁰ Those who received only a dollar did not have such an easy justification.²⁷¹ Another scholar explained the thinking of those who only received a dollar like this: “I lied to someone because the experimenter asked me to, and I got paid only a buck.”²⁷² “Conclusion: ‘Either I am a liar or I am stupid.’”²⁷³ Because the behavior cannot be changed, the subject must rationalize the behavior: “I’m not a liar or stupid, so I must have meant what I said. I enjoyed the experiment.”²⁷⁴ Subsequent studies have found that cognitive dissonance can also be induced by threats of punishment.²⁷⁵

Surveillance has the capacity to induce cognitive dissonance. A person might believe that there is nothing wrong with looking at

264. Leon Festinger & James M. Carlsmith, *Cognitive Consequences of Forced Compliance*, 58 J. ABNORMAL PSYCHOL. 203, 205 (1959).

265. *Id.* at 207.

266. *Id.*

267. *Id.* at 206.

268. *Id.* at 207.

269. *Id.*

270. BORDENS & HOROWITZ, *supra* note 136, at 217.

271. *Id.*

272. *Id.*

273. *Id.*

274. *Id.*

275. Elliot Aronson & J. Merrill Carlsmith, *Effect of the Severity of Threat on the Devaluation of Forbidden Behavior*, 66 J. ABNORMAL & SOC. PSYCHOL. 584, 586 (1963) (finding attitudinal changes in children based on dissonance created by the threat of a mild punishment); see Harmon-Jones & Mills, *supra* note 261, at 8–10.

a given book or reading about a particular political group, but if the person chose not to look at that material because of surveillance, that decision could create cognitive dissonance. Surveillance shares many of the characteristics researchers have identified as possibly contributing to an attitudinal change based on cognitive dissonance.²⁷⁶ First, the behavior—not reading something—has the negative consequence of depriving the individual reader of something she wants.²⁷⁷ Second, the reader will feel personal responsibility for the deprivation because she is free to ignore the surveillance and read the material, and because the consequence—being deprived of the reading material—is foreseeable.²⁷⁸ Third, because in most cases the reader is likely to believe that the consequences of ignoring the surveillance are minimal, the action will not be easy to justify, and thus the reader is likely to experience a state of dissonance arousal.²⁷⁹ Fourth, if the reader attributes the state of psychological arousal to her own behavior in choosing not to read something she wanted to read, rather than to some other external factor, the dissonance arousal becomes dissonance motivation, which is likely to lead to attitudinal change.²⁸⁰ Thus, the decision to not read something because of surveillance could actually lead to an underlying attitudinal change in the reader, such that she no longer thinks the previously desired material is interesting or worth reading.

Although not specifically tested for in the White and Zimbardo experiment, cognitive dissonance helps explain why many of the students' statements seemed unlikely to reflect their actual beliefs, even though after making the statements the students claimed the statements reflected their honest opinions.²⁸¹ If, as the experiment suggested, the students under surveillance and threatened with surveillance conditions gave fewer pro-legalization statements than they otherwise might have, this may

276. See Joel Cooper & Russell H. Fazio, *A New Look at Dissonance Theory*, 17 *ADVANCES IN EXPERIMENTAL SOC. PSYCHOL.* 229, 241, 243 (1984) (summarizing the steps necessary for attitudinal change based on dissonance); KASSIN, FEIN & MARKUS, *supra* note 126, at 211–13 (reviewing Cooper and Fazio's steps and noting some disagreement over whether all of the steps are necessary or if others are missing).

277. See Cooper & Fazio, *supra* note 276, at 232–36.

278. See *id.* at 236–41.

279. See *id.* at 241, 243.

280. See *id.* at 256–57.

281. *Cf. id.* (explaining the occurrence of dissonance motivation).

have created cognitive dissonance.²⁸² The decision to make a less pro-legalization statement would have been difficult to justify because there was no clear threat of punishment or other way to rationalize the statement. Thus, rather than face the cognitive dissonance from having publicly made a statement they did not agree with, many of the students may have subconsciously adopted the public statement as their actual opinion.

4. Weakened Minority

Surveillance can weaken minority influences. Minority influences have been shown to foster better, more deliberate, and more creative thinking than majority influence.²⁸³ This happens, in part, because minority influence stimulates critical thought.²⁸⁴ Minority influence has been measured across a variety of domains, in topics as diverse as color perception, jury decisions, migrant workers, feminism, the military, pollution, the death penalty, and abortion.²⁸⁵ It is one of the key mechanisms by which individuals change their opinions. Even when minority opinions are wrong, "they contribute to the detection of novel solutions and decisions that, on balance, are qualitatively better."²⁸⁶ Psychologists attribute many intellectual revolutions to minority influence.²⁸⁷ They put forward the influences of thinkers such as Galileo, Marx, Freud, as well as minority social movements such as

282. See White & Zimbardo, *supra* note 1, at 57–59; see also Cooper & Fazio, *supra* note 276, at 241 (describing how dissonance develops).

283. See Serge Moscovici & Elisabeth Lage, *Studies in Social Influence III: Majority Versus Minority Influence in a Group*, 6 EURO. J. SOC. PSYCHOL. 149, 162–63 (1976) (showing that minority influence appears immediately); Nemeth, *supra* note 127, at 24. "Individuals assimilate the opinion of the agent of influence at a latent level and their underlying response code is thereby modified . . . [T]he extent of minority influence is much greater than analysis of explicit judgments would suggest." Moscovici & Lage *supra* at 172.

284. Carsten K. W. De Dreu & Michael A. West, *Minority Dissent and Team Innovation: The Importance of Participation in Decision Making*, 86 J. APPLIED PSYCHOL. 1191, 1199 (2001).

285. Anne Maass & Russell D. Clark III, *Hidden Impact of Minorities: Fifteen Years of Minority Influence Research*, 95 PSYCHOL. BULL. 428, 433 (1984) (citing studies by a variety of researchers).

286. Nemeth, *supra* note 127, at 23, 28–31.

287. See SERGE MOSCOVICI, SOCIAL INFLUENCE AND SOCIAL CHANGE 41, 221 (Carol Sherrard & Greta Heinz trans., 1976) (identifying "individuals . . . who have had a great impact on our ideas and behaviour" and discussing the impact of minorities on social change).

the civil rights, antiwar, and environmental movements, as examples of these minority influences.²⁸⁸

However, being in the minority is hard. People have a basic need to feel good about themselves,²⁸⁹ and minorities are generally disliked and sometimes threatened by the majority, especially when the minority is one person.²⁹⁰ A 2014 Pew Research Center study found that people were only half as likely to join a conversation on a controversial subject on Facebook if they thought their friends disagreed with their position.²⁹¹ The study's authors explain that their observations confirm a long-studied offline phenomenon called the "spiral of silence," which observes that people are less likely to speak up about policy issues in public when they believe they are in the minority.²⁹² The recent study, about how people felt about the Snowden-NSA disclosures, also found that social media users thought they knew the views of those around them.²⁹³ The same social media users were less likely than non-social media users to discuss the Snowden issues in any context, online or off.²⁹⁴ Awareness of surveillance likely makes people more sensitive to being in a minority, thus interfering with their willingness to share opinions.²⁹⁵

The studies we reviewed above suggest that surveillance is likely to reduce the number of people willing to even consider, much less join or convert to, a minority.²⁹⁶ Numerous studies show that people in the majority generally have a personal aversion to adopting the deviant minority identity and thus are not easily directly influenced to publicly join the minority.²⁹⁷ They may also

288. Maass & Clark, *supra* note 285, at 432 (attributing this idea to a number of Moscovici's works).

289. GILBERT, FISKE & LINDZEY, *supra* note 128, at 160.

290. Maass & Clark, *supra* note 285, at 430; Charlan Jeanne Nemeth & Barry M. Staw, *The Tradeoffs of Social Control and Innovation in Groups and Organizations*, 22 *ADVANCES IN EXPERIMENTAL SOC. PSYCHOL.* 175, 188 (1989) ("[S]tudies in minority influence show consistent dislike of the minority and there are anecdotal reports of threats toward a minority who maintains a position even on a hypothetical issue.").

291. HAMPTON ET AL., *supra* note 235, at 8, 23.

292. *Id.* at 3.

293. *Id.* at 20.

294. *Id.* at 24–25.

295. *Id.* at 25.

296. See *supra* Part III.C; see also Maass & Clark, *supra* note 285, at 430.

297. Wendy Wood et al., *Minority Influence: A Meta-Analytic Review of Social Influence Processes*, 115 *PSYCHOL. BULL.* 323, 323, 336 (1994) (analyzing 97 minority influence experiments).

fear losing face.²⁹⁸ Thus, change caused by minority influence usually happens privately.²⁹⁹ Minority influence happens through "active information processing" by considering "arguments and counterarguments."³⁰⁰ This analytic process is likely to be impaired by surveillance, which may make individuals less likely to research the minority position.

Further, a person's commitment to a minority position is directly related to her ability to resist majority influence, and surveillance is likely to make it harder to become committed to a minority position.³⁰¹ In a variation on Asch's experiment, researchers had subjects make a commitment to an answer by writing it down, before all of the members of the group announced their answers.³⁰² The more committed the subject was to the answer before hearing the responses of the group, the greater her ability to resist the group norm.³⁰³ In the White and Zimbardo study on police surveillance, the surveillance had less effect on individuals who had already taken a public position on legalization of marijuana.³⁰⁴ On the other hand, individuals who were less-decided were most influenced by the conforming effect of the surveillance.³⁰⁵

Accordingly, the conforming effect caused by surveillance can result in smaller and less confident minorities. These minorities, in turn, will be less successful than they otherwise might have been at challenging the status quo and the majority views. Thus,

298. *Id.* at 335; see also Serge Moscovici, *Innovation and Minority Influence*, in PERSPECTIVES ON MINORITY INFLUENCE 9, 9-10 (Serge Moscovici, Gabriel Mugny & Eddy Van Avermaet eds., 1985); Serge Moscovici, *Social Influence and Conformity*, in 2 HANDBOOK OF SOCIAL PSYCHOLOGY 347, 349 (Gardner Lindzey & Elliot Aronson eds., 3rd ed. 1985).

299. Maass & Clark, *supra* note 285, at 444.

300. *Id.* (summarizing Serge Moscovici & Bernard Personnaz, *Studies in Social Influence: V. Minority Influence and Conversion Behavior in a Perceptual Task*, 16 J. EXPERIMENTAL SOC. PSYCHOL. 270 (1980)).

301. See Deutsch & Gerard, *supra* note 128, at 634 ("[T]he more uncertain the individual is about the correctness of his judgment, the more likely he is to be susceptible to social influences in making his judgment.").

302. *Id.* at 630-31.

303. *Id.* at 633.

304. White & Zimbardo, *supra* note 1, at 57 (some subjects had participated in groups that advocated legalization).

305. *Id.*

individuals and the public will miss out on the better, more deliberate, more creative, and more critical thinking that results from minority influences.

V. FIRST AMENDMENT THEORY AND THE CONFORMING EFFECT

The scope of surveillance's conforming effect is broader than either courts or the legal literature has previously observed. This has significant implications for the scope of First Amendment protection, under a number of theories of the First Amendment. In this section, we bring the social psychology research discussed above into conversation with First Amendment theory.

First Amendment jurisprudence hints at many theories behind doctrinal First Amendment protection.³⁰⁶ The theories are so diverse that some suggest that First Amendment doctrine is incompletely theorized.³⁰⁷ But in areas where the scope of First Amendment protection is uncertain, First Amendment theory can help illuminate where doctrinal or legislative contours should be drawn.

The two most traditional justifications for the First Amendment are that: (1) it permits the search for truth through a competitive marketplace of ideas; and (2) it enables democratic self-governance.³⁰⁸ The First Amendment enables a marketplace of ideas because free speech allows a variety of views to compete, so that the listener can determine which of these views rings most true.³⁰⁹

Under the best-known competing theory, the First Amendment exists to permit democratic self-governance.³¹⁰ Citizens are better at participating in political processes if they can speak freely and debate each other. The contemporary version of the theory of democratic self-governance requires that citizens be afforded

306. See Robert Post, *Reconciling Theory and Doctrine in First Amendment Jurisprudence*, 88 CAL. L. REV. 2353, 2355 (2000).

307. See, e.g., CASS R. SUNSTEIN, *ONE CASE AT A TIME: JUDICIAL MINIMALISM ON THE SUPREME COURT* 172 (1999).

308. Post, *supra* note 306, at 2356.

309. *Id.* at 2360.

310. *Id.* at 2356.

speech protection beyond protecting political speech, so that citizens retain the sense that their government is legitimate.³¹¹

The theory of cultural democracy extends this idea of self-governance from government to culture.³¹² Citizens should be permitted to participate in and thus legitimize the culture that in turn forms them.³¹³

A self-actualization theory of the First Amendment hypothesizes that the First Amendment protects an individual's participation in culture as part of the process of self-fulfillment.³¹⁴ Unlike the theory of democratic self-governance, self-actualization focuses on culture, not just political participation.³¹⁵ However, unlike the theory of cultural democracy, self-actualization turns the purpose of cultural consumption inwards.³¹⁶ The value of participation in the formation of culture is that the speaker and reader uses culture to define herself, not that the speaker and reader participates in defining culture at large.³¹⁷ Finally, a theory closely related to self-actualization is the autonomy or liberty theory of the First Amendment, which is perhaps the most speech-protective and permits freedom of speech, unless the state has a legitimate reason not to permit that freedom.³¹⁸

A. *Legal Scholars on Privacy as a First Amendment Value*

Legal scholars have employed First Amendment theory to explain why privacy in intellectual endeavors should be protected as a First Amendment value. The two major theories behind First Amendment protection—the search for truth and democratic self-governance—traditionally focus on speech in public rather than intellectual exploration in private.³¹⁹ However, protection for pri-

311. *Id.* at 2368.

312. Balkin, *supra* note 90, at 35.

313. *Id.*

314. This is also called the anti-ignorance principle. See William E. Lee, *The Supreme Court and the Right to Receive Expression*, 1987 SUP. CT. REV. 303, 317 (1987).

315. Balkin, *supra* note 90, at 3–4, 35, 46.

316. See *id.* at 3–4, 28–29. *Contra* Owen M. Fiss, *Free Speech and Social Structure*, 71 IOWA L. REV. 1405, 1409–10 (1986) (discussing self-actualization and that the intrinsic value of speech is not a theoretical basis for First Amendment protection).

317. Balkin, *supra* note 90, at 34–35.

318. Lee, *supra* note 314, at 317–18.

319. Richards, *supra* note 3, at 388, 394–98.

vate intellectual exploration allows ideas to be formed before they go out into the marketplace, and for political ideas to be weighed even if those ideas run counter to the majority's view.³²⁰ Knowledge of people's reading habits prevents the emergence of minority ideas.³²¹ It also gives the government a way to silence dissent before it comes into the marketplace or becomes part of the self-governance debate.³²² Freedom of private inquiry makes perfect sense under the autonomy or liberty theory of the First Amendment, because individuals should be supported in their development and self-fulfillment.³²³ Thus, legal scholars have reasoned that a number of theories of the First Amendment support protection of intellectual privacy as a First Amendment value.

B. *What Social Science Adds*

Social science evidence of the conforming effect of surveillance gives even greater credence to the protection of reader and viewer privacy as a First Amendment matter. As observed, surveillance tends to more strongly influence those who are undecided in their beliefs.³²⁴ It can make it more difficult for people to think critically.³²⁵ It can encourage people to change their underlying beliefs to resolve cognitive dissonance.³²⁶ It can also discourage the flourishing of minority views.³²⁷ These features have implications under multiple theories of the First Amendment.

The conforming effect suggests that we should protect an undecided person's freedom to explore new ideas. If we wish to develop the next generation of advocates who, bolstered by research and reading, will be able resist society's conforming effect, we need to protect those advocates most when they are in the fragile, undecided stage during which they are more easily influenced.

320. See Blitz, *supra* note 3, at 802–03; Richards, *supra* note 3, at 389.

321. See Blitz, *supra* note 3, at 830; Richards, *supra* note 3, at 388–89.

322. Richards, *supra* note 3, at 406.

323. Blitz, *supra* note 3, at 830–31; Richards, *supra* note 3, at 406–07.

324. See Deutsch & Gerard, *supra* note 128, at 634.

325. See *id.* at 635.

326. *Id.*

327. Richards, *supra* note 3, at 419, 425.

1. Marketplace of Ideas

The search-for-truth theory of the First Amendment suggests that ideas compete with each other in an open marketplace until truth eventually emerges.³²⁸ For the marketplace of ideas to work, ideas must be produced.

Anxiety spurred by surveillance may prevent, or at the very least impede, the formation of new rational ideas.³²⁹ This leads to fewer ideas in the marketplace. And if undecided people are not afforded adequate privacy, they will not engage in the search for truth.³³⁰ Instead, the undecided will side with the majority, and society will suffer for having fewer participants in feeding and being fed from the marketplace of ideas.³³¹ Surveillance of private inquiry may affect those who already hold minority viewpoints, as well. Through a desire to publicly conform, they may choose not to express their conflicting views, and through cognitive dissonance, they may gradually be led to believe the majority viewpoint.

2. Democratic Self-Governance

The theory of democratic self-governance encourages speech for the purposes of enabling an effective political process.³³² Surveillance causes anxiety that may inhibit rational thought, and prevent the surveilled from rationally participating in a self-governance debate. Moreover, the governed may come to resent a government that places them in a state of anxiety and unrest, and may ultimately withdraw from participation in the political system. Those who do not hold strong political viewpoints may conform to the majority view without knowing that they are conforming, making political change less likely. For those who hold minority viewpoints, the cognitive dissonance created by publicly conforming while privately disagreeing may cause them to change their beliefs irrationally, rather than rationally self-govern.

328. Post, *supra* note 306, at 2363.

329. See *supra* notes 244–45 and accompanying text. See generally Darhl M. Pedersen, *Psychological Functions of Privacy*, 17 J. ENVTL. PSYCHOL. 147 (1997) (discussing the importance of privacy to personal autonomy).

330. See Deutsch & Gerard, *supra* note 128, at 635.

331. *Id.*

332. Post, *supra* note 306, at 2366–67.

Minority influence is essential to a democracy because that is what enables change and innovation, and spurs critical thinking.³³³ A minority begins with one person understanding the world in a different way. Slowly, that individual meets other like-minded individuals, and occasionally, the minority becomes a majority. Without independent judgments that challenge the majority, the majority consensus is likely to be empty and will undermine “creativity and productiveness.”³³⁴ As one leading researcher concluded, minority influences “provide the impetus for detecting truths primarily because they stimulate thought.”³³⁵ “From this perspective, robust dissent is not only a manifestation of a democratic principle, but it is the mechanism by which better solutions are found and better decisions are made.”³³⁶

3. Cultural Democracy

The First Amendment theory of cultural democracy suggests that people should be permitted to democratically help form the culture of which they are a part.³³⁷ Surveillance prevents this from happening because the surveilled become more anxious, and thus less imaginative. The surveillance subject is less likely to participate in cultural play because of pressures for conformity and cognitive dissonance between the person they present to the public and the person they want to be.³³⁸

4. Self-Actualization and Autonomy

Finally, the self-actualization and closely related autonomy theories of the First Amendment are perhaps most affected by social science research on the effects of surveillance. This research suggests that surveillance both prevents its subjects from self-fulfillment through enjoying life undisturbed and nudges its subjects away from being their rational liberal selves.³³⁹ Even if one

333. WHY SOCIETIES NEED DISSENT, *supra* note 222, at v–vi, 1.

334. Deutsch & Gerard, *supra* note 128, at 635.

335. Nemeth, *supra* note 127, at 30.

336. *Id.* at 30–31.

337. Balkin, *supra* note 90, at 3.

338. See generally JULIE E. COHEN, CONFIGURING THE NETWORKED SELF (2012) (discussing the centrality of privacy for identity play).

339. See, e.g., Richards, *supra* note 3, at 403; White & Zimbardo, *supra* note 1, at 59–

believes that there is no such thing as a rational liberal self, the autonomy theory can hold some appeal because it requires that the government leave a person well-enough alone. Surveillance, as the research summarized here suggests, does not leave well-enough alone. It fundamentally affects the development of the individual self.

VI. RECOMMENDATIONS

Reviewing First Amendment theory in light of the conforming effect of surveillance suggests that the government should do more to protect citizen privacy in intellectual inquiries. This article closes with several practical recommendations on how recognition of the conforming effect should affect the development of both jurisprudence and legislation.

A. Courts

While a number of scholars have correctly identified that the protection of reader and viewer privacy is unlikely to ever be entirely protected by the courts, this article maintains that the significant doctrinal questions identified in Part II can be informed by a more accurate understanding of the conforming effect.

As discussed in Part II, courts have evinced skepticism about privacy harms, and some have refused to recognize a First Amendment privacy claim without a showing of likely retaliation.³⁴⁰ Courts should recognize that the conforming effect exists even without a threat of retaliation against individual speakers or viewpoints. This does not mean that courts must recognize a harm when plaintiffs fail to assert one; courts can, however, be more sympathetic to plaintiffs who show a concrete reaction to surveillance without requiring a showing of likely retaliation from third parties. Courts could instead recognize harm, such as lawyers not being able to talk to clients and nonprofits experiencing a drop-off in phone calls and emails. Similarly, the holding in *Laird v. Tatum* that surveillance alone is not an adequate

60.

340. See *supra* text accompanying notes 91–113.

harm to confer standing should be viewed with skepticism in light of the existence of the conforming effect.³⁴¹

Courts might also use support for the conforming effect to extend First Amendment privacy protection beyond affirmative requirements that individuals identify themselves. The existence of the conforming effect shows that surveillance can have First Amendment implications even if people are not affirmatively required to identify themselves by name.

B. Legislatures

As other scholars have identified, reader and viewer privacy is a First Amendment value that requires protection beyond what courts will afford—particularly with respect to surveillance by private actors.³⁴² Although more research will help inform the debate, the conforming effect suggests that the costs of surveillance are higher than previously understood and their consequences more far-reaching. Because individuals may not even be aware that they are affected, and because courts are reluctant to grant relief without clear evidence of harm, legislatures should act to protect First Amendment privacy.

This is a space in which legislatures have acted before. In response to the FBI's Library Awareness Program from the 1970s, nearly every state passed some sort of library record confidentiality statute.³⁴³ In 2013, Arizona explicitly added e-book protection to their library records statute.³⁴⁴ California's reader privacy statute extends to digital privacy.³⁴⁵ At the federal level, the VPPA and the Cable Communications Policy Act of 1984 both provide some protection for people consuming media.³⁴⁶

341. 408 U.S. 1, 13–14 (1972).

342. See, e.g., Ard, *supra* note 2, at 3, 38; Andrew A. Proia, *A New Approach to Digital Reader Privacy: State Regulations and Their Protection of Digital Book Data*, 88 IND. L.J. 1593, 1608–10, 1613 (2013); Neil M. Richards, *The Perils of Social Reading*, 101 GEO. L.J. 689, 718–19 (2013).

343. See *State Privacy Laws Regarding Library Records*, AM. LIBRARY ASSOC., <http://www.ala.org/advocacy/privacyconfidentiality/privacy/stateprivacy> (last visited Nov. 25, 2014).

344. ARIZ. REV. STAT. § 41-151.22 (West, Westlaw through 2014 legislation).

345. See California Reader Privacy Act, CAL. CIV. CODE § 1798.90 (Deering, LEXIS through 2013 legislation).

346. See 18 U.S.C. § 2710(b) (2012); 47 U.S.C. § 551(b)–(c) (2012).

These laws may be a good starting place, but they are inadequate given the variety of ways in which people acquire information online, the large number of third parties involved in such transactions, and the evident scope of NSA data collection. Several scholars have examined the contours of these laws, including: whether they should target particular institutions (such as libraries);³⁴⁷ whether they should target the type of information (such as reader records);³⁴⁸ and proposing that online sharing should be no easier than performing the action being shared.³⁴⁹

We advocate closer examination into what causes the conforming effect, and encourage attempts to craft legislation to protect privacy accordingly. Movements away from protecting intellectual privacy, such as the revision of the VPPA, should be examined for their potential effect on user behavior—have users in fact become more conservative in their viewing habits since the revision of the VPPA? Were social network users more conformist in their listening and reading habits during the heyday of frictionless sharing?

To date, the most prominent research and public concern over surveillance has been related to people like journalists and lawyers who are aware that their speech is being chilled.³⁵⁰ The social science research strongly suggests that legislatures should also take into account the real possibility that surveillance is having a small but widespread influence on the population as a whole, likely making them less open to new ideas, more anxious, less creative, and generally more conservative. These ideas should, of course, be tested by further research, but the idea that surveillance alone may be making the entire country more conservative is distressing.

Legislatures can do two things to help remedy this problem. First, they can pass laws reducing the amount of surveillance that the government may conduct. Obviously this requires balancing the consequences of conforming effects with security, but legislation should be written with the potential consequences to society as a whole in mind. Legislatures should also take into ac-

347. See Blitz, *supra* note 3, at 834.

348. See Ard, *supra* note 2, at 32–37.

349. See McGeeveran, *supra* note 72, at 64–65.

350. HUMAN RIGHTS WATCH & ACLU, WITH LIBERTY TO MONITOR ALL: HOW LARGE-SCALE, U.S. SURVEILLANCE IS HARMING JOURNALISM, LAW AND AMERICAN DEMOCRACY (July 2014), https://www.hrw.org/sites/default/files/reports/usnsa0714_ForUpload_0.pdf.

count the consequences of surveillance by third parties such as Internet service providers, Google, Amazon, and other web companies. Second, legislatures in general and Congress in particular can take an active role in forcing law enforcement and the military to clearly disclose the scope of their surveillance programs. Currently, the public has little knowledge of the scope of the programs and thus assumes the worst.³⁵¹

C. Further Research

Further empirical research will continue to help inform this debate. Researchers should help explore the extent of the consequences of widespread surveillance in a number of critical areas.

First, the legal community and society at-large need a more complete understanding of the types of surveillance and surveillance cues that cause chilling effects. For example, in the White and Zimbardo study, the subjects were staring into a camera, making them very aware of the surveillance.³⁵² What effects are caused by surveillance cameras, articles on surveillance, or other cues that surveillance is occurring? Are people more affected by knowing that they are surveilled, or by fearing the worst?³⁵³ Second, further study into the effects of surveillance and the strength of its effects is needed. For example, does surveillance make people more conservative, and, if so, by how much? Third, an understanding as to the duration of the conforming effect is essential—will someone who reads an article about NSA surveillance be affected for the following fifteen minutes or the following year?³⁵⁴ These are not the only issues that need to be studied, but they provide a starting point that will greatly contribute to this discussion and to any attempts at drafting legislation.

351. See *supra* notes 52–54 and accompanying text.

352. White & Zimbardo, *supra* note 1, at 51, 53–54.

353. Calo has discussed this with respect to notice skepticism—skepticism about the effects of providing notice that one is being watched. There needs to be further research into whether notice changes behavior towards conformity, or just alters behavior in general. See Calo, *supra* note 162, at 1029–30.

354. Some research suggests that the effect of an image of a pair of eyes is fleeting, but also suggested that this may be because an image does not imply there actually is surveillance. See Sparks & Barclay, *supra* note 169, at 318, 321. Future research would need to explore these differences.

CONCLUSION

A 2013 study found that about half of Internet users are worried about the information that is available about their online behavior.³⁵⁵ That number was up from one-third of Internet users in 2009.³⁵⁶ Another study, from 2007, found that about 28% of Americans reported being somewhat or very anxious about government monitoring.³⁵⁷ The researchers suggested that anxiety about government monitoring could influence participation in politics, political criticism, and voter decision-making.³⁵⁸

We live in an era in which fears of surveillance may be as omnipresent as surveillance itself. It is crucial that we understand the effects of surveillance on the principles our democracy holds dear. This article is a step in that direction, arguing that social science research has shown that surveillance has a substantial conforming effect on people's behavior. For those concerned about the principles behind First Amendment protection, the conforming effect should be as worrisome as the much-touted chilling effect.

The worst enemy of free speech is not always fear. Sometimes it is the desire to keep friends, to avoid irritating family members, or just to remain unnoticed. Living in a surveillance society may have effects on the development of new ideas and underlying beliefs that we have only begun to understand. If our government is to continue to engage in dragnet practices, it must do the research to understand their effects.

355. Rainie et al., *supra* note 42, at 2.

356. *Id.*

357. Best, Krueger & Pearson-Merkowitz, *supra* note 248, at 618.

358. *Id.* at 620.