From Promise to Form: How Contracting Online Changes Consumers

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FROM PROMISE TO FORM:
HOW CONTRACTING ONLINE CHANGES CONSUMERS

DAVID A. HOFFMAN*

I hypothesize that different experiences with online contracting have led some consumers to see contracts—both online and offline—in distinctive ways. Experimenting on a large, nationally representative sample, this paper provides evidence of age-based and experience-based differences in views of consumer contract formation and breach. I show that younger subjects who have entered into more online contracts are likelier than older ones to think that contracts can be formed online, that digital contracts are legitimate while oral contracts are not, and that contract law is unforgiving of breach.

I argue that such individual differences in views of contract formation and enforceability might lead firms to discriminate among consumers. There is some evidence that businesses are already using variance in views of contract to induce consumers to purchase goods they would not otherwise have. I conclude by suggesting how the law might respond to such behavior.

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INTRODUCTION

Contracting has never flourished more than it does today. Consumers see a larger number of contracts daily than they used to, with longer terms and under novel conditions.1 In an online “orgy of contract formation,”2 firms have seized new opportunities to shift risks to consumers by imposing unread terms.3 The result is that “most of us make more legal agreements in a year than our grandparents made in a lifetime.”4

Contract scholars have spent the last generation arguing about what this digitization and proliferation of contracts means for contract doctrine.5 They’ve spent almost no time on a question of equal significance: How do changing habits of contract formation transform consumers?6 That is, it seems likely that repeatedly clicking-to-agree to an

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3 See RESTATEMENT OF THE LAW CONSUMER CONTRACTS, introductory cmt. (AM. LAW INST., Reporters’ Revised Draft of Preliminary Draft No. 2, 2016) (noting that consumers do not read disclosed terms); NANCY S. KIM, WRAP CONTRACTS 59 (2013) (“Contracts are much more ubiquitous online than in the physical world.”); Yannis Bakos, Florencia Marotta-Wurgler & David R. Trossen, Does Anyone Read the Fine Print? Consumer Attention to Standard-Form Contracts, 43 J. LEGAL STUD. 1, 19 (2014) (presenting the results of a study in which consumers visited the End-User License Agreement pages for 0.08% of paid and 0.22% of freeware retailers).

4 Eric Felten, Postmodern Times: Are We All Online Criminals?, WALL ST. J., Nov. 18, 2011, at D8.


6 Exceptions include Brett Frischmann, Thoughts on Techno-Social Engineering of Humans and the Freedom to Be Off (or Free from Such Engineering), 17 THEORETICAL INQUIRIES L. 535, 558 (2016) (arguing that technological conditions of contracting change our expectations of consent and make it mindless) and David A. Hoffman & Zev J. Eigen, Contract Consideration and Behavior, 85 GEO. WASH. L. REV. (forthcoming 2017)
explicit lie (affirming you have read the contract’s terms)\(^7\) makes consumers feel somewhat differently about contract formation. Moreover, while contracts offline are typically concluded with someone else in the room—engendering a feeling of moral exchange, or at least norms of reciprocity—digital contracts are almost always entered into with a faceless, sterile, corporate counterparty.\(^8\) Thus, though popular culture routinely valorizes the ritual and significance of signing paper contracts,\(^9\) digital contracts are increasingly the subject of satire.\(^10\) Repeated experiences with these distinct, digital, sterile instruments of exchange should leave a mark.

To examine the intuition that changing contract practices affect views about contracting, this Article looks at how contracting parties

\(^7\) See David Lat, Do Lawyers Actually Read Boilerplate Contracts? Richard Posner and Evan Chesler Don’t; Do You?, ABOVETHELAW.COM (June 22, 2010, 2:42 PM), http://abovethelaw.com/2010/06/do-lawyers-actually-read-boilerplate-contracts-judge-richard-posner-doesnt-do-you/ (providing anecdotal evidence that prominent legal minds sign contracts without reading them); South Park: HumancentiPad (Comedy Partners television broadcast Apr. 27, 2011), http://www.hulu.com/watch/249969 (satirizing the premise that consumers read the iTunes terms of use: 

“Guard: You can’t agree by accident. There’s a fail-safe built in. Even if you click on ‘Agree’ another little window pops up that says ‘Are you sure you agree?’ and you have to click on ‘Agree’ again.

Woman: Uh, what are you going to do to us?

Guard: Everything that you agreed to in the iTunes conditions.

Kyle: We didn’t read them!

Guard: Heh! Right. Who just agrees to something they don’t read?”).

\(^8\) For evidence that contracts with firms are more likely to be seen as morally inert than contracts with individuals, see Uriel Haran, A Person-Organization Discontinuity in Contract Perception: Why Corporations Can Get Away with Breaking Contracts But Individuals Cannot, 59 Mgmt. Scl. 2837, 2850–51 (2013).

\(^9\) The degree of reverence is obviously situational. But even the crassest corners of popular culture treat signature to a paper contract as being a venerable moment. See, e.g., WWE, Hulk Hogan & Andre the Giant’s Wrestlemania III Contract Signing, YOUTUBE (Dec. 8, 2013), https://www.youtube.com/watch?v=TzcMnD3-XDM (depicting the signing of a wrestling contract as a significant moment).

of different ages understand formation, performance, and breach. I hypothesize that younger subjects will have distinct views about contract in part because most of the agreements they have entered have been digital. I test the theory through a series of scenario experiments using a nationally representative sample of over 1000 American adults, ranging in age from 18 to 90. I find that younger subjects are more likely to believe that:

- Contracts can be formed online;
- Contracting out of rights in writing is legitimate in ways that oral contracting is not;
- Contract law is highly formal and does not permit humane excuses for breach.

One way to think about this varied set of behaviors is to surmise that younger consumers process contracting through a new and somewhat distinctive contractual schema.\(^{11}\) Compared to older consumers, younger ones have come to be somewhat less likely to think that contracts instantiate moral exchanges,\(^{12}\) and more likely to believe they are merely the rules of the game. In the daily exercise of clicking-to-agree, one should try to chisel and push and shop around whenever possible, because “contracts” are nothing but formal terms that stand in the way of consumption.

These findings have several implications. They call into question popular perceptions about millennials’ fear of commitment.\(^{13}\) Whatever it is fair to say generally about generational differences,\(^{14}\) I do not find evidence that younger subjects are against contracts or

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\(^{11}\) Suchman’s account of contracts’ role as “symbolic markers” heavily influenced my thinking here, although he does not speculate as I do about differences between contracting parties. See Mark C. Suchman, The Contract as Social Artifact, 37 Law & Soc’y Rev. 91, 100, 128 (2003) (stating that “contracts convey identifiable cultural messages”).


\(^{14}\) They are, largely, bunk, but illuminating nonetheless. See generally Danah Boyd, It’s Complicated: The Social Lives of Networked Teens 14–16 (2014) (describing historical fears surrounding the introduction of new technologies). Of course, the idea that there is such a thing as a “generational” perspective is itself contested. Perhaps what is being observed is an age effect. See Lub et al., supra note 6, at 40–41 (noting the methodological difficulty in studying and generalizing about generational cohorts); Sue Shaw & David Fairhurst, Engaging a New Generation of Graduates, 50 Educ. & Training 366, 367 (2008) (discussing the lack of consensus among researchers regarding generational differences).
contracting: Rather, they see these social practices slightly differently. To illustrate the practical upshot of age-based differences, I investigate “no contract” clauses, such as those common in cellphone advertisements. I show that such increasingly popular contracting labels actually appeal most to older consumers, who—relatively more convinced of the moral worth of contracts—are attracted by the idea of consumer relationships which can be freely exited. Younger subjects, who are less likely to think that breach entails a moral or social cost, simply do not care that something is labeled “contract” or “no contract.”

Differences in lay views of contract based on age have implications beyond the “no contract” scenario. I posit that age differences in contract could (and may already) be leading firms to discriminate between consumers based on their age and thus their views about what constitutes a contract. Unlike discrimination based on cognitive style or heuristics, such identity-based contracting is plausible, and maybe inevitable, in a world where Internet cookies permit firms to know their consumers’ demographic profile at the point of sale.

To be concrete (and to foreshadow Part III), imagine that a firm would like some consumers to feel that an Internet privacy policy is binding without making it an actual contract. It can distinguish between older and younger consumers using readily available Internet tracking technology, and provide different contracting environments based on consumers’ (distinct) views about what constitutes formation. This would seem to open the possibility of discrimination between consumers, not based on individual differences in cognitive style, but rather demographically based variation regarding the social meaning of contract. Should the law do something about it? As younger readers might say, RAFO.15

Part I of this paper motivates the hypothesis that consumers will have different views about contract based on their age. Part II describes five experiments I conducted using online subjects that examined the effect of a variety of individual differences on contract formation and enforceability. Part III describes the implications of these results.

15 Read and find out. The acronym arose out of repeated answers by Robert Jordan, the pseudonym for now-deceased fantasy author James Rigney, to fan questions about his epic fantasy fiction series, The Wheel of Time. See Chat with Robert Jordan, WHEEL OF TIME Wiki (Nov. 1, 1998), http://wot.wikia.com/wiki/Source:Scifi.com_chat_1_November_1998. As it turns out, Rigney died before the unsatisfying answers to those questions would be revealed by an author contracted to finish the series by his estate. Thus, authors should use the expression with care, lest they promise more than they deliver, or die trying.
I

THE EVOLVING CONTEXT OF CONTRACT

Digitization necessarily disrupts doctrine generated by a world of paper and in-person exchange. Some kinds of shifts make doctrine virtually obsolete—the mailbox rule, governing dispatch and delayed receipt of acceptance, is now effectively a dead letter. Others hollow out rules without ever formally upturning them. It is a surprising (though sometimes-appreciated) fact that despite the recent transformation of consumer contracting’s context from rare paper transactions to ubiquitous digital ones, almost nothing about the content of contract doctrine on formation has changed over the last three generations. We still measure formation by “reasonable notice,” we focus on “conspicuous” terms, police terms rarely, and insist that consumers have a “duty to read.”

But the world has changed. This Part examines the tectonic shifts in practice and people that lie under the surface of doctrine, focusing first on contracting practices and then on contracting parties.

A. Changes in Contract Practice

The degree to which contract law now operates on a different set of social practices can be illustrated by looking, serially, at the cases—and the fact patterns—that preoccupied successive generations of consumer contract theorists. Each worried about standard form con-


17 See Amelia Rawls, Contract Formation in an Internet Age, 10 Colum. Sci. & Tech. L. Rev. 200, 202 (2009) (“The very name of the ‘mailbox rule’ conjures up its dated origins, raising the question whether nineteenth-century jurists would have sanctioned its application in technological contexts far beyond their wildest imaginations.”).

18 The battle of the forms under U.C.C. § 2-207, for instance, offers solutions to a set of problems that is now rare (paper forms exchanged nonsimultaneously) without answering a still urgent commercial problem (nonmatching terms) that remains problematic.

19 See Juliet M. Moringiello & William L. Reynolds, From Lord Coke to Internet Privacy: The Past, Present, and Future of the Law of Electronic Contracting, 72 Md. L. Rev. 452, 470 (2013) (concluding after a review of doctrinal developments prompted by technological change that the “common law of contracts proved more than resilient enough to handle the problems of the new era with ease”).

20 See 7 Joseph M. Perillo, Corbin on Contracts § 29.12 (rev. ed. 2002) (describing the duty-to-read rule as founded on “bargaining practices of the past, when the self-reliance ethic was strong and standardized agreements were rare”).

21 Warranties offer a separate set of problems: (1) Historically they were not part of the actual sales contract between the buyer and the seller, and (2) they are usually advertised as an important part of what the consumer is buying. Such documents have been a preoccupation of policymakers since at least the 1950s, when complaints about car manufacturers were rife. See Staff of Subcomm. on Commerce & Fin. of the H. Comm. on Interstate and Foreign Commerce, 93d Cong., Staff Report on
tracts,\textsuperscript{22} which have been seen at least since the 1970s as the typical type of consumer contract.\textsuperscript{23} But each focused on a distinct set of contracting practices, and, consequently, their normative prescriptions differed.

The first generation, extant from the 1950s through 1980s, is best represented by the famous 1960s case generated by Ora Lee Williams’s stereo.\textsuperscript{24} Williams \textit{v.} Walker-Thomas Furniture Co. was a case nominally about the application by analogy of the Uniform Commercial Code’s provision on unconscionability to a cross-collateralization clause in a standard form consumer contract. But for scholars who hotly debated its importance, it was a fact pattern infused with issues of race,\textsuperscript{25} and raised the legitimacy of a “law of the poor.”\textsuperscript{26} That is, what kinds of problems did standard form contracting practices create for vulnerable consumers, who might be compelled to contract by monopolies who sent out domineering salesmen to their very apartment doors.\textsuperscript{27} Jurists, focusing on whether the words used

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\textsuperscript{24} See 1 Stewart Macaulay \textit{et al., Contracts: Law in Action} 659 (3d ed. 2010) (citing Williams \textit{v.} Walker-Thomas Furniture Co., 350 F.2d 445 (D.C. Cir. 1965)) (describing Walker-Thomas as “still the most famous unconscionability case of all”).


\textsuperscript{27} See Todd D. Rakoff, \textit{Contracts of Adhesion: An Essay in Reconstruction}, 96 \textit{HARV. L. REV.} 1173, 1177–78 (1983) (pointing out that “the most famous academic and judicial
were conspicuous or confusing, worked to find a way not to enforce such contracts without disturbing the ordinary run of consumer agreements. Thus, "consumer contract law" focused on contracting practices that vitiated the ordinary intuition that consumers had in fact executed legitimate agreements. Unconscionability doctrine, because it threatened to creep outside of this narrow context, worried contract scholars, even as it motivated others.

Despite this focus on the terms of a narrow band of written consumer contracts, many consumer contracts in the past were implicit and unwritten—though disclaimers of warranty for certain goods were and remain common. Rather, the typical contract transpired through "paperless over-the-counter or off-the-shelf cash sale." The absence of explicit contract is particularly salient in the intellectual property context, but is true more globally. Think about a Hollywood movie from the 1950s through 1990s. Did the main character sign away his or her rights before hiring a taxi, buying a book, booking a hotel room, buying clothes, or picking up medication at the local store?

treatments of the subject [of consumer standard form contracts] assumed a close connection between the use of contracts of adhesion and the exercise of monopoly power.


30 Cf. Arthur Allen Leff, Contract as Thing, 19 Am. U. L. Rev. 131, 141 n.35 (1970) ("I have no empirical evidence that the frequency of this type of transaction [a consumer standard form contract] has increased, over, say, the last fifty years or so. But most people seem to assume so, and it seems certainly reasonable (given the increase in marketer concentration) to believe that it did." (citation omitted)).

31 Id. at 131 n.1.


The concerns of "consumer contracting" simply didn’t apply to vast swathes of ordinary consumption.

If Williams was about particularly bad, but central, terms pushed in person, the second generation’s emblem, Hill v. Gateway 2000, Inc., focuses on nonsalient terms in an increasingly long common printed consumer form. Hill asks whether terms that arrive after a customer’s order are binding, and starts with Judge Easterbrook’s statement of the facts:

A customer picks up the phone, orders a computer, and gives a credit card number. Presently a box arrives, containing the computer and a list of terms, said to govern unless the customer returns the computer within 30 days. Are these terms effective as the parties’ contract, or is the contract term-free because the order-taker did not read any terms over the phone and elicit the customer’s assent?  

The case continues to generate scholarly ferment: Are later-arriving terms wrapped into the original offer? What is the original offer when the customer calls the firm anyway? Were Judge Easterbrook’s assumptions about market rationality correct? Shouldn’t we simply find that the contract is formed when the consumer pays, thereby cutting off the offending following terms at the source? Indeed, Hill may be the most criticized contracts case of the last twenty-five years.

But readers of the facts in both Williams and Hill now understand them to describe a consumer universe that today barely exists. Door-to-door furniture sales are all but extinct. Even Hill, not yet twenty years old, is musty with age. The sequence described—where

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38 See 105 F.3d 1147 (7th Cir. 1997); see also ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1449 (7th Cir. 1996) (“Shrinkwrap licenses are enforceable unless their terms are objectionable on grounds applicable to contracts in general . . . .”); cf. Klocek v. Gateway, Inc., 104 F. Supp. 2d 1332, 1340–41 (D. Kan. 2000) (ruling that the customer was not bound by Gateway’s standard terms absent evidence that the initial sales transaction was conditional on their acceptance).

39 Gateway, 105 F.3d at 1148.


41 See Peppet, supra note 29, at 681–82 (hypothesizing that Williams, if shopping today, would do so on an iPhone).
one phones in an order and talks to a person, whose firm then ships
goods with paper terms in a physical box—simply is not a recogniz-
able part of the gestalt of modern consumer culture.

Today’s scholars worry about a different kind of contracting con-
text.42 A (platonic) consumer contract now begins by selecting an app
on our smartphones, successively clicking a “buy now” button and an
“I agree” terms and conditions box, before using our fingerprints to
evidence payment.43 The product arrives within a day (sometimes that
same day). There is a welter of terms, but they are never printed out.
Negotiation is impossible: Consumer contracting is boilerplate all the
way down.44 That is, the third generation doesn’t worry about particu-
larly egregious terms and in-person bullying (as in Williams) or the
problem of assent and arrival being distinct when the parties are apart
(as in Hill) but rather the sheer bloat of digital terms in the digital
setting.

Bloat is, indeed, a problem. In 1975, Congressional investigators
reported that warranties for consumer goods between 300 and 600
words (total!) were too long and could be “written more clearly and
more briefly.”45 In 1977, Jeffrey Davis, lamenting the length of con-
sumer credit contracts and experimentally testing the effect of
reducing their length, described a “typical” credit card contract of
1100 words over “one and three-quarters legal-size pages in single-
space eight-point type.”46 Modern credit card agreements can reach
20,000 words (or, about as long as this law review article, including
notes).47 In one study of all the contracts which one had to agree to
when buying a computer, James Gibson found that the “average com-
puter purchase binds the consumer to twenty-five contracts, com-
prising 74,897 words of boilerplate.”48 Florencia Marotta-Wurgler and
Robert Taylor, studying changes in End User License Agreements

42 An example of the field is Nancy S. Kim, Contract’s Adaptation and the Online
and the new online contracting context).
43 See Chloe Rigby, More than 40% of Ecommerce Sales Now from Mobile: IMRG,
INTERNET RETAILING (Feb. 24, 2015), http://internetretailing.net/2015/02/more-than-40-of-
ecommerce-sales-now-from-mobile-imrg/ (finding that forty percent of online sales were
recently estimated to be made on cellphones rather than traditional desktops).
44 See James Gibson, Vertical Boilerplate, 70 WASH. & LEE L. REV. 161, 163 (2013)
(explaining that boilerplate contracts leave no room for negotiation).
45 STAFF REPORT, supra note 21, at 12.
46 Jeffrey Davis, Protecting Consumers from Overdisclosure and Gobbledygook: An
Empirical Look at the Simplification of Consumer-Credit Contracts, 63 VA. L. REV. 841,
47 Alan Siegel & Irene Etzkorn, When Simplicity Is the Solution, WALL STREET J.
(Mar. 29, 2013), http://www.wsj.com/articles/SB1000142412788732400070457838652879032
748.
48 Gibson, supra note 44, at 190.
(EULAs) from 2003 to 2010, found that EULAs increased in length by 27% without becoming more readable or friendlier to consumers.\(^4^9\) (Indeed, most terms got relatively worse for buyers.)\(^5^0\)

Of course, almost no one reads any of these additional, increasingly long contracts.\(^5^1\) Our best estimate is that “only one or two in 1,000 shoppers access a product’s EULA for at least 1 second.”\(^5^2\) To make the point, researchers required consumers to click-to-agree to terms of use for a wireless hotspot: Non-reading subjects (blithely) agreed to give up their first-born child to gain Internet access.\(^5^3\) Other consumers have agreed to sell their soul in return for a video game.\(^5^4\) Given these readership rates, we shouldn’t be surprised that although contracting terms are in theory part of the product they regulate,\(^5^5\) studies have shown that they are not typically amenable to competitive pressures.\(^5^6\)

If consumers read any text in a modern consumer contract, it is this: “I have read and agree to the terms of use,” which the Urban Dictionary correctly defines as “[p]retty much the biggest lie on the planet.”\(^5^7\) Or to put it differently, consumer contracts today are increasingly common and long, and they always require consumers to knowingly affirm a whopper.

To be fair, online sales remain dwarfed by their brick-and-mortar counterparts. From 2000 to 2014, e-commerce increased eleven fold,


\(^5^0\) See id. at 257. But see Ronald J. Mann & Travis Siebeneicher, *Just One Click: The Reality of Internet Retail Contracting*, 108 Colum. L. Rev. 984, 999–1000 (2008) (finding the contract terms of large Internet retailers were “surprisingly benign”).


\(^5^2\) Bakos et al., *supra* note 3, at 3.


\(^5^5\) See Leff, *supra* note 30, at 146–47 (describing adhesion contracts as part of “a unitary, purchased bundle, of which the product, say a car, is just the most tangible part”).


but even so constitutes only about 7% of all retail sales.\(^\text{58}\) That said, computers and electronics are more typically bought online; health and beauty products (as well as furniture) offline.\(^\text{59}\) About 70% of Americans regularly buy online, and digital purchases are expected to comprise about 11% of all sales by 2018.\(^\text{60}\) And for millennials the numbers are much higher; about 25% of all millennial consumer dollars were spent online in 2015.\(^\text{61}\)

B. Do Distinct Contracting Practices Change Views of Contract?

Contracting is a ritual, by which private parties knowingly enlist the coercive power of the state. It stands to reason that changes in that ritual—from wax seals to written signatures to shrink-wrapped boxes to clicks on phones—will affect individual perceptions of what kinds of agreements count as contracts and what consequences follow from nonadherence to contract terms.\(^\text{62}\) However, as this section will explore, there is actually very little empirical evidence on point.

Several contract scholars have hypothesized that consumers might behave differently in response to online contracts.\(^\text{63}\) For example, in her recent book *Wrap Contracts*,\(^\text{64}\) Nancy Kim contrasts


\(^{63}\) See Morigiello & Reynolds, *supra* note 19, at 492–93 (“While paper might impart a certain seriousness to a transaction, consumers, it can be argued, are so accustomed to instant gratification online that they pay little serious attention to the fact that they are actually entering into binding arrangements.”); see also Robert A. Hillman & Ibrahim Barakat, *Warranties and Disclaimers in the Electronic Age*, 11 Yale J.L. & Tech. 1, 23–25 (2009) (discussing inefficacy of disclosure remedies when considering online “recreational” shoppers); Nancy S. Kim, *Situational Duress and the Aberrance of Electronic Contracts*, 89 Chi.-Kent L. Rev. 265, 271–73 (2014) (discussing elements of electronic contracts that make them different from offline forms).

\(^{64}\) *Kim, supra* note 3.
“traditional” contracts—on paper, requiring a signature—with non-traditional “wrap contracts,” which are presented largely in “digital form.” She argues first that digital contracts are “more ubiquitous online than in the physical world,” making customers enter into deals for “even trivial or minor transactions.” Thus, given length and ubiquity, consumers “may become habituated” to wrap contracts, a tendency exacerbated by the companies themselves. At the same time, “[t]here is no clerk asking for a signature, no scribbling with a pen, no duplicate copy to crumple in a pocket.” Kim notes that consumers might simply behave differently online—the Internet is “suited to impulsivity and impatience.” Or to put it differently, online contracts lack the kinds of formalities which, Kim thinks, lead to introspection.

But the intuition (and that’s all it is) that contracting behavior differs online does not tell us anything about whether contracting online (often) changes contracting parties. There might be an interaction among age, experience, and views of contract that leads those who have seen more digital contracts to think differently about contracting. Unfortunately, most of the work on the effect of age on views of commerce rests on the assumption that millennials are distinctive consumers per se. They are, as the cliché goes, digital natives. More particularly, they are cautious of commitment to long-term agreements entered into through contracts that they find aversive.

65 See id. at 55–57.
66 Id. at 59.
67 See id.; see also Rainer Böhme & Stefan Köpsell, Trained to Accept? A Field Experiment on Consent Dialogs, Proc. 28th Ann. CHI Conf. on Human Factors in Computing Systems 2403, 2403–05 (2010) (finding that consumers had been habituated to accept terms that approximated the appearance of an end-user license agreement).
68 Id. at 59.
69 Id. at 61.
70 See id. at 61–62; Robert A. Hillman, Online Boilerplate: Would Mandatory Web Site Disclosure of e-Standard Terms Backfire?, in Boilerplate: The Foundation of Market Contracts 83, 85 (Omri Ben-Shahar ed., 2007) (arguing that consumers “may not attach appropriate significance to a mouse click and therefore may fail to appreciate the seriousness of their actions”).
71 See, e.g., Kari Mercer Dalton, Bridging the Digital Divide and Guiding the Millennial Generation’s Research and Analysis, 18 Barry L. Rev. 167, 168 (2012) (“Millennials have an aptitude for technology because it is a natural language for them.”).
73 See David Carnoy, Dish’s New Sling TV Internet TV Service Starts at $20, Features ESPN, Disney Channel, CNN, TNT, and Other Channels, CNET (Jan. 5, 2015, 8:30 AM), http://www.cnet.com/news/dish-launches-20-sling-tv-streaming-video-service-with-channel-lineup-that-includes-espn-disney/ (quoting the CEO of Sling TV LLC who described his
There has been an explosion of research in recent years about the attitudes of millennials on a variety of topics, ranging from shopping,\(^74\) to privacy,\(^75\) to trust in online commerce,\(^76\) to webpage design preferences,\(^77\) to brand loyalty.\(^78\) Absurd generalizations abound—millennials\(^79\) are said to be the “least racist, least sexist, least company’s new service as “designed . . . based on how millennials consume content, with no contracts”); Tom Eggemeier, *How to Revive the Lost Art of Consumer Loyalty for Millennials*, BUSINESS 2 COMMUNITY (Oct. 4, 2015), http://www.business2community.com/loyalty-marketing/how-to-revive-the-lost-art-of-customer-loyalty-for-millennials-01341241#hErHSB0H0uEc.97 (asserting that the variety of types of plans for mobile phone service, including month-to-month and contract-free options, has resulted from the rise of millennials who are “indecisive, unpredictable, and . . . reluctant to commit”).


\(^75\) *See*, e.g., Michael Obal & Werner Kunz, *Trust Development in E-services: A Cohort Analysis of Millennials and Baby Boomers*, 24 J. SERV. MGMT. 45, 55–56 (2013) (finding that millennials were less concerned than baby boomers about website privacy cues).

\(^76\) *See*, e.g., *id.* at 54–57 (comparing the relative importance to millennials and baby boomers of various influences of trust on an e-retailer’s website); Anil Bilgihan, *Gen Y Customer Loyalty in Online Shopping: An Integrated Model of Trust, User Experience and Branding*, 61 COMPUTERS HUM. BEHAV. 103, 109–11 (2016) (concluding from a survey of 2500 Generation Y subjects that website features and flow were important in developing trust toward an e-commerce website); *see also* Grant Blank & William H. Dutton, *Age and Trust in the Internet: The Centrality of Experience and Attitudes Toward Technology in Britain*, 30 SOC. SCI. COMPUTER REV. 135, 145 tbl.4, 148–49 (2012) (finding that experience with the Internet and attitude toward technology, not age itself, influenced study participants’ trust on the Internet and that “[a]s people gain experience with the Internet they become more trusting”).


\(^78\) *See* Parment, * supra* note 74, at 196 (explaining that interviews and focus groups reveal that “members of Generation Y have a very limited loyalty to retailers, unless they provide superior customer value or any other advantage, such as price” and that “Generation Yers are basing their choice of retailer either on the lowest price or on convenience attributes”).

homophobic, least xenophobic, most inclusive, collaborative generation ever.  

The real story is more nuanced. Simply put, variation within and between “generations” is the rule, making it difficult to generalize about such large and varied groups of Americans. It is impossible with snapshot surveys to distinguish age from cohort effects. (Two recent leading works in the field, Born Digital, by John Palfrey and Urs Gasser, and It’s Complicated, by Danah Boyd, aptly capture the complexity of studying generational differences.) That is, we just cannot know yet if “millennials” as a group will look distinctive in twenty or thirty years, or even if they are all that unique now.

In this Article, I am interested in the hypothesis that different experiences with online contracting have led younger consumers to see contracts—both online and offline—in distinctive ways. To the extent that differences exist, it is possible that aging will moderate them—just as it is possible that as older individuals’ experiences with paper contracts become increasingly distant in time, their views of contracting will start to look more like those of younger ones. Bracketing the question of whether what is observed is a cohort or an age effect, what might we predict about age differences in contract? The answer is that we just do not know much about this topic.

There is suggestive evidence on age and contracting behavior from the fields of moral psychology and economics. In ultimatum game studies, researchers have found that older adults are more likely to have a preference for fair distributions than younger adults. That

82 That is, millennials are different from their elders today, but they will change over time.
83 That is, millennials are different as a cohort.
84 JOHN PALFREY & URS GASSER, BORN DIGITAL: UNDERSTANDING THE FIRST GENERATION OF DIGITAL NATIVES (2008) (examining the ways that technological omnipresence in various forms has influenced millennials).
85 BOYD, supra note 14, at 177–80 (arguing that the concept of “digital natives” was intended to “provoke reaction” but that it “obscures the uneven distribution of technological skills and media literacy across the youth population” and perpetuates “digital inequality”).
86 See Werner Güth et al., Bargaining Outside the Lab - A Newspaper Experiment of a Three-Person Ultimatum Game, 117 ECON. J. 449, 458–59 (2007) (finding that older individuals and women cared more about equal distribution in an ultimatum game); David R. Roalf et al., Risk, Reward, and Economic Decision Making in Aging, 67 JOURNALS OF GERONTOLOGY SERIES B 289, 294–96 (2012) (finding differences between older and younger adults in perceptions that offers were unfair).
is, they are more likely to reject unfair offers (which they may see as “socially disgusting”) while making fairer offers themselves. Though some might attribute this difference to an increase in empathy across life, recent studies do not support the intuition. The literature on trust games—arguably closer to the contract example since they typically entail an agreement between subjects—does not suggest a clear direction about the effects of age.

There has been a flowering of recent research on the moral psychology of contract. However, almost none of that recent work pur-

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87 Roalf et al., supra note 86, at 296.
88 Cf. Daniel Grühn et al., Empathy Across the Adult Lifespan: Longitudinal and Experience-Sampling Findings, 8 EMOTION 753, 755, 762 (2008) (suggesting decreased empathy among older adults resulted from differences among cohorts, not aging).
89 See Rick K. Wilson & Catherine C. Eckel, Trust and Social Exchange, in CAMBRIDGE HANDBOOK OF EXPERIMENTAL POLITICAL SCIENCE 243, 247 (James N. Druckman et al. eds., 2011) (noting that trust generally is lowest in very young and very old cohorts, while reciprocity is linearly related to age); Noel D. Johnson & Alexandra A. Mislin, Trust Games: A Meta-Analysis, 32 J. ECON. PSYCHOL. 865, 875 tbl.4, 876 (2011) (finding that student subjects exhibited less reciprocity in trust games than nonstudents and hypothesizing that age drove this difference, but discerning no statistically significant difference between students and nonstudents in trust); cf. Matthias Sutter & Martin G. Kocher, Trust and Trustworthiness Across Different Age Groups, 59 GAMES & ECON. BEHAV. 364, 378 (2007) (finding trust to be higher in all adult age groups).
posefully examines group-level differences in subjects’ views. In a recent paper, for example, Zev Eigen found that younger subjects were more likely to cheat on an online task despite having agreed not to do so in a contract.\(^91\) Eigen and I later co-authored a paper on individuals’ willingness to back out of a bargain where there were real-money stakes. We unexpectedly found that older participants were much more likely to keep their promises than younger ones—those 55 to 64 breached at a 22% rate, those younger than 24 at a 54% rate.\(^92\) However, only certain of these results were significant (given the relatively few numbers of older subjects) and more work remains to be done.

This appears to be the extent of experiments finding age effects in attitudes toward contract formation, breach, or judgment.\(^93\) Given the previous literature, the most that we can say is that there is some reason to think that age matters to views of contract formation, especially when age is considered as a proxy for exposure to particular kinds of contracts. But the exact valence, and magnitude, of the effect is not obvious and is ripe for direct examination.

II

EXPERIMENTAL DESIGN AND RESULTS

A. The Sample

I undertook a series of experiments testing subjects’ responses to hypothetical contract scenarios. After pretesting using subjects from Amazon Mechanical Turk (mTurk),\(^94\) I enlisted a nationally represen-
ative sample using SSI, a well-known recruitment firm. Use of SSI permitted recruitment of a diverse sample by age, race, and gender, as well as bypassed concerns about mTurk samples.

I required participants to pass a preliminary attention check question. Only subjects who passed the attention check were permitted to participate in the Amazon, though the precise nature of the qualification is obscure. As I explain infra at note 134, there is evidence that master-qualified mTurk subjects are more careful and less likely to answer questions at random, reducing noise and increasing statistical power. I discuss results as appropriate in the notes below.

SSI is a professional survey company that was founded in 1977 and has offered online samples for fifteen years. Participants were drawn from SSI’s panels and various online communities, social networks, and websites of all types in the United States. See Consumer Online Survey Research, SSI, https://www.surveysampling.com/solutions/data-collection/online-surveys/consumer/ (last visited Sept. 21, 2016); see also Netta Barak-Corren, Does Antidiscrimination Law Influence Religious Behavior? An Empirical Examination, 67 Hastings L.J. 957, 989 n.112 (2016) (using a nationally representative SSI sample in academic research).

There is a growing literature on the suitability of mTurk samples. An important synthesis can be found in Kim Bartel Sheehan & Matthew Pittman, Amazon’s Mechanical Turk for Academics 13–33 (2016).

For recent work on mTurk representativeness, see Kevin E. Levay et al., The Demographic and Political Composition of Mechanical Turk Samples, SAGE OPEN, Jan.–Mar. 2016, at 2, 9–11. http://sgo.sagepub.com/content/6/1/2158244016636433.full-text.pdf+html (concluding that while mTurk samples differ from population-based ones, a workable approximation of a population-based sample can be obtained by weighting an mTurk sample based on nine covariates); cf. Andrew R. Lewis et al., The (Non) Religion of Mechanical Turk Workers, 54 J. For Sci. Study Religion 419, 419–20 (2015) (summarizing prior findings that mTurk respondents are “wealthier, younger, more educated, less racially diverse, and more Democratic than national samples” and additionally concluding that they are less religiously oriented).

For recent work positively comparing mTurk survey results to those from other samples, see Christoph Bartneck et al., Comparing the Similarity of Responses Received from Studies in Amazon’s Mechanical Turk to Studies Conducted Online and with Direct Recruitment, PLOS ONE, Apr. 14, 2015, at 17–18, 21 (finding statistically significant but practically small differences between responses from mTurk and from online and campus samples). But see Yanna Krupnikov & Adam Seth Levine, Cross-Sample Comparisons and External Validity, 1 J. Experimental Pol. Sci. 59, 77 (2014) (comparing results from study using mTurk, YouGov, and undergraduate student samples and determining that of the three, only the “mTurk sample produced results at odds with” the study’s theoretical predictions). As compared to other online samples, mTurk subjects tend to pay attention to survey prompts. See Adam J. Berinsky et al., Separating the Shirkers from the Workers? Making Sure Respondents Pay Attention on Self-Administered Surveys, 58 Am. J. Pol. Sci. 739, 745 & n.14 (2014) (remarking that mTurk subjects correctly answered screener questions at rates higher than in other online samples).

An emergent issue with mTurk samples is that it appears that the total number of mTurk survey respondents may be quite small (under 10,000 at any one time). See Neil Stewart et al., The Average Laboratory Samples a Population of 7,300 Amazon Mechanical Turk Workers, 10 Judgment & Decision Making 479, 485–86 (2015) (using a “capture-recapture analysis” to determine “that, in any quarter year, the average laboratory can reach about 7,300 workers”).

The attention check was recommended by SSI based on previous experience with the population being recruited. The question stated:
to consent to the survey. Before analysis, I eliminated 71 subjects who completed the survey in less than 10% of the mean time (when the average completion time was 15 minutes).

That left 1008 subjects. Each subject saw one of five rotating experimental scenarios in a between-subjects design and then answered a number of demographic and attitudinal questions. For ease of exposition, I will describe those demographic prompts here and provide descriptive statistics.

**Gender:** 532 (53%) female; 472 (47%) male; 4 did not identify.

**Race/Origin:** 703 (70%) white; 138 (14%) African-American; 97 (10%) Hispanic; and a mix of other categories.

**Age:** Participants’ ages ranged from 18 to 90, and roughly matched the 2012 U.S. Census distribution, as Figure 1 describes:

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98 About 80% of those initially recruited by SSI passed the attention check.
99 The Institutional Review Board at Temple University reviewed and approved the survey design before it was administered.
100 In an additional set of specifications (not reported here) I control for the order in which the experiments were presented. Order effects are not significant on their own and do not change the significance or non-significance of any of the results reported in the text.
101 By comparison, on Turk, 53% of subjects were men.
102 These approximate the national means. By comparison, on Turk, 80% of respondents were white, 7% were black, and 6% were Latino.
103 See *Population by Age and Sex: 2012*, U.S. CENSUS BUREAU (Dec. 2013), http://www.census.gov/population/age/data/files/2012/2012gender_table1.xlsx. The mean sample age was 45, with 21% over the age of 60 and 41% over 50. In my pretest Turk sample, 25% of subjects reported being between 18 and 25, 50% under 30, and only 10% over the age of 50. The mean age was 34, and the maximum age was 72.
Ideology: 38% of the sample identified as slightly to extremely conservative; 36% as slightly to extremely liberal. These numbers again roughly correspond to the population means—though like the Turk sample, the SSI sample is more liberal than the population mean.104

Education: 23% of the sample had no college education, 34% had begun but not finished college, and an additional 27% were college graduates. 10% of the sample reported having a master’s degree, and 4% reported having a professional degree.

Income: 24% of the sample reported household income below $30,000 per year, 19% between $30,000 and $50,000, 35% up to $100,000, and 16% were wealthy (a dummy variable I created for subjects with self-reported household income greater than $100,000 per year).

Religiosity: I measured religiosity by asking for self-identification into the following categories: not religious (25%), less religious (22%), religious (35%), highly religious (12%), and extremely reli-

104 See Lydia Saad, U.S. Liberals at Record 24%, but Still Trail Conservatives, GALLUP (Jan. 9, 2015), http://www.gallup.com/poll/180452/liberals-record-trail-conservatives.aspx (reporting the results of a poll in which 38% of Americans identified as conservative and 24% as liberal). In my pretest Turk sample, 24% identified as slightly to extremely conservative, but 60% identified as slightly to extremely liberal.
religious (6%). I also asked respondents to identify the intensity of their belief, asking, apart from special occasions, how often they attended religious services ranging from never (30%), less often (24%), holy days (10%), at least once a month (12%), once a week (17%), more than once a week (6%), and every day (1%). These two items together created a highly reliable scale, religscale.105

**Contract Law Experience:** I measured and thus controlled for contract experience in a variety of ways. First, I asked subjects to rate their “knowledge and experience with contract law”: 51% reported none or some and about 24% extensive or a “fair amount” of knowledge. I created a dummy variable, inexperienced, which takes on a value of 1 where subjects reported “[n]o” experience or knowledge of contract law. Next I asked them how often they bought items online, ranging from not at all to very frequently. Finally, I asked subjects whether they had entered into a particular set of contracts in the last year, including a mortgage (9%), a car lease (8%), a car purchase (17%), an apartment lease (19%), a credit card agreement (35%), a cellphone contract (32%), and a student loan (11%). I created a contract scale, which added together the number of such contracts subjects had entered into. These three contract experience questions measure different attributes,106 and I therefore use them as independent controls.

**B. Experimental Results, Part I: Millennials Are Internet-Friendly Contract Formalists**

The first set of studies explores how age influences subjects’ views about assent. Contract law has long maintained an “objective” stance on assent: So long as a reasonable person would consider herself bound, it is irrelevant if in a particular contract the promisee actually holds that belief. That stance remains the prevailing one on the Internet, where it seems even less likely that parties understand themselves to be undertaking solemn commitments.

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105 $\alpha = .81$. Cronbach’s alpha ($\alpha$) is a statistic for measuring the internal validity of attitudinal scales. By computing the degree of inter-correlation that exists among various items within a scale, it can be used to assess whether the items can properly be treated as common indicators of a latent attitude or trait—i.e., one that cannot be directly observed and measured. See generally Jose M. Cortina, What Is Coefficient Alpha? An Examination of Theory and Applications, 78 J. APPLIED PSYCHOL. 98, 103 (1993). Generally, $\alpha > .70$ suggests scale validity—i.e., that the measures when aggregated furnish a reliable measure of the latent trait or attitude. See id. at 101–02 (recognizing that psychology literature has generally regarded $\alpha > .70$ as adequate but cautioning that it should be interpreted in light of the number of items in and dimensions of the scale).

106 $\alpha = .42$. 
I have recently explored, in work with a co-author, lay views about formation. We found that overall, individuals tend to act like contract formalists, at least some of the time.\footnote{107 See Wilkinson-Ryan & Hoffman, The Common Sense of Contract Formation, supra note 90, at 1296–98.} They think that contract formation occurs when the parties reduce their obligations to a writing (as opposed to agree orally); they privilege the meaning of signature and payment (though contract law might not); and they appear fairly comfortable with permitting the enforceability of terms that follow formalized assent.\footnote{108 See id. at 1281–94.} In a sense, the experiments that follow all seek to understand how age interacts with these generalized findings about the lay psychology of assent.

1. **Experiment 1: The Case of Sally’s Phone**

   I started by asking subjects to respond to a scenario about “Sally,” who had decided to buy a new phone. In this Experiment 1, I divided subjects into two groups, based on how Sally was described to have consummated the purchase—either in writing (online) or orally (by phone). In the former, she visited a webpage that prompted her to buy and contained a link to terms and conditions (which she did not click to read). In the latter, she spoke to a salesman on the phone, who prompted her to buy and told her there were other terms and conditions that she could hear if she wanted to (she didn’t). In both conditions Sally entered into a contract containing a ten-day return clause.

   Unfortunately for Sally, the phone arrived while she was on vacation, with the box stating that the “terms inside will govern.” Worse, when she returned from vacation, she found the phone to be a very ugly color. She put the phone in the box and attempted to return it. As all subjects read:

   A few weeks later, [Sally] gets a letter in the mail from the firm. The firm points out that there were terms governing refunds inside the box which she could have [heard/learned] on the [phone/website]. Those terms stated that all returns must be made within 10 days, unless the product is ‘defective,’ and that customers would be charged for their first month of service automatically if the phone was not returned in a timely way. The firm encloses a bill for $20.00 [the first month’s fee].

   I asked four questions about this common consumer contracting scenario: (1) When, if ever, was Sally bound to the “10 days or no return” term? (2) Do you think that Sally and the phone company have a legally binding contract? (3) Assuming Sally refuses to pay the $20.00 fee, do you agree that she breached her contract with the
phone company? (4) Regardless of whether you think that Sally was legally bound to the phone company, do you think her conduct was morally appropriate?

Figure 2 illustrates significant differences between the written and oral versions of contract formation.109

![Figure 2](image)

The major finding here is that subjects in the written contract condition were 50% more likely than those in the oral condition to believe that Sally was bound to the no-return terms as soon as she had agreed to them.110 Subjects in the oral contract condition were relatively more likely to believe that she was bound when the phone was delivered.111 Their privilege of written agreements repeated in questions about whether subjects thought that there was a binding contract,112 and whether Sally breached by refusing to pay.113 There were no significant differences in the perceived morality of Sally’s conduct

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109 In an ANOVA analysis of the staged answer “When was Sally” and experimental condition, the difference in conditional assignment was significant ($F = 15.95, p < .0001$).

110 For regression results, see Table 1 in the Appendix.

111 Interestingly, individuals who never or very rarely buy online think that contract occurs at purchase about 18% of the time; those who buy online often think it happens about 31% of the time.

112 In a comparison-of-means test, the oral contract mean of 4.73 compares to the written contract mean of 5.15. This difference is significant (Welch test df 977.4, $t = -3.96$, $p < .001$).

113 In a comparison-of-means test, the oral contract mean of 4.05 compares to the written contract mean of 4.28. This difference is significant (Welch test df 1000.24, $t = -2.67$, $p < .01$).
(in returning the phone despite the contract terms). These results are broadly consistent with my previous work.\textsuperscript{114}

We might analyze the relationship between age and views on contracting in a number of ways. A common approach would be to run a regression, where the dependent variable is the reported attitude toward contract and age and other demographic factors are independent variables. For all of the experiments in this paper, I’ve included such a regression table in the Appendix.\textsuperscript{115}

But I don’t think that such a regression provides the clearest test of the questions that this paper is exploring. I’m not interested in a pure age effect, but rather the combination of age and the characteristics that travel with it. Younger subjects are: (1) more likely to have experience with buying over the Internet;\textsuperscript{116} (2) more likely to be liberal;\textsuperscript{117} (3) less likely to be religious;\textsuperscript{118} and (4) less likely to be rich.\textsuperscript{119} Given this cluster of characteristics, parceling out the individualized effect of being a younger subject is likely to be somewhat misleading.

Thus, for the remainder of this paper, I will generally report raw mean differences for age, noting when appropriate that such differences are significant or insignificant by reference to the Appendix tables. Typically (and unsurprisingly) any result I relay in a Figure was significant using traditional tests of significance, and controlling for possibly confounding variables.\textsuperscript{120}

This permits me to use the actual data, and not a statistical simulation, to illustrate how age and all the demographic characteristics it signifies interact with views on contracting. Let’s start by examining

\textsuperscript{114} See Wilkinson-Ryan & Hoffman, \textit{The Common Sense of Contract Formation}, supra note 90, at 1296–98 (showing “that individuals privilege particular behavioral moments—signature, payment, and possession—above the verbal communication of assent”).

\textsuperscript{115} For this experiment, see Appendix, Tables 1 through 3.

\textsuperscript{116} Though experience with contract law was uncorrelated with millennial status, millennial status was highly correlated with buying items online (Likert scale 3.33 v. 3.82, Welch test df 793.5, \( t = -7.96, p < .0001 \)) and the total contract scale (total contracts 1.04 v. 1.79, Welch test df 602.5, \( t = -7.73, p < .001 \)).

\textsuperscript{117} In my data, 27\% of millennials but 36\% of nonmillennials reported being conservative or extremely conservative. The difference is significant (\( t = 2.89, p < .01 \)).

\textsuperscript{118} The religious scale measure was significantly different for millennials and nonmillennials (\( t = 2.59, p < .01 \)).

\textsuperscript{119} 11\% of millennials reported being \textit{wealthy} under my coding, compared to 19\% of nonmillennials. The difference is significant (\( t = 3.15, p < .01 \)).

\textsuperscript{120} Some exceptions: The individual category differences in Figure 6 are not all significant, though age alone is. There are also several instances where “age” is not significant but the more gross category “millennial” is, as the tables display. This is in part due to nonlinearity in the age variable. In alternative specifications (unreported but available) I used squared terms to demonstrate the effect.
the question of whether the contract is binding. As a main effect, only 6% of those who saw a written contract denied that it was binding, while 14% of those in the oral contract condition held that view. Effects for age depended on whether the subjects saw the written or oral agreements, as the next Figure illustrates. Here, for the purposes of expositional clarity, I have divided the data roughly in two, distinguishing those 35 and younger (millennials) from the rest.

**Figure 3. Is the Contract Binding?**

![Graph showing the percentage of subjects who agreed and disagreed that the contract was binding, with data divided by written and oral agreements, and millennials vs. older subjects.]

Note: Raw means for likelihood to strongly or very strongly agree that Sally’s contract was not binding, contingent on being 35 and under (millennial) or older. These differences are significant when controlling for other demographic traits. See Appendix, Table 2 for details.

That is, younger subjects are more affected by the context—they see more of a difference in the enforceability of oral and written contracts—than the rest of us. This is our first evidence in support of a common-sense implication of the relationship between age, experience, and views of contracting: Because more of their experience with contracting is over the web, younger consumers are more likely to discount the legitimacy of other forms of formation.

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121 Subjects clicking 1 or 2 (i.e., definitely not), out of 7, on the question: “Do you think that Sally and the phone company have a legally binding contract?”

122 I found fewer individual differences impacted subjects’ evaluation of whether Sally breached her contract by refusing to pay the $20 fee. See app., tbl. 3. The difference between the conditions was significant, as those in the written contract condition were more likely to agree that she breached than in the oral agreement. There were age effects, but they appear to be more or less confined to older Americans (75+). Subjects under that age all generally agreed that Sally was the more likely to be the breaching party in the written condition; those above it had precisely the opposite intuition, being more likely to conclude that she was in breach of the telephone contract than the Internet contract. Or to
But the precise nature of this relationship is difficult to ascertain. We cannot easily measure the key mechanism of interest, which is how much more of younger subjects’ total contracting experience is online (compared to older ones). It’s that “dosage” of Internet experience that I hypothesize produces different views of contract. Self-reported online contracting experience is a proxy, but an imperfect one, for this dosage question. Thus, simply observing age differences, even when those age differences are correlated with differences in online use, can’t tell us that online experience is causing differences in perceptions of contract. Nonetheless, online contracting does appear to have an effect, even holding age constant. Figure 4 illustrates this difference by zooming in just on the younger subjects in the sample, and again asking whether the oral or written contract was enforceable.

As Figure 4 illustrates, the real effect of online experience is not that it increases trust in online contracting: Millennials are already at a ceiling on that measure. Rather, online contracting erodes the legit-

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**FIGURE 4: IS THE CONTRACT UNENFORCEABLE?**

<table>
<thead>
<tr>
<th>How often do you buy online?</th>
<th>likelihood Unenforceable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>2%</td>
</tr>
<tr>
<td>Rarely</td>
<td>2%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>2%</td>
</tr>
<tr>
<td>Often</td>
<td>3%</td>
</tr>
<tr>
<td>Very Frequently</td>
<td>4%</td>
</tr>
</tbody>
</table>

- **Oral**
- **Written**

*Note: A post-regression estimation (using Stata’s margins command) of the likelihood of finding the contract unenforceable, by oral or written condition, and by self-reported contract experience, among millennials.*

As Figure 4 illustrates, the real effect of online experience is **not** that it increases trust in online contracting: Millennials are already at a ceiling on that measure. Rather, online contracting erodes the legit-

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123 For a description of margins, see Richard Williams, *Using the Margins Command to Estimate and Interpret Adjusted Predictions and Marginal Effects*, 12 *Stata J.* 308 (2012).

124 In the rest of the sample, views of unenforceability in the digital condition went from 4% (in the least likely online buyers) to 10%.
imacy of oral contracts. This is a piece of evidence consistent with the causal hypothesis.

2. **Experiment 2: Contract Versus Privacy, on Paper and on a Pad**

Experiment 1 varied both the written nature of the acceptance and whether it occurred using digital technology. The next experiment attempts to drill down further and simply vary—within the same scenario—how formation occurs when both options are in writing, either on *paper* or using a *digital pad*. In this scenario, all subjects read the following text:

Kevin takes a few medications regularly, and every month for years he has refilled his prescription at the local pharmacy, SafeRX.

In February when Kevin picks up his refills he tells the pharmacist that he is going to be away next month visiting family members, and won’t be able to pick up his medications in person. The pharmacist tells Kevin that he can have March’s medication delivered by mail if he agrees to the pharmacy’s contract governing mail order medication.

The subjects were then split, seeing one or the other of the following text and graphic:

The pharmacist asks Kevin to complete and sign the paper contract while he is at the checkout counter. The pharmacist asks Kevin to complete and sign the contract on a tablet computer while he is at the checkout counter.

Finally, all subjects read the following:

Kevin fills out the contract form, which asks for his credit card information, delivery address, and names of medications to be delivered by mail. The form also includes various terms and conditions, and a checkbox with the text ‘Please check here if you do NOT want your information shared with third party marketing companies.’ But Kevin does not notice the box or check it.
In March while Kevin is visiting his family his medication arrives perfectly on time. However, there was also a pile of junk mail waiting for him, and more that arrives while he is visiting. His family is mostly amused, but Kevin is embarrassed and annoyed at SafeRX for giving away the address to marketing companies.

Subjects were then told that federal law prohibits this kind of sharing of personally identifiable health information absent contractual assent and were asked (1) if Kevin had agreed “in the SafeRX contract” to permit information sharing; and (2) if it was “fair” for SafeRX to share information.

Before diving into the results, I will concede to having put a thumb on the scale: This context (privacy) is one where the conventional account suggests age effects are particularly likely. Older consumers, more than younger ones, “look for cues of privacy before they will begin transacting with an online e-service.” Of course, such views are influenced by digital experience. Moreover, the context of such notices might be affected by age, as younger consumers appear to focus on images while older ones allocate relatively more attention to text.

I found no general effect of condition assignment on subjects’ views of whether Kevin had entered into an agreement to disclose his personally identifiable information. Unexpectedly, I found that mil-

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126 See Jim Chen et al., An Exploratory Investigation of the Relationships Between Consumer Characteristics and Information Privacy, 11 MKT. MGMT. J. 73, 76–80 (2001) (reporting that among experienced online shoppers there was “no significant correlation between age and privacy concerns about [i]nternal [s]econdary [u]se of personal data, [e]xternal [s]econdary [u]se of personal data, and misuse of credit card number”); see also Hee “Andy” Lee et al., Presentation Formats of Policy Statements on Hotel Websites and Privacy Concerns: A Multimedia Learning Theory Perspective, 37 J. HOSPITALITY & TOURISM RES. 470, 479 (2013) (finding that “[t]he more experienced people were in making online hotel bookings, the less concerned they were about online privacy”).


128 $t = -.47; p = .64.$
lennials were slightly less likely to agree\textsuperscript{129} that Kevin had agreed in the contract to permit the firm to share his personal information.\textsuperscript{130}

I did find a significant main effect of the digital signature for subjects’ perception of the fairness of the exchange; subjects were more likely to think the firm’s behavior fair when Kevin signed on paper.\textsuperscript{131}

As Figure 5 illustrates, younger subjects’ views about the fairness of privacy loss didn’t turn on the contract. By contrast, older subjects’ views were conditional on how the contract was formed. Generally as subjects aged they were more likely to think that the paper signature carried more legitimizing weight than the digital signature.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure5.png}
\caption{Unfair to Share Kevin’s Data?}
\end{figure}

Note: Percent of subjects who very strongly, strongly, or somewhat thought that sharing Kevin’s data was unfair in light of the contract. These individual differences are significant by condition, controlling for other demographic factors, as Table 4 in the Appendix displays.

In sum, as some have suspected, millennials do seem to have a different understanding of contractual assent than do older subjects. They are more likely to think contracts are written documents, and when those written documents happen digitally, they are more likely to think that they fairly can surrender public rights. In short, while

\begin{itemize}
\item \textsuperscript{129} That is, they were more likely to “[p]robably” or “[d]efinitely” (5 or 6 on a six-item scale) agree.
\item \textsuperscript{130} In my data, 37\% of millennials and 42\% of older subjects strongly felt that there was an agreement. The difference is not significant using a two-tailed test ($p = .12$).
\item \textsuperscript{131} The mean response for the paper treatment was 3.71; the mean response for the digital treatment was 3.56. These differed, but with a t-statistic of 1.2, the difference was only marginally significant ($p = .11$).
\end{itemize}
individuals generally are contract formalists, millennials are formalists on steroids.

C. Experimental Results, Part II: Millennials Think Contract Law Is Unforgiving

Younger consumers’ views of contracts as more formalized might also extend to their views of the content of contract law. That is, if contracting is simply a formal game, it stands to reason that those who’ve breached are losers, to whom the law provides no excuse.

To test that hypothesis, I provided subjects with a variant of the Williams v. Walker-Thomas Furniture Co. case discussed above. Just as in that case, subjects were told that Williams, a mother, had bought a variety of household items subject to a cross-collateralization clause—which I provided in full. Around one in three respondents appeared to clearly understand the clause’s import, and I used that understanding as a regression control.

133 “[T]he amount of each periodical installment payment to be made by [purchaser] to the Company under this present lease shall be inclusive of and not in addition to the amount of each installment payment to be made by [purchaser] under such prior leases, bills or accounts; and all payments now and hereafter made by [purchaser] shall be credited pro rata on all outstanding leases, bills and accounts due the Company by [purchaser] at the time each such payment is made.” Id. at 447 (emphasis omitted).
134 I tested subjects’ understanding of the clause by providing an example:

I imagine that Williams bought a kitchen table which she has been making regular payments on. She still owes $50 on the table when she buys pots and pans, also for $50. She now owes the store a total of $100.

The next month she makes a $50 payment, and then she stops making any payments. Based on the clause above, what does Williams currently owe the store? (Assume there is no interest.)

45% of subjects correctly answered that “nothing is completely paid off,” 28% thought the table was paid off, 9% thought the pots and pans were paid off, while 14% forthrightly admitted having no idea what the right answer was. That lack of knowledge played out when understanding the store’s options. Subjects were told that “[t]he store wants to take further action. Which items can they repossess?” Only 41% correctly answered that the store could repossess all of the items. Overall, 31% of the subjects correctly understood the meaning of the clause and understood what the store could do in response. Neither race, gender, ideology, religiosity, nor education predicted the propensity to be a contract “genius.” Subjects who self-reported having more “knowledge and experience with contract law in the United States” were significantly more likely to correctly answer both questions. Using the post-estimation margins command in Stata, I estimate that while 22% of those who reported having no contract knowledge got both questions right, 34% of those who reported having some or extensive contract knowledge got both questions right. Since the regression controls for experience and time spent on the survey, we can fairly say that the self-reported contract experience variable reflects something latent about knowledge of and ability to read contract terms. In pretesting on Turk, 43% of subjects scored both items correctly, another piece of evidence supporting previous research that certain high-reputation Turk subjects, such as those that comprised my sample, are unusually careful when answering survey questions. See Eyal Peer et al., Reputation as a
I next asked subjects to respond to the legal and moral appropriateness of the store’s attempt to repossess a variety of household items, matching the sundries from the case, after Williams bought a “$500 television” and failed to pay the overall debt due. On a six-item Likert scale, ranging from 1 (very inappropriate) to 6 (very appropriate), the mean for “legally appropriate” was 3.22 and that for “morally appropriate” was 2.7, meaning that subjects viewed the store’s behavior as legally more permissible than it was moral.

In Figure 6, I display the raw means for the relationship between age and responses to the questions of the contract’s legal and moral appropriateness, before the subjects learned about the law of unconscionability.

![Figure 6. Naive Views of Cross-Collateralization Contract](image)

**Figure 6. Naive Views of Cross-Collateralization Contract**

Mean Appropriateness Rating

<table>
<thead>
<tr>
<th>Age</th>
<th>Legally Appropriate</th>
<th>Morally Appropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-25</td>
<td>3.54</td>
<td>2.74</td>
</tr>
<tr>
<td>26-35</td>
<td>3.32</td>
<td>2.92</td>
</tr>
<tr>
<td>36-45</td>
<td>3.29</td>
<td>2.99</td>
</tr>
<tr>
<td>46-55</td>
<td>3.04</td>
<td>2.73</td>
</tr>
<tr>
<td>56-65</td>
<td>3.11</td>
<td>2.51</td>
</tr>
<tr>
<td>66-75</td>
<td>3.18</td>
<td>2.53</td>
</tr>
<tr>
<td>76+</td>
<td>2.74</td>
<td>2.52</td>
</tr>
</tbody>
</table>

*Note: Mean raw Likert responses (on 1–6 scale, where 6 is very appropriate) to questions about the moral and legal appropriateness of the Walker-Thomas contract. Age differences are significant standing alone. See Appendix, Table 5 for details.*

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*Sufficient Condition for Data Quality on Amazon Mechanical Turk, 46 Behav. Res. 1023, 1028–31 (2014) (finding that a subset of high-reputation Turk workers rarely failed attention checks and provided high-quality data).*

135 That list’s contents, reprinted from the survey, are illustrative: 1 wallet, 2 pairs of draperies, 1 apron set, 1 pot holder set, 1 set of rugs, 1 pair of draperies, 1 2x6 folding bed, 1 chest, 1 9x12 linoleum rug, 2 pairs of curtains, 4 sheets, 1 portable fan, 2 pairs of curtains, 1 typewriter, 2 toy guns, 1 metal bed, 1 inner spring mattress, 4 kitchen chairs, 1 bath mat set, shower curtains, 1 washing machine. *See also* Pierre E. Dostert, *Appellate Restatement of Unconscionability: Civil Legal Aid at Work*, 54 A.B.A. J. 1183, 1183 n.1, 1184 n.2 (1968) (listing the items whose seizure the writ authorized and the items actually seized).

136 A $500 television sounds more realistic in 2015 than the case’s actual $500 stereo system.
Interpreting the figure is fairly straightforward: Younger subjects were significantly more likely to think the contract was legally and morally appropriate than older subjects.

In the next part of the experiment, subjects were asked to evaluate whether the facts of the case met the legal definition of the unconscionability defense. I told subjects that contracts are “unenforceable when they [are] entered without meaningful choice and the contract terms are unreasonably favorable to the other party.” I highlighted Williams’s poverty (she had been “on government assistance in the past”), the absence of other furniture stores in the town, and the fact that the “furniture store is quite profitable.” I then asked if she should be bound to the contract notwithstanding her defense.

The mean respondent answer was 4.9, where 1 was “[d]efinitely [n]ot” and 7 was “[d]efinitely [y]es.” Or to put it differently, once they had learned about the law, subjects grew less sympathetic to Williams’s position than they were when they knew nothing of the law except their naïve understandings. Figure 7 illustrates how age interacts with these results.

**Figure 7. Is the Contract Lawful?**

<table>
<thead>
<tr>
<th>Age</th>
<th>Contract Enforceable</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-25</td>
<td>24%</td>
</tr>
<tr>
<td>26-35</td>
<td>34%</td>
</tr>
<tr>
<td>36-45</td>
<td>42%</td>
</tr>
<tr>
<td>46-55</td>
<td>42%</td>
</tr>
<tr>
<td>56-65</td>
<td>49%</td>
</tr>
<tr>
<td>66-75</td>
<td>47%</td>
</tr>
<tr>
<td>76+</td>
<td>43%</td>
</tr>
</tbody>
</table>

*Note: Percent of subjects who very strongly or strongly agreed that the Walker-Thomas contract was enforceable after learning of the defense of unconscionability. Age increases are significantly and positively associated with finding the contract legally binding. See Appendix, Table 5 for details.*

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137 See Walker-Thomas, 350 F.2d at 449 (setting out unconscionability standard); see also U.C.C. § 2-306 (AM. LAW INST. & UNIF. LAW COMM’N 2012) (providing the court may refuse to enforce a contract it finds unconscionable).
Figure 7 shows the complexity of the relationship between age and views of enforceability. Younger subjects were less likely than older subjects to think that the store was wrong when they did not know the law; after they had been informed of the law the relationship reversed. Generally, older subjects were more likely to think that the law of unconscionability was not satisfied on the facts provided—they were more likely to conclude that Williams retained sufficient freedom to make choices for herself.

These experimental results, when combined with the ones that preceded them, suggest that millennials indeed naively believe that contract law does not account for fairness or moral norms, but is instead a bit of a game. Those players who end up before a tribunal are to be judged for failing to win. Thus, when I told subjects something about the content of contract doctrine—that it permits the unconscionability defense when bargains are unfair—millennials’ views were updated. They were free to feel more sympathetic to contracting parties who made bad choices.

D. Experimental Results, Part III: Millennials Aren’t Averse to Contracts

The prior experiments provide evidence that age mediates perceptions of contract formation in ways that will have a payoff in real-world contracts. To make these findings concrete, I undertook to test how individuals reacted to a so-called “no contract” clause. “No contract” clauses are now common in advertising from cellphone companies and other consumer goods; they explicitly disclaim contracts (while, in fact, binding users to terms but freeing them from termination fees). Two theories seek to explain the rise of these contracts. One is wrong and one is incomplete.

The popular explanation for no-contract clauses is that they appeal to millennials “who don’t appreciate being tied down” to a contract. To the extent that this position is sourced, the foundation appears to be marketing research in which millennials self-report being averse to certain kinds of long-term contracts. It is difficult, however, to judge how much of millennials’ supposed fear of commitment is a distinctive generational view, and how much is based on


millennials’ relatively lower wealth than their elders, which (obviously) tends to dampen interest in large financial commitments.

A competing hypothesis, which I find incomplete support for in my results, comes in the form of a new paper by Bar-Gill and Ben-Shahar.\textsuperscript{140} They defend “no contract” contracts as “effectively and nondeceptively” signaling “that consumers are not going to be stuck prospectively with a contract they do not like.”\textsuperscript{141} This bonding mechanism permits firms to use contract to signal high quality goods.\textsuperscript{142} Thus, they predict that often more experienced consumers will rationally choose no-contract clauses, and pay a small premium, while less experienced consumers will choose short term discounts and pay higher liquidated fees later.\textsuperscript{143}

To test these hypotheses, I created a scenario which tried, as much as possible, to make the difference between a “no contract” clause and a clause with no actual obligation to be irrelevant. Thus, subjects saw one of two alternate scenarios, each accompanying a picture to make the text more salient.

<table>
<thead>
<tr>
<th>“No contract”</th>
<th>“Cancel at any time”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imagine that you are thinking about joining a gym which is conveniently located to [sic] your house. They have two pricing options. The first is $600 per year, which you can either pay fully upfront, or make 12 payments of $50 per month. The second is a “NO CONTRACT” option requiring an increased rate of $60 per month, but you can cancel at any time. In both options, you’ll have to sign the typical terms and conditions (which will include,</td>
<td></td>
</tr>
<tr>
<td>Imagine that you are thinking about joining a gym which is conveniently located to [sic] your house. They have two pricing options. The first is $600 per year, which you can either pay fully upfront, or make 12 payments of $50 per month. The second is an option requiring an increased rate of $60 per month, but you can cancel at any time. In both options, you’ll have to sign the typical terms and conditions (which will include,</td>
<td></td>
</tr>
</tbody>
</table>


\textsuperscript{141} Id. at 159.

\textsuperscript{142} Id. at 170–71.

\textsuperscript{143} See id. at 178–79, 181.
conditions (which will include, for example, a release from the gym’s liability if you use the equipment incorrectly).

Thus, in both scenarios, subjects should have understood that they were choosing between an annual contract and a more expensive monthly contract. The monthly contracts differed only in how they were labeled—highlighting that it was a “‘NO CONTRACT’ option,” or a plain “option” permitting cancellation at any time. The variable of interest was asking subjects to choose between the annual contract (at an annualized rate of $50/month) or the cancellable monthly contract at $60/month.

I was interested in whether subjects would be more likely to take the expensive monthly rate when it was presented in the “no contract” rather than the “cancel at any time” frame. Averaging across both conditions, most (66%) subjects opted for the month-to-month deal (forgoing $10 of savings). But subjects’ choice was influenced by the presence or absence of the “no contract” term. While in the “cancel at any time” condition, 62% of subjects took the annual deal, in the “no contract” condition, 70% did.\(^\text{144}\) The finding alone suggests some reason to question whether Bar-Gill and Ben-Shahar have entirely accounted for the cognitive costs of no contract clauses.

The individual variance around this effect is equally interesting. Recall that Bar-Gill and Ben-Shahar argued experienced subjects would be more likely to choose no contract clauses: I found (at best) mixed support for that hypothesis.\(^\text{145}\) The effect of age was (again)
conditional on the experimental context. Figure 8 illustrates the interaction between age, likelihood of taking the more expensive monthly deal, and how that deal was presented.

**Figure 8. Do You Prefer the Monthly or Annual Contract?**

![Figure 8](image)

<table>
<thead>
<tr>
<th>Monthly Contract Preferred</th>
<th>“No Contract”</th>
<th>“Cancel at any time”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Millennials</td>
<td>Older Subjects</td>
</tr>
<tr>
<td>74%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>61%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>64%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>62%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note:* Percent of subjects who preferred the monthly to the annual contract, contingent on being assigned to the “no contract” or the “cancel at any time” condition. All values are raw means. Individual differences are significant. See Appendix, Table 6 for details.

The Figure shows that younger subjects are essentially indifferent to being told either that the contract was a “no contract” or a “cancel at any time” variant. But older subjects were lured in by no-contract clauses. They are about 21% more likely (74% versus 61%) to choose the monthly contract when it is characterized as a “no contract” deal than when it is characterized as a “cancel at any time” deal. The result holds even when controlling for self-reported experience with contracting and knowledge of contract law.

Those in the heart of the middle-aged population are especially vulnerable—66% of subjects aged 45–54 would choose the monthly deal in the “cancel at any time” condition, while 86% would take it when a “no contract” agreement dangled before them. That is a 30% regard to self-reported experience with contract law, subjects who self-reported being very inexperienced took the monthly deal around 70% of the time; subjects who were more experienced took the monthly deal 62% of the time. Neither result is clearly consistent with the Bar-Gill and Ben-Shahar model. I found no interaction effects between experience and the conditional framing. One might argue, though, that because younger subjects were more likely to enter into online contracts and more likely to enter into more contracts, the age effects I discuss in the text could be attributed in part to experience.
increase in choosing a more expensive option resulting from a legally irrelevant difference in wording.

I also asked individuals the most they would be willing to pay for the monthly contract. Here, I do not find differences between conditions (not entirely surprising given the noise around willingness to pay measures).\textsuperscript{146} They simply did not care that such monthly contracts were advertised as “no contract” obligations.

In the previous experiments, I suggested that younger individuals held a more formal, less moralized, view of contracting than older ones. With those findings in mind, we might explain the results of this Experiment as follows: Younger individuals simply don’t care if something is called a contract, since contracting itself is just the formal rules of a game. But for older individuals, a “contract” codes as “moral commitment” and “inability to exit.” Thus, “no contract” promises freedom from guilt and regret, and is correspondingly more enticing.

III

INDIVIDUAL DIFFERENCES AND CONTRACT LAW

What do these results mean for contract doctrine and theory? This section begins the task of laying out how contract law informed by individual differences about contract schema ought to look.

A. Contract Schema and a Thought Experiment

“A schema is a mental model for a concept, one that often draws on a prototype.”\textsuperscript{147} Thus, for example, the concept of a trial is a schema resulting from experience, whether actual or in popular culture. That trial schema gives meaning to features like the judge in her robe, the jurors in their box, the rhythms of direct and cross-examination. Schemas permit individuals to easily categorize new information—simplifying decisions on how to behave and react to social problems.\textsuperscript{148}

\textsuperscript{146} I did find that younger subjects were generally willing to pay more for monthly contracts than older subjects ($66 per month versus $60 per month). The difference is significant ($t = -2.07, p < 0.05$). However, this effect is highly sensitive to a small number of outliers (around ten young individuals who self-reported high willingness to pay high amounts).

\textsuperscript{147} Wilkinson-Ryan & Hoffman, The Common Sense of Contract Formation, supra note 90, at 1290 n.77; see also Robert Axelrod, Schema Theory: An Information Processing Model of Perception and Cognition, 67 Am. Pol. Sci. Rev. 1248, 1248 (1973) (describing schema: “When new information becomes available, a person tries to fit the new information into the pattern which he has used in the past to interpret information about the same situation”).

\textsuperscript{148} In the “psychological contract” literature, researchers have used this concept to describe how individuals come to hold a package of views about what legal duties the
In previous work, I have found that a “prototypical contract implicates the vernacular of ‘doing the paperwork,’ ‘getting it in writing,’ and ‘signing on the dotted line.’”149 Here, I have suggested that our contract schema is sensitive to formative experiences with consumer contracts, and (relatedly) to a consumer’s age. Experience with particular kinds of agreements drives views about contract as individuals develop typical, patterned understandings of the practical import of consumer contracting. Repeated experiences educate subjects into what happens when contracts are signed (and breached), the limits of shopping in the face of contract terms, the meaning of “no contract” clauses, and the like.

The foregoing experiments suggested that, all else equal, younger consumers, who are significantly more engaged with online contracting than older consumers, have a distinctive set of contract schemas. They:

1. Are more likely to breach contracts;150
2. Are less likely to see oral contracts as binding;
3. Are more likely to see contracts formed online as binding and legitimizing;
4. Are (naively) less attentive to the fairness of bargains than older subjects, but, when informed of the law, more likely to excuse obligation;
5. Are less fearful of being bound to “contracts” than older consumers, who are especially disposed to find “no contract” clauses attractive.

In a sense, younger subjects seem to operate somewhat like Holmes’s “bad man”:151 They may not be against “contract” as an institution (indeed, they naively think that contract is a set of binding rules that operates without context, at least for others). But they are against treating contracts as promises that bind them and more likely to view them as simply forms.152 When others are caught in the net


150 See Hoffman & Eigen, supra note 6, at 29–32 (finding younger subjects were more likely to breach).

151 Holmes said, famously, “The duty to keep a contract at common law means a prediction that you must pay damages if you do not keep it,—and nothing else.” Oliver Wendell Holmes, Jr., The Path of the Law, 10 HARV. L. REV. 457, 461–62 (1897).

152 Hence, the Article’s title, which is a play off of Sir Henry Sumner Maine: “[T]he movement of the progressive societies has hitherto been a movement from Status to Contract.” HENRY SUMNER MAINE, ANCIENT LAW 165 (Beacon Press 1963) (1861).
that such forms cast, younger subjects are loathe to excuse obligation, seemingly not because law is moral but simply because it is law. But when put to the question—do forms constrain me?—younger subjects are more likely to balk and deny contract’s force.

It is not obvious that younger consumers’ views about contract will remain consistent over their lives. But imagine for a moment that they will, and that the views I have described here become dominant across the population. In that thought experiment, what will become of contract law?

Imagining contract doctrine operating on a landscape where its subjects think contracts are forms exposes just how deeply contract theory needs citizens to view contracts as moral promises. In classical and economic contract theory, legal rules provide the primary behavioral spur—toward or against precaution, formation, and contract. For example, our damage-centered remedial regime undercompensates breach, and economists have long suggested that it consequently motivates it. But relational theorists, and more recently behavioralists, have taught us differently: Both moral and reputational norms constrain opportunistic behavior. Thus, we can undercompensate breach, only loosely guard against exploitation, weakly hold parties together, and not give parties the remedies they seek, because parties have moral intuitions about contract, and consequent reputational concerns, that constrain breach and make it abnormal.

In the long-run, a world of Holmesian consumers would require a very different set of contract rules. To constrain breach in the ordinary course, we might seek to re-moralize contracting by finding a new set of formalities, better attuned to modern circumstances. Or perhaps doctrine would revisit the question of specific performance, making it more available in ordinary contracts, including contracts for services,

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153 See supra text accompanying notes 81–85.
155 On efficient breach generally, see Daniel Friedmann, The Efficient Breach Fallacy, 18 J. LEGAL STUD. 1 (1989) (questioning the tenability of efficient breach theory as both a normative and descriptive matter).
156 See Wilkinson-Ryan & Baron, supra note 12, at 420–23 (discussing the role of moral norms); Stewart Macaulay, Non-Contractual Relations in Business: A Preliminary Study, 28 AM. SOC. REV. 55, 62–65 (1963) (discussing how reputational constraints motivate businesspeople to resolve some disputes without contracts).
158 See Hoffman & Eigen, supra note 6, at 38–39 (arguing for new forms of consideration formality).
so as to avoid normalizing breach. These concerns are not limited to consumer contracting: In the absence of widely shared moral sanctions for breach, would firms really see reputational concerns as a motive to keep their promises?

Though this is just a thought experiment, it shows that we ought to take seriously the long-term effects that contracting practices might have on contracting doctrine. It is therefore odd to find that historically, when courts discuss the role of identity in contract, it’s typically pushed to the margin and to the defense. These results on the malleability of contractual schema then suggest the need for more research on individual differences in contract law.

But what follows more directly in terms of current practice? That is, whatever weakening at the foundations contracts’ demoralification implies, what are the implications of these data for today’s practice?

B. Firm Behavior and Doctrinal Responses

There is now a large and robust literature on how cognitive errors, shared by all contracting parties, illuminate the failings of contract doctrine and should cause us to reconsider changing the content of contract cases. Russell Korobkin’s early paper on status quo bias and Melvin Eisenberg’s article on liquidated damages clauses are

159 Breach is contagious. See Wilkinson-Ryan, Breaching the Mortgage Contract, supra note 90, at 1575–78 (discussing how shifting social norms may facilitate strategic mortgage breaches); Luigi Guiso et al., Moral and Social Constraints to Strategic Default on Mortgages 17 (Nat’l Bureau Econ. Res., Working Paper No. 15145, 2009), http://www.nber.org/papers/w15145 (finding that the likelihood of default increases with an increase in the foreclosure rate in the surrounding zip code).

160 A separate research question is whether younger subjects are more generally inclined to view legal rules as prices for bad conduct rather than as moral prohibitions. Cf. Uri Gneezy & Aldo Rustichini, A Fine Is a Price, 29 J. LEGAL STUD. 1, 8–15 (2000) (finding that the number of parents late in picking up their children from an Israeli daycare increased after the introduction of a fine).

161 See Debora L. Threedy, Dancing Around Gender: Lessons from Arthur Murray on Gender and Contracts, 45 WAKE FOREST L. REV. 749, 762–67 (2010) (critiquing how courts portrayed female contracting parties as lacking agency); Patricia J. Williams, Alchemical Notes: Reconstructing Ideals from Deconstructed Rights, 22 HARV. C.R.-C.L. L. REV. 401, 420 n.54 (1987) (“[M]ost successful defenses feature women, particularly if they are old and widowed; illiterates; blacks and other minorities; the abjectly poor; and the old and infirm.”); Deborah Zalesne, Racial Inequality in Contracting: Teaching Race as a Core Value, 3 COLUM. J. RACE & L. 23, 30 n.32 (2013) (“[W]hen the race of the parties is explicit in an opinion, it appears that disproportionately the case involves a contract defense such as unconscionability, and the African American party is portrayed as a victim being taken advantage of by the dominant white party.”). See generally Cheryl L. Wade, Attempting to Discuss Race in Business and Corporate Law Courses and Seminars, 77 ST. JOHN’S L. REV. 901, 904–05 (2003) (arguing that discussion of race should be a part of core business and corporate law classes).
justly well-known and illustrative of the field.\textsuperscript{162} Though not without its critics,\textsuperscript{163} contract behavioralism is now publicly taking methodological victory laps.\textsuperscript{164}

A set of the behavioral papers of particular interest relaxes the assumption that people have “identical cognitive abilities.”\textsuperscript{165} Most of this research focuses on the likelihood that firms will attempt to exploit differences in consumers’ cognitive vulnerabilities. As Jeffrey Rachlinski explained, such cognitive discrimination differs from more traditional price discrimination.\textsuperscript{166} Ordinary price discrimination works by charging consumers at their valuation—i.e., congestion pricing. Cognitive discrimination, by contrast, “consists of an effort to find consumers who probably should not engage in the transaction and induce them to do so by exploiting cognitive errors that they are

\begin{footnotesize}


\textsuperscript{165} See Jeffrey J. Rachlinski, \textit{Cognitive Errors, Individual Differences, and Paternalism}, 73 \textit{U. Chi. L. Rev.} 207, 208–09 (2006); see also Alan Schwartz & Robert E. Scott, \textit{Contract Theory and the Limits of Contract Law}, 113 \textit{Yale L.J.} 541, 544 (2003) (constructing a theory of business-to-business contracts where “the likelihood of systemic cognitive error” is minimized, but realizing cognitive error is “more likely to afflict” contracts to which consumers are parties); Korobkin, supra note 23, at 1212–13 (considering the import of heterogeneous buyers); Korobkin, supra note 164, at 1671–73 (discussing the implications of heterogeneity in consumers’ cognitive abilities); Sean Hannon Williams, \textit{Sticky Expectations: Responses to Persistent Over-Optimism in Marriage, Employment Contracts, and Credit Card Use}, 84 \textit{Notre Dame L. Rev.} 733, 753–55 (2009) (concluding that the practical infeasibility of sorting people according to bias would stymie a program that sought to debias those with the strongest biases).

\textsuperscript{166} Rachlinski, supra note 165, at 227–29.
\end{footnotesize}
apt to make." As Jon Hanson and Douglas Kysar argued, marketers at least conceivably could thus distort consumers’ buying habits.

Notwithstanding the appealing rhetorical force of this literature, there is surprisingly little evidence that firms do, in fact, attempt to cognitively discriminate among consumers in the way that behavioralists have feared. Part of the reason might be that most common biases (like over-optimism, endowment) are not easily demographically sorted, making it difficult for regulators to effectively target their policymaking. And even if individuals’ errors were demographically linked, regulatory solutions (“micro-targeted” disclosure) would seem politically difficult or beyond regulators’ present capacities.

In his recent paper, Digital Market Manipulation, Ryan Calo points out that while targeting consumers based on individualized traits (and identifying vulnerabilities) is difficult offline, online, with streams of data and sophisticated algorithms to chop it, targeting is normal business practice. Thus, firms can dynamically change website designs to fit consumers’ cognitive styles. They can also lull consumers to disclose more information about themselves through carefully demographically targeted solicitations, and then sell such “suckers lists” at a profit.

This literature sets up the central normative worry that this Article’s results evoke. There is evidence that firms change contract

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169 See Williams, supra note 165, at 753–55 (discussing the infeasibility of sorting people by level of bias).


172 Id. at 1015–18, 1020–22.

173 See id. at 1017 (citing John R. Hauser et al., Website Morphing, 28 Marketing Sci. 202 (2009)) (describing research regarding website “morphing” based on individual users’ cognitive styles).

174 See id. at 1015 & n.115 (describing myriad ways firms seek to elicit information from customers online).
terms in response to changes in doctrine. And firms do change their website interfaces to keep consumers engaged. Might firms, then, exploit consumers’ diverging perspectives on contract by changing how contracts look and are displayed? Or to put it differently, what are the limits to marketing contracts qua contracts?

As a first cut, the case of “no contract” clauses provides a possible example of firms already, in effect, selling to consumers based on views of contracting. The prevalence of such clauses on the market strongly suggests that contract-based marketing is profitable and desired. And there is at least suggestive evidence that no-contract advertisements are used to attract older consumers. For instance, Weight Watchers is a weight-loss firm that generally skews toward older women. On its webpage, it advertises its product (in capitals) as “NO ANNUAL CONTRACT. EASY TO CANCEL.” But, interestingly, users of the firm’s iPhone application (who presumably skew younger) must download the application before starting the service, and then must create an account, which describes the nature of the service Weight Watchers provides. None of those pages advertised (or even mentioned) that Weight Watchers requires “no annual contract.”

However, it turns out to be difficult to find other clean examples of industries changing contracting contexts within a product category to appeal to consumers, whether based on age or other individualized attributes. Several imperfect examples follow:

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175 See, e.g., Mann & Siebeneicher, supra note 50, at 1003–04 (describing Dell’s response to certain click-wrap decisions); see also Marotta-Wurgler & Taylor, supra note 49, at 270–74 (examining end-user license agreement changes in response to caselaw evolution).

176 See generally Steven Bellman et al., Designing Marketplaces of the Artificial with Consumers in Mind: Four Approaches to Understanding Consumer Behavior in Electronic Environments, J. Interactive Marketing, Winter 2006, at 29 (describing the implications of four areas of consumer research for online retailer site design).


178 See Michael R. Lowe et al., Weight-Loss Maintenance 1, 2 and 5 Years After Successful Completion of a Weight-Loss Programme, 99 Brit. J. Nutrition 925, 927 (2008) (finding in a national sample of Weight Watchers’ clients that more than 70% were women over the age of 45).


Cruise ship companies target individual trips to different age groups. Thus, the Rock & Roll Cruise targets older consumers (“Contact Us Today 1-866-3OLDIES”). While you can book online, customers are told that it’s ordinary to “choose to give your credit card information directly to your booking agent.” Carnival Cruise Line, which caters to younger adults, has no such disclaimer on its online contracting system.

State Farm’s term life insurance site strongly pushes discussion with an agent on the phone, while their renters insurance product can be easily purchased with a few clicks.

Sleepy’s (the mattress company) pushes telephone consultation and commitment on the phone when ordering an adjustable bed (skewed to elderly consumers), while offering a standard online order system for a regular mattress in a box.

LifeAlert, the maker of the famous “I’ve fallen and I can’t get up” bracelet, marketed to the elderly, does not sell online, but rather directs webpage visitors to call the company to conclude a contract.

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183 See CARNIVAL, http://www.carnival.com/ (last visited Sept. 27, 2016) (follow the “Plan” tab to “Find a Cruise,” click on a cruise, in the top right corner click the “Book Now” button, select the number of rooms and travelers, then select state of residency, select a room and a “deal,” select a ship “section” and “deck,” then select a room, click on the “Continue” button in the bottom right corner, enter passenger information, and select a payment plan).

184 Compare Quote Summary for Term Life Insurance, STATE FARM, https://www.statefarm.com/insurance/life/term-life (select state under “Get a Life Quote,” click “Go,” and proceed with application until reaching “Your Quote Summary” page) (last visited Sept. 27, 2016) (channeling customers to “Send to an Agent” by requiring completion of additional steps, including identity verification, as prerequisites to applying online), with Renters Insurance, STATE FARM, https://www.statefarm.com/insurance/home-and-property/renters (enter zip code in the “Renters Quote” box on the right side of the webpage, then enter personal information, including your residence’s “fire protection area,” enter additional personal information, enter information regarding your residence, click the “Buy Online Now!” button in the middle of the webpage) (last visited Aug. 8, 2016) (requiring merely a disclosure about your apartment and then a “buy online” button).


- Firms marketing matchmaking services to older Americans seem to push contract to late in the consumption cycle (after the firm has proven its bona fides by collecting demographic information);\(^{187}\) programs like Tinder (skewing young) must be installed on your smartphone, and the terms of service agreed to, before you can tell them what strikes your fancy.\(^{188}\)

These examples are incomplete in part because they are not truly selling the same good with different contracting contexts to consumers of different ages. Still they suggest that firms know that older consumers prefer traditional, paper, contracting formats, as my results predict.

What of dynamic customization? For example, a firm that knows it is dealing with a twenty-five-year-old consumer might default to click-I-agree contracts very early in the transaction, even ones that do not technically bind the consumer or the firm to anything, to demotivate comparison shopping and exit. By comparison those dealing with a forty-five-year-old consumer for the same good might flash a different webpage that emphasizes the firm’s relational investment, and encourage the consumer to call in with questions to a salesperson who could consummate the deal. While such dynamic contracting environments might appear to be the stuff of law review speculation, there is in fact a set of firms which optimize website design using individualized customer data and A/B testing.\(^{189}\)

If we were to conclude that (1) this is a real phenomenon through repeated experiments; and (2) firms were actually working to change contracting contexts based on age and contract beliefs, should we act? Unlike discrimination based on an individual’s cognitive heuristics, it


\(^{188}\) See Tinder, TINDER INC. (downloaded using iTunes, updated Sept. 20, 2016).

\(^{189}\) See Personalization, MONETATE, http://www.monetate.com/products/personalization/ (last visited Aug. 7, 2016) (describing the consulting service Monetate provides to design customized webpages based on customer demographic profiles). Monetate helps firms collect information about incoming customers (which can include age if the customer has already shopped with the firm, but more typically will include geographic data and associated shopping behavior). Telephone Interview with Nathan Richter, Director of Client Solutions, Monetate (Mar. 28, 2016) (describing Monetate’s services). Monetate also conducts A/B testing on different website designs, including differences in the presentation of the purchasing contract. Id. Finally, it will help firms to deploy personalized webpage experiences for each incoming prospective customer. Id. The goal is (in the retail setting) to maximize revenue, which could mean the conversion rate of surfers, or the likelihood that a buyer will buy an item with a higher margin. Id.
does not strike me as obvious that discrimination based on contract heuristic justifies regulation. Nor is it clear to me that differences between contract “doctrine” and individuals’ understanding of it are per se problematic.190 After all, the contracting context and presentation is just another product attribute (though one less salient than the product’s price, color, or quality). Like most forms of advertising, we should proceed with the default view that advertising is typically welfare enhancing.191

Thus, individualized contracting contexts are likely to be generally welfare maximizing.192 For example, a firm could use contracting contexts to help reduce consumers’ uncertainty about whether their consumer contracts are binding and morally legitimate. The result might be that consumers who have entered into contracts that feel like contracts might be less likely to breach them. That’s particularly important in industries where IP is conveyed and the firm desperately wants to reduce the likelihood that the consumers rip it and share it with their friends.193 So we might imagine that firms will use targeted contracts to control post-purchase behavior, without deceiving consumers about the content of their contracts or about their actual lawfulness. And that, in general, would be a good thing.

But there is a less savory potential use of individualized contracting: firms manipulating context to persuade individuals to under-

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191 The literature on the beneficent effect of advertising is vast. For two early works that influenced the law and economics tradition, see Benjamin Klein & Keith B. Leffler, The Role of Market Forces in Assuring Contractual Performance, 89 J. POL. ECON. 615, 629–33 (1981) (describing an indirect-information theory of advertising); Lee Benham, The Effect of Advertising on the Price of Eyeglasses, 15 J.L. & ECON. 337, 352 (1972) (finding that prices for eyeglasses in states without restrictions on advertising were “substantially lower” than prices in states with restrictions).


stand the content and meaning of their contracts in ways that are not in accord with the operative legal rules. Imagine two particular scenarios.

First, what if firms sell consumers a good with a set of terms that aren’t themselves enforceable, but choose a context (a digital one, say) understanding that their particular consumers are particularly likely to believe they are. The problem is that firms might be able to insist (in the law’s shadow) that consumers comply with unenforceable terms, simply because those consumers misconstrue the operative rules. But that doesn’t strike me as a problem generated by age differences per se but rather by the underlying substantive law’s distance from moral intuitions.

A different problem occurs if the firm makes the consumer feel like a contract is binding but it is not, and the reason turns on some problem with formation. For example, say what is being proposed is a privacy clause that lacks consideration or is in fact illusory. Perhaps firms make such clauses feel like they have weight (and thus protect consumers) by making younger consumers click to agree to them, or by providing them in paper-analogous formats to older consumers. This would seem to introduce the possibility of firms exploiting the disjunct between fairly arbitrary legal rules and moral intuitions in ways that could harm consumers. The same is true in the no-contract example, described above. There, intuitions about obligation lead some consumers to make self-defeating choices, in ways that firms are especially likely to be able to exploit.

With that subset of problems in mind, several doctrinal “fixes” seem plausible.194 Needless to say, we ought to worry that any doctrinal rule based on subjective assent would be difficult to cabin—after all, scholars have argued for decades that objective contract theory ought to let in subjective expectations without success, largely because opening the Pandora’s box of subjectivity is seen to unsettle too much commercial practice.195 But if firms in fact manipulate par-

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194 See Kim, supra note 3, at 201–03 (proposing that good faith could prevent enforcement of wrap contracts that do not comport with user expectations).

195 See 1 Restatement (Second) of Contracts § 21 cmt. a (Am. Law Inst. 1981) (commenting that it is not fatal to the enforcement of a contract that parties are mistaken as to the legality of the agreement); E. Allan Farnsworth, Contracts § 3.6, at 115 (4th ed. 2004) (“By the end of the nineteenth century, the objective theory had become ascendant and courts universally accept it today. In the words of a distinguished federal judge, ““intent” does not invite a tour through [plaintiff’s] cranium, with [plaintiff] as the guide.” (alterations in original) (quoting Skycom Corp. v. Telstar Corp., 813 F.2d 810, 814 (7th Cir. 1987))); Larry A. DiMatteo, The Counterpoise of Contracts: The Reasonable Person Standard and the Subjectivity of Judgment, 48 S.C. L. Rev. 293, 343 (1997) (“The reasonable person is the personification of the objective theory of contracts.”). Many scholars have argued, however, that the objective formulation of contract law is
ticular consumers to fail to shop around by causing them to wrongfully understand their legal status, that context seems sufficiently narrow to permit a doctrinal excuse. It would, in fact, smell like a classic case of bad faith.196

Where the promisor has manipulated the context around obligation—and the promisor knows that the promisee’s behavior results from their misperception—the promisor cannot insist on the terms of the deal absent compelling evidence the promisee was not harmed.197 Thus, in the context where the promisee is made to feel bound but the law also imposes obligation, there is no foul; but where the promisee feels obligation absent law, or is led to make a bad choice to avoid contractual obligation because of their identity, courts could avoid the bargain.

C. Limitations and Future Research


196 For a classic treatment, see generally Robert S. Summers, *“Good Faith” in General Contract Law and the Sales Provisions of the Uniform Commercial Code*, 54 Va. L. Rev. 195 (1968). Another possibility is classic offer and acceptance doctrine, instantiated by the rule that not only must the offeror objectively manifest intend but also that the offeree (or plaintiff) must *subjectively* believe in the contract she is proceeding under. See Embry v. Hargadine, McIntirick Dry Goods Co., 105 S.W. 777, 779 (Mo. Ct. App. 1907).

197 Another possibility would start with the FTC’s authority under Section 5 to regulate deceptive trade practices. I thank Woody Hartzog for bringing this point to my attention.
of obligation. The second is particular to the context I was studying, particularly online versus offline contracting. Because in fact all subjects saw the scenarios online, one might wonder whether they were able to actually imagine offline variants in a concrete enough way to draw inferences based on differences.

Here, it is of some comfort that two nominally different subject populations (mTurk and SSI) came to basically similar results—with respect to the kind of people who are willing to fill out surveys online for money, the results appear generally to hold. However, perhaps those individuals are not representative of the public at large. That said, I think the objection cuts for and not against the findings. If the theory of the paper is that time spent online influences contract schemas in ways that dispose individuals toward online contracts’ legitimacy, then in a way surveying the population of online survey respondents will depress the results rather than intensify them. That is, if these same experiments were to run using subjects offline, we should expect larger effect sizes, not smaller ones.

It is a strength of the experimental set up that I used a nationally representative pool, but it is a weakness that I have little information about how that pool was recruited (SSI keeps such information close to the vest for competitive reasons). It is also the case that given the stakes, what I have said might not generalize to larger purchases, even by individuals, which would imply that the preferences I have unearthed are weakly held.

That all said, these experiments do show that in a very large, diverse sample, differences in subjects’ age had a significant effect on perceptions of contract, in ways not replicated between races, genders, or ideologies. The novelty of that finding ought to spur further research, both experimental (to offline samples, or ones which vary party identity) and observational (to see whether firms, in fact, vary contract terms turning on identity). If we were sure that identity-based targeting for contractual structure and presentation was happening, the case for normative intervention would be considerably strengthened.

198 But cf. William D. Crano & Radmila Prislin, Attitudes and Persuasion, 57 ANN. REV. PSYCHOL. 345, 360 (2006) (“Because attitudes predict behavior, they are considered the crown jewel of social psychology.”).
199 A different objection is that since some of the experiments suggested cash and others digital payment methods, individuals’ different views of the “tangibility” of such payment methods could have confounded the results. Cf. Siyu Wang & Xiangdong Qin, The Effect of Digitalization on Penalty Payments: An Experimental Investigation, 8 J. NEUROSCI. PSYCHOL. & ECON. 250, 260 (2015) (finding that subjects were less responsive to the effects of digital payments, though the difference with cash decreased with experience).
CONCLUSION

To summarize: Younger consumers understand contracts distinctly from older ones. Those views, which can be caricatured as the de-moralification and formalization of contract, might eventually become general. If that were to happen, we might need to reconsider contract law’s current approach to problems of performance and breach. Even in the short term, we ought to be wary that firms will exploit these differences in ways that contract doctrine did not intend. In either case, the findings here show the promise of a larger research program into individual differences in contracting.

In thinking about this larger context, consider Professor Patricia Williams’s famous description of the different approaches that she and another professor (a white man) used when concluding an apartment lease. He concluded the lease casually, handing over a cash deposit without a written lease “to strangers with whom he had no ties other than a few moments of pleasant conversation.”

200 She, by contrast, “signed a detailed, lengthily-negotiated, finely-printed lease firmly establishing me as the ideal arm’s length transactor.”

Williams explains:

I . . . was raised to be acutely conscious of the likelihood that, no matter what degree of professional or professor I became, people would greet and dismiss my black femaleness as unreliable, untrustworthy, hostile, angry, powerless, irrational and probably destitute. Futility and despair are very real parts of my response. Therefore it is helpful for me, even essential for me, to clarify boundary; to show that I can speak the language of lease is my way of enhancing trust of me in my business affairs.

202 The data in this Article provides experimentally grounded support for Williams’s account of the role of identity in contract behavior. She focuses on race; I turn attention to age and its relationship to experiences with different kinds of contract. Obviously, further work could expand beyond age to demographic differences that motivate other distinctive views of contract. By focusing on the effects of individual differences on contract behavior, we would open up a new approach to the problem of contractual obligation. We already live in a world where firms have the motive and opportunity to use contract as an individualized spur to consumption. The question this Article poses is whether, and how, contract doctrine will respond.

200 Williams, supra note 161, at 406.
201 Id. at 407.
202 Id.
APPENDIX

### TABLE 1. LOGISTIC REGRESSION FOR SUBJECTS’ LIKELIHOOD TO AGREE THAT FORMATION HAPPENED AT AGREEMENT

<table>
<thead>
<tr>
<th></th>
<th>Conditional Assignment and Age Controls</th>
<th>Conditional Assignment and Age, Interaction Terms</th>
<th>Conditional Assignment and Millennial, Interaction Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written K Condition</td>
<td>0.62*** (0.15)</td>
<td>0.77* (0.44)</td>
<td>0.57*** (0.19)</td>
</tr>
<tr>
<td>Age</td>
<td>0.01** (0.01)</td>
<td>0.01* (0.01)</td>
<td></td>
</tr>
<tr>
<td>Age * Written Condition</td>
<td>-0.00 (0.01)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Millennial</td>
<td>-0.40 (0.26)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Millennial * Written Condition</td>
<td>0.15 (0.32)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>-0.71*** (0.26)</td>
<td>-0.72*** (0.26)</td>
<td>-0.76*** (0.26)</td>
</tr>
<tr>
<td>Male</td>
<td>0.06 (0.16)</td>
<td>0.06 (0.16)</td>
<td>0.08 (0.16)</td>
</tr>
<tr>
<td>Wealthy</td>
<td>-0.26 (0.22)</td>
<td>-0.26 (0.22)</td>
<td>-0.26 (0.22)</td>
</tr>
<tr>
<td>Conservative</td>
<td>0.18 (0.16)</td>
<td>0.17 (0.16)</td>
<td>0.18 (0.16)</td>
</tr>
<tr>
<td>Religious Scale</td>
<td>0.15* (0.08)</td>
<td>0.15* (0.08)</td>
<td>0.16* (0.08)</td>
</tr>
<tr>
<td>Educated</td>
<td>0.04 (0.22)</td>
<td>0.03 (0.22)</td>
<td>0.05 (0.22)</td>
</tr>
<tr>
<td>Inexperienced</td>
<td>-0.14 (0.20)</td>
<td>-0.15 (0.20)</td>
<td>-0.15 (0.20)</td>
</tr>
<tr>
<td>Online Buyer</td>
<td>0.18** (0.08)</td>
<td>0.18** (0.08)</td>
<td>0.16** (0.08)</td>
</tr>
<tr>
<td>Contract Scale</td>
<td>0.03 (0.06)</td>
<td>0.03 (0.06)</td>
<td>0.02 (0.06)</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.29*** (0.46)</td>
<td>-2.36*** (0.51)</td>
<td>-1.62*** (0.36)</td>
</tr>
</tbody>
</table>

*Pseudo - R²* | 0.04 | 0.04 | 0.04 |

Observations 996 996 996

All regressions include time-in-study controls.
* are significant at the 0.10 level; ** at the 0.05 level; *** at the 0.01 level.
Table 2. Logistic Regression for Subjects Clicking 1 or 2, Out of 7, on the Question “Do You Think That Sally and the Phone Company Have a Legally Binding Contract?”

<table>
<thead>
<tr>
<th></th>
<th>Conditional Assignment and Age Controls</th>
<th>Conditional Assignment and Age, Interaction Terms</th>
<th>Conditional Assignment and Millennial, Interaction Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written K Condition</td>
<td>-0.92*** (0.24)</td>
<td>-2.29*** (0.72)</td>
<td>-0.49* (0.28)</td>
</tr>
<tr>
<td>Age</td>
<td>0.00 (0.01)</td>
<td>-0.01 (0.01)</td>
<td></td>
</tr>
<tr>
<td>Age * Written Condition</td>
<td>0.03** (0.01)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Millennial</td>
<td></td>
<td>0.35 (0.29)</td>
<td></td>
</tr>
<tr>
<td>Millennial * Written Condition</td>
<td></td>
<td>-1.46** (0.58)</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>0.55* (0.29)</td>
<td>0.57* (0.30)</td>
<td>0.59** (0.29)</td>
</tr>
<tr>
<td>Male</td>
<td>0.21 (0.23)</td>
<td>0.20 (0.23)</td>
<td>0.21 (0.23)</td>
</tr>
<tr>
<td>Wealthy</td>
<td>-0.17 (0.34)</td>
<td>-0.17 (0.34)</td>
<td>-0.19 (0.34)</td>
</tr>
<tr>
<td>Conservative</td>
<td>0.32 (0.24)</td>
<td>0.33 (0.24)</td>
<td>0.34 (0.24)</td>
</tr>
<tr>
<td>Religious Scale</td>
<td>-0.17 (0.13)</td>
<td>-0.17 (0.13)</td>
<td>-0.18 (0.13)</td>
</tr>
<tr>
<td>Educated</td>
<td>-0.21 (0.35)</td>
<td>-0.18 (0.35)</td>
<td>-0.17 (0.35)</td>
</tr>
<tr>
<td>Inexperienced</td>
<td>0.48* (0.26)</td>
<td>0.52** (0.26)</td>
<td>0.52* (0.26)</td>
</tr>
<tr>
<td>Online Buyer</td>
<td>0.21* (0.12)</td>
<td>0.23* (0.12)</td>
<td>0.24* (0.12)</td>
</tr>
<tr>
<td>Contract Scale</td>
<td>0.07 (0.08)</td>
<td>0.07 (0.08)</td>
<td>0.06 (0.08)</td>
</tr>
<tr>
<td>Constant</td>
<td>-3.53*** (0.66)</td>
<td>-3.24*** (0.68)</td>
<td>-3.80*** (0.55)</td>
</tr>
<tr>
<td>Pseudo - R²</td>
<td>0.06</td>
<td>0.07</td>
<td>0.07</td>
</tr>
<tr>
<td>Observations</td>
<td>996</td>
<td>996</td>
<td>996</td>
</tr>
</tbody>
</table>

All regressions include time-in-study controls.

* are significant at the 0.10 level; ** at the 0.05 level; *** at the 0.01 level.
### Table 3. Ordered Logistic Regression for the Likert Scale Produced by “Did Sally Breach?,” Where 1 Is Strongly Disagree and 6 Is Strongly Agree

<table>
<thead>
<tr>
<th></th>
<th>Conditional Assignment and Age Controls</th>
<th>Conditional Assignment and Age, Interaction Terms</th>
<th>Conditional Assignment and Millennial, Interaction Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written K Condition</td>
<td>0.29** (0.11)</td>
<td>0.50 (0.32)</td>
<td>0.27* (0.14)</td>
</tr>
<tr>
<td>Age</td>
<td>0.01* (0.00)</td>
<td>0.01* (0.00)</td>
<td></td>
</tr>
<tr>
<td>Age * Written Condition</td>
<td>-0.00 (0.01)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Millennial</td>
<td></td>
<td></td>
<td>-0.20 (0.18)</td>
</tr>
<tr>
<td>Millennial * Written Condition</td>
<td></td>
<td></td>
<td>0.06 (0.24)</td>
</tr>
<tr>
<td>Black</td>
<td>-0.25 (0.17)</td>
<td>-0.25 (0.17)</td>
<td>-0.28 (0.17)</td>
</tr>
<tr>
<td>Male</td>
<td>0.13 (0.12)</td>
<td>0.13 (0.12)</td>
<td>0.15 (0.12)</td>
</tr>
<tr>
<td>Wealthy</td>
<td>0.01 (0.17)</td>
<td>0.01 (0.17)</td>
<td>0.01 (0.17)</td>
</tr>
<tr>
<td>Conservative</td>
<td>0.01 (0.13)</td>
<td>0.01 (0.13)</td>
<td>0.01 (0.13)</td>
</tr>
<tr>
<td>Religious Scale</td>
<td>0.10 (0.07)</td>
<td>0.09 (0.07)</td>
<td>0.10 (0.07)</td>
</tr>
<tr>
<td>Educated</td>
<td>0.01 (0.17)</td>
<td>0.00 (0.17)</td>
<td>0.02 (0.17)</td>
</tr>
<tr>
<td>Inexperienced</td>
<td>-0.09 (0.14)</td>
<td>-0.10 (0.14)</td>
<td>-0.10 (0.14)</td>
</tr>
<tr>
<td>Online Buyer</td>
<td>0.14** (0.06)</td>
<td>0.14** (0.06)</td>
<td>0.13** (0.06)</td>
</tr>
<tr>
<td>Contract Scale</td>
<td>-0.00 (0.04)</td>
<td>-0.00 (0.04)</td>
<td>-0.01 (0.04)</td>
</tr>
<tr>
<td>Cuts</td>
<td>-1.56 (0.36)</td>
<td>-1.47 (0.38)</td>
<td>-2.00 (0.29)</td>
</tr>
<tr>
<td></td>
<td>-0.84 (0.35)</td>
<td>-0.75 (0.37)</td>
<td>-1.28 (0.28)</td>
</tr>
<tr>
<td></td>
<td>-0.10 (0.34)</td>
<td>0.00 (0.37)</td>
<td>-0.53 (0.27)</td>
</tr>
<tr>
<td></td>
<td>1.24 (0.34)</td>
<td>1.34 (0.37)</td>
<td>0.81 (0.27)</td>
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<tr>
<td></td>
<td>2.90 (0.36)</td>
<td>2.99 (0.38)</td>
<td>2.46 (0.29)</td>
</tr>
<tr>
<td><strong>Pseudo - R²</strong></td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Observations</td>
<td>996</td>
<td>996</td>
<td>996</td>
</tr>
</tbody>
</table>

All regressions include time-in-study controls.

* are significant at the 0.10 level; ** at the 0.05 level; *** at the 0.01 level.
Table 4. Ordered Logistic Regression for the Likert Scale Produced by “How Fair Is It That SafeRX,” Where 1 Is Very Unfair and 7 Is Very Fair

<table>
<thead>
<tr>
<th></th>
<th>Conditional Assignment and Age Controls</th>
<th>Conditional Assignment and Age, Interaction Terms</th>
<th>Conditional Assignment and Millennial, Interaction Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital K Condition</td>
<td>-0.14 (0.11)</td>
<td>0.45 (0.31)</td>
<td>-0.32** (0.14)</td>
</tr>
<tr>
<td>Age</td>
<td>-0.00 (0.00)</td>
<td>0.01 (0.01)</td>
<td></td>
</tr>
<tr>
<td>Age * Digital Condition</td>
<td></td>
<td>-0.01** (0.01)</td>
<td></td>
</tr>
<tr>
<td>Millennial</td>
<td></td>
<td>-0.12 (0.17)</td>
<td></td>
</tr>
<tr>
<td>Millennial * Digital Condition</td>
<td></td>
<td>0.48** (0.23)</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>0.12 (0.17)</td>
<td>0.11 (0.17)</td>
<td>0.11 (0.17)</td>
</tr>
<tr>
<td>Male</td>
<td>0.08 (0.12)</td>
<td>0.09 (0.12)</td>
<td>0.11 (0.12)</td>
</tr>
<tr>
<td>Wealthy</td>
<td>0.12 (0.16)</td>
<td>0.14 (0.16)</td>
<td>0.17 (0.17)</td>
</tr>
<tr>
<td>Conservative</td>
<td>-0.06 (0.12)</td>
<td>-0.07 (0.12)</td>
<td>-0.05 (0.12)</td>
</tr>
<tr>
<td>Religious Scale</td>
<td>0.06 (0.07)</td>
<td>0.06 (0.07)</td>
<td>0.07 (0.07)</td>
</tr>
<tr>
<td>Educated</td>
<td>0.09 (0.16)</td>
<td>0.08 (0.16)</td>
<td>0.10 (0.16)</td>
</tr>
<tr>
<td>Inexperienced</td>
<td>-0.17 (0.14)</td>
<td>-0.15 (0.14)</td>
<td>-0.17 (0.14)</td>
</tr>
<tr>
<td>Online Buyer</td>
<td>0.11* (0.06)</td>
<td>0.11* (0.06)</td>
<td>0.11* (0.06)</td>
</tr>
<tr>
<td>Contract Scale</td>
<td>0.08* (0.04)</td>
<td>0.08* (0.04)</td>
<td>0.07 (0.04)</td>
</tr>
<tr>
<td>Cuts</td>
<td>-1.05 (0.34)</td>
<td>-0.76 (0.37)</td>
<td>-1.12 (0.27)</td>
</tr>
<tr>
<td></td>
<td>-0.19 (0.34)</td>
<td>0.10 (0.37)</td>
<td>-0.25 (0.27)</td>
</tr>
<tr>
<td></td>
<td>0.43 (0.34)</td>
<td>0.72 (0.37)</td>
<td>0.37 (0.27)</td>
</tr>
<tr>
<td></td>
<td>0.89 (0.34)</td>
<td>1.19 (0.37)</td>
<td>0.83 (0.27)</td>
</tr>
<tr>
<td></td>
<td>1.66 (0.34)</td>
<td>1.96 (0.38)</td>
<td>1.61 (0.27)</td>
</tr>
<tr>
<td></td>
<td>2.72 (0.36)</td>
<td>3.02 (0.39)</td>
<td>2.67 (0.29)</td>
</tr>
<tr>
<td>Pseudo - R²</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Observations</td>
<td>996</td>
<td>996</td>
<td>996</td>
</tr>
</tbody>
</table>

All regressions include time-in-study controls.
* are significant at the 0.10 level; ** at the 0.05 level; *** at the 0.01 level.
Table 5. Ordered Logistic Regression Results for Legal and Moral Appropriateness of Store’s Conduct; Logistic Regression for Enforceability of Contract Where 1 Is Identified if Subjects Thought the Contract Was Enforceable or Definitely Enforceable, 0 Otherwise

<table>
<thead>
<tr>
<th></th>
<th>Legally Appropriate?</th>
<th>Morally Appropriate?</th>
<th>Enforceable?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-0.14*** (0.00)</td>
<td>-0.02*** (0.00)</td>
<td>0.02*** (0.00)</td>
</tr>
<tr>
<td>Genius</td>
<td>0.64*** (0.13)</td>
<td>-0.03 (0.12)</td>
<td>0.62*** (0.14)</td>
</tr>
<tr>
<td>Black</td>
<td>-0.01 (0.17)</td>
<td>-0.25 (0.17)</td>
<td>-0.35* (0.21)</td>
</tr>
<tr>
<td>Male</td>
<td>0.10 (0.12)</td>
<td>0.08 (0.12)</td>
<td>-0.02 (0.14)</td>
</tr>
<tr>
<td>Wealthy</td>
<td>0.33** (0.12)</td>
<td>0.08 (0.12)</td>
<td>0.33* (0.19)</td>
</tr>
<tr>
<td>Conservative</td>
<td>0.15 (0.12)</td>
<td>0.38*** (0.13)</td>
<td>0.20 (0.15)</td>
</tr>
<tr>
<td>Religious Scale</td>
<td>0.17*** (0.07)</td>
<td>0.24*** (0.07)</td>
<td>0.26*** (0.08)</td>
</tr>
<tr>
<td>Educated</td>
<td>0.10 (0.16)</td>
<td>-0.19 (0.17)</td>
<td>-0.31 (0.20)</td>
</tr>
<tr>
<td>Inexperienced</td>
<td>-0.02 (0.14)</td>
<td>-0.14 (0.14)</td>
<td>-0.33* (0.18)</td>
</tr>
<tr>
<td>Online Buyer</td>
<td>0.02 (0.06)</td>
<td>-0.19*** (0.06)</td>
<td>0.13* (0.07)</td>
</tr>
<tr>
<td>Contract Scale</td>
<td>-0.02 (0.04)</td>
<td>0.07* (0.04)</td>
<td>0.04 (0.05)</td>
</tr>
<tr>
<td>Cuts/Constant</td>
<td>-1.80 (0.34)</td>
<td>-2.65 (0.34)</td>
<td>-2.00*** (0.41)</td>
</tr>
<tr>
<td></td>
<td>-0.88 (0.33)</td>
<td>-1.65 (0.33)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.15 (0.33)</td>
<td>-0.70 (0.33)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.72 (0.33)</td>
<td>0.17 (0.33)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.29 (0.35)</td>
<td>1.38 (0.35)</td>
<td></td>
</tr>
</tbody>
</table>

Pseudo - R²       | 0.02                 | 0.02                 | 0.06          |
Observations      | 996                  | 996                  | 996           |

All regressions include time-in-study controls.
* are significant at the 0.10 level; ** at the 0.05 level; *** at the 0.01 level.
### Table 6. Logistic Regression Results for the Likelihood of Taking the Monthly Contract

<table>
<thead>
<tr>
<th>Conditional and Interaction Specification</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;No Contract&quot; Condition</td>
<td>0.62*** (0.17)</td>
</tr>
<tr>
<td>Millennial</td>
<td>0.16 (0.21)</td>
</tr>
<tr>
<td>Millennial * “No Contract” Condition</td>
<td>-0.69** (0.28)</td>
</tr>
<tr>
<td>Black</td>
<td>0.11 (0.21)</td>
</tr>
<tr>
<td>Male</td>
<td>-0.42*** (0.14)</td>
</tr>
<tr>
<td>Wealthy</td>
<td>-0.14 (0.20)</td>
</tr>
<tr>
<td>Conservative</td>
<td>0.00 (0.15)</td>
</tr>
<tr>
<td>Religious Scale</td>
<td>-0.05 (0.08)</td>
</tr>
<tr>
<td>Educated</td>
<td>-0.37* (0.19)</td>
</tr>
<tr>
<td>Inexperienced</td>
<td>-0.22 (0.17)</td>
</tr>
<tr>
<td>Online Buyer</td>
<td>0.05 (0.07)</td>
</tr>
<tr>
<td>Contract Scale</td>
<td>-0.08* (0.05)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.67** (0.32)</td>
</tr>
</tbody>
</table>

**Pseudo - R²** 0.03

Observations 996

Regression includes time-in-study control.

* are significant at the 0.10 level; ** at the 0.05 level; *** at the 0.01 level.