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Contract Consideration and Behavior

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Contract Consideration and Behavior

David A. Hoffman* & Zev J. Eigen**

ABSTRACT

Contract recitals are ubiquitous. Yet, we have a thin understanding of how individuals behave with respect to these doctrinally important relics. Most jurists follow Lon Fuller in concluding that, when read, contract recitals accomplish their purpose: to caution against inconsiderate contractual obligation. Notwithstanding the foundational role that this assumption has played in doctrinal and theoretical debates, it has not been tested. This Article offers what we believe to be the first experimental evidence of the effects of formal recitals of contract obligation—and, importantly too, disclaimers of contractual obligation—on individual behavior. In a series of online experiments, we found that participants were less likely to back out of an agreement, forgoing personal gain, when they were endowed with a small extra sum of money at the time of contracting, and when they acknowledged that they were not forming a contract. They were more likely to back out of their original commitment when their agreeing was accompanied by a recital of consideration, and in a control condition in which the natural consideration of bargained-for exchange prevailed. Younger, male respondents were generally more likely to back out of their agreements across all conditions than were women and older participants. The reported experimental results suggest both the descriptive weakness of theorized accounts of private control over contract enforceability and the general value of experimental work about contracting behavior.

TABLE OF CONTENTS

INTRODUCTION ................................................. 352
I. RECITALS AND BEHAVIOR .............................. 358
   A. Recitals in Contract Doctrine and Scholarship .... 358
   B. Prior Empirical Evidence on Recitals and Behavior . 364

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II. Methods and Results ........................................... 368
   A. Recruitment and Descriptive Statistics .................. 368
   B. Experiment 1 ............................................. 370
   C. Results of Experiment 1 .................................. 376
      1. Does Contract Framing Affect the Likelihood that Individuals Will Back Out of Their Commitments? ......................... 376
      2. Does Contract Framing Affect the Magnitude of Non-Commitment Behavior? ............... 378
      3. Are Individual Attributes Correlated with Commitment Behaviors? ...................... 379
   D. Experiment 2: Are Demographic Effects an Artifact? .... 383

III. Consideration, Form, and Behavior ......................... 385
   A. Recitals, Anti-Recitals, and Reciprocity ................. 385
      1. Modernizing Recitals ................................. 385
      2. Folk Wisdom and Nominal Consideration .......... 388
      3. Are Disclaimers in Contracts the Same as Disclaimers of Contract? .................... 390
   B. Individual Differences .................................. 392
   C. Limitations ................................................ 394

Conclusion ......................................................... 395

“Under modern conditions perhaps the only devices which would be really effective in achieving the formal desiderata would be that of a nominal consideration actually handed over . . . .”

—Lon Fuller

“The parties may shout consideration to the housetops, yet, unless consideration is actually present, there is not a legally enforceable contract.”

—Judge John M. Woolsey

INTRODUCTION

In 1941, Lon Fuller published his classic Consideration and Form. Justifiably praised and cited as canonical, the article made a

1 Lon L. Fuller, Consideration and Form, 41 Colum. L. Rev. 799, 823 (1941).
2 In re Green, 45 F.2d 428, 430 (S.D.N.Y. 1930).
3 Fuller, supra note 1.
4 Daniel Markovits, Contract and Collaboration, 113 Yale L.J. 1417, 1479–80 (2004). Fuller had a productive decade—only five years before co-authoring “the most influential single article in the entire history of contract scholarship, at any rate in the common law world.” P.S.
claim about consideration’s function that continues to influence contract doctrine today. Fuller argued that consideration does not just aid judges in distinguishing enforceable from unenforceable promises: it also has a behavioral effect on parties. It cautions individual signers by “check[ing] against inconsiderate action,” and “inducing the circumspective frame of mind appropriate in one pledging his future.”

Fuller claimed that the natural consideration of bargained-for exchange might trigger this contractual red light. But purely formal incantations like seals (“symbol[s] in the popular mind of legalism and weightiness”), the “requirement of a writing,” “attestation, notarization,” and, crucially, recitals of consideration would similarly induce individuals to feel and behave in a more committed way to the underlying term supported by the formal recitation. He posited that such formalities produced behavioral effects by virtue of their connection, in the popular mind, with law. The “neat[er the] division[s] between the legal and the non-legal”—i.e., the brighter the line the law drew—the easier it would be for the laity to see the signal and “deliberat[e] where deliberation is needed.”


5 Fuller’s observations were not novel, even if his formulation is now best known. See Ashbel G. Gulliver & Catherine J. Tilson, Classification of Gratuitous Transfers, 51 Yale L.J. 1, 4 (1941) (formalities in the gift context); Duncan Kennedy, From the Will Theory to the Principle of Private Autonomy: Lon Fuller’s “Consideration and Form”, 100 Colum. L. Rev. 94, 108–13, 116–24, 126–31, 140–54 (2000) (noting Fuller’s intellectual predecessors).

6 Fuller, supra note 1, at 800 (the evidentiary function). 7 Id.; cf. Gulliver & Tilson, supra note 5, at 4 (articulating a ritual function, “performance . . . for the purpose of impressing the transferor with the significance of his statements”). Other authors have added additional functions. See, e.g., Joseph M. Perillo, The Statute of Frauds in the Light of the Functions and Dysfunctions of Form, 43 Fordham L. Rev. 39, 56–57, 60–62 (1974) (enumerating functions apart from the classic three).

8 Fuller cites Austin to argue that natural consideration is its own check against inconsiderate action because “each party . . . contemplates a quid pro quo[,] and therefore, being in that circumspective frame of mind which a man who is only thinking of such advantage naturally assumes.” Fuller, supra note 1, at 816 n.27 (quoting John Austin, Fragments—On Contracts, in 2 Lectures on Jurisprudence 939, 940 (Robert Campbell ed., London, J. Murray, 4th ed. 1873)).

9 Id. at 800, 820.

10 Id. at 803.

11 Id. For a similar argument in the property context, see Henry E. Smith, The Language of Property: Form, Context, and Audience, 55 Stan. L. Rev. 1105, 1147 (2003) ("[P]otential
To say that these empirical assertions are contestable understates the matter. Fuller suggested that Americans in the 1940s actually paid attention to contract formalities, and that they associated legalistic incantations with legal power, even if contract doctrine at the time did not. More subtly, Fuller concluded that individuals were spurred by formalities to deliberate about their promises, and (impliedly) that such deliberation would result in promisors taking their agreements more seriously. Finally, he claimed that recitals of consideration were behaviorally akin to seals and signatures, even though recitals, which require no action by the promisor and are boilerplate legalese, might be thought to be less powerful spurs to circumspection than impressing a wax seal with a signet ring.

Given the weakness of Fuller’s empirical assumptions, it is astonishing that in the almost seventy-five years since the publication of Consideration and Form, the idea that contract formalities induce promissory behavior has become the unconsidered conventional wisdom. Most articles cite Fuller in concluding that formalities caution readers and consequently change behavior. Entire literatures about violators’ information costs bear on the design of the law. Property presents a simple message to the outside world. . . . [T]he dutyholder only needs to know that he does not own the asset in order to know that he must keep out. This keeps informational demands on the dutyholder to a minimum.”).

12 Fuller did point out that some formalities—like the assertions of intent to be bound promoted by the Uniform Written Obligations Act, 33 PA. CONS. STAT. § 6 (1927)—might be ignored. Fuller, supra note 1, at 823 (“The net effect of a reform like the Uniform Written Obligations Act, for example, will probably be to add a line or two to unread printed forms and increased embarrassment to the task of judges seeking a way to let a man off from an oppressive bargain without seeming to repudiate the prevailing philosophy of free contract.”).

13 Fuller argued that deliberation made it more just to enforce contracts, as an aspect of the private autonomy theory of contract. Fuller, supra note 1, at 806.

14 Id. at 801–03.


16 See, e.g., David Gamage & Allon Kedem, Commodification and Contract Formation: Placing the Consideration Doctrine on Stronger Foundations, 73 U. CHI. L. REV. 1299, 1309 (2006) (citing Fuller to claim that consideration “prevents promisors from hastily committing themselves to obligations they might later regret”); James D. Gordon III, A Dialogue About the
the power of private control over contract enforceability—like the question of whether to enforce disclaimers of contract obligation—rest directly on Fuller's casual empiricism, or, less charitably, on his unfounded anachronistic anecdotal speculation.17

This heavy reliance on a single article contrasts with an outpouring of recent scholarship on the moral psychology of contract, and more broadly, a new school of contract empiricism.18 Experimenters have found that promisors behave along a distribution of contractual behaviors. At one end of the distribution, individuals act as though following through with their promises is simply the right thing to do regardless of legal consequences, and at the other, they act as though form contracts made with organizations are morally inert.19 At the same time, experimenters have uncovered a relationship between perceptions of legal enforceability and promissory behavior: promisors are less likely to “breach” by finding a new partner when they believe themselves to be in a legal “contract” than when they do not, even in the absence of sanctions.20 So perhaps Fuller was right that certain formalities caution promisors and thus affect the likelihood of deliberation and consequently breach. But which ones?

Promisors seem to associate “contract” with the formalities of signature and payment.21 But they also reject written legalese.22 Online legalese presents an especially complex behavioral story. Likely because everyone has long acknowledged23—and now we all know24—

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17 Jane Baron made a similar observation in the trusts and estates context. See Jane B. Baron, Gifts, Bargains, and Form, 64 Ind. L.J. 155, 168 (1989) (arguing that functional explanations in gift scholarship rely on unexamined views of human behavior); see also Harold C. Havighurst, Consideration, Ethics, and Administration, 42 Colum. L. Rev. 1, 6 (1942) (criticizing Fuller for “armchair theorizing”); Andrew Kull, Reconsidering Gratuitous Promises, 21 J. Legal Stud. 39, 53–54 (1992) (arguing that there is a mere assumption that bargained-for promises are considered more seriously than gifts).

18 See generally Eigen, Empirical Studies, supra note 16.

19 See infra notes 70–94 and accompanying text.


22 See generally Eigen, Empirical Studies, supra note 16.


24 Yannin Bakos, Florencia Marotta-Wurgler & David R. Trossen, Does Anyone Read the
that no one reads form contracts, there has been comparatively little
discussion of the likelihood that legal formalities will have different
offline and online behavioral effects. But knowing if formalities re-
tain their power online is important. We react to proposed contracts
based on our interpretive models of what constitutes a legal “con-
tract." Differences in norms of contracting online and offline thus
matter in predicting and understanding consumer behavior—both
before and after an online exchange transpires.

For these reasons, this Article undertakes the first controlled
study of consideration recitals. We report the results of several online
experiments involving over 2000 participants. The basic framework
for the experiments involved paying participants to divide a sum of
money between two third parties. That is, we entered into a services
contract with each subject, supported by the classic consideration of
bargained for exchange. We then added an extra element—a formal-
ity—which depended on the experimental condition: (1) language re-
citing consideration (a “recital”); (2) language disclaiming contract
formation; (3) a recital accompanied by a sum of money; or (4) a con-
trol, with no reference to contract at all.

Participants were given the opportunity to back out of their com-
mitments and claim a portion of the funds they allocated to third par-

Fine Print? Consumer Attention to Standard-Form Contracts, 43 J. LEGAL STUD. 1, 30–31 (2014);
Zev J. Eigen, Experimental Evidence of the Relationship Between Reading the Fine Print and
Performance of Form-Contract Terms, 168 J. INSTITUTIONAL & THEORETICAL ECON. 124, 132
(2012) (finding that of 1003 participants in a randomized, controlled experiment who had
the opportunity to review a form contract online, 28.9% did not review it at all, and the mean time
spent reviewing the contract among the remaining participants was only 80.5 seconds); Victoria
C. Plaut & Robert P. Bartlett, III, Blind Consent? A Social Psychological Investigation of Non-
Readership of Click-Through Agreements, 36 LAW & HUM. BEHAV. 293, 295, 305 (2012) (discuss-
ing how consumers’ willingness to trust companies may be correlated with failure to read click-
through agreements).

25 See Robert A. Hillman & Jeffrey J. Rachlinski, Standard-Form Contracting in the Elec-
effect of the Internet on standard terms do not yet exist.”); cf. M. Ryan Calo, Against Notice
Skepticism in Privacy (and Elsewhere), 87 NOTRE DAME L. Rev. 1027, 1062 (2012) (discussing
research about website design and interaction with reading and processing contract terms);
Nancy S. Kim, Contract’s Adaptation and the Online Bargain, 79 U. CIN. L. Rev. 1327, 1351
(2011) (suggesting that online and offline contracts are seen differently by consumers). Of
course, proposals to deal with problems in internet contracting in general are legion. See, e.g.,
OMRI BEN-SHAHAR & CARL E. SCHNEIDER, MORE THAN YOU WANTED TO KNOW: THE FAIL-
URE OF MANDATED DISCLOSURE 12–13 (2014); Ian Ayres & Alan Schwartz, The No-Reading
Problem in Consumer Contract Law, 66 STAN. L. Rev. 545, 551–52 (2014); Scott R. Peppet,

26 See Wilkinson-Ryan & Hoffman, Common Sense, supra note 15, at 1290 (describing
contract schema).
ties for themselves. Somewhat astonishingly—given the absence of legal sanction for breach of the contract, the anonymous nature of the survey, and reputed greed for small sums of cash among internet survey respondents—a majority of all subjects across conditions refused to deviate from the allocations initially made, suggesting that even anonymous internet respondents stand true to their commitments most of the time. But some do not. We measured how likely individuals were to back out of their commitments, contingent on the legal formality that attended the formation of their commitments. Finally, we varied the identity of the third parties and the context of the bargain in different versions of the experiment to augment internal and external validity.

As described in further detail below, as a main effect we found that recitals of consideration produced essentially the same back-out rates as no formality at all—it did no significant work in motivating individuals to stick with their commitments. By contrast, bonus consideration—providing subjects a nominal amount of money (ranging from $0.25 to $1.00) to seal their agreement—significantly increased compliance. As Fuller long ago argued, the only “really effective” form of consideration is “nominal consideration actually handed over,” which motivates individuals to obligation by engaging the norm of reciprocity.\(^{27}\) And, in a finding of particular relevance to current debates about “no contract” clauses, disclaimers of obligation appeared to perversely increase the likelihood that subjects would keep their bargains.

We also investigated how individual differences among subjects influenced their compliance rates.\(^{28}\) Coincident with findings from the literature on negotiation, but first explored as a contracts phenomenon here, we found a robust gender effect: women are significantly more likely to keep their bargains than men. We also found effects on two validated scales describing an individual’s orientation towards the self and others, suggesting (consistent with literature on negotiation and dispute resolution) that contract performance correlates with feelings of interpersonal connection and perceptions of self.

Finally, we describe what is either an age or cohort effect. Our data do not permit us to disentangle these. Generally, older subjects are more likely to remain committed to their initial allocations than

\(^{27}\) Fuller, \textit{supra} note 1, at 823.

younger subjects. The differences here are stark: 54% of subjects aged 18–24 backed out of their commitments, as compared to 24% of those aged 45–54, and only 22% of those aged 55–64. These findings begin to suggest a research agenda on how birthdate can influence understanding of obligation and contract terms in e-commerce.

By exposing the literature’s gap, and filling it with initial evidence of the role that consideration plays (and does not play) in online contracting parties’ behavior, this Article contributes to several dialogues central to contract law and policy. Part I briefly describes those dialogues. Particularly, Part I illustrates contract doctrine’s uneasy stance toward recitals (with and without money), even as the behavioral premise of Fuller’s typology remains largely unexamined. Part I also relates recent psychological research into lay promising behavior, particularly about how individuals come to believe themselves bound to contracts. Part II describes the methodology of the experiments described above in more detail and relay our results. Part III discusses these results and their implication for how we ought to think about consideration, and perhaps the reality of formalities more generally.

I. Recitals and Behavior

A. Recitals in Contract Doctrine and Scholarship

For judges, “consideration” distinguishes enforceable from unenforceable promises.29 Doubtless, some promises present easy cases for enforceability—commercial exchanges where both parties have bargained for a return promise.30 Others are significantly harder—the familiar first year contracts litany of contingent familial bequests,31 charitable donations,32 promises motivated by gratitude for past conduct,33 and the like. For the difficulties posed by such marginal relationships, recitals of consideration might be thought to be an anecdote: the parties can ex ante commit to waive the consideration defense to enforcement. But courts only sometimes enforce such devices,34 and their pattern of enforcement defies easy categorization.35

34 As Andrew Kull notes, there are probably fewer rash donative promises cases than the scholarly focus would indicate. Kull, supra note 17, at 53–54.
35 See Gamage & Kedem, supra note 16, at 1315.
Written recitals of consideration (“for good consideration hereby exchanged”) are common in real world agreements. The First Restatement, the Uniform Written Obligations Act (“UWOA”), (adopted only in Pennsylvania), and at least seventeen additional states have explicitly endorsed nominal consideration and recitals in the last twenty-five years. But the Second Restatement, four states,
and the District of Columbia still follow In re Green, whose well-known quote headlines this Article, in generally declining to enforce recitals. The reason is simple: “There is an underlying insistence on

the recital creates a presumption of consideration. However, this sort of recital by itself is insufficient to support a promise, so a specific amount is added to the recital, and such a nominal sum is called a ‘peppercorn.’ . . . This type of recital of consideration signifies the fulfillment of adequate consideration by listing a specific amount to be paid, and goes on to include a general phrasing of consideration, ‘and other valuable consideration,’ which belies a much larger sum that ultimately proves the consideration to be adequate.” (citations omitted); Williams v. Ormsby, 966 N.E.2d 255, 259 (Ohio 2012) (differentiating between gratuitous promise and contract, court says long established precedent that it may not inquire into adequacy of consideration, but whether there is consideration at all is question for court); McCoy v. AFTI Props., Inc., No. 07AP-713, 2008 WL 2026437, at *7 (Ohio Ct. App. May 13, 2008) (finding when valuable consideration is recited in a deed, title passes by purchase and not gift); Pewther v. C CORP, 264 P.3d 173, 174 (Or. Ct. App. 2011) (treating transfer for $1.00 nominal consideration as valid sale); Jitner v. Gersch Dev. Co., 789 P.2d 704, 705–06 (Or. Ct. App. 1990) (citing exception to OR. REV. STAT. § 42.300 (2014), stating recital permitted but defendants may refute recital with evidence payment was not received); Doe v. HCA Health Servs. of Tenn., Inc., 46 S.W.3d 191, 196 (Tenn. 2001) (finding “stipulation in consideration of $1 is just as effectual and valuable a consideration as a larger sum stipulated for or paid”); Guesthouse Int’l, LLC v. Shoney’s North Am. Corp., 330 S.W.3d 166, 186–88 (Tenn. Ct. App. 2010) (finding extrinsic evidence inadmissible to contradict recital of consideration); Smith v. Riley, No. E2001-00828-COA-R3-CV, 2002 WL 122917, at *3 (Tenn. Ct. App. Sept. 16, 2002) (finding consideration of $1.00 and other “good and valuable consideration” recited in bill of sale and assignment were sufficient consideration); Parker v. Dodge, 98 S.W.3d 297, 301 (Tex. Ct. App. 2003) (stating court will not inquire into adequacy of consideration, but, in the interest of equity, may inquire into adequacy of a contract “if there is such a gross disparity in the relative values exchanged as to show unconscionability, bad faith, or fraud”); Bahr v. Kohr, 980 S.W.2d 723, 727 (Tex. Ct. App. 1998) (finding cannot use extrinsic evidence to deny existence of consideration when express recital of consideration present in the deed); Wayt v. Urbigkit, 152 P.3d 1057, 1061 (Wyo. 2007) (quoting 23 AM. JUR. 2D Deeds § 80 (2002)) (“The acknowledgement of the receipt of consideration in a deed is prima facie evidence of that fact. A rebuttable presumption of the payment of valuable consideration is raised by the recital.”); Brodie v. Gen. Chem. Corp., 934 P.2d 1263, 1268 (Wyo. 1997) (“The question of what type of consideration is sufficient cannot be answered with specificity because we have long held that absent fraud or unconscionability, we will not look into the adequacy of consideration.”).


substance over form . . . .” 43 The remainder of states have no recent caselaw precisely on point. 44 

Courts further split on the effect of language adding a nominal sum of money to the recital—i.e., “for good consideration, of $1.00, hereby given.” Some courts hold that recitals of money (sometimes called “nominal consideration”) can make enforceable an otherwise unenforceable naked recital;45 others treat nominal consideration as, at best, irrelevant, and, at worst, evidence of the invalidity of the bargain because of the now-evident disparity in value exchanged.46 This is especially true when the nominal consideration is not exchanged—in so-called “sham consideration” cases.47 The Restatement (Second) of Contracts, which adopts this invalidity position for most ordinary contracts, rejects it in the options context, providing the twisty grist for many a 1L issue-spotting exam.48 

A related, and contested, form of recital seeks to privately manage enforceability by speaking directly to the parties’ joint intent to contract. Classically, American courts deny that express statements to be bound can substitute for consideration.49 At the same time, they

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43 1 E. ALLAN FARNSWORTH, FARNSWORTH ON CONTRACTS § 2.17 (3d ed. 2004).
44 See, e.g., Estate of Bishop v. Donovan, 25 Cal. Rptr. 763, 776 (Ct. App. 1962) (“[A] valuable consideration is not limited to the payment of money or other material exchange; may be based on a promise; consist of the cancellation of a debt; or arise out of a waiver of rights; and a transfer for such a consideration is not a gift. The extent thereof is not important even though the recital of a mere nominal consideration in an instrument of transfer does not foreclose a finding that the transaction was a gift.”) (emphasis added) (citations omitted); Rose v. Lurvey, 198 N.W.2d 839, 841–42 (Mich. Ct. App. 1972) (under court’s equitable powers, invalidating transfer of real estate for $1.05, although stating “[i]t is a general principle of contract law that courts will not ordinarily look into the adequacy of the consideration in an agreed exchange. . . . [unless] the inadequacy of consideration is particularly glaring”); Sfreddo v. Sfreddo, 720 S.E.2d 145, 156 (Va. Ct. App. 2012) (“[W]here nominal consideration and the surrounding circumstances of a contract demonstrate a gift rather than a bargained for sale occurred, the court should find the transaction constitutes a gift. The party seeking to show a gift has the burden of proof by clear and convincing evidence.”).
45 JOSEPH M. PERILLO, CALAMARI AND PERILLO ON CONTRACTS § 4.6 (6th ed. 2009).
47 Siprut also distinguishes as we do between nominal consideration and sham consideration. See Siprut, supra note 41, at 1821 n.80.
48 See RESTATEMENT (SECOND) OF CONTRACTS § 87. Technically, the “recital gives rise to an implied promise to pay.” Perillo, supra note 45; see JOHN P. DAWSON, GIFTS AND PROMISES: CONTINENTAL AND AMERICAN LAW COMPARED 212 (1980).
49 RESTATEMENT (SECOND) OF CONTRACTS § 21 (“Neither real nor apparent intention that a promise be legally binding is essential to the formation of a contract, but a manifestation of intention that a promise shall not affect legal relations may prevent the formation of a contract.”). There are exceptions. For instance, under the Uniform Commercial Code (“UCC”) (particularly § 2-305), courts ask if the parties intended to conclude a contract—that is, did they
will usually enforce recitals that disclaim the intent to be bound, so long as the other party knows of that disclaimed intent. 50 Thus, employers often seek to use employee manuals to set limits on employment benefits and parameterize disciplinary procedures without turning at-will employment into a contract simply by conspicuously disclaiming their intent to be bound. 51

This muddled doctrine on recitals continues to generate scholarly ferment. 52 Some scholars—particularly legal economists—think that refusing to permit private control over enforceability is foolish. 53 Williston argued that the purposes of consideration doctrine were as well served by a formal recital as by a substantive bargained-for exchange. 54 It thus makes little sense to deny enforcement of a promise where the parties have been forewarned of the likelihood of court intervention in a way that is easily proven after the fact. 55 But for other scholars, consideration identifies (on the merits) the kinds of bargains that society thinks worth enforcing. 56 As such, private party control over enforcement seems troublingly akin to private party control over

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50 See Eiland v. Wolf, 764 S.W.2d 827, 839 (Tex. Ct. App. 1989) (refusing to hold university system liable for course catalogue requirements in light of disclaiming language); 1 FARNSWORTH, supra note 43, § 3.7; PERILLO, supra note 45, § 2.4 (collecting cases).


53 See RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 99 (6th ed. 2003) (“The real mystery in the ‘moral consideration’ cases is why the law doesn’t simply make available a form for making binding promises without requiring consideration . . . . Promises made under seal were enforceable without consideration. This was, seemingly, a useful device; its disappearance is a puzzle.”); Melvin Aron Eisenberg, The Principles of Consideration, 67 CORNELL L. REV. 640, 659–60 (1982); Siprut, supra note 41, at 1809–10.

54 HANDBOOK OF THE NATIONAL CONFERENCE OF COMMISSIONERS ON UNIFORM STATE LAWS AND PROCEEDINGS OF THE 35TH ANNUAL MEETING 194 (1925) (“It is something . . . . that a person ought to be able to do, if he wishes to do it,—to create a legal obligation to make a gift. Why not? . . . . I don’t see why a man should not be able to make himself liable if he wishes to do so.”).

55 Siprut, supra note 41, at 1809–10.

56 See, e.g., Fuller, supra note 1, at 814–15.
other areas of public law.\textsuperscript{57} Sham consideration, the paradigmatic empty formality, strays too far from consideration’s substantive roots and should be rejected by all right-thinking judges.\textsuperscript{58}

As this brief summary should illustrate, jurists’ views on private party control over enforceability vary widely. And yet these divergent views rest on a common behavioral foundation: Fuller’s claim that recitals actually caution promisors. His account of the cautionary function’s mechanism is endlessly cited.\textsuperscript{59} Similarly cited by rote is his claim that recitals will act just like natural consideration in cautioning action.\textsuperscript{60} While some scholars question whether promisors will react to recitals given their sheer incomprehensibility,\textsuperscript{61} the conventional wisdom simply lumps all formalities together and assumes they cause individuals to think they are in bargains (and thus to behave in trusting ways).\textsuperscript{62}

By contrast, scholars have not universally agreed that “intent to be bound” clauses have behavioral weight.\textsuperscript{63} When Randy Barnett argued that courts should give effect to recitals of the intent,\textsuperscript{64} many scholars responded that such “intent to be legally bound” clauses are

\textsuperscript{57} See, e.g., Judith Resnik, Procedure as Contract, 80 Notre Dame L. Rev. 593, 666 (2005) (articulating concerns about private control over procedure).

\textsuperscript{58} See Restatement (Second) of Contracts § 218 cmt. c, illus. 3 (Am. Law Inst. 1981).

\textsuperscript{59} See, e.g., Kennedy, supra note 5, at 102 (consideration formalities ensure parties “thought carefully before making the kind of promise in question”).


\textsuperscript{61} Gordon, supra note 16, at 997.

\textsuperscript{62} Professor Wessman argues that “token payment probably has no greater cautionary effect than a simple requirement of form (for example, a signed writing or the use of specified language).” Mark B. Wessman, Retraining the Gatekeeper: Further Reflections on the Doctrine of Consideration, 29 Loy. L.A. L. Rev. 713, 729 (1996).

\textsuperscript{63} Much of this literature responds to Randy Barnett’s famous defense of an intent-to-be- Legally-bound justification for contract enforcement. See Randy E. Barnett, A Consent Theory of Contract, 86 Colum. L. Rev. 269 (1986).

\textsuperscript{64} Randy E. Barnett, Consenting to Form Contracts, 71 Fordham L. Rev. 627, 635 (2002) (“Clicking the button that says ‘I agree,’ no less than signing one’s name on the dotted line, indicates unambiguously: I agree to be legally bound by the terms in this agreement.”).
likely to at best be behaviorally inert. Indeed, as Greg Klass hypothesized, perhaps such clauses will drive individuals away from relationships:

The existence and magnitude of these relational costs depend on the context. Many agreements clearly contemplate legal liability, whether the parties say so or not. . . . In such transactions, also saying, “This is a legally enforceable agreement,” would have no relational costs. In other agreements, the costs will be higher. . . . In such circumstances, a revealed preference for legal liability could do significant harm.

Finally, to the extent that the legal literature has considered the effect of clauses that seek to disclaim contractual relationships, they are usually thought to be likely to accomplish the behavioral purposes that they seek—namely, encouraging parties to believe they are not in a legal contract. Randy Barnett’s well-known proposed reformulation of contract law as consent-based would privilege disclaimers as self-evidently satisfying the cautionary function. That said, some scholars, like Sidney DeLong, suggest that in particular contexts—like employment relationships—disclaimers of legal intent will be misunderstood or entirely ignored when they conflict with ordinary moral intuitions.

B. Prior Empirical Evidence on Recitals and Behavior

Though ours provides the first controlled exploration of the behavioral effect of contract recitals, there have been a number of recent papers studying the effects of other contract terms. Several findings from these studies are especially relevant.

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67 See, e.g., DiMatteo et al., supra note 51, at 471–72 (evidence that disclaimers will reduce sense of legal obligation).
70 These papers are a part of a larger tradition studying how morality and contract intersect. See generally Yuval Feldman & Doron Teichman, Are All Contractual Obligations Created Equal?, 100 Geo. L.J. 5 (2011).
71 There is related literature on how framing of contracts affects behavior. See, e.g., Ernst Fehr, Oliver Hart & Christian Zehnder, Contracts as Reference Points—Experimental Evidence, 101 Am. Econ. Rev. 493, 518–22 (2011); Yuval Feldman, Armos Schurr & Doron Teichman, Reference Points and Contractual Choices: An Experimental Examination, 10 J. Empirical Le-
To start, individuals believe that certain behavioral formalities—signatures and payment—create binding contracts, and they are not persuaded that contracts result merely from verbal or written language memorializing agreements. That is, promisors and promisees imagine that a legal contract consists of a schema—the vernacular of “doing the paperwork,” “getting it in writing,” and “signing on the dotted line.” And, as mentioned above, when parties think they are in a contract, they are more likely to trust their counterparties and less likely to walk away.

But what of recitals and other forms of boilerplate? Experimenters have found that legalese (such as that typically found in an end-user licensing agreement) is less effective at constraining breach than language that sounds in promise or that encourages the norms of trust and reciprocity. There is also some evidence that particular kinds of law talk—like liquidated damage clauses—can crowd out ordinary intuitions and decrease commitment to contractual counterparties. Together, these experiments do not support the hypothesis that consideration recitals will provide a cautionary signal and consequently increase the likelihood of commitment to the bargain. At least with respect to some online experimental subjects, consideration-creating recitals do not appear to be part of the popular schema that means “legal contract,” and, at best, likely are behaviorally inert. At worst, given the other findings described above, recitals might crowd out or otherwise displace relational norms.

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72 Wilkinson-Ryan & Hoffman, *Common Sense*, supra note 15, at 1297; see also Deborah A. Schmedemann & Judi McLean Parks, *Contract Formation and Employee Handbooks: Legal, Psychological, and Empirical Analyses*, 29 Wake Forest L. Rev. 647, 673 (1994) (noting that signature “may be part of the schema of contract” and finding evidence suggesting that it is).


76 Thus, perhaps legalese codes are a foreign language. Thinking in a foreign language is debiasing, resulting from a kind of cognitive distancings. We might hypothesize that concentrated exposure to a legalism in a contract might similarly “debias” parties by encouraging them to
Recitals disclaiming obligation—such as those common in employee manuals—might have even more perverse effects. They could signal to parties that the background rules of engagement (which are relational and trust-based) apply, and thus paradoxically increase the likelihood of performance.77 Or, as Sidney DeLong has suggested, contract disclaimers might be so puzzling as to provide no meaningful signal at all.78

The only extant empirical work on disclaimers focuses on individuals’ hypothetical reactions to disclaimers in the employee manual context, typically asking if a disclaimer causes subjects to discount the existence of a legal contract. Thus, Deborah Schmedemann and Judi McLean Parks, studying a student sample, found that subjects were less likely to think there was legal breach of a hypothetical employee manual accompanied by a disclaimer.79 By contrast, jargon (coded the existence of legal language) resulted in subjects being more likely to think that the manual was legally enforceable.80 Similarly, Larry DiMatteo, Robert Bird, and Jason Colquitt, surveying undergraduates about a possible job they would have after graduation from business school, “educated” them about the legal effect of disclaimers and varied whether subjects saw a disclaimer, among other factors, in a hypothetical manual.81 When so educated, subjects were less likely to think that breach of the manual’s terms was a wrongful act, because they were convinced that it “did not deviate substantially from the legal rules on which they were educated.”82 But, the authors speculated, a disclaimer unaccompanied by an educational program would be “invidious in nature,”83 as the “cognitive dissonance” between employee-friendly policies and a legalistic disclaimer might “heighten negative attitudes toward the organization.”84 We are aware of no

treat the contract as an economic exchange rather than as a promise, and consequently become less likely to perform. See Boaz Keysar, Sayuri L. Hayakawa & Sun Gyu An, The Foreign-Language Effect: Thinking in a Foreign Tongue Reduces Decision Biases, 23 PSYCHOL. SCI. 661, 667 (2012) (framing effect “disappears” when the problems are presented in a foreign tongue).

77 Cf. Suchman, supra note 75, at 113–14 (“Overall, then, the microsymbolic account of contract formation depicts contract documents as meaning-laden signs and symbols.”).
78 DeLong, supra note 69.
79 Schmedemann & Parks, supra note 72, at 676.
80 Id.
81 DiMatteo et al., supra note 51, at 465–69 (describing survey).
82 Id. at 471–72.
83 Id. at 472.
84 Id. at 473.
work examining whether disclaimers had behavioral effects: that is, whether they increased or decreased contractual commitment.\textsuperscript{85}

That is not to say that all contract language is behaviorally inert or self-defeating.\textsuperscript{86} More time spent reading contracts is associated with an increased likelihood of performance.\textsuperscript{87} And there is evidence that the choice between particular contract terms can influence behavior without crowding out moral norms. For example, Yuval Feldman and his co-authors have recently made an important contribution to the old debate about the motivating effect of language of good faith versus specific contract terms. Using a series of experiments that measured subjects’ proficiency at editing of a document, the authors found that in some contexts, contract language providing specific direction was more likely to motivate performance than an exhortation to perform in good faith.\textsuperscript{88}

Notably, these studies largely consider the first party, \textit{ex ante} effects of language. \textit{Ex post} contract language plays a different, but nonetheless crucial role by helping decisionmakers attribute moral responsibility. Studies have found that we blame consumers for not reading long contracts; we think they have consented to terms that harm them, and we generally conclude that consumers are more to blame than are firms for bad outcomes from hidden terms in form contracts.\textsuperscript{89} As Erik Zacks hypothesizes, contract provisions “can provide attributional ‘clues’ that inform and reassure judicial interpreters that a particular contracting party is more blameworthy than another.”\textsuperscript{90}

\textsuperscript{85} A related paper examines exculpatory clauses and finds that, in hypothetical scenarios, they can reduce the self-reported likelihood that insured parties would sue even if they think such clauses are not enforceable. Dennis P. Stolle & Andrew J. Slain, \textit{Standard Form Contracts and Contract Schemas: A Preliminary Investigation of the Effects of Exculpatory Clauses on Consumers’ Propensity to Sue}, 15 BEHAV. SCI. & L. 83, 91–93 (1997).


\textsuperscript{87} Eigen, \textit{Fine Print and Performance}, \textit{supra} note 24, at 124, 134–37 (noting overall low incidence of reading).


Somewhat in contrast to this complex story about contract terms, reciprocal gestures appear to powerfully spur contract performance. Reciprocity norms are implicated in mortgage contracts, in assigned contracts, and even in divorce settlements. Reciprocity appears to motivate performance even in the formation stage. For example, in a recent experiment, Tess Wilkinson-Ryan and David Hoffman asked subjects to imagine buying a car. They found that subjects who were informed that the seller relied on the buyer’s stated intention to purchase the vehicle (taking a “for sale” sign out of a car window and having a car for sale detailed) led subjects to feel that the buyer should not shop around for a better deal.

Although the literature makes clear that contract norms are contextually dependent, the prospects for ordinary recitals of consideration as a pro-contract cautionary device are dim. Such language likely will be coded as a legalism that is, at best, behaviorally inert and, at worst, likely to crowd out moral norms. The literature is mixed on the effects of disclaimers of obligation. While most theorists (and some employee handbook surveys) suggest that disclaimers reduce the likelihood of commitment, a few scholars have suggested that the reverse is possible. And, there is evidence that small, contractually-irrelevant gestures can encourage feelings of reciprocity that motivate performance.

II. METHODS AND RESULTS

A. Recruitment and Descriptive Statistics

A total of 2550 individuals were recruited on Amazon’s Mechanical Turk (“MTurk”) to participate in a study asking them to allocate money between two charities or, in one iteration of the experiment, between two individuals, in exchange for $1.00. We gathered data


93 Id.


95 There is a growing literature on the representativeness of MTurk samples. As compared
over four total days. There were minor differences between the first
and second day.\textsuperscript{96} There is no evidence to suggest that the day on
which data was gathered influenced any results reported in this
Article.\textsuperscript{97}

Of the 2550 who accepted the invitation to participate in the
study, nine dropped out before being randomly assigned to any exper-
imental condition. An additional sixty-three responses were dropped
from our analysis because participants used an MTurk identification
number that had participated in research regarding contracts con-
ducted by one of the authors in the past, or did not submit an MTurk
ID at all, or there was no matching Human Intelligence Task (“HIT”)
number. An additional 103 responses were dropped because they
were submitted by duplicate Internet Protocol (“IP”) addresses.\textsuperscript{98} This
left 2371 total usable responses that could conservatively be ascribed
to different subjects.\textsuperscript{99} Table 1 provides a snapshot of the respondents’
demographic characteristics.

to college undergraduates, they are more representative, and they tend to pay attention to sur-
vey prompts. See Adam J. Berinsky, Michele F. Margolis & Michael W. Sances, \textit{Separating the
and provided high-quality data). But on some tasks MTurkers appear to produce distinctive an-
swers. Yanna Krupnikov & Adam Seth Levine, \textit{Cross-Sample Comparisons and External Valid-
ity}, 1 J. EXPERIMENTAL POL. SCI. 59, 69–70, 73, 77 (2014). But cf. Christoph Bartneck, Andreas
Duenser, Elena Moltchanova & Karolina Zawieska, \textit{Comparing the Similarity of Responses Re-
ceived from Studies in Amazon’s Mechanical Turk to Studies Conducted Online and with Direct
Recruitment}, 2015 PLOS ONE 10(4): e0121595, 17–18 (finding statistically significant but practi-
cally small differences between MTurk and other online samples and no differences with campus
samples on studies evaluating emotional expressions). 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., \textit{The Average Laboratory Samples a Population of
This leads to worries about non-naiveté. In fact, links to our survey were posted on a Reddit
subgroup advertising MTurk studies, presumably because the pay we provided was relatively
generous. Phaulo, REDDIT (June 22, 2014), http://www.reddit.com/r/HITsWorthTurkingFor/com-
ments/28rq57/us_a_study_about_charitable_giving_behavior_dave/. There is no evidence that
the purpose of the manipulation was revealed, though the existence of multiple conditions was
discernible.

\textsuperscript{96} The first day’s survey omitted a question about subjects’ age.

\textsuperscript{97} Several statistical tests support this. For instance, there is no statistically significant dif-
ference in the proportions of subjects who backed out of their commitments (a main outcome
variable) by day (p = .754 mean across day pairwise comparisons).

\textsuperscript{98} It is possible that two different people used the same IP address. See Bradley Mitchell,
\textit{What Is an IP Address Conflict?}, LIFEWIRE (July 25, 2016), https://www.lifewire.com/what-is-ip-
address-conflict-818381.

\textsuperscript{99} Four additional participants dropped out of the study after being randomly assigned to a
Table 1. Demographic Characteristics of Participants

<table>
<thead>
<tr>
<th>Category</th>
<th>Proportion in Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>55%</td>
</tr>
<tr>
<td>Non-White</td>
<td>25%</td>
</tr>
<tr>
<td>College Graduate</td>
<td>37%</td>
</tr>
<tr>
<td>Some College</td>
<td>35%</td>
</tr>
<tr>
<td>Earns less than $100,000</td>
<td>93%</td>
</tr>
<tr>
<td>• Between 18–24 years old</td>
<td>19%</td>
</tr>
<tr>
<td>• Between 25–34 years old</td>
<td>44%</td>
</tr>
<tr>
<td>• Between 35–44 years old</td>
<td>19%</td>
</tr>
<tr>
<td>• Between 45–54 years old</td>
<td>10%</td>
</tr>
<tr>
<td>• 55 or older</td>
<td>8%</td>
</tr>
<tr>
<td>Reported having a “fair amount,” or “extensive knowledge” of contract law</td>
<td>25%</td>
</tr>
</tbody>
</table>

Overall, this sample thus skewed slightly more male, and contained fewer older subjects than the population mean.\textsuperscript{100} As an interesting comparison, perhaps indicative of the context in which questions like these are asked on surveys, every year Eigen surveys entering students at various law schools, using the same question asked of participants in this study, to self-report their knowledge and experience with contract law in the United States. Approximately 2% of those hundreds of entering 1L law students self-report having either a “fair amount” or “extensive knowledge” of contract law.

B. Experiment 1

Our first experiment asked participants to allocate two real dollars either to a real food pantry or to a real homeless shelter. This was the text they saw:

\textsuperscript{100} Compared to national samples, MTurk respondents are “wealthier, younger, more educated, less racially diverse, and more Democratic than national samples” and less religiously affiliated. Andrew R. Lewis et al., The (Non) Religion of Mechanical Turk Workers, 54 J. Sci. STUDY RELIGION 419, 420 (2015). According to the census, around 34% of the adult American population is older than 55; 20% is 45–54; 18% is 35–44; 18% is 25–34; and 9% is 19–25. Forty-nine percent are male. See 2010 Census Briefs: Age and Sex Composition, U.S. CENSUS BUREAU 1–2 (2011), http://www.census.gov/prod/cen2010/briefs/c2010br-03.pdf.
We want to know how much money people think should go to FOOD PANTRIES versus HOMELESS SHELTERS.

- FOOD PANTRIES: distribute food to low income and unemployed households, to relieve situations of emergency and distress.
- HOMELESS SHELTERS: provide safe and sanitary housing for the low and moderate income citizens and shelter for homeless persons, to alleviate such conditions and to encourage economic development.

We picked a real food pantry and a real homeless shelter. We will not reveal the names of the organizations we have chosen, but they have similar yearly operating budgets, and both were recently favorably audited by experts.

We will refer to them as “Food Pantry” and “Homeless Shelter,” respectively, for the purposes of this study.

**IMPORTANT:**
You will receive $1.00 for participating in this study. We will be asking you to divide $2 between two charities.

After the introductory text, sliding radio buttons permitted subjects to allocate money to one or the other charity. A graphic display at the bottom of participants’ screens depicted their allocation (Figure 1), as well as a box indicating “Your Payment.” This served as a visual reminder of how much money they were receiving and how much they were agreeing to allocate between the two options provided. The payment visualization was programmed to update in real time according to the participants’ allocations.

**FIGURE 1. REAL TIME UPDATING VISUAL AID TO SUBJECTS OF MONETARY ENDOWMENT**

Participants were then randomly assigned to one of four conditions. The first condition began:

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101 For subjects on the first day, as we have noted, the extra bonus payments were $1.00, not $0.25, bringing the total pay to $2.00, not $1.25.
THIS IS IMPORTANT! PLEASE READ:

- You will receive $1.00 for participating in this study. (You already knew that).
- In addition to that, you will receive another $0.25 (bringing your total pay to $1.25) for clicking the box below, acknowledging your COMMITMENT to the allocation of money to the two charities you made (as shown below to remind you of your selections).
- You also acknowledge that the additional $0.25 is good and valid consideration.

After reading that text, participants in this condition had to click two boxes. The first box acknowledged that the nominal sum they received was “sufficient consideration.” The second box acknowledged a commitment to allocate the money to the two charities “as shown below,” where we displayed the graphic showing their allocation and the amount of money that was immediately added to their personal “bank.” For ease of reference, we refer to this condition as the “recital plus endowment,” or merely “recital plus,” because subjects were endowed with a bonus sum of money visually depicted as being added to their “bank” when they clicked the boxes. In other words, we paid subjects an additional amount of money to seal the promise—their performance was already paid for as a part of the natural exchange constituting the study.\(^{102}\) Importantly, the illustration in Figure 1 updated in real time to demonstrate to participants the exact moment when they were endowed with additional money. The window showing “your payment” updated to include the additional money at the precise time when it would have been transferred as if this were a face-to-face interaction.

We varied the bonus amounts over the course of the experiment: ninety participants saw the $1.00 additional amount; 254 participants saw the $0.25 amount; and an additional ninety-five saw $0.05 as the bonus amount.\(^ {103}\) We categorized the participants who saw the $1.00

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\(^{102}\) Some might think of the $0.25 (for most subjects) to $1.00 (for a minority) bonus payment as equivalent to “nominal” consideration in the classic sense. Given that the recruitment payment was $1.00, however, even an additional $0.25 enriched participants by 25%, which is different from the classic $1.00 nominal payment on a large underlying contract or gift. The better view understands this $0.25 payment as a way to increase the salience of the consideration, or to endow the recipient with a sum that then engenders a feeling of reciprocity. Daniel Markovits suggested to us that this could be regarded as a second promise. A future iteration of this experiment might therefore test the difference between back-out rates in the recital plus money condition and a condition in which a second promise is made without additional endowment of money.

\(^{103}\) In the book naming experiment, described below, all 148 participants saw the $0.25 amount.
and the $0.25 bonus together for analytical purposes, and kept these separate from those receiving a $0.05 bonus. In the second condition, participants disclaimed contractual obligation:

```
THIS IS IMPORTANT! PLEASE READ:
• You will receive $1.00 for participating in this study. (You already knew that).
• By clicking the box below, you acknowledge that your allocation does not create a legally binding contract.
```

Participants in this condition also clicked two boxes—the first acknowledging that “we have not entered into a contract” and the second indicating that “I do not intend to form such a contract.” We refer to this condition as the “disclaimer” treatment. It is intended to simulate situations in which parties are entering into a transactional exchange, but one of the parties expressly announces that no contractual relationship is being formed. This is common in employment, where employers routinely require employees to sign a form acknowledging that a handbook detailing their employment terms does not create a contract.104 It is also growing increasingly more common for organizations to denounce contractual relationships in other settings such as telecommunications.105

The third condition is intended to function as a naked recital of consideration:

```
THIS IS IMPORTANT! PLEASE READ:
• You will receive $1.00 for participating in this study. (You already knew that.)
• By clicking the box below, you acknowledge your COMMITMENT to the allocation of the money to the two charities you made (as shown below).
• You also acknowledge that you did this in exchange for good and valid consideration.
```

Participants again clicked a box acknowledging that this is “good and valid consideration,” and a box acknowledging their allocation of the money to the two charities. This, again, was accompanied by a graphic depiction of their allocation and the money in their “bank,” which here did not change in value as we did not endow the subjects

with additional money. This condition is called the “recital” condition. One of the primary goals of this experiment is to observe differences (if any) between this naked recital condition and the first “recital plus money” condition.

The fourth and last condition is the control. Subjects merely completed a “CAPTCHA” and moved on. Another primary goal of this study is to determine if subjects behaved differently in either the first or third conditions than this condition. Here, subjects may infer the contractual nature of the primary exchange, but are not prompted to click anything. There is no primed augmented salience of the legality of the exchange, the way there is in the other conditions. However, the bargain contained within itself the seeds of natural consideration—subjects’ service promise to divide the charitable pot was motivated by our promise to pay them $1.00; our promise to pay was motivated by their promise to divide. The control thus could be regarded as an ordinary bargain.

All participants then completed a filler task consisting of self-reporting of several validated psychometric measures. Some of the questions were about self-reporting happiness, sadness, how loved, lazy, pessimistic, ignorant, funny, or confident they are. The other two filler tasks doubled as ways of gathering information on individual states. Specifically, subjects answered two batteries of questions that comprised the Extreme Relational Orientation scale (“ERO”), and the Extreme Agentic Orientation scale (“EAO”). Both are validated measures. The ERO is more commonly referred to as the personality

106 A CAPTCHA, for those who are the kind of web surfer likely to fail a CAPTCHA, is a “Completely Automated Public Turing test to tell Computers and Humans Apart.” See Jonathan Zittrain, Privacy 2.0, 2008 U. CHI. LEGAL F. 65, 76 nn.35–36 (describing CAPTCHA history).

107 Some may incorrectly conclude that because the context of the first experiment was charitable gifts, there was no consideration. But what we were really purchasing here was the subjects’ time and the ability to observe their behavior: we really were motivated by the promise that they made to divide the money between charities. They, in turn, were motivated by the money they earned from the researchers. The promises mutually induced, forming natural consideration. The fact that the underlying subject matter of the service was “charitable allocation” as opposed to “painting” or “writing law review articles” or whatever else individuals do for money is, from a doctrinal perspective, irrelevant.


trait of “unmitigated communion.” Unmitigated communion is a focus on and involvement with others to the exclusion of the self. The EAO is a validated scaled measure of a personality trait commonly called “unmitigated agency.” Unmitigated agency “is a focus on the self to the exclusion of others . . . [that] includes being hostile, cynical, greedy, and arrogant . . . [and involves a generally] negative view of the world and of other people.” These measures were used as filler tasks because they could plausibly be regarded as measures of personality traits associated with preferences about allocation decision rendering, without tipping our hand when what we are actually interested in is their commitment to their original allocations under various contract frames or lack thereof.

After they completed the filler tasks, participants were shown a new screen:

```
We have received and evaluated your responses.
In light of them, we have another question for you:

The amounts you have agreed to give the charities are shown in the boxes below.

Would you like to carry out this distribution between the charities?
Or would you like to back out of your bargain? If you do, you can change the distribution between the charities and take some or all of the $2.00 for yourself.
```

Participants were thus tempted to back out of their bargain and keep some or all of the money they had allocated to charity for themselves. Participants who elected to back out of their bargains were prompted on the next screen to reallocate money among the food pantry, homeless shelter, and now, themselves, using sliders ranging from $0.00 to $2.00. A new slider labeled “keep for yourself” distinguished the task from the first round.

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111 Id. at 174.
112 See generally Helgeson & Fritz, supra note 109.
113 Id. at 132.
114 A new slider labeled “keep for yourself” distinguished the task from the first round.
In the next Section, we describe the results of the experiments. First, we explain the main result of the study—the effects of contract framing on non-commitment behavior. Then, we describe the effects of framing on the magnitude of breach. Lastly, we discuss individual-level differences and present a full set of logistic models incorporating both covariates and conditional assignment.

C. Results of Experiment 1

1. Does Contract Framing Affect the Likelihood that Individuals Will Back Out of Their Commitments?

Participants who elected to back out of their commitments were prompted on the screen after they made this decision to reallocate money among the food pantry, homeless shelter, and, now, themselves. The main outcome variable of interest is therefore subjects’ election to back out of their initial commitments. Table 2 depicts the rates at which individuals backed out, by random experimentally assigned condition. Our main predictions were that the endowment of additional small sums of money along with a recitation of consideration would produce an increased likelihood of adherence to participants’ agreements, even when given the opportunity to profit from backing out, and even in a known quasi-“real” experimental setting, in which subjects might feel less obligated than in real world settings.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recital + $</td>
<td>36.44%</td>
<td>0.482</td>
<td>343</td>
</tr>
<tr>
<td>Disclaimer</td>
<td>41.37%</td>
<td>0.493</td>
<td>423</td>
</tr>
<tr>
<td>Recital</td>
<td>43.76%</td>
<td>0.497</td>
<td>441</td>
</tr>
<tr>
<td>Control</td>
<td>46.89%</td>
<td>0.500</td>
<td>482</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>42.57%</td>
<td>0.495</td>
<td>1689</td>
</tr>
</tbody>
</table>

As shown in Tables 2 and 3, evidence from the experiment supports our main hypothesis that endowing people with money augments commitment behavior. The lowest back-out rate for all subjects is 36.44%; this is the rate for participants randomly assigned to the consideration plus money condition. This rate is statistically significantly lower than the control (CAPTCHA) condition’s rate (46.89%; p = .003).115

115 The recital-plus-money rate is also statistically significantly lower than the rate at which participants backed out in the recital condition (43.76%; p = .04). However, the back-out rate for participants in the recital-plus-money condition is not statistically significantly lower than the rate for subjects in the disclaimer condition (41.37%; p = .165).
We also hypothesized that the recitation of consideration absent the endowment of money would generate no different commitment behavior than the control condition, which again was an ordinary bargained-for exchange. Evidence supports this hypothesis. As shown in Table 2, the percentage of participants who backed out in the recital condition (43.76%) is not statistically different from the percentage who backed out in the disclaimer condition (41.37%; p = .48). Participants in the recital condition backed out at a non-statistically significant rate as compared with the control (CAPTCHA) condition participants as well (46.89%; p = .341). In other words, a recital of consideration on its own, without additional endowment of money, did little to motivate individuals to remain committed to their original deals, beyond that which could produce such commitment behavior yieldable from any and every alternative framing.

Lastly, subjects backed out of their commitments in the contract disclaimer condition at a lower rate (41.37%) than subjects assigned to the control condition (46.89%; p < .096). This suggests that language alone without endowing money can influence commitment behaviors—but not in the way that theorists or jurists might have predicted. As discussed below, however, it is possible that the effect of disclaiming the existence of contract on commitment behavior is mediated by other variables.

<table>
<thead>
<tr>
<th>Table 3. Proportion Test Comparisons Across Experimental Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparison</td>
</tr>
<tr>
<td>Recital + $ vs. Disclaimer</td>
</tr>
<tr>
<td>36.44% vs. 41.37%</td>
</tr>
<tr>
<td>Recital + $ vs. Recital</td>
</tr>
<tr>
<td>36.44% vs. 43.76%</td>
</tr>
<tr>
<td>Recital + $ vs. Control</td>
</tr>
<tr>
<td>36.44% vs. 46.89%</td>
</tr>
<tr>
<td>Disclaimer vs. Recital</td>
</tr>
<tr>
<td>41.37% vs. 43.76%</td>
</tr>
<tr>
<td>Disclaimer vs. Control</td>
</tr>
<tr>
<td>41.37% vs. 46.89%</td>
</tr>
<tr>
<td>Recital vs. Control</td>
</tr>
<tr>
<td>43.76% vs. 46.89%</td>
</tr>
</tbody>
</table>

116 The effect is only statistically significant at the 90% threshold.
Taken together, evidence from this experiment supports the notion that endowment is an important component in inducing reciprocal commitment behavior. However, that reciprocal commitment might be just as evocable by signaling the absence of contract—something that could prompt individuals to frame the exchange as a relational commitment instead of a market exchange, as other work suggests.\(^{117}\)

Lastly, for the 95 participants who saw the bonus as $0.05, a more symbolic amount, 44.2% of them backed out (standard deviation (“SD”) = .50), as compared with the 36.4% back-out rate for participants who saw the $1.00 or $0.25 bonus amount. This difference of almost 8% is not statistically significant (\(p = .17\)), although we would not expect there to be a significant difference between these rates given the small sample size and power expectations. The value of the additional subject pool at the much lower bonus amount is to test the directionality of the distributions.

2. **Does Contract Framing Affect the Magnitude of Non-Commitment Behavior?**

Once they elected to back out of their commitment, participants were allowed to reallocate to themselves the money that they previously committed to allocate to charity.\(^{118}\) Table 4 shows the mean dollar values subjects took for themselves by conditional assignment. Across all conditions, the mean reallocation amount was $1.79 (\(n = 719; \text{SD} = .44\)). There was no statistically significant disparity across conditional assignment on the magnitude of non-commitment behavior in this study. The only difference that approached statistical significance at the 90% level is the recital plus money condition ($1.84) compared to the recital ($1.75; \(p = .10\)). It is interesting that the lowest magnitude of selfish behavior observed among subjects who elected to back out of their commitment was the level for those in the recitation condition. That is, those who backed out in a condition in which there was a formal recitation of consideration absent an endowment of additional money associated with the recitation took less for themselves (away from charities) than in other conditions. Because this difference is not statistically significant, however, this observation is merely suggestive and speculative. In the end, the experiment offers no evidence to support the hypothesis that there are

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\(^{117}\) See *supra* note 77 and accompanying text.

\(^{118}\) See *supra* Section II.B.
differences in the magnitudes of post-breach behaviors across the experimental conditions.

Table 4. Mean Dollar Values of Reallocation to Self Across Experimental Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recital + $</td>
<td>125</td>
<td>1.84</td>
<td>0.428</td>
</tr>
<tr>
<td>Disclaimer</td>
<td>175</td>
<td>1.75</td>
<td>0.448</td>
</tr>
<tr>
<td>Recital</td>
<td>193</td>
<td>1.75</td>
<td>0.451</td>
</tr>
<tr>
<td>Control</td>
<td>226</td>
<td>1.81</td>
<td>0.415</td>
</tr>
<tr>
<td>Total</td>
<td>719</td>
<td>1.79</td>
<td>0.436</td>
</tr>
</tbody>
</table>

3. Are Individual Attributes Correlated with Commitment Behaviors?

Consistent with prior research, individual level attributes matter in predicting variation in commitment behaviors. Specifically, more men back out of their established commitments than women (51% of men, as compared to 31% of women; p < .001). Thirty-five percent of subjects with the highest educational attainment (greater than a four-year college degree) back out of their initial commitments, as compared to 44% of subjects with lesser educational attainment (p = .02). And, not surprisingly, people with low ERO scores backed out at a higher rate than those with high ERO scores (49% of low ERO participants compared to 39% of high ERO participants; p < .001). Similarly, participants with high EAO scores backed out at a higher rate than those with low EAO scores (46% of high EAO participants compared to 37% of low EAO participants; p = .002). Reported income level mattered in predicting back-out rates for participants as well, as Table 5 reflects. Demographic variables without any statistically significant correlation with back-out rates include race/ethnicity (p = .19) and reported knowledge of contract law (p = .23).

Table 5. Mean Back-Out Rates by Reported Household Income

<table>
<thead>
<tr>
<th>Reported Income</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$10k</td>
<td>56.16%</td>
<td>0.498</td>
<td>146</td>
</tr>
<tr>
<td>$10–19k</td>
<td>47.52%</td>
<td>0.501</td>
<td>202</td>
</tr>
<tr>
<td>$20–29k</td>
<td>41.13%</td>
<td>0.493</td>
<td>282</td>
</tr>
<tr>
<td>$30–39k</td>
<td>43.51%</td>
<td>0.497</td>
<td>239</td>
</tr>
<tr>
<td>$40–49k</td>
<td>43.52%</td>
<td>0.497</td>
<td>193</td>
</tr>
<tr>
<td>$50–74k</td>
<td>36.26%</td>
<td>0.482</td>
<td>273</td>
</tr>
<tr>
<td>$75–99k</td>
<td>35.80%</td>
<td>0.481</td>
<td>162</td>
</tr>
</tbody>
</table>

We also examined whether, and to what extent, individual characteristics correlated with the amount of money participants reclaimed for themselves among those who backed out of their commitments. On average: men claimed more money for themselves than women by $0.11 (p = .002); low ERO participants claimed $0.16 more than high ERO participants (p < .001); and high EAO participants claimed $0.07 more than low EAO participants (p = .06). None of the other demographic characteristics were statistically significantly correlated with the amount of money claimed.120

Age and cohort effects are worth noting separately from other demographic covariates. There is a strong, robust negative correlation between participants’ reported age and their likelihood of keeping their expressed charitable contribution commitments across all experimental conditions. As Table 6 shows, older participants are significantly less likely to back out of their commitments across all conditions. Fifty-four percent of the 274 participants aged 18–24 backed out of their commitments, as compared to 24% of those 45–54 (n = 135), and only 22% of those aged 55–64 (n = 82). There were only eighteen participants aged 65–74; only five of those eighteen backed out.

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–24</td>
<td>274</td>
<td>54.01%</td>
<td>0.499</td>
</tr>
<tr>
<td>25–34</td>
<td>582</td>
<td>46.74%</td>
<td>0.499</td>
</tr>
<tr>
<td>35–44</td>
<td>242</td>
<td>36.36%</td>
<td>0.482</td>
</tr>
<tr>
<td>45–54</td>
<td>135</td>
<td>24.44%</td>
<td>0.431</td>
</tr>
<tr>
<td>55–64</td>
<td>82</td>
<td>21.95%</td>
<td>0.416</td>
</tr>
<tr>
<td>65–74</td>
<td>18</td>
<td>27.78%</td>
<td>0.461</td>
</tr>
<tr>
<td>Total</td>
<td>1333</td>
<td>42.31%</td>
<td>0.494</td>
</tr>
</tbody>
</table>

120 The 553 white participants who backed out of their commitments claimed an average of $1.79 (SD = .43) for themselves. Including Asians, there are 166 minority participants who backed out of their commitments. Their mean amount claimed was $1.76 (SD = .45). The difference is not statistically significant (p = .39). If one excludes Asians from the tally of minority participants, there are then 105 remaining minorities who backed out of their commitments, with a mean dollar value claimed for themselves of $1.71 (SD = .48). The difference of $0.08 (whites claim more for themselves than minorities) is statistically significant at the 90% threshold, but not at the standard 95% threshold (p = .07).
The overall inverse relationship between commitment behavior and age is apparent in Table 6 and Figure 2 below. Across all conditions, a one-unit increase in participant’s age bracket is associated with a 31% decrease in the likelihood of backing out of one’s commitment. Within any age bracket, given the small sample sizes and power constraints, it should not be surprising that few of the comparisons across conditional assignment are statistically significant. The exceptions are as follows. In the 35–44 age bracket, the recital plus endowment condition is different from the disclaimer condition (p = .09), and the recital plus endowment condition is also statistically significantly different from the control condition (p = .06). In the 45–54 bracket, the disclaimer condition is statistically different from the control condition (p = .04), and the recital condition is different from the control condition as well (p = .06).

**Figure 2. Back-Out Rates by Age and by Conditional Assignment**

What is perhaps most interesting is the comparison of the differences between older and younger participants’ reactions to the experimental contractual framings. For ease of interpretation of results, one may dichotomize the age data into participants under 35, and those 35 or older: 35.2% of the participants are 35 or older and 65% are 18–34 years old. Not surprisingly from the information already described,
the commitment rates for these two groups are starkly different. The mean back-out rate for all subjects under 35 years old is 48.5% (SD = .5) as compared with 31.2% (SD = .46) for participants 35 and over (p < .001).

Table 7 shows the commitment rates by experimental condition and by age (dichotomized). Younger subjects are consistently more likely to back out of their bargains than older subjects. The recital plus endowment condition induced 47% of subjects 18–34 to back out of their bargain as compared to only 28.5% of participants 35 or older. This difference is highly statistically significant (p < .001). In the recital condition, the difference is also significant (p = .02), and that difference is significant in the control condition as well (p < .001). However, the difference in back-out rates is not statistically significant for participants in the disclaimer condition. There, the back-out rates for younger (46%) and older (37%) participants are not statistically significantly different (p = .105). Taken together, these findings raise questions about possible cohort effects in the way in which participants reacted to the contract frames presented. The point is simply that there is some initial evidence to support the hypothesis that there are cohort effects that should not be ignored, especially when considering the effect of online consideration and form.

### Table 7. Differences in Back-Out Rates by Conditional Assignment, by Differences in Age (Over/Under Thirty-Five)

<table>
<thead>
<tr>
<th>Condition</th>
<th>18–34</th>
<th>35+</th>
<th>Total</th>
<th>Proportion test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recital + $</td>
<td>Mean</td>
<td>46.67%</td>
<td>28.50%</td>
<td>36.44%</td>
<td>p &lt; .001</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>0.501</td>
<td>0.453</td>
<td>0.482</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>150</td>
<td>193</td>
<td>343</td>
<td></td>
</tr>
<tr>
<td>Disclaimer</td>
<td>Mean</td>
<td>46.30%</td>
<td>37.42%</td>
<td>41.85%</td>
<td>0.105</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>0.500</td>
<td>0.485</td>
<td>0.494</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>162</td>
<td>163</td>
<td>325</td>
<td></td>
</tr>
<tr>
<td>Recital</td>
<td>Mean</td>
<td>52.12%</td>
<td>39.89%</td>
<td>45.69%</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>0.501</td>
<td>0.491</td>
<td>0.499</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>165</td>
<td>183</td>
<td>348</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>Mean</td>
<td>54.59%</td>
<td>37.70%</td>
<td>46.25%</td>
<td>p &lt; .001</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>0.499</td>
<td>0.486</td>
<td>0.499</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>196</td>
<td>191</td>
<td>387</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Mean</td>
<td>50.22%</td>
<td>35.75%</td>
<td>42.69%</td>
<td>p &lt; .001</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>0.500</td>
<td>0.480</td>
<td>0.495</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>673</td>
<td>730</td>
<td>1403</td>
<td></td>
</tr>
</tbody>
</table>

Lastly, in the interest of comprehensively displaying results that may be useful in evaluating the findings described, Table 8 reports the
results of a set of nested logistic models evaluating the effect of covariates on the odds of backing out. Table 8 shows what has already been discussed about the robust effect of being female on commitment behavior. Women back out of their commitments at nearly half the rate of men. Similarly, reporting greater income is associated with greater commitment rates, as is having a high ERO score. Lastly, as discussed above, the older the subject, the greater the commitment behaviors observed in this set of experiments.

**Table 8. Logistic Regression of Back-Out Rates on Covariates (Odds Ratios Reported)**

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>0.437***</td>
<td>0.437***</td>
<td>0.465***</td>
<td>0.564***</td>
</tr>
<tr>
<td></td>
<td>(0.0437)</td>
<td>(0.0453)</td>
<td>(0.0497)</td>
<td>(0.0684)</td>
</tr>
<tr>
<td>Minority Status</td>
<td>1.059</td>
<td>1.096</td>
<td>1.095</td>
<td>1.036</td>
</tr>
<tr>
<td></td>
<td>(0.118)</td>
<td>(0.128)</td>
<td>(0.129)</td>
<td>(0.140)</td>
</tr>
<tr>
<td>Education (ordinal)</td>
<td>0.972</td>
<td>0.961</td>
<td>0.967</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0425)</td>
<td>(0.0425)</td>
<td>(0.0478)</td>
<td></td>
</tr>
<tr>
<td>Income (ordinal)</td>
<td>0.894***</td>
<td>0.896***</td>
<td>0.899***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0228)</td>
<td>(0.0230)</td>
<td>(0.0259)</td>
<td></td>
</tr>
<tr>
<td>Contact Knowledge (ordinal)</td>
<td>0.940*</td>
<td>0.935*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0330)</td>
<td>(0.0351)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERO</td>
<td>0.708***</td>
<td>0.701***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0573)</td>
<td>(0.0650)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EAO</td>
<td>0.981</td>
<td>0.925</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0842)</td>
<td>(0.0879)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age (ordinal)</td>
<td></td>
<td></td>
<td></td>
<td>0.753***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.0404)</td>
</tr>
<tr>
<td>Constant</td>
<td>1.034</td>
<td>1.606***</td>
<td>4.263***</td>
<td>6.737***</td>
</tr>
<tr>
<td></td>
<td>(0.0724)</td>
<td>(0.260)</td>
<td>(1.532)</td>
<td>(2.808)</td>
</tr>
<tr>
<td>Observations</td>
<td>1784</td>
<td>1689</td>
<td>1689</td>
<td>1353</td>
</tr>
</tbody>
</table>

std errors in parentheses

*** p<0.001, ** p<0.05, * p<0.1

**D. Experiment 2: Are Demographic Effects an Artifact?**

Research has demonstrated a connection between covariates, such as gender and income level, and charitable giving. Given that our initial setup for this experiment invokes charitable giving preferences, and, as discussed above, being female, older, and reporting higher income are associated with augmented commitment behaviors, we conducted a follow-on study with a smaller sample aimed at seeing

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if the covariate results hold or diverge when the decision process has nothing to do with charity, and is instead based on a quasi-anonymous market exchange.

The “book naming study” replicated the design described above, except instead of choosing between two charities to receive a payout, subjects chose between two individuals named “Jake” and “Dave” who had each proposed titles for a forthcoming book.\(^{122}\) In this design, subjects were expected to perceive this task as adjudicating between two real marketing professionals’ ideas for a book. To augment the salience of the choice, and to replicate the realness of the monetary allotment in the charitable giving studies, we informed subjects that Dave or Jake would be paid based on participants’ allotments. The experimental setup was otherwise identical to that described above, substituting “book namers” or “Dave” or “Jake” in place of the charitable names and references in the experiment.

First, proportion tests confirm that there are no statistically significant differences between subjects’ commitment behaviors in the charitable giving experiment versus the commitment behaviors of subjects in the book naming experimental group. Table 9 below reports the back-out rates by experimental group, and by conditional assignment. It also reports the p-values for proportionality tests by conditional assignment. None are statistically significant.

### Table 9. Comparison of Back-Out Rates by Experimental Group

<table>
<thead>
<tr>
<th>Condition</th>
<th>Charitable Giving</th>
<th>Book Naming</th>
<th>Proportion test p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>N</td>
</tr>
<tr>
<td>Recital + $</td>
<td>36.44%</td>
<td>0.482</td>
<td>343</td>
</tr>
<tr>
<td>Disclaimer</td>
<td>41.37%</td>
<td>0.493</td>
<td>423</td>
</tr>
<tr>
<td>Recital</td>
<td>43.76%</td>
<td>0.497</td>
<td>441</td>
</tr>
<tr>
<td>Control</td>
<td>46.89%</td>
<td>0.500</td>
<td>482</td>
</tr>
<tr>
<td>Total</td>
<td>42.57%</td>
<td>0.495</td>
<td>1689</td>
</tr>
</tbody>
</table>

Second, we replicated the nested logit models just for subjects in the book naming study. The results are reported in Table 10. There are no differences between the effects of the covariates reported in the charitable giving experiments as compared to the effects of the covariates reported in the book naming study. Or to put it differently, we found no evidence that changing the setting of the experiment

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\(^{122}\) To be clear: Jake and Dave are the authors!
from charitable giving to commercial services had appreciable effects on the age and gender effects described above.

**Table 10. Logistic Regression of Back-Out Rates on Covariates (Odds Ratios Reported) Book Naming Subjects Only**

<table>
<thead>
<tr>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>0.633***</td>
<td>0.620***</td>
<td>0.619***</td>
</tr>
<tr>
<td></td>
<td>(0.107)</td>
<td>(0.108)</td>
<td>(0.110)</td>
</tr>
<tr>
<td>Minority Status</td>
<td>0.925</td>
<td>0.894</td>
<td>0.882</td>
</tr>
<tr>
<td></td>
<td>(0.187)</td>
<td>(0.187)</td>
<td>(0.187)</td>
</tr>
<tr>
<td>Education (ordinal)</td>
<td>1.089</td>
<td>1.110</td>
<td>1.129</td>
</tr>
<tr>
<td></td>
<td>(0.0829)</td>
<td>(0.0859)</td>
<td>(0.0887)</td>
</tr>
<tr>
<td>Income (ordinal)</td>
<td>1.005</td>
<td>1.010</td>
<td>1.014</td>
</tr>
<tr>
<td></td>
<td>(0.0426)</td>
<td>(0.0432)</td>
<td>(0.0437)</td>
</tr>
<tr>
<td>Contact Knowledge (ordinal)</td>
<td>0.842**</td>
<td>0.849**</td>
<td>0.849**</td>
</tr>
<tr>
<td></td>
<td>(0.0603)</td>
<td>(0.0613)</td>
<td>(0.0613)</td>
</tr>
<tr>
<td>ERO</td>
<td>1.119</td>
<td>1.127</td>
<td>1.127</td>
</tr>
<tr>
<td></td>
<td>(0.154)</td>
<td>(0.156)</td>
<td>(0.156)</td>
</tr>
<tr>
<td>EAO</td>
<td>1.340*</td>
<td>1.283</td>
<td>1.283</td>
</tr>
<tr>
<td></td>
<td>(0.204)</td>
<td>(0.196)</td>
<td>(0.196)</td>
</tr>
<tr>
<td>Age (ordinal)</td>
<td>0.800***</td>
<td>0.800***</td>
<td>0.800***</td>
</tr>
<tr>
<td></td>
<td>(0.0639)</td>
<td>(0.0639)</td>
<td>(0.0639)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.909</td>
<td>0.680</td>
<td>0.364*</td>
</tr>
<tr>
<td></td>
<td>(0.115)</td>
<td>(0.189)</td>
<td>(0.216)</td>
</tr>
<tr>
<td>Observations</td>
<td>585</td>
<td>561</td>
<td>561</td>
</tr>
</tbody>
</table>

std errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

III. Consideration, Form, and Behavior

In this Part, we discuss the implications of the studies presented above for contract doctrine and theory, and suggest directions for future research.

A. Recitals, Anti-Recitals, and Reciprocity

1. Modernizing Recitals

Fuller thought recitals induced deliberation by making readers aware of the imminence of law. On its face and in its time, this hypothesis was plausible. Though recitals of consideration may appear as gibberish to lay readers, they might nonetheless have meaning. As Mark Suchman persuasively argues, “aspects of contract structure and chunks of contract language become ideograms, representing concepts and postures that the parties cannot or will not explicitly verbalize.” 123 Fuller hypothesized that recitals worked just this way—they signaled

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123 Suchman, *supra* note 75, at 112 (footnote omitted).
something to the reader (“Stop! The Law is upon you!”)—even though only attentive first year contracts law student readers are able to explain what “adequate consideration hereby received” means.

Fuller’s theories harmonize with the broader idea advanced by many scholars that individuals tend to comply with laws regarded as legitimate.\(^{124}\) The greater the perceived legitimacy, the greater the likelihood of conforming behavior.\(^{125}\) “Consideration” or other legally valenced symbols are supposed to signal to individuals that a privately made instrument of law (a contract) bears the seal of the law’s formal approval, and hence the authority of legitimate law stands behind it.

As we said, it is possible that ordinary citizens in the 1940s did have this kind of ideographic experience when “reading” a recital of consideration. If recitals, like seals, were then “symbol[s] in the popular mind of legalism and weightiness”\(^{126}\) it would have been immaterial that no one understood what they precisely meant. And perhaps contract language had a distinctive and symbolic meaning in 1941. Written contracts were far rarer than they are now, and the legal profession (and law) retained a degree of mystery and prestige that seems all but inconceivable today.\(^{127}\) We cannot know if lay readers experienced recitals as Fuller thought they did, though surely he was better positioned than we are to bear witness.

But readers might have doubted, even before reading this Article, that modern contracting parties (and our experimental subjects) would so clearly connect recitals with “law.” Contracts are now ubiquitous, and, as such, have lost their power to awe.\(^{128}\) Most parties ex-


\(^{126}\) Fuller, supra note 1, at 800.

\(^{127}\) Even in 1977, “almost 75 percent of [the poll] respondents believed the legal profession had either very great or considerable prestige.” Amy E. Black & Stanley Rothman, Shall We Kill All the Lawyers First?: Insider and Outsider Views of the Legal Profession, 21 Harv. J.L. & Pub. Pol’y 835, 850 (1998). By 1997, half of respondents thought lawyers had “either some or hardly any prestige.” Id.

\(^{128}\) This account is like Melvin Eisenberg’s discussion of the decline of the symbolic power
experience contract terms as adhesive lists that get in the way of the desired product or service, rather than as a dickered for memorialization of bilateral promises. It is not merely that no one reads contracts, it is that everyone knows that no one reads contracts. That is, the idea that particular terms in a contract might connote the mystery of law seems increasingly like a joke.129

It should then come as little surprise that we found no evidence that recitals change contracting behavior. The real question is: what does this absence of evidence imply for doctrine? The immediate temptation, of course, is to declare that naked recitals of intent or of consideration should have no effect—throwing out recitals in the options context,130 as well as the UWOA and the doctrine of the plurality of states.131 After all, if such recitals do not induce deliberation and thus promise keeping, what good are they?

But this easy answer is at best premature. For one, as we discuss below, there are limits to the generalizability of the experimental results we have presented here, and further research in various contexts would be necessary to prove that recitals never induce circumspection and a feeling of contractual obligation. For instance, perhaps recitals induce circumspection where there is no underlying bargained-for exchange—a more classic gift context. Or perhaps recitals retain their symbolic power in paper contracts, even as they have lost it online.132

Additionally, there should be limits placed on the degree to which empirical evidence like this is applied at all in the quest to inform doctrine. In an area of law like contracts, doctrine heavily relies on the law’s interpretation of what is reasonable for contracting parties to understand. We believe empirical analysis should inform this interpretation because it is better than the alternative—judges applying their own naïve subjective assessments of “reasonableness” on liti-
litigants. Even if based on significant thought on the matter, personal
experience, and observation of numerous litigants, judges are subject
to biases and are unlikely to hold views representative of their liti-
gants under all circumstances. It is a relatively new idea to use data to
inform doctrine, however, and caution should be taken, especially in
instances like this in which the data are preliminary and not likely
sufficient to form the basis on which to ground large-scale
amendments.

Another reason to resist upturning recital doctrine is that formali-
ties have evidentiary functions as well as cautionary ones. Even
when consideration recitals do not check inconsiderate action by
promisees, they do help fact finders by demarcating enforceable
promises. On this reading, consideration recitals would create en-
forceable bargains even when they left the modal reader nonplussed.
They would act purely as legal fictions.

The danger with this approach is that it leaves some promisees
open to exploitative behavior: legal fictions are most often understood
as such by sophisticated parties, who might be able to use them to
create contractual obligation where the untutored would be surprised
to find it. Perhaps, then, courts should not reject recitals but instead
modernize them. What is needed is a set of symbols—artificial en-
forcement markers—to help today’s parties understand that they are
entering into contracts. Determining the right modern symbolic ges-
tures that connote seriousness and obligation is a hard, empirical pro-
ject. Possibilities might include scanning fingerprints, new digital seals,
or even artificial eyes to produce a feeling of being watched. The
point would be to find a formal gesture cleanly signaling the “division
between the legal and the non-legal” in a way that would be obvious
to even the most inattentive web surfer.

2. Folk Wisdom and Nominal Consideration

Our finding that small bonus payments motivate keeping bar-
gains may help to explain an otherwise puzzling aspect of contracting
practice. Though the Restatement (Second) disdains nominal consid-
eration, casebooks are full of examples of lay people apparently think-
ing that small payments attending the bargain means that a “contract”
has formed. Consider Lucy v. Zehmer. In Lucy, plaintiff, W.O.

133 Fuller, supra note 1, at 800.
134 See generally Calo, supra note 25, at 1038–41 (discussing psychological notice).
135 Fuller, supra note 1, at 803.
136 84 S.E.2d 516 (Va. 1954).
Lucy, induced defendant, A.H. Zehmer, to enter into a handwritten contract (on the back of a restaurant check) to sell the latter’s family farm for $50,000.\textsuperscript{137} Zehmer, allegedly perceiving the transaction as a joke, signed the contract and prevailed on his wife, Ida, to sign away her rights as well.\textsuperscript{138} When he returned the “contract” to Lucy, Lucy attempted to “bind the bargain” with a symbolic $5.00.\textsuperscript{139} Zehmer, according to Lucy, refused the $5.00, allegedly saying: “You don’t need to give me any money, you got the agreement there signed by both of us.”\textsuperscript{140}

Though \textit{Lucy} is often taught to contracts students to illustrate the objectivity of assent in contract law,\textsuperscript{141} for us the more interesting aspect of the case is how it illustrates what ordinary individuals think about formation. Lucy—who turned out to be a relatively sophisticated lumberman and land speculator—apparently believed that the exchange of $5.00 would solemnize a $50,000 contract.\textsuperscript{142} Zehmer—on Lucy’s account—thought the money unnecessary because a contract already existed. But, according to a disinterested waitress, Zehmer refused the $5.00 because he was afraid it would create a bargain: he turned it down “because [Lucy] didn’t have enough money to pay for his property, and [he] wasn’t going to sell his farm.”\textsuperscript{143} Ida Zehmer similarly testified that her husband rejected the money because he did not want to be bound to the deal: she recounted him saying, “No, this is liquor talking. I don’t want to sell the farm, I have told you that I want my son to have it. This is all a joke.”\textsuperscript{144}

Thus, both Lucy and Zehmer apparently believed that token payments could create a contract. In many jurisdictions, and in almost all classrooms, that view is derided as hopelessly naïve and unsophisticated. But our experimental results provide some evidence as to why lay promisors and promisees continue to exchange small bits of money

\textsuperscript{137} \textit{Id.} at 517.
\textsuperscript{138} \textit{Id.} at 517–18.
\textsuperscript{139} \textit{Id.} at 518.
\textsuperscript{140} \textit{Id.} Zehmer, by contrast, testified that he responded to the offer by saying: “Hell no, that is beer and liquor talking. I am not going to sell you the farm. I have told you that too many times before.” \textit{Id.} at 519.
\textsuperscript{142} See Barak Richman & Dennis Schmelzer, \textit{When Money Grew on Trees: Lucy v. Zehmer and Contracting in a Boom Market}, 61 Duke L.J. 1511, 1520–21 (2012) (suggesting that because Lucy hired one of the state’s most renowned attorneys prior to engaging with Zehmer, he was expecting a legal fight to ensue).
\textsuperscript{143} \textit{Lucy}, 84 S.E.2d at 520.
\textsuperscript{144} \textit{Id.}
when promising. As Fuller argued, nominal consideration actually handed over is “really effective in achieving the formal desidera" as it, in effect, gives extra weight to the promise.

Now, an attentive reader may object and suggest that our payments were not in fact nominal (i.e., $1.00 or $0.25 is actually a fair percentage of the average amount we paid subjects). When we reduced that bonus to $0.05, we observed no effects on the likelihood to back out, suggesting the bonus effects in our study result from norms of reciprocity, rather than from the formality itself. Thus, Melvin Eisenberg and others may have gone too far in thinking that nominal consideration has a purely symbolic role. Further experiments could work harder to tease out this effect: Under what circumstances do token payments attending the bargain trigger reciprocity norms and when are they ignored? Is the ratio between the size of the underlying performance and the size of the token crucial, or merely the absolute size of the latter? Does counterparty identity matter (that is, are individuals more likely to think that token payments from other individuals, as opposed to firms, are meaningful)? Answering these kinds of questions would help us to develop the contours of a proposed revision to Restatement (Second) section 79.

3. Are Disclaimers in Contracts the Same as Disclaimers of Contract?

In some ways, our most unexpected and intriguing finding concerns disclaimers. Contrary to the limited experimental evidence available to date, we find that disclaimers of contractual obligation perversely increase the likelihood of promise keeping. We think that this finding, if born out in further research, poses a serious challenge to and engages with three important strands in modern contract theory and doctrine.

The first challenge is posed to the theory that contractual obligation rests on the parties’ explicitly stated intent to be bound. This theory, best articulated by Randy Barnett but advanced by others, posits that statements of intent to be bound and intent not to be

145 Fuller, supra note 1, at 823.
146 Eisenberg, supra note 53, at 660–61 (“[I]t can be safely assumed that parties who falsely cast a nonbargain promise as a bargain do so for the express purpose of making the promise legally enforceable.”).
147 See supra text accompanying notes 79–85.
bound ought to be treated equivalently by law. The reason is simple: it seems intuitive to such authors that clauses that signal an intent to be bound and clauses that disclaim such intent would have the same behavioral valence. But our perverse disclaimers unsettle that assumption. At the very least, we have shown that the question of whether to treat intent to be bound and intent to be unbound similarly should be answered empirically.

Second, we think we have found preliminary evidence that courts’ current treatment of disclaimer clauses should be reexamined. As we explored above, such clauses are increasingly common in the employment context. In the comfort of chambers, courts reading such clauses routinely ask: how could anyone reading this clause think that they were entering into a contract? At most, courts call for clearer and more conspicuous disclaimers of obligation, as if the problem was one of information *availability* rather than *processing*. But we think that this approach may be self-defeating. If, indeed, disclaimers have a perverse behavioral effect and encourage parties to think that relational norms govern rather than brutish law, readers of disclaimers may be in the worst of all possible worlds. *Ex ante*, they feel that they are protected by social norms and consequently do not protect themselves; *ex post*, courts judge them for failing to read and exercise caution.

Third, our experiments may expand on recent work on “no contract” clauses by Oren Bar-Gill and Omri Ben-Shahar. “No contract” clauses are now common in advertising from cellphone companies and for other consumer goods: they explicitly disclaim contracts (while, in fact, binding users to terms but freeing them from termination fees). Bar-Gill and Ben-Shahar 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.” As such, they are a bonding mechanism (and a signal of high quality), accompanied by more subtle costs to exit.

To Bar-Gill and Ben-Shahar’s subtle and powerful analysis, we would add the following caveat: “no contract” clauses may not be attractive simply because they promise a world free from termination fees. They may be attractive because customers wrongly believe that “no contract” actually means “no contract,” which is appealing in a

149 See Barnett, supra note 68, at 535.
150 See Bar-Gill & Ben-Shahar, supra note 105.
151 Id. at 152.
152 Id. at 159.
world in which the idea of “being in a contract” has taken on a negative connotation.153 Our experimental results provide suggestive and preliminary evidence of that possibility: when told they were not in a contract, individuals behaved in a less self-protective way. Here too, more work is necessary to flesh out the limits of the observed phenomenon and theorized extension.154

B. Individual Differences

Though gender and age effects in contractual compliance have been noted in the past,155 we are unaware of results as stark as the ones we have described here. Our results present a puzzle. Why do older individuals behave so differently than younger ones, and males so differently than females, when faced with decisions to breach online contracts?

First, older individuals are more likely to possess different base-rate expectations in their evaluations of when they are taking some action to establish a valid, binding legal contractual commitment to do something or not do something, as compared to younger individuals. Specifically, for older participants, clicking to agree to something is a more meaningful analog to signing one’s name on a contract. For these people, signing one’s name signifies a binding commitment to a course of action, whether one understands everything in the document or not. For younger individuals, their base-rate expectation for contract norms may come not from arms-length exchange analogs, but from digital exchange, in which clicking to agree is a meaningless action, devoid of genuine commitment.156

That is, for younger individuals, clicking “I agree” is a necessary act performed ritualistically in order to receive the underlying benefit of the bargain.157 That experience forms the basis for the deeply in-

153 *Id.* at 180–81; see also *Eigen, Devil in the Details, supra* note 119.

154 For more on this possibility, see generally *David A. Hoffman, From Promise to Form: How Contracting Online Changes Consumers*, 91 N.Y.U. L. REV. 1595 (2016).

155 *See Eigen, Terms and Conditions, supra* note 74, at 28 (“[A] one-bracket increase in reported age (the brackets are ordinal, in 3-year intervals), is associated with a 12% increase in the odds of taking the survey only one time (p < .001) [which, in Eigen’s work, could be coded as breach].”).


157 Nancy Kim’s work also suggests this though she is not focused on cohort effects. *See Kim, supra* note 25, at 1348.
grained understanding of contracts. If one wants to use Facebook, one has to agree to Facebook’s terms and conditions. If one wants to download software one has purchased, one has to first click a button that may (or may not) signify assent to a contract. Younger individuals are more likely to have been weaned on clicking (to acquiesce) as a form of ritualistic behavior one must do in order to see the next screen on a webpage or download the clip one wants to view. Older individuals experience these types of contracts all the time as well, but perhaps they have a different experiential basis for their deeply-ingrained understanding of contract, which involves to a greater degree the moral norms of promise keeping derived from arms-length exchange.

With this difference in base-rate expectations, one would expect the recital condition to impact age cohorts quite differently. Perhaps the recital condition signals to an older cohort that they are entering into a legally binding commitment to do something, derived from their base-rate expectation of an arms-length exchange. For a younger cohort, this might not be the case. Their base-rate expectation is that clicking to agree is a meaningless act. Language of contract is a stream of text that washes over, unrecognized as anything more than a hoop through which to jump in order to get on with the exchange. They click to agree in order to receive the benefit of the underlying bargain independent of the words and what they stand for. Indeed, in the recital condition, 39.9% of participants 35 years or older backed out of their commitments. But a majority (52.1%) of subjects 18–34 backed out. This difference is statistically significant (p = .02).

To put it differently, we hypothesize that individuals born after 1980 experience contracts online in a fundamentally different way than those born in earlier decades. For such individuals, being in a digital “contract” does not hearken back to a bilateral, legal relationship commitment based on a signature, but rather an imposition and a click. So understood, the consideration recitals we have explored are not simply a curiosity important to law professors and 1L contracts students, they are the canary in the coal mine, singing of a generational difference in contracting behavior that has not yet found purchase in contract law. Our experimental findings are consistent with this theory. We must caution readers, however, that we are not suggesting that these results on their own support this theory. Rather, we posit that other empirical and theoretical work in this field cumula-

158 See Palfrey & Gasser, supra note 156, at 36.
tively supports this hypothesis, and these results are merely suggestive and consistent.159 We are cautious not to overstep the bounds of proper inference derived from the main effects and their straightforward interpretation discussed above.

Second, women are much more likely than men to remain committed to their original agreements. To repeat a statistic from earlier in this Article, across all conditions, 51% of men backed out of their agreements, while only 31% of women did. The difference is extremely robust, statistically significant, and large in magnitude. It is not, however, entirely surprising in light of previous experiments finding that in conditions of ambiguity, women behave less self-interestedly than men.160 Arguably, the conditions of our experiment were ambiguous—we suggested to parties that they were in a contract, but provided no sanction for breach and, in a way, invited it. But that same argument could be made for other contracts studies, none of which found such robust gender effects on contractual obligation.161 This experiment thus brings the contracts experimental literature closer to a much larger tradition on gender effects in negotiation,162 and suggests that this area is ripe for further study.

C. Limitations

This Article presents preliminary evidence that endowment of a small amount of money, together with a recital of consideration and a recital disclaiming obligation, are both qualitatively different from “natural” consideration and different from a naked recital in terms of

159 One of us has taken up the challenge of further work on age and contract behavior. See Hoffman, Promise to Form, supra note 154, at 16 (finding robust age effects across different contracting contexts).


161 Eigen, Terms and Conditions, supra note 74, at 31 (no effect); Hoffman & Wilkinson-Ryan, Psychology of Contract, supra note 20, at 441 (no effect); Wilkinson-Ryan, Fine Print, supra note 89, at 1773 n.113 (no differences); Wilkinson-Ryan, Liquidated Damages, supra note 75, at 664 (no effect, but noting trend that women were less likely to breach).

the likelihood of contracting parties feeling bound to their bargains. Given the experimental setting, caution must be taken in interpreting these results. But we think they provide both some preliminary answers to old questions and an important prod for further research in the field.

The setting for this experiment was an online agreement in which a stylized rendition of bargained-for exchange is taking place. Subjects were aware that they were in an experimental setting, and that they were expressing preferences for charitable giving or dividing money between two individuals naming a book. They were informed that the money being allocated was real, but they were presented by the experimenters (the parties with whom they were contracting) with an option to back out of their commitment, which may legitimate that decision. At best, our behavioral measure should be characterized as a stylized version of breach.163

This is both a limitation on the generalizability of the study and a design advantage. We are intentionally observing behaviors in this setting as a preliminary attempt to test the behavioral waters in which there are lowered expectations of differences of commitment to a contract as compared to “real world” instances of contract (either online or otherwise) in which more is at stake, and there may be both actual and perceived sanctions (legal and non-legal) associated with breach. If anything, the effects observed in this setting may be taken as evidence of a lower bound of the differences in behavior that result from differences in contract framing that exist in non-experimental settings.

CONCLUSION

Contract law’s stance on private party control over enforcement is widely seen as incoherent. While the Restatement (Second) rejects recitals of consideration generally, it accepts them in the option context, even while it disdains nominal consideration, whether or not delivered.164 Modern courts are generally more accepting of highly formal means of indicating enforceability than the Restatement’s summary might suggest, but no dominant pattern of enforcement holds.165 Seemingly all that contract judges and scholars can agree on is that Fuller was right: contract formalities caution readers.

163 Doctrinally speaking, the invitation to back out of the bargain would not be regarded as a license to breach.
165 See supra Section I.A.
We have described the first experimental test of this consensus. We find that while small sums of money attending the bargain motivate promise keeping, recitals standing alone do not. At the same time, recitals disclaiming obligation seem to cause people to be less likely to breach. A fundamental pillar of modern contract doctrine appears either to be cracked or in need of serious refurbishment. Perhaps our chosen formalities are so obscure that they no longer retain symbolic meaning. If so, modernizing them, and accounting for demographic differences in behavior, poses important and urgent challenges for the next generation of contract scholarship.