

IAN AYRES

Regulating Opt-Out: An Economic Theory of Altering Rules

ABSTRACT. Whenever a rule is contractible, the law must establish separate rules governing how private parties can contract around the default legal treatment. To date, contract theorists have not developed satisfying theories for how to set “altering rules,” the rules that establish the necessary and sufficient conditions for displacing a default. This Article argues that when setting altering rules, efficiency-minded lawmakers should consider the costs of altering, the costs of various kinds of error, and the possibility that altering can impose negative externalities on others. There are two broad reasons for structuring altering rules that deviate from merely minimizing the transaction cost of altering. First, the Article develops conditions in which minimizing the costs of party error (especially nondrafter error) and third-party error (especially judicial error) will be paramount. It proposes a variety of altering interventions – including “train-and-test” altering rules, “clarity-requiring” altering rules, “password” altering rules, and “thought-requiring” altering rules – that might be deployed to reduce altering error. Second, when externality concerns or paternalistic concerns to protect the contractors themselves are insufficient to justify a full-blown mandatory rule, lawmakers might at times usefully impose “impeding” altering rules, which deter subsets of contractors from contracting for legally disfavored provisions. Impeding altering rules produce an intermediate category of “quasi-mandatory” or “sticky default” rules, which manage but do not eliminate externalities and paternalism concerns. These two deviations from transaction-cost minimization can often be usefully complemented by a third category of altering rules – what this Article calls “altering penalties” – which penalize one or both contractors who utilize disfavored altering methods. Altering penalties can channel contractors’ altering efforts toward means that better reduce error or better control externalities or paternalism. More explicitly theorizing altering rules as a distinct category of law can make visible legal issues that have largely gone unnoticed and lead toward the development of more defensible choices about how best to regulate opt-out.

AUTHOR. William K. Townsend Professor, Yale Law School. Anne Alstott, Akhil Amar, Tara Ayres, Ray Brescia, Rick Brooks, Geoffrey G. Dellenbaugh, Bill Eskridge, Laura Femino, Elliot Freier, Rob Gertner, Marty Kane, Pat Kane, Al Klevorick, John Langbein, Ruth Mason, Samuel Oliner-Friedland, Gideon Parchomovsky, Matthew Sag, Alan Schwartz, Peter Siegelman, participants at the 2006 Stresa Lecture, and seminar participants at the University of Connecticut, Loyola University Chicago, and Yale law schools provided helpful comments. Sam Lim, Joshua Mitts, and Wendy Zupac provided excellent research assistance.



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I. INTRODUCTION

A default-centric vision of contract law must provide answers for three core questions:

- 1) Should a particular rule be mandatory or contractible?
- 2) If contractible, what should the default be? And finally,
- 3) If contractible, how should contractors be able to contract around the default?¹

The history of modern contract theory can be seen as marching sequentially through these three questions. In the first stage, academics asked whether legal rules should be default or mandatory but paid little attention to the second or third questions.² At the time, it was implicitly or explicitly assumed that the answer to the second question was that efficient default rules should be set so as to provide the types of contractual provisions that the parties would have contracted for themselves.

Rob Gertner and I (both following and followed by a host of others) helped to complicate the answer to the second question by suggesting a number of reasons why optimal default setting should diverge from the simple *majoritarian* or *hypothetical contracting* approach.³ This second stage of analysis

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1. Ian Ayres, *Empire or Residue: Competing Visions of the Contractual Canon*, 26 FLA. ST. U. L. REV. 897, 901 (1999).
 2. I can still remember in 1988 attending an important conference at Columbia that focused solely on when and whether corporate rules should be contractible. See Lucian Arye Bebchuk, *Foreword: The Debate on Contractual Freedom in Corporate Law*, 89 COLUM. L. REV. 1395 (1989).
 3. Ian Ayres & Robert Gertner, *Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules*, 99 YALE L.J. 87 (1989) [hereinafter Ayres & Gertner, *Filling Gaps*]; Ian Ayres & Robert Gertner, *Majoritarian vs. Minoritarian Defaults*, 51 STAN. L. REV. 1591 (1999) [hereinafter Ayres & Gertner, *Majoritarian*]; Ian Ayres & Robert Gertner, *Strategic Contractual Inefficiency and the Optimal Choice of Legal Rules*, 101 YALE L.J. 729 (1992) [hereinafter Ayres & Gertner, *Strategic Contractual Inefficiency*]; see also Randy E. Barnett, *The Sound of Silence: Default Rules and Contractual Consent*, 78 VA. L. REV. 821 (1992) (discussing the interaction between consent and default contractual rules); Lucian Arye Bebchuk & Steven Shavell, *Information and the Scope of Liability for Breach of Contract: The Rule of Hadley v. Baxendale*, 7 J.L. ECON. & ORG. 284 (1991) (analyzing consequences of limiting damages to losses that were foreseeable at the time of contracting); David Charny, *Hypothetical Bargains: The Normative Structure of Contract Interpretation*, 89 MICH. L. REV. 1815 (1991) (proposing a method and justification for engaging in hypothetical bargain analysis); Charles J. Goetz & Robert E. Scott, *The Limits of Expanded Choice: An Analysis of the Interactions Between Express and Implied Contract Terms*, 73 CALIF. L. REV. 261 (1985) (proposing an error-reduction theory of implied contract terms); Alan Schwartz, *The New Textualism and the Rule of Law Subtext in the Supreme Court's Bankruptcy Jurisprudence*,

has been in full bloom for more than two decades—with hundreds of articles explicitly considering whether “information-forcing” or “penalty” defaults might be preferable to various alternatives.⁴

The progress that has been made in theorizing how best to set default rules is all to the good. But it is long past time that we turn our attention to the third core question of a default-centric approach to contract law. It is time to ask the “how” question. How should the law regulate parties’ means of contracting around a default? What should be the necessary and sufficient conditions for displacing the legal consequences of a default rule, default rights and duties, with some other legal consequences?⁵

Contract theory is at a stage of development with regard to this third question that parallels in several aspects the moment in the early 1980s when we began thinking about the second question. The parallels concern linguistics and pedagogy as well as an absence of explicit theories and the reliance on half-articulated folk theorems.

A. Terminological Parallels

It has been difficult to ask the third question of how best to displace a default in part because we are still linguistically impoverished, in ways that are reminiscent of the verbal conventions of twenty-five years ago governing what we now think of as the default/mandatory dichotomy. It is hard to believe, but in the early 1980s there was not a well-accepted terminology for distinguishing between rules that could be contracted around and those that could not.

45 N.Y.L. SCH. L. REV. 149 (2001) (criticizing the Court’s use of “new textualism” in the bankruptcy context).

4. See Ian Ayres, *Ya-HUH: There Are and Should Be Penalty Defaults*, 33 FLA. ST. U. L. REV. 589, 600-11 (2006) (discussing dozens of applications of information-forcing default setting in academic analysis and in the law itself). A recent Westlaw search of the Journals and Law Reviews database for “penalty default” or “information forcing default” returned 747 results.
5. Both defaults and altering rules can at times answer all of the “who, what, where, when, why, and how” questions. Thus, default rules might establish when and where delivery is due; what is to be delivered; who is to perform a duty; and even how the duty is to be performed. The altering rules governing how default consequences are displaced also might speak to the six ur-question types. For example, contracting around certain corporate defaults might or might not require shareholder approval (who) or might require that specific language (what) is used; opting for non-default treatment might be effective only after a cooling-off period (when) for door-to-door contracts (where), see *infra* notes 145-147 and accompanying text; or opt-out might be effective only if the contract recites sufficient reasons (why) for the alternative provision, see *infra* Subsection II.F.2. For these reasons, answering the “how” question to understand the legally effective *means* of contracting around a default can touch upon the five W’s as well.

Almost no one used (or even knew that Karl Llewellyn had used) the terms “iron” and “yielding” rules to describe the mandatory/default dichotomy.⁶ Contract articles that proposed or defended particular legal rules rarely mentioned whether the proposal was privately contractible or not. When the default concept was mentioned, authors were forced to express the idea with a variety of nonstandard phrases, including background rules, backstop rules, and *jus dispositivum*.⁷

This same lack of basic terminology hinders the ability to attack the third question. We don’t really know what to call rules that govern how one contracts around the default. I propose that we call them “altering rules.” *Altering rules are the necessary and sufficient conditions for displacing a default legal treatment with some particular other legal treatment.* I use the term “altering” not because the contractors alter the default, but because by complying with an altering rule contractors can alter the legal consequences.⁸ There will be different altering rules for each alternative to the default. An altering rule in essence says that if contractors say or do this, they will achieve a particular contractual result. The title refers to “regulating opt-out” in the sense of regulating how contractors can opt out of the default legal consequences. As used here, the process of opting out of or away from a default is simultaneously the process of opting into some non-default consequence. Altering rules thus regulate both opt-in and opt-out.⁹

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6. See Alan Schwartz, *Karl Llewellyn and the Origins of Contract Theory*, in *THE JURISPRUDENTIAL FOUNDATIONS OF CORPORATE AND COMMERCIAL LAW* 12, 28 (Jody S. Kraus & Steven D. Walt eds., 2000).
 7. See, e.g., John H. Langbein, *The Nonprobate Revolution and the Future of the Law of Succession*, 97 *HARV. L. REV.* 1108, 1134 (1984). I still remember being asked by Stan Henderson to remove the term “default rule” from my first presentation to the Association of American Law Schools on the subject, because he felt that the phrase would be confusing to the contract section members. Even the terminology for the concept of a “mandatory” (i.e., non-displaceable) rule had not been settled. In our original article, Gertner and I favored the term “immutable” to describe rules that could not be privately reordered, but common usage has embraced the term “mandatory.” A Westlaw search of the JLR database found 534 results for the term “immutable rule” but 3914 results using the term “mandatory rule.”
 8. Bill Eskridge almost convinced me to use the term “displacing” rule (instead of “altering” rule), because these types of rules displace the default treatment. But the term “altering rule” already has been used by a number of scholars, responding to brief earlier mentions of the term in my scholarship. A Westlaw search for (“altering rule” & ayres) in the JLR database found 19 articles. See, e.g., Benjamin I. Sachs, *Enabling Employee Choice: A Structural Approach to the Rules of Union Organizing*, 123 *HARV. L. REV.* 655 (2010) (applying altering rule theory to an employee’s transition from the nonunion default to union membership).
 9. The default rule governing residential telephone land-line numbers is that telemarketers are free to call. The conditions that households use to (displace the default and) “opt in” to the do-not-call status represent the altering rules.

An altering rule is a necessary condition if the altering rule specifies that a sine qua non for the parties' achieving an alternative treatment is to include a particular set of words or processes. For example, section 2-316 of the Uniform Commercial Code (UCC) ordains that "to exclude or modify the implied warranty of merchantability . . . the language [of the contract] must mention merchantability."¹⁰ Necessary altering rules specify the exclusive means of achieving particular non-default alternatives. In other contexts, however, altering rules allow multiple, nonexclusive means of displacement—any one of which would be sufficient to achieve a particular non-default alternative. Indeed, in most contexts there are multiple routes to achieve each particular alternative non-default legal consequence. The very same section of the UCC that ordains that disclaimers "must mention merchantability" goes on to provide a sufficient altering rule that might be used as a disclaimer alternative: "Language to exclude all implied warranties of fitness is sufficient if it states, for example, that 'There are no warranties which extend beyond the description on the face hereof.'"¹¹

Altering rules, like defaults, can vary in terms of their specificity, with the result that we could have "altering standards" as well as "altering rules."¹² As with other aspects of law, an altering standard would be a set of displacement conditions that were not as clearly specified ex ante.¹³ An altering standard, for example, might allow displacement of a default only if the contract language expresses an alternative intent that would be "reasonably understandable by a member of the interpretive community." In contrast, a requirement that particular magic words must be used would constitute an altering rule. For simplicity, the remainder of this Article refers to "altering rules" rather than "altering rules or standards," but the reader should bear in mind that standards at times will be the more appropriate choice.

Like defaults, altering rules can be created by statute or common law. When a judicial decision, such as *Baird v. Gimbel* or *Drennan v. Star Paving*,

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10. U.C.C. § 2-316(2) (2003). U.C.C. § 2-316(3), however, provides another mechanism for excluding the warranty of merchantability (for example, by saying that the product is offered "with all faults")—thus rendering the warranty of merchantability to be a non-necessary altering rule.
 11. *Id.* § 2-316(2).
 12. One could imagine that either necessary or sufficient conditions could be formulated as rules or standards.
 13. See generally Ian Ayres, *Preliminary Thoughts on Optimal Tailoring of Contractual Rules*, 3 S. CAL. INTERDISC. L.J. 1 (1993) (arguing that the optimal level of tailoring of default rules depends on their contractibility); Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 DUKE L.J. 557 (1992) (analyzing the economic efficiency of legal rules as opposed to standards).

determines that a particular contractual attempt is insufficient to displace a default,¹⁴ that decision is helping to specify the contours of altering rules. When the UCC says that an offer invites acceptance by any reasonable means “[u]nless otherwise unambiguously indicated by the language or circumstances,”¹⁵ it is helping to specify the contours of altering rules. Like defaults, altering rules can also be created by administrative agencies. For example, the Internal Revenue Service through its regulations¹⁶ and revenue procedures¹⁷ is a major source of altering rules. In addition, the illustrations and examples of restatements and uniform laws are an important source of altering rules—particularly providing examples of what is and is not sufficient.¹⁸

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14. *Baird Co. v. Gimbel Bros.*, 64 F.2d 344, 346 (2d Cir. 1933); *Drennan v. Star Paving Co.*, 333 P.2d 757 (Cal. 1958). Both *Baird* and *Drennan* involved the question of whether subcontractors could revoke an offer upon which a general contractor had relied. Judge Hand in *Baird* found a subcontractor’s bid to be revocable, while Justice Traynor in *Drennan* found a subcontractor’s bid to be irrevocable. But both opinions made clear that the parties might have expressly contracted for an alternative result. *Baird*, 64 F.2d at 345-46 (“While it is true that the plaintiff might in advance have secured a contract conditional upon the success of its bid, this was not what the defendant suggested. . . . The contractors had a ready escape from their difficulty by insisting upon a contract before they used the figures; and in commercial transactions it does not in the end promote justice to seek strained interpretations in aid of those who do not protect themselves.”); *Drennan*, 333 P.2d at 759 (“Had defendant’s bid expressly stated or clearly implied that it was revocable at any time before acceptance we would treat it accordingly.”); see Victor P. Goldberg, *Traynor (Drennan) Versus Hand (Baird): Much Ado About (Almost) Nothing*, 3 J. LEGAL ANALYSIS 539 (2011).
 15. U.C.C. § 2-206(1).
 16. For example, the “check-the-box” rules found in section 301.7701-1-3 of the Treasury Regulations are altering rules governing the election of tax treatment of various business entities. By default, entities with two or more members that are not “per se” corporations are treated for tax purposes as partnerships. Treas. Reg. § 301.7701-3(b)(1)(i) (2010). But merely by “checking a box” on IRS Form 8832 in a timely manner, the entity can opt to be treated for tax purposes as a corporation. Treas. Reg. § 301.7701-3(a). The check-the-box requirement is an altering rule.
 17. For example, Treasury Department Revenue Procedures 93-27 and 2001-43 provide a safe harbor procedure for treating the issuance of partnership profits interests as non-taxable. Rev. Proc. 93-27, 1993-27 C.B. 343; Rev. Proc. 2001-43, 2001-34 I.R.B. 191.
 18. See, e.g., U.C.C. § 2-609 cmt. 4 (describing what is sufficient and insufficient to constitute “adequate assurance”); U.C.C. § 2-207 cmt. 4 & 5 (providing examples of what mismatched terms of acceptance do and do not “materially alter” an initial offer); RESTATEMENT (SECOND) OF CONTRACTS § 2 cmt. e, illus. 3 (1981) (“Illustration: A says to B, ‘I will employ you for a year at a salary of \$5,000 if I go into business.’ This is a promise, even though it is wholly optional with A to go into business or not.”).

Like defaults, altering rules can be untailed or tailored. Untailed altering rules provide an off-the-rack mechanism that any set of contracting parties can use to displace a default. In contrast, tailored altering rules provide different displacement conditions for different parties. For example, a Thai restaurant that I frequent seems to require non-Asian customers to use more and different English words than Asian customers to obtain truly spicy food.¹⁹ The altering rules of the restaurant are tailored because different customers have to do different things to displace the non-spicy default.

B. Software Parallels

To fully describe an altering rule, one must know whether the altering rules are themselves mutable. That is, one must know whether it is possible for contractual parties to establish a meta or overarching contract that changes what is necessary and sufficient to contract around a default. Just as contractual parties are able to change the default legal meaning of silence,²⁰ the law might allow contractual parties to change the mechanism by which they contract around a default. For example, in the cotton industry, the signatories to the Southern Mill Rules can provide for shipment “within fourteen business days from date of sale” merely by including the phrase “for prompt shipment” in their contract.²¹ More generally, trade usage, course of dealing, and even course of performance might provide opportunities for private parties to displace what would otherwise be the altering rules governing their contract.²²

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19. In one instance, the restaurant served only moderately spicy food (which the server later described as “only a three” on a four or five star scale, even after my son and I emphasized repeatedly that I wanted very, very spicy food and that was “all I cared about.” After asking subsequently why the food was not spicy, the server refused to tell me what words would be sufficient to receive spicy food on my next trip. I’ve had better luck using the phrase “phet maak,” which is Thai for “very spicy.”
 20. See Barnett, *supra* note 3, at 821-22.
 21. SOUTHERN MILL RULES § 14 (Am. Cotton Shippers Ass’n 2004), available at <http://www.acsacotton.org/acsa/acsalive.nsf/pages/B3107F6AB0BD3993862570FA0059CC2A>; see also Lisa Bernstein, *Private Commercial Law in the Cotton Industry: Creating Cooperation Through Rules, Norms, and Institutions*, 99 MICH. L. REV. 1724 (2001) (discussing the cotton industry’s adoption of an alternative, private system of contracting and dispute resolution).
 22. Eyal Zamir, *The Inverted Hierarchy of Contract Interpretation and Supplementation*, 97 COLUM. L. REV. 1710 (1997). As in patent law where patent applicants are empowered in limited circumstances to act as their own lexicographers, see *Merck & Co., Inc., v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1370 (Fed. Cir. 2005) (“When a patentee acts as his own lexicographer in redefining the meaning of particular claim terms away from their ordinary meaning, he must clearly express that intent in the written description.”), private

The possible mutability of altering rules in contract law parallels the mutability of some altering rules in computer software. As we will see in a later Section analyzing Microsoft's User Experience (UX) Interaction Guidelines,²³ the practice of programming altering rules into computer software illuminates many of the issues that will be discussed in this Article. I analyze Microsoft's UX guidelines not because they are authoritative or presumptively optimal. Indeed, I will ultimately argue that some of Microsoft's altering rules are likely to be inefficient.

But just as computer programming helped illuminate the initial second-stage debate (after all, the term "default" is derived from computer practice), thinking about computer programming can inform our thinking about "altering rules." For example, in computer programming, some altering rules are themselves mutable (defaults), while others are not mutable (mandatory). On most computers, the default rule is that files saved on the hard drive remain on the hard drive (although public terminals often have a default rule of deleting files at a specified time daily). In Microsoft's operating system Windows, there is generally a mandatory two-click altering rule to displace the non-deletion default and delete a file (for example, by first pressing delete on a highlighted file in a folder and then pressing "yes" in response to a confirmation box asking, "Are you sure you want to delete this file?").²⁴ But in Microsoft's email software, Outlook, the analogous two-click altering rule to open an email attachment is itself merely a default. In Outlook, when a user opens the email, the default rule is that attachments to the email do not open. To displace this non-opening default, users must first click on the attachment and then click on a button in a confirmation window (warning users that they "should only open attachments from a trustworthy source"). But, in contrast to the deletion confirmation, the attachment confirmation window includes a pre-checked box indicating "[a]lways ask before opening this type of file." By unchecking the box, Outlook users can prospectively alter the altering rule from two clicks to one click. Through this software lens, we can thus see that altering rules are kinds of *second-order rules* that share many of the same

contractors might (or might not) be afforded the opportunity to displace the meaning of displacing terms.

23. *Windows User Experience Interaction Guidelines*, MICROSOFT, <http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=2695> (last visited Sept. 22, 2011); see also *infra* Section II.D.
24. Microsoft Windows allows users to permanently delete a file (bypassing the Recycling Bin) without a confirmation by highlighting the file and simultaneously pressing the <shift> and <delete> keys. But apparently (and bizarrely) the program does not allow users to avoid the confirmation screen when taking the more reversible action of moving a file to the Recycle Bin. See *infra* Subsection II.F.6 (discussing reversibility).

features of first-order defaults. Indeed, the default nature of some second-order altering rules means that there must be third-order altering rules that govern how you can modify such second-order altering rules. In the case of Microsoft Outlook attachments, this third-order rule is the unchecking of the pre-checked box to indicate that you no longer wish to be required to make such a (second-order) confirmation. As of yet, I have never encountered computer software with a fourth-order altering rule. But one can certainly imagine that a third-order altering rule itself might be a default with attendant fourth-order mechanisms.²⁵ More generally, there will continue to be altering rules of increasingly higher orders until the law reaches a level at which the altering rule for that level is itself unalterable, i.e., mandatory.²⁶

An important dissimilarity between software and contracts concerns the number of people doing the altering. In the standard case, the action of a single computer user is sufficient to displace a software default. But contract law usually requires that all parties to a contract consent to the default alteration. Yet even here the two contexts are closer than they first appear. Some contractual defaults are displaceable by individual contractors. For example, section 39(2) of the *Restatement (Second) of Contracts* provides: “An offeree’s power of acceptance is terminated by his making of a counter-offer, *unless the offeror has manifested a contrary intention or unless the counter-offer manifests a contrary intention of the offeree.*”²⁷ Sometimes the question of who must take altering action varies by jurisdiction. For example, there is a default rule in criminal law that a telephone conversation cannot be privately recorded. Some states have an altering rule making the recording lawful if all of the recorded parties consent, while other states allow recording if a single party to the

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25. For example, when a user of Outlook unchecks the box (indicating a desire to not see confirmation windows again), a window might pop up asking, “Are you sure you never want to be asked again to confirm opening an attachment?”, and also giving the user the option of not seeing this (third-order) confirmation screen. The confirmation that you want to forgo future confirmation would be a third-order rule, while the option of forgoing future third-order confirmation would be a fourth-order rule.
 26. The theoretical possibility of altering rules of increasingly higher order (which are ended only by an ultimate mandatory order) parallels the possible higher-order liability regimes discussed in IAN AYRES, *OPTIONAL LAW: THE STRUCTURE OF LEGAL ENTITLEMENTS* 73-100 (2005) and Ian Ayres & J.M. Balkin, *Legal Entitlements as Auctions: Property Rules, Liability Rules, and Beyond*, 106 *YALE L.J.* 703 (1996).
 27. *RESTATEMENT (SECOND) OF CONTRACTS* § 39(2) (1981) (emphasis added); see also Ian Ayres, *Never Say No: The Law, Economics, and Psychology of Counteroffers*, 25 *OHIO ST. J. ON DISP. RESOL.* 603 (2010) (explaining that the counteroffer “blow up” rule is one of the few defaults that can be unilaterally displaced by either the offeror or the offeree).

conversation consents.²⁸ More often than in the computer context, lawmakers in crafting altering rules should attend to the “who” question—who needs to take or consent to the altering actions. We will see this is naturally the case when the law is particularly concerned with reducing party error by making sure that the nondrafter is informed of non-default terms.²⁹

C. Pedagogical Parallels

To know the law and to be a competent lawyer, one must have descriptive knowledge of whether particular rules are alterable and, if so, how they might be altered. But classes in contracts and corporations frequently fail to teach altering rules. This pedagogical failure to instruct *how* to contract around defaults parallels an earlier failure to teach whether rules are merely defaults. When I went to law school in the mid-1980s, my contracts and corporations courses taught me dozens upon dozens of contractual rules but almost never taught me whether a particular rule could be altered by private action.³⁰ Today many professors (and virtually all contract casebooks) give more emphasis to distinguishing between mandatory and default rules.³¹ But professors and casebooks still do not systematically emphasize with any kind of particularity *how* to contract around the default. For example, one could imagine casebooks that for every case systematically included a discussion of what change in contractual language, if any, would have allowed the losing party to win.³² You cannot be a well-informed transactional lawyer if you do not know the answer to the three central default questions: “What is the presumptive legal rule?” “Can it be changed?” And, “How can I change it?” To master the positive law of altering, one would need to inquire about the host of different questions (summarized below in Table 1) governing the conditions for achieving alternative legal treatments:

28. Compare CAL. PENAL CODE § 632 (West 2011) (criminalizing recording “confidential communication” such as a telephone call without the consent of all parties), with N.Y. PENAL LAW § 250 (McKinney 2008) (defining criminal wiretapping as “the intentional . . . recording of a telephonic . . . communication by a person other than a sender or receiver thereof, without the consent of either the sender or receiver”).

29. See *infra* Subsection II.F.1.

30. For example, the counteroffer rule is contractible—unilaterally by either the offeror or the offeree.

31. But there is still not a systematic treatment in the *Restatement*, the UCC, or in casebooks detailing on a rule-by-rule and case-by-case basis which rules and holdings are merely defaults.

32. Maybe this will become a task for the next edition of my contracts textbook. IAN AYRES & RICHARD E. SPEIDEL, *STUDIES IN CONTRACT LAW* (7th ed. 2008).

Table 1.
DIMENSIONS OF ALTERING RULES

Exclusivity:	Are the conditions for displacement necessary/sufficient?
Ex Ante Specificity:	Are the conditions for displacement rules or standards?
Tailored:	Are the conditions for displacement contingent on party characteristics?
Numerosity:	Can the default be displaced unilaterally by a single contractor, or is the consent of all contractors necessary?
Mutability:	Are the conditions for altering themselves displaceable?

D. Theory Parallels

Finally, there is also a parallel between the current state of academic theory regarding altering rules and the state of theory that existed regarding defaults in the early 1980s. When Gertner and I first started asking about default-rule setting, scholars without much explicit theorizing accepted and sometimes explicitly espoused one-sentence folk theorems that default rules should be set at what parties wanted. The parallel here is that the normative case for setting altering rules is undertheorized. Most articles advocating a particular (first-order) default fail to defend the optimality of particular means to displace the default.³³ Many articles proposing defaults fail even to address what the altering rules should be to achieve the displacement of a proposed default.³⁴ There is, however, one huge body of literature that is very much related to “altering rules.” It is literature concerning theories of interpretation. In an important sense, all contractual interpretation can be seen as asking whether the parties opted around a default of no contract or no duty. But I want to argue that there is value in thinking about altering rules as a separate (or potentially sub-) category of interpretation. Developing a distinct theory of optimal altering rules is likely to lead to a different normative analysis than an interpretation theory which simply seeks to maximize contractor autonomy. There is a payoff in developing a satisfying altering taxonomy that enriches

33. My own scholarship has exemplified this failure. See, e.g., Ian Ayres, *Three Proposals To Harness Private Information in Contract*, 21 HARV. J. L. & PUB. POL’Y 135 (1997).

34. Again, some of my scholarship is exemplary of this failure. See Ayres & Gertner, *Strategic Contractual Inefficiency*, *supra* note 3.

lawmakers' choice of tools.³⁵ Indeed, this Article has already suggested an initial taxonomy by proposing the following dichotomies that describe dimensions along which altering rules must be defined: necessary/sufficient, rule/standard, mandatory/default, unilateral/bilateral. Purely as a definitional matter, an altering rule must be describable in these terms (for example, as being rule-like or standard-like).

Beyond a mere descriptive cataloging, this article attempts to provide a theory of what altering rules can do to enhance contractual efficiency and equity. More specifically, I will argue that altering rules should at times deviate from simple transaction-cost minimization because of either (i) information concerns with poorly informed contractors or judges; or (ii) non-informational concerns about protecting people inside or outside the contract.³⁶ I will propose a number of different error-reducing altering rules, including "train-and-test," "clarity-requiring," "password," and "thought-requiring." These rules can reduce the likelihood that (i) contractors—especially nondrafting parties—will mistakenly consent to unwanted opt-out, and (ii) judges will mistakenly interpret the parties' desire to displace or follow the default. This error-reduction project is driven by a kind of "soft" or "libertarian" paternalism—an attempt to use altering rules to encourage contracting parties to choose the default or non-default options that they jointly prefer.³⁷ Soft paternalism also can justify what I will call "altering penalties"—which penalize drafting parties who fail to provide adequate information when they opt out. By analyzing "competition-enhancing" altering rules, this Article will show that altering penalties can be used to give nondrafters information not only about the terms of the contract but also about the competitiveness of those contract terms. More generally, soft-paternalism arguments help show why contractors as a class would at times want altering rules to deviate from simply minimizing transaction costs.

35. Madeline Morris and Saul Levmore have helped on this project with regard to various exotic forms of liability rules. See Saul Levmore, *Unifying Remedies: Property Rules, Liability Rules, and Startling Rules*, 106 YALE L.J. 2149 (1997); Madeline Morris, *The Structure of Entitlements*, 78 CORNELL L. REV. 822 (1993).

36. The idea that altering rules should be set to minimize the combination of error costs and transaction costs is analogous to the Calabresian idea that tort law should be set to minimize the combination of accident costs and precaution costs. GUIDO CALABRESI, *THE COSTS OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS* (1970).

37. See *infra* Section III.B. See generally Cass R. Sunstein & Richard H. Thaler, *Libertarian Paternalism Is Not an Oxymoron*, 70 U. CHI. L. REV. 1159, 1159 (2003) (arguing that libertarian paternalism is a coherent theory that "respect[s] freedom of choice" while influencing behavior through "default rules, framing effects, and starting points").

This Article will show that deviations from minimizing transaction costs can also be justified by lawmakers' concerns with externalities and hard paternalism—the standard justifications for mandatory rules.³⁸ Instead of prohibiting opt-out, lawmakers at times should discourage (but not prohibit) private parties' efforts to contract around a default. Altering rules that artificially impede opt-out can produce “sticky defaults”³⁹ that manage and restrain negative externalities and internalities while simultaneously permitting opt-out for a subset of contractors who, at least as a group, pass a social cost-benefit test. Sticky defaults of this kind create an intermediate form of contractibility falling between traditional mandatory and default rules.

Finally, this Article will argue that a more conscious understanding of altering rules can inform other areas of law that fall outside of the traditional contractual canon, including civil rights and constitutional law. For example, once we see that altering rules can be tailored to impose different altering requirements for different contracting parties, we can more easily identify instances where altering rules discriminate on the basis of race or gender. More crisply delineating the difference between discriminatory defaults and discriminatory altering rules allows a more refined evaluation of whether discrimination within a regime of contractual freedom should be actionable.

A final terminological parallel with defaults concerns the difference between means and ends. Just as a default category might be described in terms of the rule's intended ends (for example, information-forcing) or the means of producing that end (penalty default), so too can altering rules be described in terms of their means or their ends. This article is organized around four broad ends that at times will be paramount in crafting altering rules:

- Reducing transaction costs,
- Reducing contractor and judicial error,
- Reducing negative externalities, and
- Reducing paternalism concerns.

38. See I. MACNEIL, *CONTRACTS: EXCHANGE TRANSACTIONS AND RELATIONS* 346-47 (1978); Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1093 (1972); Frank H. Easterbrook & Daniel R. Fischel, *The Corporate Contract*, 89 COLUM. L. REV. 1416, 1436-42 (1989).

39. I first introduced the term “sticky default” in Ayres, *supra* note 1, at 907 n.37. See also Ayres & Gertner, *Filling Gaps*, *supra* note 3, at 125 (using the less helpful term “strong” default). This Article will provide a fuller justification for when stickiness is (in)appropriate.

At times, this Article will describe categories of altering rules by their intended ends—for example, in the phrase “error-reducing altering rules.” But at other times, this Article will describe altering rules in terms of the means used to further these ends. For example, what I will call a “train-and-test” altering rule is a particular strategy or means of achieving error reduction. At other times, a category of means will cut across different ends. We will see that this is the case with “impeding altering rules” (which might be used to reduce externalities or paternalism concerns) or “altering penalties” (which might be used as a complement to reduce error, externalities, or paternalism concerns).

The remainder of this Article is divided into four parts. Part II lays out the fundamental tradeoff between minimizing altering costs and minimizing error. It shows that just as software programmers are willing to trade off higher altering costs for lower altering error, so too lawmakers should at times increase the cost of altering to provide safeguards against courts or the parties themselves misinterpreting the contractual duties. Part III builds on this insight to describe a broader range of impeding altering rules in which lawmakers intentionally increase the difficulty of displacing defaults to respond to problems of externalities or paternalism. Part IV argues that lawmakers at times should deploy altering penalties to penalize the parties (usually the drafting party) for using disfavored altering methods. Finally, Part V shows how explicitly thinking about altering rules can illuminate unexamined aspects of gender discrimination and even constitutional questions concerning privacy and equal protection.

II. MINIMIZING COST VERSUS MINIMIZING ERROR

All rules of contractual interpretation are kinds of altering rules. Canons of interpretation must determine what legal effects (including no effect) will be given to particular (contractual) actions. Algebraically, one could think of interpretation as a function, $f()$, that relates actions of contractual parties, a , and the surrounding circumstances or contexts, c , to particular legal effects, e :

$$e = f(a, c).$$

It is the province of interpretation (or altering) rules to determine which actions and which contexts will be legally relevant, in the sense of affecting the rights and duties that would flow from a contract. While this broad definition of altering rules as being coextensive with all contractual interpretation is coherent, it renders the domain of altering rules too abstract to provide much value. Instead, it is useful to think of altering rules as the rules that govern the displacement of particular default consequences with alternative consequences. Seen as such, the law of altering rules is a subset of interpretation. The larger

law of interpretation governs the broad array of circumstances where the parties are displacing a blank no right/no duty with some bespoke, nonmodular rights/duties. For example, if Bisko is contracting to buy industrial ovens from Smirgo,⁴⁰ Smirgo would ordinarily have no duty to paint the ovens green or integrate an iPod music system into the controls. Provisions inserted into the contract potentially calling for such features would need to be interpreted to impose duties for attributes (creating corresponding entitlements in Bisko). The law of interpretation surely represents a kind of altering rule, because the court would have to determine whether the contractual provisions (together with other contractor actions and context) are effective at displacing the no duty/no right default with regard to these attributes. But, for the most part, this Article will focus on circumstances where either the default potentially being displaced is not blank or where there is a small set of sought-after alternatives to the default. In the former category, I would place altering rules determining the displacement of implicit warranties. The latter category concerns a kind of *numerus clausus* context where de jure or de facto (because of party preferences), there are a limited number of dominant contracting options from which contractors choose.⁴¹ In the latter category, I would place altering rules determining when an employment contract displaces an “at will” default with “just cause” protection, or rules determining whether an employee is an “independent contractor” or “servant,” or rules determining whether employees have unionized or not,⁴² or rules determining whether multiple purchasers of a single piece of real property are “tenants in common” or “joint tenants.”

Altering rules as a subcategory of interpretation are also more often concerned with the necessary and sufficient elements for displacement. As shown in Table 2, it is possible to think of altering rules as arrayed across a 2 x 2 box:

40. See AYRES & SPEIDEL, *supra* note 32, at 222–23.

41. Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus Clausus Principle*, 110 YALE L.J. 1 (2000).

42. The default legal status of a workforce is that it is non-unionized, but a central debate concerning “card-check” is about whether the altering rules governing the displacement of this default should be changed. Currently, employees of a workforce can displace the no-union default by first securing signatures of at least 30% of the workforce and then petitioning the National Labor Relation Board to conduct a secret ballot election. RICHARD A. EPSTEIN, *THE CASE AGAINST THE EMPLOYEE FREE CHOICE ACT* 5 (2009). The proposed Employee Free Choice Act of 2007, H.R. 800, 110th Cong. § 3 (2007), would change this altering rule and allow workers to bypass the secret ballot election if they could demonstrate to the NLRB that more than 50% of the employees signed authorization cards. *Id.*

Table 2.
NECESSARY AND SUFFICIENT CONDITIONS TO DISPLACE A DEFAULT

		NECESSARY	
		YES	NO
SUFFICIENT	YES	“Mother, may I”	“As is”
	NO	“Merchantability”	<i>Jacob & Youngs</i>

At one extreme, the law of altering rules might specify “clear statement” rules—such as what Nick Rosenkranz refers to as the classic “Mother, may I” examples—which represent the exclusive means of achieving a particular legal effect.⁴³ Alternatively, the law might require certain magic words (such as the UCC’s requirement of “merchantability”) as a necessary but not sufficient condition for displacement.⁴⁴ In contrast to these necessary conditions for default displacement, the broader law of interpretation normally asks whether

43. Nicholas Quinn Rosenkranz, *Federal Rules of Statutory Interpretation*, 115 HARV. L. REV. 2085, 2118 (2002) (imagining “a statute providing that ‘laws of the United States, including this one, may be repealed only by the words “Mother, may I””). Bill Eskridge and Philip Frickey have described the rise of “super-strong clear statement rules” which “require a clearer, more explicit statement from Congress in the text of the statute, without reference to legislative history, than prior clear statement rules have required.” William N. Eskridge, Jr. & Philip P. Frickey, *Quasi-Constitutional Law: Clear Statement Rules as Constitutional Lawmaking*, 45 VAND. L. REV. 593, 597 (1992) (“[T]he super-strong clear statement rules the Court has actually adopted protect constitutional values that are virtually never enforced through constitutional interpretation. That is, the Court in the 1980s has tended to create the strongest clear statement rules to confine Congress’s power in areas in which Congress has the constitutional power to do virtually anything.”). See, e.g., *Emps. v. Dep’t of Pub. Health & Welfare*, 411 U.S. 279, 285 (1973) (holding that Congress’s 1966 amendments to the Fair Labor Standards Act (FLSA), which extended FLSA coverage to state employees, nevertheless did not abrogate state immunity against FLSA lawsuits absent clear statutory intention to waive state immunity to private actions).
44. For a comparison to statutory interpretation, see 1 LAURENCE H. TRIBE, *AMERICAN CONSTITUTIONAL LAW* § 2-3, at 125 n.1 (3d ed. 2000). As Tribe explains, “The interpretive rules set forth in the McCarran-Ferguson Act and RFRA [the Religious Freedom Restoration Act] purport to require future Congresses to include specific references—to the insurance business or to RFRA itself, respectively—in order for statutes to bear particular meanings.”

particular contractual actions are sufficient to displace the pre-existing default. Thus, a court called upon to interpret the hypothetical Smirgo/Bisko oven contract would ask whether the particular contractual conditions (potentially combined with other contractual actions and circumstances) were sufficient to create the duties/entitlements at issue. From this perspective, Judge Cardozo's decision in *Jacob & Youngs v. Kent* is a determination that the contractors' actions were insufficient to contract around the substantial performance (default) rule.⁴⁵

The dividing line between an altering rule and the broader category of interpretive rules is, however, not precise. Some sufficiency rules—such as the UCC rule establishing that the use of “expressions like ‘as is,’ [or] ‘with all faults’” is sufficient to displace all implied warranties⁴⁶—are usefully interpreted as altering rules. And the accretion of precedent over time may transform interpretive decisions into altering rules. For example, if a court holds that the particular wording of a poison pill contract is sufficient to be given a desired legal effect,⁴⁷ subsequent parties may intentionally adopt the same language to achieve the same result. Thus, the development of boilerplate can transform an interpretive rule into what might be viewed as an altering rule. But again, there is some overlap, and instead of fixating on whether a particular rule should be categorized as an altering rule as opposed to a more generalized rule of interpretation, the focus of this Article is instead on whether particular actions should be deemed necessary or sufficient conditions for achieving a particular alternative to a given default. For example, whether or not *Jacob & Youngs* is considered a decision about altering or interpretive rules, I will argue that the normative analysis in this Article can inform and ultimately challenge part of Judge Cardozo's reasoning.

A. Altering Rules Distinguished from Menus

The tool of specifying altering rules that are sufficient to achieve specific alternative consequences is related to the choice of lawmakers as to whether to provide legal menus. Just as a restaurant menu specifies food and drink items that might be ordered, a legal menu specifies legal items—bundles of legal

45. *Jacob & Youngs, Inc. v. Kent*, 129 N.E. 889, 890-91 (N.Y. 1921) (finding that a buyer's duty to pay was not conditioned on a seller's performance of the promise to use “standard pipe” of Reading manufacture,” but emphasizing that the parties might have used “apt and certain words to effectuate a purpose that performance of every term shall be a condition of recovery”). *Jacob & Youngs* is discussed in Section II.A *infra*.

46. U.C.C. § 2-316(3)(a) (2003).

47. See Martin Lipton, *Pills, Polls, and Professors Redux*, 69 U. CHI. L. REV. 1037 (2002).

rights and duties that might be chosen as an alternative to some default treatment. As I wrote in *Menus Matter*, “A menu . . . is a nexus of at least two simultaneous offers. This simple definition comports with common restaurant usage. You can order bacon or ham or nothing at all.”⁴⁸

A legal menu can be conceived as expressing simultaneous offers—where lawmakers are the offerors and potential contractors are the offerees. More specifically, it is the explicit specification of discrete default alternatives that distinguishes legal menus from the implicit menus that laissez-faire contracting regimes provide. The “menuing” of legal options is then centrally about *disclosure* of these legal options. This disclosure might be found on the face of statutes. For example, Yair Listokin has found that some corporate statutes, specifically antitakeover statutes, differ on whether they advise corporations about the possibility of default alternatives.⁴⁹ At other times, the menu disclosure might occur in judicial opinions. Judge Cardozo would merely be stating a default if he said that parties are free to opt out of the substantial performance rule, but in *Jacob & Youngs* he went further and announced the most minimal type of menu when he suggested that they were free to contract for a specific alternative to the substantial performance rule, an alternative where a buyer’s duty to pay was conditioned on perfect tender by the seller.

The prerequisite of menu disclosure—the *communication* of the simultaneous offers—raises the important issue of what channels constitute sufficient disclosure. To some extent, a legislative committee report or reporter’s comment that delineates non-default alternatives for which private parties can contract might constitute a kind of a menu, even if private parties must incur additional costs to uncover the menu list of alternatives. Here, the multiplicity of channels for disclosing legal menus emulates a standard practice in software programming that strives to optimize the “user experience” (UX). UX theory teaches that it is often appropriate to bury some more sophisticated menu options in deeper levels of the software interface, which can be accessed only by clicking through top-level windows. This method of menuing is referred to as “progressive programming,” and its goal is to unclutter and simplify the presentation of choices for most users, most of the time. For example, in Microsoft Word, the top-level Print window presents a partial menu (giving users the option of opting out of the “All document pages” printing option and instead just printing the “Current page”), but the Word

48. Ian Ayres, *Menus Matter*, 73 U. CHI. L. REV. 3, 3 (2006).

49. See Yair Listokin, *If You Give Shareholders Power, Do They Use It? An Empirical Analysis*, 166 J. INSTITUTIONAL & THEORETICAL ECON. 38 (2010); Yair Listokin, *What Do Corporate Default Rules and Menus Do? An Empirical Examination*, 6 J. EMPIRICAL LEGAL STUD. 279 (2009) [hereinafter Listokin, *Corporate Default Rules*].

program forces users to click on an “Options” icon in order to access additional menu alternatives (for example, to “Print hidden text” or to “Update linked data before printing”). Progressive programming often strives to follow an 80/20 rule (or what programmers call the “Pareto principle”)—limiting the top-level menu option to the 20% of options that suffice for 80% of people.⁵⁰

The provision of menu alternatives made available in top-level statutes as well as in potentially more difficult to access regulations, judicial opinions, committee reports, and reporter comments might be justified by reasoning analogous to progressive programming. By providing easy access to the non-default menu items for which most people will opt, lawmakers can economize on the important transaction cost, discussed above, of becoming cheaply informed about the existence of the most prevalent default alternatives. In both cases, more sophisticated users are able to discover additional options without burdening less sophisticated users with excessive menu choice.

An alternative to progressive programming of legal menus is to make menus “nonexclusive.” Just as restaurant menus might provide a nonexclusive list of orderable items, a nonexclusive legal menu would allow contractors to choose at least one legal alternative that was not expressly specified. Nonexclusive menus allow contractors/patrons at least some opportunity to order off the menu. And like restaurant menus, legal menus might (in second-order fashion) indicate whether the menu options are exclusive—or, like most restaurant menus, a legal menu might be silent as to whether it is exclusive.

While legal menus and altering rules are closely related, they are distinct. A menu discloses at least some of the default alternatives that are available, but a menu might or might not disclose the mechanism for opting out of the default treatment. Disclosing the mechanism for opting out would expressly reveal the altering rules for accomplishing non-default consequences. Accordingly, lawmakers in crafting a default can choose among four types of menu/altering rule disclosures:

50. For a mathematical overview of the Pareto principle, see Michael Hardy, *Pareto's Law*, 32 *MATHEMATICAL INTELLIGENCER* 38 (2010). For an example of the Pareto Principle in action, see Oleg Mokhov, *Use the 80-20 Rule To Increase Your Website's Effectiveness*, SIX REVISIONS (Sept. 2, 2010), http://sixrevisions.com/web_design/use-the-80-20-rule-to-increase-your-websites-effectiveness/?utm_content=Twitter.

Table 3.
PERMUTATIONS OF MENU AND ALTERING RULE DISCLOSURE

		ALTERING RULES SPECIFIED	
		YES	NO
MENU (OF DEFAULT ALTERNATIVES) SPECIFIED	YES	Software; Georgia fair price provision	Most restaurant menus; <i>Jacob & Youngs</i>
	NO	U.C.C. § 2-206 (“[u]nless otherwise unambiguously indicated”)	Immature common law

Through the lens of software programming, it is natural to think of menus and the disclosure of altering rules as being tied together. Software menus usually disclose not just the optional default alternative but also the mechanism for altering the default—for example, visually indicating that one needs to check or uncheck a box.⁵¹ Analogously, statutes at times disclose distinct default alternatives as well as the altering-rule means for achieving these alternatives. For example, the Georgia Business Corporation statute provides the menu option for corporations to be governed by a fair price provision (which is an alternative to the no-fair-price default),⁵² and the statute explains the altering means for achieving this alternative (by specifically opting into the statutory requirements in corporate bylaws).⁵³

In contrast, more traditional restaurant menus usually do not specify the altering rule (“tell the server”), although a few restaurants do provide a kind of altering rule by providing ordering instructions (“order at the counter” or

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51. In software, the disclosure of the altering rule is usually a suggestion (and not a declarative sentence along the lines of “click here if you want X”), underscoring that acts of interpretation are sometimes necessary for altering rule disclosures to be effective.
 52. Once a company selects the fair-price option, no bidder can acquire the company unless the bidder (a) pays a ‘fair price’ as determined by a statutorily specified formula, (b) receives unanimous approval from the company’s continuing directors, or (c) wins approval from two-thirds of the continuing directors and a majority of the votes entitled to be cast by shareholders unaffiliated with the bidder. *See* GA. CODE ANN. §§ 14-2-1111, 14-2-1112(b) (West 2011).
 53. *Id.* § 14-2-1113(a) (“The requirements of this part shall not apply to business combinations of a corporation unless the bylaws of the corporation specifically provide that all of such requirements are applicable to the corporation.”); *see also* Listokin, *Corporate Default Rules*, *supra* note 49, at 283 (describing Georgia as a state with an “opt-in” antitakeover statute).

“order by checking off items on this form”).⁵⁴ And as depicted in Table 3, lawmakers might alternatively choose to disclose the altering mechanisms that would be necessary or sufficient without disclosing the substantive alternatives that could displace the default. UCC section 2-206 accomplishes this in that it provides information about what is necessary to displace the default acceptance standard, without indicating what alternatives to the default might be chosen. Or the lawmakers might choose not to give guidance about either the non-default options or the mechanisms for achieving them. This is the classic state of a common law regime of contractual freedom—especially “immature” regimes where the accretion of precedent has not provided judicial disclosure guidance about particular mechanisms that are sufficient to achieve particular alternatives.⁵⁵

To the plethora of altering rule decisions facing lawmakers, we must now add the choice of whether and through which channel lawmakers should disclose, and instruct contractors and judges on particular mechanisms for achieving, particular default alternatives. It is one thing for lawmakers to decide on a regime of second-order altering rules; it is quite another thing to billboard the results. Indeed, in a later section, I’ll give reasons why lawmakers might choose to use “opaque” altering rules to make obscure the means of contracting around in order to intentionally impede opt out.⁵⁶ In stylized and simplistic economic models that assume fully informed and hyperrational

54. One could imagine a prime number restaurant, where each item is assigned a unique prime number and that the no-order default would only be displaced by customers ordering with a single number. For example, by telling the server “60,” a patron would be saying that her party wanted one order of “number 5,” one order of “number 3,” and two orders of “number 2”—since $60 = 2 \times 2 \times 3 \times 5$.

55. In such circumstances, it is possible to describe the altering rules as incomplete. But following the positivist tradition of Holmes, I would tend to describe the (as yet unspecified) content of defaults and altering rules as potentially susceptible to probabilistic prediction. See H.L.A. Hart, *Positivism and the Separation of Law and Morals*, 71 HARV. L. REV. 593 (1958). A particular instance in which even relatively mature legal regimes will need to develop new altering rules concerns episodes where a legal default changes. For example, after joining the Berne Convention, the United States changed the default status of creative works fixed in a tangible medium of expression. Berne Convention Implementation Act of 1988, Pub. L. No. 100-568, 102 Stat. 2853 (codified as amended in scattered sections of 17 U.S.C.). Until that time, works by default were not copyrighted; since then works by default were copyrighted. This change in default meant that for the first time, U.S. law had to create an altering rule establishing the conditions for opt out of copyright protection. Larry Lessig’s Creative Commons project is through the lens of this Article a private attempt at providing contractual means to disclaim various parts or all of the copyright bundle of rights. See CREATIVE COMMONS, <http://www.creativecommons.org> (last visited Nov. 29, 2011).

56. See *infra* Section III.B.

decision makers, menuing and altering rule disclosure will have no impact.⁵⁷ But in the real world, the choice to billboard or to obscure altering rules can have first-order impacts.

B. Minimizing Transaction Cost

The simplest normative theory for setting altering rules might be for the law to set such rules to minimize the cost of contracting. One of the great values of default rules is that parties, by remaining silent, can costlessly incorporate default rights and duties into their agreement. Cost-minimizing altering rules can serve an analogous function by allowing parties to cheaply incorporate modular rights and duties by employing particular collections of words in their agreement. A cost-minimizing approach to the setting of altering rules would be particularly useful in establishing sufficient conditions for achieving certain legal outcomes. By including the provision that “employees can be fired only for just cause,” employment contracts can cheaply displace an at-will default and incorporate a stricter standard for assessing the legitimacy of a termination.⁵⁸

A focus on minimizing the transaction costs of displacement would lead lawmakers to provide a non-prolix, nonexclusive set of sufficiency rules. Establishing that just a few words are sufficient to displace a default (such as “as is” to displace the UCC default warranties, or “F.O.B. place of shipment” to displace the uncertain destination default) economizes on the drafting costs in the direct sense of reducing the writing and reading costs of contract drafting.⁵⁹ A sole focus on transaction costs would also lead toward nonexclusive altering

57. See, e.g., Ayres, *Menus Matter*, *supra* note 48, at 6; Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 CALIF. L. REV. 1051 (2000).

58. Analogously, if a jurisdiction adopted a “just cause” default, contractors might cheaply displace it to expand an employer’s firing right with a provision stating that “employment is at will.”

59. U.C.C. § 2-316(3)(a) (2003) (stating that “as is” is sufficient to displace implied warranties); § 2-319 (describing the impact of F.O.B. (free on board) and F.A.S. (free alongside) provisions); see Clark A. Remington, *Llewellyn, Antiformalism and the Fear of Transcendental Nonsense: Codifying the Variability Rule in the Law of Sales*, 44 WAYNE L. REV. 29, 64 (1998) (“If the parties do not specify, should their contract be treated as a shipment contract or a destination contract? The Code does not say . . . [W]hat Professors Ayres and Gertner have called a ‘penalty default’ would be appropriate. The consumer or unsophisticated merchant is more likely to be ignorant of these rules than is the sophisticated merchant, and is more likely on average to run afoul of a shipment contract default rule.”). *But see* U.C.C. § 2-503 cmt. 5 (stating that “under this Article the ‘shipment’ contract is regarded as the normal one and the ‘destination’ contract as the variant type”).

rules—so that courts might give effect to multiple displacement methods (including idiosyncratic or one-off provisions) indicating the parties' intention to displace a default with a particular alternative. Giving effect to a multiplicity of methods reduces the costs of learning the law—especially the necessity to learn the altering rules themselves.⁶⁰ A contract law that includes necessary elements for displacement will tend to increase the cost of becoming (and remaining) informed of the requisite procedures for displacement.

This transaction-cost-minimizing goal has an immediate implication for judicial decisionmaking: *In deciding interpretation disputes, and in fact in deciding any contractual issue concerning defaults, judges should presumptively provide in their decisions contractual language that would allow future contractors to achieve the results desired by the losing party.* Judges should strive to tell losing parties how they can alter future contracts to win next time. By providing a sufficiency rule, the judges could lower the transaction costs for future parties who would prefer a different outcome. Judicial restraint normally counsels against aggrandizing judicial power by providing advisory opinions on issues that are not yet ripe cases or controversies.⁶¹ But Neal Katyal has shown that after striking down a statute, the Supreme Court has repeatedly “provide[d] the legislature with a constitutional method to achieve the same end.”⁶²

In the realm of contracts, delineating a merely sufficient altering rule is an effective means for disclaiming judicial power, because it empowers the future parties to decide whether they want their contract to be evaluated by the losing side's theory of the case in the last dispute. The Federal Circuit in *Stanford v. Roche Molecular Systems* disclaimed power in just this way by identifying sufficient words to use in the future to effectuate valid assignment of inventions.⁶³ Indeed, *failing* to provide a sufficiency altering rule aggrandizes

60. Efforts to minimize transaction costs should take into account the party cost of learning the altering rules as well as the social costs of specifying and promulgating the altering rules. See Kaplow, *supra* note 13 (discussing the higher costs of ex ante and ex post specification costs, respectively, of rules and standards).

61. Pierre N. Leval, *Judging Under the Constitution: Dicta About Dicta*, 81 N.Y.U. L. REV. 1249, 1259, 1275, 1277 (2006).

62. Neal Kumar Katyal, *Judges as Advicegivers*, 50 STAN. L. REV. 1709, 1718 (1998); see, e.g., *New York v. United States*, 505 U.S. 144, 166-67 (1992) (“This is not to say that Congress lacks the ability to encourage a State to regulate in a particular way, or that Congress may not hold out incentives to the States as a method of influencing a State’s policy choices. . . . [U]nder Congress’ spending power, ‘Congress may attach conditions on the receipt of federal funds.’” (quoting *South Dakota v. Dole*, 483 U.S. 203, 206 (1987))).

63. 583 F.3d 832 (Fed. Cir. 2009), *aff’d*, 131 S. Ct. 2188 (2011). In *Stanford*, an agreement in which an employee promised “I agree to assign . . . to Stanford . . . that right, title and interest in . . . such inventions as required by Contracts or Grants” was found to be

judicial power, because future parties are left in a quandary about what they need to do to overrule a court's treatment. Making transparent the means through which private parties can contractually "overrule" a court decision guards against the tendency of courts to restrict contractual autonomy by transforming nominal default rules into de facto mandatory rules.⁶⁴

Judge Cardozo's opinion in *Jacob & Youngs* is a prime example—in announcing the substantial-performance rule as a default, he famously teases the parties would be "free by apt and certain words to effectuate" a different result.⁶⁵ But Judge Cardozo never specifies exactly what those apt and certain words are that would be sufficient to make a buyer's duty conditional. *Jacob & Youngs* is a classic example of a court announcing a default but failing to specify the associated altering rules. The construction contract at issue, on its face, specified that the buyer's duty to pay was conditional on an architect's certification. Judge Cardozo found that the parties' attempts to displace the substantial performance rule were insufficient, but he did not indicate what words would be sufficient. Particularly, when a court determines that a contractor's *attempts* to displace or preserve a default were insufficient to achieve the result advocated by the losing side in a dispute, courts should drop a footnote identifying what language would be sufficient or explaining why they are not providing such language.

One can see an analogous judicial practice in *Britton v. Turner*, where the New Hampshire Supreme Court in 1834 upheld a jury verdict awarding compensation to a breaching employee who signed a one-year employment contract and quit after working for almost ten months.⁶⁶ The opinion concluded that "[i]t is easy, if parties so choose, to provide by an express agreement that nothing shall be earned, if the laborer leaves his employer

ineffective to accomplish an automatic conveyance of the requisite interest in future inventions. *Id.* at 841 (quoting Copyright and Patent Agreement (emphasis added by court)). But the opinion went further to suggest that the language "I will assign and *do hereby assign* . . . my right, title, and interest in . . . inventions" would have been sufficient. *Id.* at 842.

64. See Goetz & Scott, *supra* note 3, at 263 (discussing the tendency of courts to change defaults into mandatory rules).
65. *Jacobs & Youngs, Inc. v. Kent*, 129 N.E. 889, 890-91 (N.Y. 1921).
66. 6 N.H. 481 (1834). The practice of announcing that a decision is a default without specifying associated altering words can also be seen in *Baird Co. v. Gimbel Bros.*, 64 F.2d 344, 346 (2d Cir. 1933), and *Drennan v. Star Paving Co.*, 333 P.2d 757 (Cal. 1958), discussed *supra* note 14. But see *infra* notes 109-114 and accompanying text (discussing *Ferguson v. Phoenix Assurance Co.*, 370 P.2d 379 (Kan. 1962), in which the opinion suggests language which would be sufficient to lead to a different result (in this case no insurer liability)).

without having performed the whole service contemplated,”⁶⁷ but the opinion failed to provide footnote guidance on what express wording would be sufficient to eliminate the employer’s duty to compensate.

In *United States v. Wegematic*,⁶⁸ Judge Henry Friendly was even more extreme in failing to specify an altering rule that would displace a particular default. He placed “the risk of a [technological] revolution’s occurrence” on a breaching computer manufacturer.⁶⁹ Friendly went further than Cardozo’s claim that “apt and certain words” exist that would be sufficient for future parties to displace the opinion’s default legal consequence. Friendly wrote: “If a manufacturer wishes to be relieved of the risk that what looks good on paper may not prove so good in hardware, the appropriate exculpatory language is well known and often used.”⁷⁰ He makes the factual claim, without citation, that sufficient words of displacement not only exist but that such language is “often used.” I am especially skeptical that the latter factual claim is true. It is unlikely that contractors would “often” make a seller’s duty to perform conditional on the occurrence of a technological revolution. I have been unable to uncover any scholar who has identified what the “well-known” and “often used” words are. If Judge Friendly did in fact have particular well-known words in mind, the reader is left to wonder why he was so coy in failing to share them. His opinion sounds in terms of an insider speaking to insiders. He is unwilling to let others in on the secret.

If a court rejected the teasing approach of Cardozo and Friendly and instead explicitly announced a sufficient altering language, it would need to decide how broadly or narrowly to draw the language that would be sufficient to obtain an alternative result. Narrowly drawn language might only affect the outcome of future litigation that was precisely on all fours—for example, a failure in the *Jacob & Youngs* dispute to install Reading pipe—while broader language might make clear that the buyer’s duty to pay was conditional on an architect’s certification. Courts might invite the litigants to submit what they think should constitute sufficient language. Just as litigants routinely aid the court in crafting language to instruct the jury, the litigants might be enlisted to aid the court in crafting language to instruct future contractors. As a formal matter, the footnote would be dicta and not binding precedent upon future courts. This is all the more true when lower courts drop footnotes suggesting

67. 6 N.H. at 493-94 (finding if such language had been used “then there can be no pretence for a recovery if he voluntarily deserts the service before the expiration of the time”).

68. 360 F.2d 674 (2d Cir. 1966).

69. *Id.* at 676.

70. *Id.* at 677.

sufficient language to obtain an alternative result before higher courts. Future contractors litigating a contract with the suggested language would be able to argue only that the prior opinion's footnote represents persuasive authority. But even dicta, when expressly relied upon by future contractors, can provide those contractors a way to establish powerful evidence of their intent. The language of the footnote used in a future contract is likely to be respected by higher or sibling courts not because the dicta are binding but because the expressed intention of the contractors is binding (absent some public policy restricting contractual freedom). Even if a subsequent court resisted giving the intended legal effect to the footnoted language, the court would be likely to feel increased pressure to provide an alternative that would be sufficient—or explain why it was unwilling to provide an altering rule.

Later, as I complicate the normative theory for setting altering rules, I will suggest rationales that a court might plausibly offer for failing to educate future parties as to what would be sufficient to overrule or nullify the impact of a decision. But for now it is important to see how articulating sufficient altering rules can enhance the private autonomy of future contractors. Just as expressly articulating in written appellate decisions the standard of review for mixed questions of law and fact led to a substantial development of that area of law,⁷¹ a presumption that contract decisions will announce sufficient altering

71. This passage from the Ninth Circuit's opinion in *United States v. McConney* has been influential:

The appropriate standard of review for a district judge's application of law to fact may be determined, in our view, by reference to the sound principles which underlie the settled rules of appellate review just discussed. If the concerns of judicial administration—efficiency, accuracy, and precedential weight—make it more appropriate for a district judge to determine whether the established facts fall within the relevant legal definition, we should subject his determination to deferential, clearly erroneous review. If, on the other hand, the concerns of judicial administration favor the appellate court, we should subject the district judge's finding to de novo review. Thus, in each case, the pivotal question is do the concerns of judicial administration favor the district court or do they favor the appellate court.

728 F.2d 1195, 1202 (9th Cir. 1984) (en banc), *overruled on other grounds by* Estate of Merchant v. Comm'r, 947 F.2d 1390 (9th Cir. 1991); see Steven Alan Childress, *A 1995 Primer on Standards of Review in Federal Civil Appeals*, 161 F.R.D. 123 (1995) (discussing mixed questions of law and fact); Martha S. Davis, *A Basic Guide to Standards of Judicial Review*, 33 S.D. L. REV. 469, 474 (1988) (quoting the aforementioned passage from *McConney* for addressing “[t]hose issues which reach the reviewing court [that] tend to be largely in the gray area of mixed law/fact questions”); Kelly Kunsch, *Standards of Review (State and Federal): A Primer*, 18 SEATTLE U. L. REV. 11, 27 (1994) (quoting the aforementioned passage from *McConney* for “stating that the appropriate standard should be determined by reference to the sound principles that underlie appellate review”).

rules can lead to a beneficial proliferation of options likely to increase contractual certainty.

Courts implementing such a presumption should avoid the potential problem of what might be called “necessity creep.” While my proposal is for courts to offer sufficient words to obtain an alternative result, there is a concern that subsequent courts might transmute the provisions as the exclusive means of obtaining a particular end. Creeping necessity requirements of this kind could undermine the goal of expanding contractual freedom, especially for those drafters who are not well versed in the common-law opinions. But in other contexts, the existence of safe-harbor language has inevitably dampened courts’ willingness to enforce alternative provisions seeking similar legal consequences.⁷² Moreover, the problem of necessity creep is properly only about involuntary pooling of contractors on the footnoted language. If future contractors voluntarily choose to pool on the footnoted language of a prior opinion (even if the court would have been willing to give meaning to alternative wording), this should be presumptively counted as a success of the proposal.⁷³

When I presented a version of this proposal several years ago at a Federalist Society conference,⁷⁴ some audience members rejected the idea because it reminded them too much of the Supreme Court’s *Miranda* decision.⁷⁵ But one of the virtues of this Article is that it allows us to delineate two aspects of *Miranda*. The *Miranda* decision established a default rule that confessions procured during in-custody interrogations were inadmissible, and it gestured at what would be a sufficient altering rule (that is, a sufficient admonishment)

72. For example, the sufficient altering rule for disclaiming implied warranties found in UCC section 2-316(2) has not dissuaded courts from upholding other forms of disclaimer. *See, e.g.,* Cirillo v. Slomin’s Inc., 768 N.Y.S.2d 759, 772 (2003) (finding alternative words sufficient to disclaim).

73. One might worry that contractors would be cognitively burdened by having to learn a proliferating array of altering provisions. A simple response, however, is that contractors need not learn the rules. They are an additional tool that contractors can deploy, but their existence only provides an additional contracting option. And as described *infra* Subsection II.F.5, nondrafting parties will be able to easily learn the consequences of the provision by reading the case referenced in the provision itself. Alternatively, one might limit cognitive burden by limiting the footnote proposal to cases where a losing party convinces a court that a substantial number of future parties are likely interested in the alternative consequences. In these ways, the courts can respond to what might be called “altering rule fatigue.”

74. Ian Ayres, *Three Proposals To Harness Private Information in Contract*, 21 HARV. J.L. & PUB. POL’Y 135 (1997).

75. *Miranda v. Arizona*, 384 U.S. 436 (1966).

for displacing that default.⁷⁶ Most critiques of *Miranda* concern the default—that is, a concern that the Constitution does not impose a duty on police to admonish suspects of their right to remain silent. But conditional on imposing this duty (creating this default), the Court disclaimed power vis-à-vis police and suspects by dropping a footnote that offered a set of admonishing words that are constitutionally sufficient to displace the exclusionary default. Critics are free to hate the default, but they should all the more love the nonexclusive altering rule.

76. *Id.* at 467. In contrast to the UCC’s “magic words” approach with regard to the waivers of the implied warranty of merchantability, *see supra* note 11 and accompanying text, the *Miranda* court eschewed magic words and left the states and localities free to develop safeguards that were at least as effective as the Court’s minimum. People might imagine the *Miranda* warning repeated on TV (and in real life) was established in the opinion as a sufficient admonishment. The opinion did contain language that gestures toward what a minimally acceptable warning should contain. For example, the Court held:

[W]hen an individual is taken into custody . . . and is subjected to questioning, the privilege against self-incrimination is jeopardized. . . . He must be warned prior to any questioning that he has the right to remain silent, that anything he says can be used against him in a court of law, that he has the right to the presence of an attorney, and that if he cannot afford an attorney one will be appointed for him prior to any questioning if he so desires.

Miranda, 384 U.S. at 478–79. But the most common incantation of the admonishment was drafted not by a court but by the Nevada County, California, district attorney and a California deputy attorney general, who were delegated the task by California’s attorney general. Ronald Steiner, Rebecca Bauer & Rohit Talwar, *The Rise and Fall of the Miranda Warnings in Popular Culture*, 59 CLEV. ST. L. REV. 219, 223 (2011); Blair Anthony Robertson, *No One Wants To Hear His Words: How Ex-DA Wrote Miranda Warning*, SACRAMENTO BEE, July 9, 2000, at A1.

Justice Holmes’s opinion in *Baltimore & Ohio Railroad v. Goodman*, 275 U.S. 66 (1927), denying relief for a fatally injured driver who failed to take reasonable precautions at a railroad crossing and later overruled in *Pokora v. Wabash Railway*, 292 U.S. 98 (1934) (Cardozo, J.), analogously gave rise to innumerable railroad cross signs warning drivers to stop, look, and listen.



Railroad Signs, CRAZY ABOUT TRAINS, <http://crazyabouttrains.com/rssigns.html> (last visited Nov. 28, 2011).

C. Transaction Cost/Error Tradeoff

While minimizing transaction costs is an important consideration in setting altering rules, lawmakers often must also consider a competing goal of error minimization. Holding the transaction cost of altering constant, altering rules will tend to be less efficient if (1) they do a poorer job of communicating the parties' joint intent of contractual rights and duties to prospective adjudicators or if (2) the altering rules do a poorer job of communicating to at least one of the parties inside the contract the probable consequences that will be given to particular provisions (attempts at altering). I'll refer to the first possibility as the risk of "judicial error" and the second possibility as the risk of "party error." While the two risks are closely related and in at least some contexts will be different sides of the same coin, I emphasize the difference because the errors are likely to engender different types of inefficiency. Party error will tend to lead the parties to undertake inefficient behavior—for the simple reason that a party who is uninformed about the terms to which (a court will find) she has consented is less likely to conform her actions to best perform her duties or best prepare to enjoy her contractual entitlements. The possibility of judicial error, in contrast, will expose parties to unintended liability (or non-liability) and undermine the value of contractual entitlements in ways that can lead to inefficient negotiation and modification.

Altering rules can attend to these risks of error by making sure that the necessary and sufficient conditions for displacing a default more clearly indicate the parties' true intention. Error-minimizing altering rules will generally require more explicit communication of the parties' intention to create particular non-default rights/duties. But the content of the altering rules at times can be geared more toward reducing judicial error or party error. For example, the requirement that certain non-default provisions appear conspicuously in a contract⁷⁷ or requirements that the opt-out language unambiguously or carefully negate the default⁷⁸ are more tailored to reducing

77. See U.C.C. § 2A-214(2) (2003) (“[T]o exclude or modify the implied warranty of merchantability or any part of it the language must mention ‘merchantability’, be by a writing, and be conspicuous.”); *id.* § 2-316(2) (same but with specific instructions for wording); *id.* § 3-311(b) (“[T]he claim is discharged if the person against whom the claim is asserted proves that the instrument or an accompanying written communication contained a conspicuous statement to the effect that the instrument was tendered as full satisfaction of the claim.”).

78. See *id.* § 2-202 cmt. 2 (“Even if the record is final, complete and exclusive it can be supplemented by evidence of noncontradictory terms drawn from an applicable course of performance, course of dealing, or usage of trade unless those sources are carefully negated by a term in the record.”); § 2-206(1) (“Unless otherwise unambiguously indicated by the

party error—that is, the goal is to assure that the nondrafting party was aware of the particular term. A concern with judicial error would not require that terms be conspicuous because the process of subsequent litigation could naturally focus the judges' and juries' attention on particular provisions at issue in a particular dispute. When a conspicuousness altering rule is chosen, the concern is not that the term might not otherwise be adequately communicated to the court; it is that without conspicuousness the term would not be adequately communicated to the nondrafting party.

In contrast, the requirement that courts enforce contracts only if the terms provide a sufficient basis for granting relief⁷⁹ is more geared toward reducing judicial error. The parties in an underspecified writing might understand the nature of the intended transaction, but the central problem with judicial error is that the parties' shared intention is not adequately communicated to the subsequent adjudicator.

Just as there are information-forcing defaults, lawmakers can create information-forcing altering rules. Information-forcing defaults are motivated by an attempt to increase the information held by people inside (especially the nondrafting party) or outside (especially the court) of the contract.⁸⁰ Altering rules can analogously be structured to induce better communication of default

language or circumstances . . . an offer to make a contract shall be construed as inviting acceptance in any manner and by any medium reasonable in the circumstances.”); § 3-402(b) (2002) (“If a representative signs the name of the representative to an instrument and the signature is an authorized signature of the represented person, the following rules apply: . . . If the form of the signature shows unambiguously that the signature is made on behalf of the represented person who is identified in the instrument, the representative is not liable on the instrument.”); see also Elliot Axelrod, *Application of U.C.C. 2-202—The Integrated Agreement*, 12 CAP. U. L. REV. 1 (1982) (discussing integration under U.C.C. § 2-202).

79. See U.C.C. § 2-204(3) (2003) (“Even though one or more terms are left open, a contract for sale does not fail for indefiniteness if the parties have intended to make a contract and there is a reasonably certain basis for giving an appropriate remedy.”); RESTATEMENT (SECOND) OF CONTRACTS § 33(1)-(2) (1981) (“Even though a manifestation of intention is intended to be understood as an offer, it cannot be accepted so as to form a contract unless the terms of the contract are reasonably certain. . . . The terms of a contract are reasonably certain if they provide a basis for determining the existence of a breach and for giving an appropriate remedy.”); see also *Mears v. Nationwide Mut. Ins. Co.*, 91 F.3d 1118, 1122 (8th Cir. 1996) (“In order to be binding, a contract must be reasonably certain as to its terms and requirements.”); *Parks v. Atlanta News Agency*, 156 S.E.2d 137, 139 (Ga. Ct. App. 1967); *Steinberg v. Chi. Med. Sch.*, 354 N.E.2d 586, 589 (Ill. App. Div. 1976) (“[I]t is basic contract law that in order for a contract to be binding the terms of the contract must be reasonably certain and definite.”); ARTHUR LINTON CORBIN, CORBIN ON CONTRACTS § 95 (1952 & Supp. 1989); 1 SAMUEL WILLISTON & WALTER H.E. JAEGER, A TREATISE ON THE LAW OF CONTRACTS § 37 (3d ed. 1957 & Supp. 1978).

80. See Ayres & Gertner, *Filling Gaps*, *supra* note 3, at 97.

displacement to people inside (especially the nondrafting party) or outside (especially the court) of the contract. As we will see below, this information-forcing quality can be enhanced by “altering penalties” and can even be structured to induce disclosure of other types of information besides the mere fact of default displacement.⁸¹

D. Transaction Cost/Error Tradeoff in Software Confirmations

In many incarnations, altering rules represent merely formal requirements for contracting around defaults. As formalities, altering rules can be structured to serve the tripartite evidentiary, channeling, and cautionary purposes initially suggested by Lon Fuller with regard to the formal values of consideration.⁸² Altering rules can serve the channeling function by putting the altered provisions in terms that are easier for judges and others outside the contract to evaluate—thus reducing judicial error. Altering rules can also serve the evidentiary function of increasing the chance that the parties will understand the “existence and purport of the contract” and might thereby reduce what I have called party error.⁸³

Moreover, just as Fuller showed that consideration can serve a “cautionary” function to ensure that the parties jointly intended to create a legally binding contract,⁸⁴ altering rules can be analogously structured to serve a cautionary function to assure that the parties in a contract prefer a particular non-default treatment of a particular issue. Altering rule formalities can slow the contracting process and therefore reduce the likelihood of imprudent action. The cautionary function essentially is also the attempt to reduce party error. The cautionary function of altering rules is particularly easy to see in computer software with regard to the programming use of confirmation windows.⁸⁵ As defined by Microsoft UX Guidelines:

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81. For example, an altering rule might require a seller/drafter to be subject to lost profit damages to disclose what those damages are expected to be. See *infra* Section IV.B (discussing competition-enhancing altering rules that require disclosure of ancillary information).
 82. Lon L. Fuller, *Consideration and Form*, 41 COLUM. L. REV. 799, 800-01 (1941).
 83. *Id.* at 800 (quoting JOHN AUSTIN, *Fragments—On Contracts*, in 2 LECTURES ON JURISPRUDENCE (4th ed. 1879)).
 84. *Id.* at 801; see also David Gamage & Allon Kedem, *Commodification and Contract Formation: Placing the Consideration Doctrine on Stronger Foundations*, 73 U. CHI. L. REV. 1299, 1309-10 (2006).
 85. Relatedly, Microsoft also utilizes “warning” messages. Warning messages present a condition that might cause a problem in the future:

Confirmations have these essential characteristics:

- They are displayed as the direct result of an action initiated by the user.
- They verify that the user wants to proceed with the action.
- They consist of a simple question and two or more responses.⁸⁶

For example, in Microsoft's Windows operating system, when a user highlights a file in the "My Documents" folder and presses the "Delete this file" icon, a confirmation window appears asking, "Are you sure you want to move this file to the Recycle Bin?"⁸⁷ In effect, Microsoft Windows mandates that users make two clicks to delete a file.

Confirmations of this kind show that programmers are at times willing to sacrifice the minimization of transaction costs in order to verify that users intend a particular action.⁸⁸ The usability guidelines acknowledge that

The fundamental characteristic of warnings is that they involve the risk of losing one or more of the following:

- A valuable asset, such as important financial or other data.
- System access or integrity.
- Privacy or control over confidential information.
- User's time (a significant amount, such as 30 seconds or more).

Warning Messages, MSDN LIBRARY: WINDOWS USER EXPERIENCE INTERACTION GUIDELINES, <http://msdn.microsoft.com/en-us/library/aa511263.aspx> (last visited Nov. 29, 2011).

86. *Confirmations*, MSDN LIBRARY: WINDOWS USER EXPERIENCE INTERACTION GUIDELINES, <http://msdn.microsoft.com/en-us/library/aa511273.aspx> (last visited Nov. 29, 2011).

87. *Cf. id.* (showing the confirmation message for deletion of a folder).

88. Linguists have similarly noted at times a willingness to sacrifice economy of speech to increase communicative accuracy. See JAMES GLEICK, *THE INFORMATION: A HISTORY, A THEORY, A FLOOD* 230 (2011) (noting that redundancy can reduce error). Evey forth ettr miht b delted rom his rtile ad it oul be lrgy inellgibe. The Gricean maxim of cooperative conversation argues that a cooperative conversant will, inter alia, be as concise as possible and as informative as necessary. H.P. Grice, *Logic and Conversation*, in 3 SYNTAX AND SEMANTICS: SPEECH ACTS 41, 45 (Peter Cole & Jerry L. Morgan eds., 1975). Speakers at times choose to use more words to increase the chance that the audience will understand their intended message. But more surprising, questioners in many languages can influence the cost of answering even dichotomous (Yes/No) answers. For example, the simple convention of asking a question in the negative often has the declaration-demanding effect, that is, demanding more than a monosyllabic response. If you are asked "Did you go to the concert last night?" English speakers would understand a monosyllabic response "Yes" as being sufficient to indicate that you attended the concert. But if the same question were instead asked in the negative ("Didn't you go to the concert?"), then a monosyllabic response "Yes"

confirmation challenges and warnings are a barrier to ease of use. The UX guidelines warn programmers that “[u]nnecessary confirmations are annoying.”⁸⁹ In one of the more refreshingly candid moments, the guidelines even admit:

We overwarn in Windows programs. The typical Windows program has warning icons seemingly everywhere, warning about things that have little significance. In some programs, nearly every question is presented as a warning. Overwarning makes using a program feel like a hazardous activity, and it detracts from truly significant issues.⁹⁰

The UX theories suggest that programmers weigh and trade off the benefits of low-cost altering against the benefits of reducing user error:

Don’t use confirmations just because there is the possibility of users making a mistake. Rather, confirmations are most effective when used to confirm actions that have significant or unintended consequences.⁹¹

The disjunctive “significant or unintended” consequences nicely map onto the earlier discussion of party and judicial error. Programming confirmations are concerned with routine user actions—such as deleting a file—where the parties know the general consequences of an action but might not have intended it in a particular instance, as well as less routine actions—such as reformatting a hard drive—where the user may not understand the consequences of taking the action. The routine (file-deletion) confirmations are analogous to the goal of reducing party error—where the concern is that the parties (especially the nondrafting party) do not really have a meeting of the minds as to some non-default provision. In contrast, the unintended

is more ambiguous. To avoid this ambiguity, speakers responding to this question are more likely to feel the need to use more than one syllable (“Yes, I did.”). A similar declaration-forcing convention occurs with what linguists refer to as “tag” questions, in which the questioner conjoins a declaration with a question about the identical fact. For example, a lawyer might say to a witness, “You took the money, didn’t you?” See Colleen B. Brennan, *Linguistics and the Law: Review Article*, CSA DISCOVERY GUIDES (Sept. 2001), <http://www.csa.com/discoveryguides/linglaw/overview.php>. For a general overview of tag questions in the English language, see *Tag Question*, ENGLISHCLUB.COM, <http://www.englishclub.com/grammar/verbs-questions-tag.htm> (last visited Nov. 28, 2011). Examples of standardized tag questions in other languages include Russian *не правда ли?* (not true?), French *n’est-ce pas?* (is it not?), and German *nicht wahr?* (not true?).

89. *Confirmations*, *supra* note 86.

90. *Standard Icons*, MSDN LIBRARY: WINDOWS USER EXPERIENCE INTERACTION GUIDELINES, <http://msdn.microsoft.com/en-us/library/aa511277.aspx> (last visited Nov. 28, 2011).

91. *Confirmations*, *supra* note 86 (emphasis omitted).

consequences rationale for confirmation is more analogous to a concern with reducing judicial error, where the parties know what the contract says but are not sure what legal effect it might be given. But the quoted guidelines also make clear that the mere “possibility of users making a mistake” is not sufficient to impose additional altering costs on users; there must be the prospect of a substantial cost stemming from users mistakenly opting out of the default usage.⁹²

E. Modeling the Benefits and Costs of More Precise Altering Rules

A simple algebraic model can go further to explore when it will be efficient for lawmakers or programmers to depart from transaction cost minimization by adding a confirmation process. The model can be thought of as a model of software confirmation (Are you sure you want to delete this file?) or restaurant confirmation (Are you sure you want it spicy?), and also as a model of requiring a more costly altering rule to displace a legal default. Imagine that the contracting parties, in negotiating over a particular provision, are choosing between sticking with a legal default Z or contracting around the default and opting instead for non- Z (denoted \check{Z}). Assume there are N_Z contractors (who will be denoted as Z -types), for whom Z is the more efficient term; and, assume there are $N_{\check{Z}}$ contractors (who will be denoted as \check{Z} -types), for whom \check{Z} is the more efficient term. Imagine that the cost of contracting for \check{Z} with a low-cost altering rule is c , but the cost of contracting for \check{Z} with a higher confirmation cost altering rule is c' where $c' > c$.

There are two types of contractual errors that parties might make: Type I error occurs when Z types mistakenly contract for \check{Z} . (In the programming interpretation of this model, this would be analogous to users mistakenly deleting files that they want to retain.) Type II error occurs when \check{Z} types mistakenly fail to contract for \check{Z} . (In our programming interpretation, this would be analogous to users mistakenly retaining a file that they want to delete.) Let E_I and E_{II} represent the costs of a player (contractor/user) making a Type I or Type II error. And in a world with low-cost altering rules, let the number of players making each of these errors be denoted respectively as N_I and N_{II} .

A benefit of this confirmation regime is that it may reduce the number of people making Type I errors. (The confirmation question in the programming example may reduce the likelihood that users mistakenly delete files.) But it is also possible that the confirmation costs will induce more Type II errors – as \check{Z}

92. *Id.*

types are deterred by the higher altering costs from contracting around the Z default. In a world with high-cost altering rules, we will denote the number of people who make Type I and Type II errors as $N_I - \Delta_I$ and $N_{II} + \Delta_{II}$, where Δ_I and Δ_{II} represent the changes in the number of Type I and Type II errors induced by the higher confirmation/altering costs.

With a little algebra,⁹³ it is possible to show that higher cost altering rules will be efficient if:

$$(c' - c)(N_I + N_Z - N_{II}) - c'(\Delta_I + \Delta_{II}) - \Delta_I E_I + \Delta_{II} E_{II} < 0.$$

As suggested by the Microsoft UX guidelines, higher altering confirmation costs are more likely to be efficient when the costs of mistakenly contracting around the default (E_I) are higher. But the inequality makes clear that the possible efficiency of higher-cost altering rules depends on other factors as well. The first two terms of the left side of the inequality show the two different effects of confirmations on transaction costs. The first term shows the increase in altering cost from the higher costs of altering (if the number of contractors who alter remain unchanged), while the second term shows how these higher altering costs are mitigated by reductions in the number of Z -types and \check{Z} -types who alter the default. The final two terms of the left side of the inequality show the two different effects on error costs. The third term reflects the improvement in Type I errors, and the fourth term reflects the potential exacerbation of Type II errors. The first and fourth terms cut against taking on the extra transaction costs and additional Type II errors of confirmations, while the second and third terms militate in favor of the efficiency of higher altering costs.

In this simple model, higher altering costs will tend to be efficient if: (a) Type I error costs are larger than Type II error costs ($E_I > E_{II}$); (b) the altering rules disproportionately change Z -type behavior ($\Delta_I > \Delta_{II}$); or (c) the difference between the costs of the higher-cost rule and the lower-cost rule is small ($c' \approx c$). The model suggests that efficiency-minded lawmakers should consider not just the mistaken opt-outs that will be induced by a low-cost (but less precise) altering rule. They also need to consider: (a) how many of these

93. The transaction and error cost induced by the low-cost altering rule is:

$$\text{Cost} = c(N_I + N_Z - N_{II}) + N_I E_I + N_{II} E_{II},$$

and the transaction and error cost induced by the high-cost altering rule is:

$$\text{Cost}' = c'(N'_I + N'_Z - N'_{II}) + N'_I E_I + N'_{II} E_{II},$$

where $N'_I = N_I - \Delta_I$; $N'_{II} = N_{II} + \Delta_{II}$. The condition in the text is derived by finding when the combined costs of the high-cost altering rule are lower than the combined costs of the low-cost altering rule.

mistaken opt-outs will be deterred by requiring more precise opt-outs; (b) what the extra cost of opting out will be; and (c) whether these extra costs will induce inefficient failures to opt out with their own attendant error costs.⁹⁴

With the help of the model, we can ask different questions about the advisability of programmer confirmation choices. The error costs of mistakenly deleting a file do seem to greatly outweigh the error costs of mistakenly retaining a file (especially in a world with reduced storage costs), and the added confirmation costs of deletion probably do not deter many users from deleting unwanted files. Then again, a file deletion in Windows is really moving the file to the recycling folder, where it can still be retrieved—so the error of a mistaken deletion is not as great because it is reversible. In contrast, Windows does not ask you to confirm if you really want to save changes to a file that you are editing—even though the original file that is overwritten is irretrievably lost. Some users might prefer to be able to move a file to recycling with a single click (as is allowed with emails in Microsoft Outlook); other users might prefer to have a confirmation before irretrievably losing the previous version of a file at saving. The subjective and varying size of the components to the inequality suggests that word-processing programs should give users the option to eliminate or add confirmation pages.⁹⁵ The model is particularly helpful in focusing our attention on the number of people whose behavior a particular confirmation affects. A confirmation that is almost universally clicked through is less likely to be efficient.

F. Strategies for Implementing Error-Reducing Altering Rules

The foregoing reductionist analysis abstracts away from many of the specifics of real life contracting—particularly when it assumes that a higher cost altering rule can reduce the likelihood of party error. This Section turns toward less abstract application and suggests specific strategies lawmakers can use in crafting altering rules to lower the prevalence of error. Ideally, the error-reduction strategy will grow out of the reasons the error is occurring. In the programming context, users sometimes commit a type of contractor error

94. The model ignores the impact of privately borne altering costs on the publicly borne costs of adjudicating contract disputes. If one plausibly assumes that higher ex ante costs in contracting will tend to reduce the ex post cost of judicial administration (because of more specificity in contracting), then one would find a broader range of parameters in which deviations from transaction cost minimization would be efficient.

95. However, giving users the ability to eliminate deletion confirmation pages may impact other users of the computer who mistakenly rely on deletion confirmation and are incensed at Microsoft when a computer they are using does not display the expected confirmation.

because they unintentionally click on an icon. This kind of error—which should be distinguished from not knowing the general consequences of the action—might be caused by a trembling hand or a mental lapse. Errors in drafting (for example, omitting the word “not” or mistakenly adding an extraneous zero to the price) are analogous to this type of error. But in the contracting context, where there are at least two contractors and often one takes little part in the drafting of terms, there is also the chance that the nondrafting party will mistakenly assent to terms to which the parties do not agree. As mentioned above, the risk of party error might be reduced by requiring that error-prone terms be conspicuous (potentially regulating a minimum font size and bold or italic lettering). Alternatively, to reduce error, the law might require certain provisions to be separately initialed.

But a lesson from programming is that trying to reduce error by placing mental speed bumps in the altering path can be rendered less effective if the contractors ignore or become habituated to the speed bumps. The confirmation requirement when deleting files leads some users to click delete and then reflexively hit enter to satisfy the confirmation challenge. But as the users’ responses become automated, there is so little time for users to reconsider the initial click of deletion that the confirmation eventually serves little purpose. Similarly, nondrafting parties who routinely initial mandatory contract provisions without reading them gain little protection from the mandated procedural requirement. In both programming and contracting, repetition can be at odds with mindfulness. A borrower who has to initial in fifty places to take out a mortgage may end up with little altering rule protection, as the borrower is liable to rush through the unpleasantness as quickly as possible.

1. Thought-Requiring Altering Rules

One of the great lessons for contract law from UX theory is captured by the aphorism: “Make confirmations require thought.”⁹⁶ Software programmers have developed mechanisms that make it harder to unthinkingly blow through a confirmation—particularly when the programmers are trying to respond to the problem of users not knowing the consequences of less routine actions.

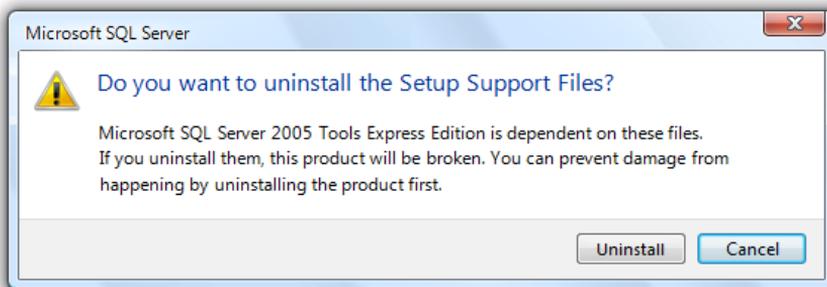
For example, in discussing the labeling of the commit buttons (the icons that will actually execute the action on a confirmation dialog box), the Microsoft UX guidelines contrast the labels that should be used on confirmation buttons when there is a possibility of unintended consequences

96. *Confirmations*, *supra* note 86.

with those that should be used in other circumstances.⁹⁷ These labels on the commit button are a part of the program's altering rule.⁹⁸ Normally, the commit buttons in dialog boxes should be labeled to give users an immediately transparent description of the basic action (such as labels that indicate "Shut Down" or "Cancel"). The guidelines justify clear labeling on cost-minimization grounds but distinguish the labels that should be used with respect to confirmations: "[Clear labeling] leads to efficient decision making because users have to read a minimum amount of text to proceed. However, this efficiency goal can be counterproductive for confirmations."⁹⁹

When labeling confirmation buttons, the UX guidelines advise programmers against giving immediately transparent labeling as a way to force the user to think more about the particular consequences of an action. The guidelines characterize the following example as "incorrect" labeling:

Incorrect:



As the guidelines explain:

In this example, the correct response requires thought.

If you present this confirmation immediately after the user gives the Uninstall command, the user's response is likely to be "Of course I want to uninstall!" The user will click Uninstall without giving it a second thought.

97. *Id.*

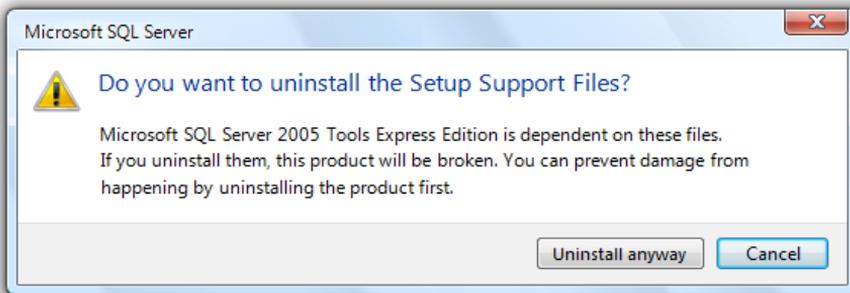
98. For example, in Microsoft Word, one way to put text in boldface type is to click on the commit button/icon labeled "B."

99. *Confirmations*, *supra* note 86.

For confirmations, we don't want users making hasty, emotional decisions. To encourage users to think about their response, we need to provide a small decision-making speed bump.¹⁰⁰

The guidelines suggest that for confirmations "it's usually better" to indicate in the label "that there is a reason not to continue," as in this guideline example:

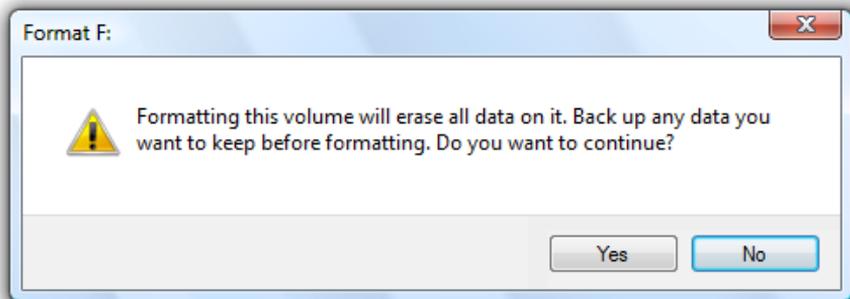
Better:



The guidelines explain:

In this example, "anyway" is added to the commit button label to indicate that the confirmation gives a reason not to continue.¹⁰¹

Most perversely, the guidelines suggest at times the use of intentionally ambiguous Yes/No commitment buttons which "forces users to at least read the main instruction."¹⁰² For example, the following confirmation dialog box buries the question at the end of prophylactic text.



100. *Id.*

101. *Id.*

102. *Id.*

2. Clarity-Requiring Altering Rules

These ambiguous-unless-you-read-the-instructions labels suggest a variety of mechanisms lawmakers might use to increase the likelihood that contractors will be informed before they consent. For example, if lawmakers are concerned that the nondrafting party is not adequately aware of and might not intend to assent to a particular provision, an altering rule might require more specificity to clarify the non-default consequences before enforcing an attempt to displace a default. Such “clarity-requiring” altering rules are probably one of the most ubiquitous deviations from transaction cost minimization in current practice.

The procedural unconscionability concern with “unfair surprise” can be seen as requiring greater clarity for provisions that are substantively one-sided. For example, in *Williams v. Walker-Thomas Furniture Co.*,¹⁰³ Judge Skelly Wright refused to enforce a cross-collateralization agreement not solely because the term was substantively unconscionable, but in part because the provision was rendered in fine print with convoluted language.¹⁰⁴ His opinion, like many decisions striking provisions as unconscionable, holds open the possibility that a more clearly and specifically described provision would be enforceable.¹⁰⁵ The “unfair surprise” component of unconscionability law thus can be seen as a kind of clarity-requiring altering rule.¹⁰⁶

The clarity-requiring impulse can also at times be seen in legal reactions to generic merger clauses. Some courts have shown a reluctance to find that a merger clause accomplishes a “total integration” unless the merger clause more specifically excludes the legal effect of any prior representation or promises.¹⁰⁷

103. 350 F.2d 445 (D.C. Cir. 1965). *Walker-Thomas* is also discussed *infra* Section IV.B.

104. *Id.* at 447.

105. Procedural unconscionability turns as well, however, on “oppression.” *Ferguson v. Countrywide Credit Indus., Inc.*, 298 F.3d 778, 783 (9th Cir. 2002) (“‘Oppression’ arises from an inequality of bargaining power which results in no real negotiation and an absence of meaningful choice.”). In contexts of oppression, even clearly rendered provisions might not be enforced if they were substantively unconscionable.

106. Similarly, legal rules limiting enforcement to writings that prove “a reasonably certain basis for giving an appropriate remedy” have a clarity-requiring effect. *See supra* note 79.

107. *See, e.g., Zwierzycki v. Owens*, 499 P.2d 996 (Wyo. 1972). An insufficiently nonspecific merger clause might merely provide: “THIS WRITING IS THE FINAL AND EXCLUSIVE STATEMENT AND EXPRESSION OF ALL OF THE TERMS OF THE AGREEMENT.” *See AYRES & SPEIDEL, supra* note 32, at 678. A more specific merger clause proposed by JAMES J. WHITE & ROBERT S. SUMMERS, UNIFORM COMMERCIAL CODE 111-13 (3d ed. 1988) more expressly disclaims the legal effect of any other warranties:

THIS AGREEMENT SIGNED BY BOTH PARTIES AND SO INITIALED BY
BOTH PARTIES IN THE MARGIN OPPOSITE THIS PARAGRAPH

Similarly, with regard to the enforcement of conditions that might work disproportionate forfeitures, the law might require specificity about the kinds of “innocent and trivial” acts that would constitute a breach instead of merely enforcing a nonspecific provision that the buyer may withhold payment for any deviation from perfect tender. In some settings, altering rules that require more specificity would be tantamount to transforming the default into a quasi-mandatory rule (which will be discussed below)¹⁰⁸ because it would be impossible to describe with sufficient specificity all the future states of the world.

Altering rules might also be structured to require or encourage greater specificity of the reasons for displacing a default. Preambles and “whereas” clauses describing why the parties seek particular legal consequences might reduce judicial error. For example, in *Ferguson v. Phoenix Assurance Co. of New York*,¹⁰⁹ the Kansas Supreme Court refused to enforce an express condition limiting “safe burglary” losses to claims where the safe evinced “visible marks made by tools, explosives, electricity or chemicals.”¹¹⁰ The court concluded that “[t]he reason for such restrictions, quite obviously, is to protect the companies from what are commonly known as ‘inside jobs.’”¹¹¹ Since there was independent evidence that the burglary was not an inside job, the court reasoned that it need not enforce the condition.¹¹² But the court may have overlooked that another possible purpose of the “visible marks” condition is to avoid liability for a particular kind of insured negligence. Safecrackers are trained to “check the catch,” that is, to check whether someone failed to spin the dial, before proceeding to more extreme safecracking methods.¹¹³ Lazy

CONSTITUTES A FINAL WRITTEN EXPRESSION OF ALL THE TERMS OF THIS AGREEMENT AND IS A COMPLETE AND EXCLUSIVE STATEMENT OF THOSE TERMS . . . ANY AND ALL REPRESENTATIONS, PROMISES, WARRANTIES OR STATEMENTS BY SELLER’S AGENT THAT DIFFER IN ANY WAY FROM THE TERMS OF THIS WRITTEN AGREEMENT SHALL BE GIVEN NO FORCE OR EFFECT.

Id.; see also *Seibel v. Layne & Bowler, Inc.*, 641 P.2d 668, 671 n.1 (Or. Ct. App. 1982) (approving this language and warning that “unless the buyer is informed that the seller is disavowing those representations, the seller cannot expect protection from his agent’s errors”).

108. See *infra* Part III.

109. 370 P.2d 379 (Kan. 1962).

110. *Id.* at 462.

111. *Id.* at 463.

112. *Id.* at 387.

113. “Checking the catch” is referenced in the 1989 Burt Reynolds movie, *BREAKING IN* (Samuel Goldwyn Co. et al. 1989). See also AYRES & SPEIDEL, *supra* note 32, at 824.

employees have an incentive not to spin, so that they can later open the safe by only turning the dial to a single number. The “visible marks” exclusion might have been aimed not only at inside jobs but also outside jobs that were facilitated by the insured’s negligence. This judicial error might have been avoided if the parties had more explicitly expressed the rationale for the exclusion. Or put another way, future parties might fare better in excluding liability if the contract is modified to better explain the grounds for the broader exclusion.¹¹⁴

Specificity requirements in altering might also impose a kind of mandatoriness by requiring that the parties’ duties and rights have more of a substantive fit with legitimate contracting goals. For example, an altering rule for expectation damages might require that to be enforceable a liquidated damages provision must make the amount of the liquidated damages commensurate with the actual or expected damages.¹¹⁵ Liquidated damages of \$300 for a buyer’s breach of a one-week or a two-year cellphone contract would fail this “make the punishment fit the crime” altering requirement.

3. *Altering Rules That Enhance Manifestations of Assent*

Requiring more (clear and specific) language can succeed in spurring more thought by nondrafters only if they read the greater detail. Providing greater detail lengthens the contract and thereby can reduce the probability that a nondrafter will read it. Altering law can imperfectly respond to this problem by requiring more extensive manifestations of assent. For example, the law might mandate more specific formation procedures by requiring that particular types of provisions be separately initialed.¹¹⁶ Required initials are unlikely to succeed

114. The decision in *Ferguson* also suggests how courts might harness the litigants in crafting more express altering rules. The decision refers (seemingly with approval) to insured advice as to what alternative language would have been sufficient: “The [insured] argues if the insurance company did not intend to pay for loss of money by burglary under the facts in this case, it should have had another item under its ‘Exclusions’ stating in substance ‘that the company will not pay for any loss if a combination to a safe has been worked by manipulation.’” 370 P.2d at 463 (citing cases interpreting this kind of language).

115. See generally *JMD Holding Corp. v. Cong. Fin. Corp.*, 828 N.E.2d 604 (N.Y. 2005) (summarizing requirements of nonforeseeability and proportionality to enforce liquidated damages clause); Eric L. Talley, *Contract Renegotiation, Mechanism Design, and the Liquidated Damages Rule*, 46 STAN. L. REV. 1195 (1994) (discussing the economic efficiency of nonenforcement of liquidated damages).

116. See, e.g., TENN. CODE ANN. § 29-5-302 (2011) (“[A] provision in a written contract to submit to arbitration any controversy thereafter arising between the parties is valid . . . provided, that for contracts relating to farm property, structures or goods, or to property and structures utilized as a residence of a party, the clause providing for arbitration shall be

in causing many contractors to pause and consider the consequences of displacing the default rule. Analogous to the software context, where users become habituated to quickly clicking twice to delete, many nondrafters may quickly initial at the indicated X's without pausing to think whether the associated provision is objectionable. At best, requiring initials may inform a subset (and probably a small minority) of nondrafters and is thereby unlikely to substantially change the contractual equilibrium.¹¹⁷

In online environments, the law could go even further to ensure that the nondrafter had the opportunity to read and consider provisions. Online altering rules might require that the nondrafting party actually open the window and literally scroll through all of the provisions. Instead of allowing acceptance by checking a box next to the statement "I have read and understand the terms and conditions," (where the phrase "terms & conditions" is hyperlinked to a never-opened recitation of contract terms),¹¹⁸ the law could simply place the accepting box at the bottom of a scrollable window. Thought-requiring altering rules in the online environment might even require that an offeree have the scrollable window open for some minimum amount of time. The U.S. Army's Travel Risk Planning System (TRiPS) currently implements a version of this regulation.¹¹⁹ Before starting to travel, soldiers are required to log on to the TRiPS site, register their itinerary, and acknowledge that they have read about destination-specific risks. The site's software keeps track of how long users have the disclosure window open before clicking the acknowledgement. Users who attempt to acknowledge receipt too quickly will

additionally signed or initialed by the parties."); WIS. ADMIN. CODE ATCP § 134.09(4)(b) (2011) ("A lien agreement under par. (a), if any, shall be executed in writing at the time of the initial rental agreement The lien agreement is not effective unless signed or initialed by the tenant.").

117. See generally 15 U.S.C. § 1638(a)(2)(B) (2006) (requiring a statement disclosing the "consumer's right to obtain . . . a written itemization of the amount financed" that "shall include spaces for a 'yes' and 'no' indication to be initialed by the consumer"); CAL. DEP'T OF REAL ESTATE, MORTGAGE LOAN BROKER COMPLIANCE EVALUATION MANUAL 6 (2011), available at http://www.dre.ca.gov/pdf_docs/re_7.pdf (prohibiting changes to escrow instructions without the borrower initialing or signing); Leon Austin, *Deed of Trust: Initialing Each Page*, ACTIVE RAIN (Mar. 2, 2008, 11:51 PM), <http://activerain.com/blogsview/404441/deed-of-trust-initialing-each-page> (discussing the importance of initialing "every page" of a deed of trust to ensure that "the borrower has seen and acknowledged each page of this document").
118. See, e.g., JET BLUE, <http://www.jetblue.com> (last visited Nov. 28, 2011) (allowing acceptance of its TrueBlue Program's terms and conditions by checking a box next to the statement "I have read and understood the TrueBlue Program terms & conditions").
119. Travel Risk Planning System (TRiPS), U.S. ARMY, <https://safety.army.mil/trips> (last visited Nov. 28, 2011).

encounter a pop-up window that says, “You’ve been caught speeding. You must spend an additional [*x*] seconds on this page before you may proceed.”¹²⁰ Requiring nondrafters to open a terms and conditions window (and even requiring some delay before allowing acceptance) does not of course mean that online users will read or understand the terms. But as with initialing requirements, some subset of nondrafters subjected to these rules might respond to the enhanced opportunity by actually becoming better informed. You can’t make a horse drink, but leading enough to water may be sufficient inducement for at least a subset.

A more direct mechanism to implement a thought-requiring altering rule is to require that the nondrafting party write out the provision by hand. The very process of writing forces the contractor to slow down and necessitates some level of cognition about the provision in question. Such a handwriting requirement would increase the transaction cost of altering but would increase the chance that the nondrafting party was aware of the provision’s contents. Versions of this altering rule have been used at times in admiralty law, for example, by a French ordinance which “provided that clauses in marine policies which attempted to contract out of the Ordinance de la Marine, or the general common law, were valid only if written by hand and not in print.”¹²¹ An online version of a handwriting requirement might be implemented by requiring a nondrafter to retype a “captcha” rendered display of the provision.¹²²

4. Train-and-Test Altering Rules

However, it is possible for altering rules to go further and require nondrafting (and possibly even drafting) parties to pass a test before giving effect to a particular provision. If the lawmaker’s concern is to make sure that the contractors understand the consequences of opting for a particular provision, then requiring parties to pass a test would be narrowly tailored to achieve that end. Lawmakers require citizenship tests and driving tests before conferring various legal rights. Health Insurance Portability and Accountability Act (HIPAA) regulations require researchers to train and test on the requisite

120. E-mail from Dan Driscoll to author (Oct. 18, 2011, 6:29 PM) (on file with author).

121. J.N. Adams, *The Standardization of Commercial Contracts, or the Contractualization of Standard Forms*, 7 *ANGLO-AM. L. REV.* 136, 139 (1978).

122. “Captcha” displays are the distorted renderings of words used in online environments that attempt to ensure that a response is generated by a human and not a machine. Louis von Ahn et al., *CAPTCHA: Using Hard AI Problems for Security*, 2656 *LECTURE NOTES IN COMPUTER SCI.* 294, 294-95 (2003), available at <http://www.springerlink.com/content/p8t29.8a.6bxey8tvx/fulltext.pdf>.

privacy protection before they can access personal health information.¹²³ The online HIPAA training mandates that researchers view (literally that their computers project) dozens of screens of tutorial courses and that they then correctly answer fourteen of fifteen multiple-choice questions. Similar “train-and-test” procedures might be required as altering rules before a mortgagor is allowed to opt for a prepayment penalty (e.g., “What proportion of borrowers has paid the pre-payment penalty? A. 5-10%; B. 10-25%; etc.”) or before a customer is allowed to opt out of privacy protections (e.g., “Will other corporations have the opportunity to purchase your mailing address and shopping information?”).¹²⁴ Software programmers themselves might take advantage of train-and-test altering rules, where the specter of an ill-considered and consequential opt-out looms particularly large. (“Reformatting this computer’s hard drive will have which of the following effects . . .?”)

A train-and-test altering curriculum might even contain information about negative externalities produced by disfavored contractual provisions. In simple economic models with narrowly self-interested actors, informing contractors of the negative social side effects of their actions would not change contracting behavior. But in more behaviorally realistic models, economic actors can care about others and what others think of them. Merely educating contractors about negative externalities from certain types of provisions might reduce those provisions’ prevalence.

While the train-and-test strategy seems too cumbersome to be anything more than an academic thought experiment, recent mortgage legislation imposes at least an informal variation of the approach. The National Housing Act requires that homeowners receive counseling from a counselor certified by the U.S. Department of Housing and Urban Development before they are able to execute a reverse mortgage, also known as a Home Equity Conversion Mortgage (HECM).¹²⁵ The counseling session (which can be accomplished

123. 45 C.F.R. § 164.530(b) (2010).

124. One could even imagine lawmakers adopting more far reaching “train-and-test” requirements before waiving other important rights, such as the right to trial. Instead of an admonishment that consists of a series of questions to which the defendant merely needs to answer “yes” (Judge: You understand that by waiving jury trial, you forfeit the right to X. Defendant: Yes, your Honor.), the law might require the defendant to pass at least a multiple-choice test that more searchingly explores whether the defendant actually comprehends (by being able to reflect back on) the implications of her waiver.

125. See U.S. Dep’t of Hous. & Urban Dev. Form HUD-92902, Certificate of HECM Counseling (OMB No. 2502-0524) (2008), available at <http://portal.hud.gov/hudportal/documents/huddoc?id=92902.pdf>; see also Reverse Mortgage Elder Protection Act of 2009, ch. 236, CAL. CIV. CODE §§ 1923.2, 1923.5 (West 2010) (prohibiting a lender from “accept[ing] a final and complete application for a reverse mortgage loan from a prospective applicant . . . without

over the telephone) must provide the homeowner with information “about the implications of and alternatives to a reverse mortgage.”¹²⁶ The counselor must sign for each homeowner a certificate of HECM Counseling certifying that the homeowner received counseling on a list of seven issues. The counseling requirement can be thought of as an informal kind of “train-and-test” requirement. An explicit duty of counselors is to impart various types of information to the homeowners. But there is no provision for explicit testing of homeowners and not even a mechanism for counselors to refuse to certify homeowners who cannot display some minimum understanding of the reverse mortgage transaction and its consequences. The absence of more explicit testing increases the chance of party error but reduces the transaction cost—especially for the least educated consumers. Denying contractibility to those who are unable to pass the test raises the same exclusionary concerns as the former requirement of some states that citizens had to pass literacy tests before they were qualified to vote. The more that contracting involves a basic right, the harder it will be to restrict eligibility to those who can pass a test.

The securities law concerning “sophisticated” investors raises some of these concerns. Under a Financial Industry Regulatory Authority (FINRA) Rule,¹²⁷ a financial advisor may recommend option transactions only to a sophisticated investor who has “such knowledge and experience in financial matters that he may reasonably be expected to be capable of evaluating the risks of [a] recommended transaction.”¹²⁸ As applied, the rule’s exclusionary impact on option contracting is both underinclusive (permitting those to trade options who are wealthy but lack demonstrated knowledge of derivatives) and overinclusive (barring trading by investors with actual sophistication but more limited means).¹²⁹ A train-and-test approach to sophistication ties the contours

first receiving a certification from the applicant or the applicant’s authorized representative that the applicant has received counseling”); *Counseling*, REVERSEMORTGAGEGUIDES.ORG, http://reversmortgageguides.org/reverse_mortgage/counseling (last visited Apr. 29, 2011); Elizabeth Ecker, *Friday Round-Up: Counseling De-Funded, Wholesale Gains*, REVERSE MORTGAGE DAILY (Apr. 15, 2011, 3:07 PM), <http://reversmortgagedaily.com/2011/04/15/friday-round-up-counseling-de-funded-wholesale-gains>.

126. U.S. Dep’t of Hous. & Urban Dev., *supra* note 125.

127. FINRA Rule 2360(b)(19), available at http://finra.complinet.com/en/display/display.html?rbid=2403&element_id=6306.

128. *Id.*; see also Arthur Joseph Lewis, Exchange Act Release No. 29794, 49 S.E.C. Docket 1487 (1991) (affirming a suitability violation and finding a financial adviser failed to adequately determine a customer’s ability to understand and accept risks involved with trading options).

129. As a young professor with a Ph.D. in economics, I was turned down by several brokerage firms from qualifying for an option trading account predominantly because of my lack of

of the trading restriction to the goals of the regulation. As suggested by a 2009 *Forbes* article, sophisticated investors “should be required to meet minimum qualifications, attend a few educational classes and pass a basic test of knowledge of the markets.”¹³⁰

A more explicit “train-and-test” system concerns the student loan entrance test. Prior to the disbursement of many types of federal student loans, the 2008 Higher Education Opportunity Act mandates that first-time borrowers undergo “entrance counseling”¹³¹ to “ensure that the borrower receives comprehensive information on the terms and conditions of the loan and of the responsibilities the borrower has with respect to such loan.”¹³² The statute lists eleven topics that the entrance counseling must address, such as “[t]he definition of half-time enrollment,” “[t]he obligation of the borrower to repay the full amount of the loan,” and “[t]he likely consequences of default on the loan.”¹³³

The education act goes further than the housing act in urging institutions to test loan recipients:

The Secretary shall encourage institutions to carry out the requirements of subparagraph (A) through the use of *interactive programs that test the borrower’s understanding* of the terms and conditions of the borrower’s

liquid capital. *See also* Regulation D, 17 C.F.R. § 230.501 (2011) (defining an “accredited” investor for purposes of security registration exemption to include an individual with “income in excess of \$200,000 in each of the two most recent years or joint income with that person’s spouse in excess of \$300,000 in each of those years and has a reasonable expectation of reaching the same income level in the current year”).

130. John E. Girouard, *The Sophisticated Investor Farce*, FORBES, Mar. 24, 2009, <http://www.forbes.com/2009/03/24/accredited-investor-sec-personal-finance-financial-advisor-network-net-worth.html>.

131. 20 U.S.C.A. § 1092(l)(1)(A) (West 2010). The statutory requirement to provide entrance counseling applies to loans “made, insured, or guaranteed” under the Federal Family Education Loan (FFEL) Program or the William D. Ford Federal Direct Loan Program, except for FFEL consolidation loans, student-borrowed FFEL PLUS loans, Federal Direct Consolidation Loans, and Direct PLUS loans “made on behalf of a student.” *Id. But see* 34 C.F.R. § 685.304(a)(2) (2010) (requiring that entrance counseling be provided to “each graduate or professional student Direct PLUS Loan borrower prior to making the first disbursement of the loan unless the student borrower has received a prior Direct PLUS Loan or Federal PLUS Loan”).

132. 20 U.S.C.A. § 1092(l)(1)(A). The subsection mandates that the information “shall be provided in a simple and understandable manner” through one of three alternative mechanisms: an in-person counseling session, a written form, or “online, with the borrower acknowledging receipt of the information.” *Id.*

133. 20 U.S.C.A. § 1092(l)(2)(E), (H), (I).

loans . . . using simple and understandable language and clear formatting.¹³⁴

Because of this provision, students at many schools cannot finalize their student loans and receive their funds until they have passed a test demonstrating a basic understanding of the agreement. However, the standard online test offered by the U.S. Department of Education is extraordinarily easy, containing simple true/false and multiple-choice questions that largely restate the informative text presented to the borrower.¹³⁵

5. Password Altering Rules

Courts concerned with error minimization will have to make important choices concerning (i) whether the contract was written in what Alan Schwartz and Robert Scott refer to as “majority talk” as opposed to more specialized language, which they refer to as “party talk”; and (ii) what evidence is admissible to show what the parties meant in the permissible language.¹³⁶ While a full analysis of these core interpretive questions and their relationship to altering rules is beyond the scope of this Article, a concern with error minimization should push lawmakers toward developing what I will call “password” altering rules. One of the reasons that specialized language can increase the risk of error is that different language communities use the same words to denote different things. In a well-known example,¹³⁷ the word “wife” in the phrase, “I leave my money to my wife,” might in one community mean the person to whom one is legally married but in another community mean the person with whom one is cohabitating. To avoid the ambiguity, lawmakers might develop altering rules to achieve particular contractual results that only parties knowledgeable of the altering rule are likely to use. Including unusual (“arbitrary”) language in an altering rule will assure that uninformed

134. 20 U.S.C.A. § 1092(l)(1)(B) (emphasis added).

135. See, e.g., *Entrance Counseling (Fed Student Loans) Flashcards*, QUIZLET, <http://quizlet.com/3930329/print> (last visited Nov. 28, 2011) (listing questions and answers for the online entrance counseling test offered by the U.S. Department of Education). Students can pass merely by answering “all of the above” or “true” to all of the questions.

136. Alan Schwartz & Robert E. Scott, *Contract Theory and the Limits of Contract Law*, 113 YALE L.J. 541, 570-72 (2003).

137. See *In re Soper's Estate*, 264 N.W. 427 (Minn. 1935); see also Schwartz & Scott, *supra* note 136, at 571 (discussing the example of the ambiguity of “wife”).

contractors will not unwittingly stumble upon the language.¹³⁸ An altering rule with arbitrary language operates as a password that allows knowledgeable parties to achieve a desired result without running the risk that unknowledgeable parties will mistakenly invoke the sufficient condition. Password altering rules are a legal analogy to programming “Easter eggs,” hidden goodies that can be unlocked only if the user enters an arbitrary concatenation of commands that uninformed users would be extremely unlikely to stumble upon by chance.¹³⁹ For example, a user of Microsoft’s Excel 97 who opened a new workbook, pressed F5, typed “X97:L97” and then pressed enter, held ctrl-shift, and clicked “Chart Wizard” would engage a fully functioning flight simulator that was hidden inside the spreadsheet program.¹⁴⁰ Password altering rules can similarly be crafted to avoid invocation by the uninformed.

Password altering rules will at times be the exclusive means of achieving a particular contractual outcome if lawmakers want to increase the likelihood that all contractors who are opting for a particular non-default provision are acquainted with the law on an issue. Indeed, as a thought experiment, one could imagine lawmakers burying a password altering rule in an online tutorial that nondrafting parties have to handwrite into a contract to opt out of the default. Here, invoking the password would be a prerequisite to gain entrance to the restricted legal treatment.

But more often lawmakers should look to deploy password altering rules that are nonexclusive means—and are merely sufficient safe harbors—for

138. I use the term “arbitrary” as it is used in trademark law. See *Zatarains, Inc. v. Oak Grove Smokehouse, Inc.*, 698 F.2d 786, 791 (5th Cir. 1983) (“Arbitrary or fanciful terms bear no relationship to the products or services to which they are applied.”). An arbitrary trademark is usually a common word that is used in a meaningless context—such as a Salty telephone or an Apple computer. See ROBERT P. MERGES, PETER S. MENELL & MARK A. LEMLEY, *INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE* 754 (5th ed. 2010).

139. See Stan Miastkowski, *Step-By-Step: Find Software Easter Eggs*, PCWORLD (Feb. 27, 2003, 1:00 AM), http://www.pcworld.com/article/109378/stepbystep_find_software_easter_eggs.html; see also HIDDEN DVD EASTER EGGS, <http://www.hiddendvdeastereggs.com> (last visited Nov. 28, 2011) (“In 1885 the ruling family of Russia, the Romanovs, began a tradition of commissioning Carl Fabergé to create increasingly elaborate jeweled eggs which were exchanged by the family at Easter. Most of the known 50 eggs created contain hidden surprises such as miniature portraits, miniature coaches, and even clock-work birds that sing. It is for these beautiful works-of-art that software and DVD Easter Eggs are named.”).

140. See *Excel 97 Easter Egg—Flight Simulation*, YOUTUBE, (June 30, 2010), <http://www.youtube.com/watch?v=-gYb5GUsodM>; *Excel Easter Egg—Excel 97 Flight Simulator—for Later Versions of Microsoft Excel*, THE EASTER EGG ARCHIVE, <http://www.eeggs.com/items/29841.html> (last visited Nov. 28, 2011). Easter eggs sometimes exist as “cheats” in video games that provide players with an alternative means to move to the next level.

achieving particular contractual outcomes. Providing a password altering rule as a sufficient but nonexclusive means of achieving a non-default outcome is particularly well suited to reduce judicial error. It avoids the “wife” problem that common words may mean different things to different people. This case for merely sufficient, password altering rules is consistent with certain types of contractual boilerplate, which as terms of art have come to have well-established legal meaning. However, password altering rules can at times exacerbate party error for nondrafters who fail to understand the implied legal meanings that almost by definition are not transparently revealed by the altering words themselves.

Still, there is a particular type of password altering rule that does well in reducing transaction costs, judicial-error costs, and party-error costs. This rule is related to the idea of judicial decisions providing contractual language that would be sufficient to achieve the legal treatment sought by the losing party in any contractual dispute not involving mandatory rules.¹⁴¹ In providing sufficiency rules, judges can turn the altering words into a password by adding an explicit citation to the decision itself. Judge Cardozo might have dropped a footnote with a password safe harbor immediately after making the textual claim, “This is not to say that the parties are not free by apt and certain words to effectuate a purpose that performance of every term shall be a condition of recovery.”¹⁴² The footnote might have provided an example of “apt and certain” words. For example, the footnote might have instructed future parties, “It will be sufficient for future contracts to achieve this result by including the provision ‘As suggested in *Jacob & Youngs v. Kent*, 129 N.E. 889, the buyer’s duty to pay is conditioned on seller’s perfect performance of every term.’” Because these altering terms are sufficient but not necessary, they merely give future contractors an additional contractual option and are unlikely to increase the costs of altering.¹⁴³ Because the terms are arbitrary, the drafter is unlikely to use the term unless she is familiar with the referenced decision. And even though the nondrafting party may not initially be aware of the decision, the words of the altering rule itself provide a citation pointer that nondrafters can use to learn more about the likely legal effect of the rule. The next Part of this Article will argue that judicial concerns with externalities or paternalism might lead a court to withhold this kind of altering rule advice. These concerns might have even been present in *Jacob & Youngs*. But in the absence of these concerns,

141. See *supra* Section II.A.

142. *Jacob & Youngs, Inc. v. Kent*, 129 N.E. 889, 891 (N.Y. 1921).

143. Sufficient altering rules would run the risk of becoming more costly if these rules tended to evolve toward necessary conditions for default displacement. See Goetz & Scott, *supra* note 3, at 263 (discussing the tendency of courts to change defaults into mandatory rules).

courts should routinely provide password altering rules (with self-referencing citations) to allow future contractors a sufficient means for achieving alternative contractual outcomes.

6. Reversibility

A final lesson that can be gleaned from the UX guidelines concerns reversibility. The guidelines suggest that instead of imposing the cost of confirmations on users to reduce the likelihood of error costs, programmers should instead provide “undo,” the ability of users to reverse a mistaken action. “For example, deleting a file in Microsoft Windows usually doesn’t require a confirmation because deleted files can be recovered from the Recycle Bin. Note that if an action is very easy to perform, just having users redo the action may be sufficient.”¹⁴⁴ This example shows that the guideline authors do not have absolute control over Windows operability; one continues to find confirmation dialog boxes as a precondition to deleting files.

Reversibility is a tool of remediation. Instead of reducing the likelihood of error, reversibility reduces the cost of error. In contract law, the reversibility strategy is analogous to cooling-off strategies, which give contractors a period of time in which they can undo mistaken contract formation. The Federal Trade Commission (FTC) gives buyers a three-day cooling-off period to rescind any contract made at a “buyer’s home, workplace or dormitory or at facilities rented by the seller on a temporary or short-term basis, such as hotel or motel rooms, convention centers, fairgrounds and restaurants.”¹⁴⁵ And while the FTC cooling-off rule is concerned with the undue influence of pressurized sales, other cooling-off rules are triggered simply by the substantial untoward consequences that result from party mistakes in particular circumstances—as

144. *Confirmations*, *supra* note 86.

145. See FED. TRADE COMM’N, FTC FACTS FOR CONSUMERS: THE COOLING-OFF RULE: WHEN AND HOW TO CANCEL A SALE 1 (1990), available at <http://www.ftc.gov/bcp/edu/pubs/consumer/products/proo3.pdf>. The United Kingdom has established an alternative to the cooling-off cancellation option—forcing seller/lenders to wait at least a week after a credit sale *before* they can enter into a separate contract with the buyer/borrower for the provision of credit life insurance. See U.K. COMPETITION COMM’N, MARKET INVESTIGATION INTO PAYMENT PROTECTION INSURANCE 1 (2009) (concluding that the best approach to regulating credit life and similar products is to prohibit “distributors and intermediaries from selling [payment protection insurance] to their credit customers within seven days of a credit sale”).

exemplified by the state cooling-off provision for certain health insurance or reverse mortgage contracts.¹⁴⁶

Cooling-off strategies—which usually give the nondrafting buyer the option of cancelling a contract during the limited cooling-off period—are not well suited for responding to the problem of judicial error, because the buyer is usually not well placed in terms of information or motivation to clarify the meaning of terms that might induce judicial error about the shared meaning of the contract. But cooling-off strategies *might* be better suited to respond to problems of party error. If (and as a behavioral matter it is a big if) the buyer takes the time to read the contract after signing it and learns of unfavorable terms, or if the buyer takes the time to solicit competitive offers from other sellers, a cooling-off period can correct party error. But as an empirical matter cooling-off options are rarely invoked.¹⁴⁷

III. STICKY DEFAULTS AS QUASI-MANDATORY RULES

Contractual rules are usually categorized dichotomously as mandatory or default—with the former rules unalterable and the latter alterable. The standard justifications for mandatory restrictions on freedom of contract are to protect people inside (paternalism) or outside (externalities) the contract. This Part will argue that when externalities and paternalism concerns are not sufficient to support mandatory rules, lawmakers can still at times manage and ameliorate these concerns by creating sticky defaults by using what I will call “impeding” altering rules, which selectively deter opt-out by artificially increasing its difficulty. Software praxis again helps motivate our analysis. The software programmer’s primary job is to facilitate user autonomy. Programs

146. See *Take Advantage of Florida Health Insurance Cooling-Off Period*, DIGI-JOURNAL (Aug. 24, 2008), <http://www.digijournal.net/healthmedical/take-advantage-of-florida-health-insurance-cooling-off-period>; Press Release, Mass. Office of Consumer Affairs and Bus. Regulation, State Launches New Reverse Mortgage Web Site for Seniors (Aug. 15, 2008), http://www.seniorcareinc.org/ResLib/Reverse_Mortgages.pdf (“Massachusetts law provides all reverse mortgage borrowers with a cooling off period which gives them the right not to proceed with the transaction for seven days after a loan commitment is issued by the mortgage lender.”).

147. See Caroline O. Shoenberger, *Consumer Myths v. Legal Realities: How Can Businesses Cope?*, 16 LOY. CONSUMER L. REV. 189, 216 (2004) (“The real story behind the cooling-off period, when it does exist in the law, is that it is generally ineffective against fraud. Take, for example, a door-to-door salesman for a roofing company [who], after signing a contract containing the legal cancellation notice, obtains a \$300 down payment. Even if the resident exercises the right to the three-day cooling-off period, it’s a challenge for the consumer to get back the deposit.”).

should set the defaults that most users want and provide low-cost means of displacing those defaults. That is, programmers, like lawmakers in establishing contract law, should ordinarily set majoritarian defaults and cost-minimizing altering rules. The error-reducing deviations from cost minimization in the previous Part can all be justified as kinds of soft paternalism. The users themselves would want to have to click twice before opening email attachments to reduce the risk of mistakenly unleashing a virus. The users themselves would want the annoyance of having to click twice to delete a file to reduce the risk of losing valuable work product.¹⁴⁸ A programmer guided by soft paternalism would attempt to make the kind of altering rule choices that users as a class would make for themselves¹⁴⁹—even if it entails imposing additional transaction costs on those users who in fact want to displace the default. The goal of such soft paternalism ultimately is to allow all users to achieve the default or non-default option that they prefer. Indeed, the purpose of the higher-cost altering rules is to enhance user autonomy by increasing the chance they make informed choices to choose the option that they really want.

But programmers might at times go further and put in place barriers to opting out that seek in equilibrium to impede the user's ability to achieve certain non-default options. Such altering barriers might be based on the same twin rationales used to justify mandatory rules: externalities and (hard) paternalism. For example, when a user opting out of a default negatively affects other users or the software company itself, the programmer may increase the cost of opt-out to reduce the opt-out rate. Indeed, the Microsoft UX guidelines, in another moment of surprising candor, provide for the possibility of "ulterior motive confirmations" and explain, "While these dialog boxes are presented as confirmations, their real goal is user education or advertisement of features."¹⁵⁰

Microsoft's ulterior motive of advertising features is viewed as a justification for imposing the additional costs on the user. Software users thus encounter "Are you sure you don't want to upgrade to Quicken 2012?" confirmations because of the ulterior motive of selling product. More benignly,

148. The pure soft-paternalism justification for prophylactic confirmations would have more difficulty justifying why the two-click altering rules are not themselves alterable—that is, why users aren't trusted with the option of moving to one click. See *supra* Section I.B (discussing the two-click altering rule in Microsoft Outlook). One might give a soft-paternalism justification for the immutability of the two-click altering rule itself. For example, a primary user might be concerned that another family member will opt out of the prophylactic without warning the user, who is then exposed to unwanted risk.

149. See *The State Is Looking After You*, *ECONOMIST*, Apr. 8, 2006, <http://www.economist.com/node/6772346> (describing the goals of soft paternalism).

150. *Confirmations*, *supra* note 86.

programmers might include higher cost-altering rules that are motivated to dampen opt-outs that disadvantage other users. For example, the confirmation “Are you sure you don’t want to report this problem to Microsoft?” might induce more people to share information that could aid users generally. A hard-paternalism justification for prophylactic altering rules would occur if programmers constructed opt-out barriers because they believed that (even with more information) some users would still mistakenly opt out. UX guidelines do not suggest this approach, and it is in some ways understandable when we realize that software companies are trying to induce customers to buy their products. By definition, consumers dislike barriers prompted by hard paternalism and might be less inclined to purchase software with hard-paternalism features. The Apple UX guidelines give voice to hard-paternalism concerns when talking about removing choice altogether rather than in guiding it against the users’ wishes.¹⁵¹

Concerns with negative externalities or (hard) paternalism can also at times motivate lawmakers to implement altering rules that seek to impede some contractors from opting out—particularly impeding contractors who absent the altering-rule obstacles would have opted out. The last Part was predominantly about how soft-paternalism concerns could justify deviating from cost minimization in establishing legal altering rules.¹⁵² But in this Part, I explore how hard paternalism and externalities can justify altering rules that restrict and impede contractor autonomy.

The impeding altering rules make defaults sticky, and in the past, I have (somewhat misleadingly) referred to some defaults as “sticky defaults.”¹⁵³ But what makes a default sticky, under this reading, has nothing to do with the content or desirability of the default itself. The stickiness of a default derives from the relative difficulty of contracting around—particularly if the altering rules impede fully-informed contractors from contracting for certain non-default effects because of the costs of complying with the impeding altering rules.¹⁵⁴ Accordingly, I will sometimes refer to sticky defaults as sticky or impeding altering rules.

151. *Apple Human Interface Guidelines*, APPLE DEVELOPER, <http://developer.apple.com/ue/switch/windows.html#useTheAquaHumanInterfaceGuidelines> (last visited Apr. 22, 2011).

152. See, e.g., Colin Camerer et al., *Regulation for Conservatives: Behavioral Economics and the Case for “Asymmetric Paternalism,”* 151 U. PA. L. REV. 1211 (2003); Richard H. Thaler & Cass R. Sunstein, *Libertarian Paternalism*, 93 AM. ECON. REV. 175 (2003).

153. A Westlaw search shows the term “sticky default” has appeared in at least sixty-four law review publications.

154. This altering-cost definition of sticky defaults is at odds with the way that Omri Ben-Shahar and John Pottow used the term. See Omri Ben-Shahar & John A.E. Pottow, *On the Stickiness*

altering rules offer private parties greater freedom of contract. But relative to traditional defaults, sticky defaults restrict private-ordering freedom.

One might reasonably wonder why lawmakers would ever prefer sticky defaults to mandatory rules. If lawmakers are concerned about negative externalities or the ability of nondrafters to protect themselves from certain kinds of opt-out, why not simply prohibit contracting for these disfavored outcomes? The simple answer is heterogeneity. Contracting parties may experience heterogeneous private benefits from contracting around, they might produce heterogeneous amounts of externalities, or they might produce heterogeneous paternalistic concerns. Heterogeneity of these kinds can produce contexts where it is efficient to erect impeding barriers that disproportionately allow default displacement where there are higher private benefits, lower negative externalities, or lower paternalism concerns. The goal of impeding altering rules will be to disproportionately block the more socially problematic opt-outs, while not blocking the less socially problematic opt-outs.

A. Numeric Example Comparing Relative Efficiency of Sticky Defaults

To see the potential efficiency of quasi-mandatory rules, consider the following stylized numerical example. Imagine that the negative social externality of displacing a default provision Z with the alternative provision \check{Z} is either \$20 per contract or \$25 per contract, and assume that, among 100 contracting pairs, there are two contracting types that vary in how much they privately value the alternative provision:

Eighty of the contractors are “Low” types, and for these types the \check{Z} provision increases the gains of trade by \$5 per contract; and,

Twenty of the contractors are “High” types, and for these types the \check{Z} provision increases the gains of trade by \$100 per contract.

In this stylized example, lawmakers need to choose how costly to make the altering rule. Imagine that lawmakers can set altering costs at \$0, \$5.01, or \$100.01.¹⁵⁵ To keep the example simple, imagine that there are sufficient gains

155. One could conceive of the altering costs as the arbitrary ink costs of including legally required verbiage in the contract. Alternatively, lawmakers might require altering contractors to publicly burn the requisite amounts of money in order to alter. More realistically, the law might manipulate the cost of discovering the necessary conditions for altering by hiding the information in a labyrinth of code sections and common law decisions, forcing interested parties to retain legal representation in order to discover and implement the altering requisites. Higher costs of discovery are likely to have different

from trade for all types such that, regardless of the altering costs, all 100 contractors will end up contracting, possibly without contracting around the default. The example assumes away all judicial error and party error. The purpose of the potentially higher-cost altering rules is not to better inform the contractors or the courts, who are assumed to be perfectly informed about the legal consequences of both the default and its alternative—and ignoring alteration costs, all contractors at least mildly prefer \check{Z} to provision Z . The sole potential impact of higher altering costs is to deter some contractors from contracting around the default. Table 4 summarizes the efficiency effects of altering rules with three cost levels, assuming that contractors only contract around a rule if the private increases in gains of trade from altering exceed the privately borne altering costs:

Table 4.
EXAMPLE OF HIGHER EFFICIENCY FROM A STICKY DEFAULT THAN FROM EITHER A MANDATORY OR DEFAULT RULE

		DOES CONTRACTOR ALTER?		NET EFFICIENCY GAIN FROM ALTERING	
		Contractor Type			
		H (100)	L (5)	E = 20	E = 25
ALTERATION COSTS	C = 100.01	No	No	0	0
	C = 0	Yes	Yes	400	-100
	C = 5.01	Yes	No	1499.80	1399.80

If altering costs are set at \$100.01 (or more), then the default Z provision effectively becomes a mandatory rule. Not even the high-valuing contractors

distributional effects on repeat and non-repeat contractors as the repeat contractors might well be able to utilize their acquired knowledge altering prerequisites in repeated contracts.

Failing to specify the words and actions sufficient to alter might also impose probabilistic altering costs because contractors who attempt to displace a default will bear the risk that the court might after the fact hold them to unintended terms. *See infra* Section IV.A (discussing ex post penalties). One could construct examples where only a subset of contractors who had particularly high gains of trade from altering would bear these costs by attempting to alter.

are willing to incur \$101 in altering costs to raise their gains of trade by \$100. Accordingly, the top row of Table 4 illustrates that there are no additional net gains in efficiency from parties contracting to the alternative provision, \tilde{Z} . At the other extreme, if lawmakers set altering costs at \$0, then all contractors contract around the default and favor the alternative provision. Altering increases efficiency when the private benefits it produces exceed the social costs of the negative externality. Accordingly, the middle row of Table 4 indicates that when the negative externality from altering is \$20 per contract, the net gain from altering is \$400 ($= 20 \times 100 + 80 \times 5 - 100 \times 20$). This row also indicates that when the negative externality rises to \$25 per contract, the net social impact of altering becomes negative. All contractors still costlessly contract around the default, but now the negative externalities drive the net gains to $-\$100$ ($= 20 \times 100 + 80 \times 5 - 100 \times 25$). The two top rows of the table are consonant with a standard result of existing scholarship: as negative externalities become more pronounced, mandatory rules tend to become more efficient than default rules.¹⁵⁶ If lawmakers could choose between only two levels of altering costs, they should choose high altering costs when there are high negative externalities and cost-minimizing altering costs when there are relatively low negative externalities. Indeed, in this stylized example, setting altering costs at zero is equivalent to lawmakers flipping the default, because no contractors would choose to contract away from a \tilde{Z} default.

But Table 4 shows that there is an intermediate level of altering costs that can produce an even higher level of efficiency. If lawmakers set contracting costs at \$5.01, then only high-valuing contractors will choose to incur the altering costs. This intermediate level of altering costs thus induces a separating equilibrium, where high and low types in equilibrium end up with different contractual terms—even though they all privately prefer the \tilde{Z} provision. The net efficiency gains from altering with these intermediate altering costs are \$1499.80 ($= 20 \times 100 - 20 \times 20 - 20 \times 5.01$) when the externality is \$20 per contract and the efficiency gains are \$1399.80 ($= 20 \times 100 - 20 \times 25 - 20 \times 5.01$) when the externality is \$25 per contract.

Table 4 thus provides an example where a sticky default produces higher efficiency than either a mandatory rule or a cost-minimizing default. Lawmakers' artificially engineered intermediate altering costs increase efficiency (relative to these two other legal regimes) because they deter low-valuing contractors from altering (when their altering produces externalities that exceed their private benefits) while simultaneously allowing altering by the high-valuing contractors (whose private benefits exceed the

156. See Ayres & Gertner, *Filling Gaps*, *supra* note 3, at 88.

negative externalities). When the negative externalities are relatively high (\$25 per contract), the sticky default dominates the second-place mandatory rule because it grants *more* contractual freedom to the high types. When the negative externalities are relatively small, the sticky default dominates the second-place (Teflon) default because it grants *less* contractual freedom to the low types.

This numeric example shows that in the face of negative externalities, it can be efficient for lawmakers to set a minoritarian default (which none of the contractors privately prefer) and combine it with artificially elevated altering costs. Without the altering costs, the minoritarian default would operate as a kind of penalty that encourages contractors to contract around the default. But when the disfavored default is combined with the elevated altering costs, it induces a separating equilibrium with the limited opt-out.¹⁵⁷

The use of intermediate altering costs is reminiscent of, but importantly different from, Pigouvian or effluent taxation. A simple and time-honored mechanism for solving externality problems would be for lawmakers to treat the contracting for provision Z as a kind of pollution and to impose effluent taxation equal to the size of the activity's social harm. In simple models, effluent taxation can produce first-best efficiency because, as with the example above, only contractors with high benefits would be willing to pay the tax – and the desired efficient separating equilibrium would ensue. From a social efficiency perspective, increasing altering costs is different from imposing a tax because taxes are mere transfers of value, while sticky defaults actually require the consumption of real transaction resources. So while this costly altering rule produces the same separating equilibrium as the efficient effluent tax, it is not first-best efficient because the high-value contractors throw away value in the process of contracting. One reasonable response to the example is that lawmakers might produce more efficiency by imposing a Pigouvian tax instead of using the impeding altering rules. However, they should remember that taxation is not institutionally or politically feasible for all lawmakers.

In more complicated models, taking into account both the costs involved in administering a scheme of Pigouvian taxes and the costs of administering a judicial system, altering rules with privately-borne intermediate altering costs

157. In Ayres & Gertner, *Strategic Contractual Inefficiency*, *supra* note 3, at 753 n.75, Rob Gertner and I have an example where increasing costs of contracting around can improve efficiency, but it does so by producing a more efficiency-pooled equilibrium. In contrast, Table 4 relates to an example where increased costs of contracting around a default produce a more efficiency-separating equilibrium.

might be more efficient than even Pigouvian effluent taxation.¹⁵⁸ Impeding altering rules, even if second-best, still can produce (substantially) greater efficiency than mandatory rules or cost-minimizing defaults. From the perspective of effluent taxation, the example teaches that the efficiency enhancements from creating a separating equilibrium can be strong enough to overcome the additional headwind of “wasted” transaction costs.

This will not always be so. Sticky defaults will not always be more efficient than mandatory rules or cost-minimizing defaults. But this numeric counterexample is sufficient to show that efficiency-minded lawmakers will at times want to deploy impeding altering rules that in essence make a rule mandatory for some subset of contractors while making the same rule contractible with regard to another subset of contractors. In such circumstances, a sticky default with artificial barriers to opting out is an additional tool to achieve that end.

B. Possible Applications of the Sticky Default Strategy

The foregoing example so abstracts from reality that readers may have trouble relating the numeric possibility to real world contexts. Can particular contract terms produce negative externalities? Can lawmakers manipulate the size of altering costs? Will the impeding altering rules associated with sticky defaults impede the appropriate contractors from contracting? Are there any examples of sticky defaults *cum* impeding altering rules in current law? This Section provides some answers.

To see the possibility of negative social externalities from private contracting provisions, one need go no further than the current mortgage crisis. The mortgage contracting provisions concerning balloon payments or the degree of leverage can negatively impact systemic risk.¹⁵⁹ Moreover, the previous externality example might be modified to model heterogeneous paternalism concerns as a lawmaker’s basis for implementing impeding altering rules. Instead of varying the private benefits or the social costs from altering, one can imagine circumstances where a subclass of less sophisticated or more behaviorally-biased consumers is more likely to enter into contracts with party error. While the earlier example concerned altering that produced negative externalities, the paternalism concern for a subgroup of consumers is

158. An advantage of impeding altering rules is that the privately-born effort in contracting can reduce the publicly-born cost of adjudicating contract disputes.

159. See Steven L. Schwarcz, *Systemic Risk*, 97 GEO. L.J. 193 (2008).

that altering will produce negative *internalities*—in that people internal to the contract are not trusted to protect their own interests.

Heterogeneous paternalism concerns naturally suggest what Colin Camerer and coauthors have called “asymmetric paternalism” policies.¹⁶⁰ Impeding altering rules might ameliorate the heterogeneous paternalism problem if the altering barriers work to hinder opt-out by those contractors where the paternalism concern is high while allowing opt-out by those contractors where the paternalism concern is low. However, some forms of impeding rules will not be well-tailored to disproportionately prevent opt-out from the contracting pairs where paternalism concerns are the strongest. For example, if the concern is that some buyers are unrealistically optimistic about the benefits from a particular opt-out,¹⁶¹ then those optimistic buyers, because of their overvaluation, may be the least deterred by elevated altering costs from opting out.

In other settings, however, there will be a better means/ends fit that might allow more plausible sticky default interventions justified by paternalism. A direct way for policy makers to induce the kind of separating equilibrium sought for is to impose different altering rules on different contractor types. By imposing more burdensome formalities as a prerequisite to contracting, the law might make it harder for the young or the less sophisticated to achieve certain contractual ends. Tailored altering rules that treat different contractors disparately can make defaults stickier for subsets of concern.

Less directly, it may be possible for legislators to craft untailored altering rules that impose disparate impacts with regard to the availability of opt-out. For example, if the contractor bias is correlated with lack of legal sophistication, then lawmakers might be able to disproportionately impede biased contractors from opting out by crafting opaque altering rules that are more difficult for less sophisticated contractors to find. Instead of impeding opt-out with higher out-of-pocket altering costs, as suggested by the model, lawmakers might impede opt-out by failing to transparently disclose the conditions for effective altering. Computer programmers opting for “progressive programming” analogously make it disproportionately difficult for less sophisticated users to opt out of certain defaults. By burying the opt-out software mechanisms in secondary and tertiary dialog boxes, programmers intend to limit such options to more sophisticated users.

160. Camerer et al., *supra* note 152; see also Sunstein & Thaler, *supra* note 37; Thaler & Sunstein, *supra* note 152.

161. John Geanakoplos, *The Leverage Cycle*, COWLES FOUND. (Discussion Paper No. 1715, 2009), <http://ssrn.com/abstract=1441943>.

Analogously, the law can make opt-out mechanisms more opaque by burying the description of altering rules in common-law decisions or going even further and failing to provide safe-harbor instructions on how to achieve legally disfavored options. Thus, in *Peevyhouse v. Garland Coal*, the majority opinion in limiting damages to “diminution in value” when “the economic benefit which would result [from] full performance of the work is grossly disproportionate to the cost of performance” nonetheless concluded that parties remain free to contract for cost of performance damages:

[T]he rule . . . does not interfere with the property owner’s right to “do what he will with his own” or his right, if he chooses, to contract for “improvements” which will actually have the effect of reducing his property’s value. Where such result is in fact contemplated by the parties, and is a main or principal purpose of those contracting, it would seem that the measure of damages for breach would ordinarily be the cost of performance.¹⁶²

But the *Peevyhouse* opinion, like the *Jacob & Youngs* decision discussed before,¹⁶³ fails to provide the altering language that future parties could use to achieve the larger cost-of-performance damages.¹⁶⁴

From the perspectives of cost-minimization or autonomy-maximization, leaving the altering rule unspecified is presumptively inefficient. But from the perspective of a lawmaker who is concerned about externalities or paternalism, the same failure may be seen as establishing a quasi-mandatory rule that may attempt to selectively impede a subset of contractors from contracting around a legally preferred default. Notwithstanding my earlier proposal for judges to issue opinions advising future parties how to achieve the substantive interpretation desired by the losing party, courts might overcome this presumption when they have credible concerns about externalities or paternalism. However, courts would probably be better disciplined if they were more explicit in providing reasons why they were choosing to make the altering rules opaque in a given case. While externalities or paternalism *might*

162. 382 P.2d 109, 114 (Okla. 1962) (citing *Chamberlain v. Parker*, 45 N.Y. 569, 572 (1871)). *Peevyhouse* concerned a defendant’s failure to restore plaintiff’s property after strip mining operations were completed. The cost of performing the restorative work was approximately nine times the diminution in value of the property resulting from the breach. *See id.* at 111-12.

163. *See supra* opening to Part II.

164. In my *Empire or Residue* lecture, I suggested that “an interesting issue for further research is whether there might be other reasons why the law would intentionally make difficult or unclear how to contract around default rules.” Ayres, *supra* note 1, at 906. This Section is my attempt to answer that question.

justify a judicial choice to withhold altering instructions, neither *Jacob & Youngs* nor *Peevyhouse* was well suited for such altering opacity. As convincingly described by Schwartz and Scott,¹⁶⁵ the parties in *Jacob & Youngs* had included a mechanism where an architect had to certify the adequacy of completed work as a condition of the buyer's duty to pay. The architect as a repeat player in the market had both professional licensing and reputational incentives to remain neutral. The decision does not suggest sufficient evidence of paternalism or negative externalities to justify Judge Cardozo not explaining how future parties could have written an effective architect certification clause.¹⁶⁶ Under my reasoning, Judge Cardozo's *Jacob & Youngs* decision is wrongly decided in two senses. First, as Schwartz and Scott show, it was wrong by not announcing that the existing provisions of the contract were sufficient to make the duty to pay conditional on architect certification. The correct decision on this issue would have been one announcing a kind of sufficiency altering rule. But second, Judge Cardozo compounded this error by not giving future parties a template for how they could achieve the alternative (conditional payment duty) result.

Analogously, in *Peevyhouse*, the judges had insufficient justification on either paternalism or negative externality grounds for failing to provide a sufficient altering rule to achieve cost-of-performance damages. The coal companies as repeat players in strip-mining contracts do not need the paternalistic solicitude of the courts. And if anything, the negative externalities run in the other direction. While there might be some negative externalities (for example, in loss of jobs) from exposing corporations to disproportionate or excessive damages, the more obvious externality is the environmental loss from not reclaiming the land after strip-mining. At a minimum, the court might have provided a mechanism for specific performance of the reclamation provision to give future parties a means to assure that the cost of performance is actually used to perform the reclamation promise.¹⁶⁷

Stepping back, I have tried in this Part to provide a theory of why a strategy of impeding some, but not all, contractors from displacing a default might

165. Schwartz & Scott, *supra* note 136, at 615-16.

166. Contractor/sellers as repeat players are sufficiently sophisticated and the likelihood of nonpayment sufficiently salient that courts have insufficient reason to restrict their contractual freedom on hard-paternalism grounds. Moreover, while forfeitures can have third-party externalities, there was no reason to think that they needed to be particularly pronounced in this circumstance—especially because contractors might have insured against the risk of such nonpayment.

167. See Ian Ayres & Kristin Madison, *Threatening Inefficient Performance of Injunctions and Contracts*, 148 U. PA. L. REV. 45, 48 (1999).

usefully respond to paternalism and externality concerns. But in many contexts, lawmakers will not have available an impeding tool that produces the appropriate separating equilibrium—where only the subset of contractors with lower paternalism or externality concerns, or higher added value, contract around the socially preferred default. Lawmakers, for example, should be concerned with the frequent case of asymmetric sophistication—where the drafting party will be more sophisticated than the nondrafter and will be more likely to learn the content of even an opaque altering rule to the detriment of the less sophisticated nondrafter. Not all impeding rules *usefully* impede opt-out.¹⁶⁸ When no impeding altering rule is available that appropriately discriminates among the potential contractors, lawmakers will need to face the more traditional decision of whether to suspend freedom of contracting altogether and make the socially-preferred rule mandatory. The altering strategies of Part II were dominantly legal formalities—serving the tripartite Fullerian functions. The transaction-cost/error-cost tradeoff at the heart of that analysis can be restated as whether the marginal cost of additional formalities is worth the marginal enhancement of their cautionary, evidentiary, and channeling functions. The analysis of the previous Part could be restated as whether contracting parties would agree to deviations from transaction cost minimization. But the altering strategies of this Part are substantive in nature (in the same way that mandatory rules are substantive). Sticky defaults with their attendant impeding altering rules try to impact the contracting equilibrium—constructing barriers that disproportionately discourage some provisions that fully informed contractors would choose in a regime with more contractual freedom.

IV. ALTERING PENALTIES

The previous two Parts suggested two reasons that lawmakers setting altering rules might deviate from the simple goal of minimizing transaction costs. Part II argued that lawmakers pursuing error-reduction might be willing to impose higher altering costs on private contractors and Part III argued that lawmakers pursuing externality reduction or the reduction of paternalism concerns might intentionally impede altering. This Part explores a complementary strategy of “altering penalties.” When lawmakers have a preferred means of altering that deviates from transaction cost minimization,

168. For example, John Witt has cataloged a variety of barriers to displacing nineteenth century employment defaults that seem ill-suited to promoting equity or efficiency. John Fabian Witt, *Rethinking the Nineteenth-Century Employment Contract, Again*, 18 LAW & HIST. REV. 627, 640 (2000).

altering penalties can help assure that private contractors eschew the legally dispreferred (lower-cost) means. Put simply, altering penalties applied to dispreferred altering attempts can help channel private contractors toward legally preferred altering means. Altering penalties thus represent a complementary tool that can aid in error reduction, externality reduction, or reducing paternalism concerns.

Just as there are three core contractual questions, there are three parallel types of contractual penalties. The law might penalize people for trying to contract around an immutable rule (immutable penalties), the law might penalize people for not trying to contract around a default rule (default penalties), and the law might penalize people for the way they attempt to contract around a default (altering penalties). All three can be seen as forms of deterrence. Immutable penalties attempt to deter contractors from attempting to contract around mandatory rules, default penalties (or penalty defaults) attempt to deter contractors from remaining contractually silent, and altering penalties attempt to deter contractors from contracting around a default in particular ways.

The default is a penalty (default penalty) if the legal effect of silence is disfavored by the contractors. The legal effect of altering behavior is an immutable penalty if the law reacts to contractors attempting to achieve substantively impermissible ends by imposing duties/rights that contractors disfavor. And finally, the legal effect of altering behavior is an altering penalty if the legal reaction to the particular method of contracting is disfavored by the contractors. The central argument of this Part is that lawmakers at times will want to use altering penalties to deter informationally defective methods of altering even when the law is not trying to induce contracting around (with a penalty default) or prevent contracting around (with an immutable penalty).

The potential usefulness of penalty defaults and immutable penalties is already well recognized in the literature. If contractors willfully violate some substantive immutable limit, lawmakers must decide how to react to the private attempt to contract around some immutable limitation. At times, courts react by interpreting the agreement to come as close as possible to what the parties might have lawfully contracted. For example, courts interpreting overbroad covenants not to compete might apply a kind of “capping altering rule” that gives at most three years of enforcement, even if the contract called for five years.¹⁶⁹ At other times, however, courts will penalize one or both of

¹⁶⁹. Capping altering rules are at times crudely implemented by “blue pencil” tests which strike out only so much of the provision as is necessary to render the provision enforceable—for example, striking “or elsewhere in England” in the phrase “in London or elsewhere in

the parties for willfully attempting to enter a prohibited contractual space. Instead of using a capping rule to take the parties back to the closest provision for which they might have legally contracted, some courts will impose an immutable penalty—a penalty for violating an immutable rule—by giving the drafter strictly less than she might have contracted for. Immutable penalties seek to deter such shenanigans. An employer who contracts for an unreasonably long covenant not to compete might end up with no covenant at all.¹⁷⁰ A seller who contracts for an unconscionably high markup might earn no profit at all.

Scholars (including Gertner and myself) have suggested that the law at times deploy a second type of penalty: the penalty default that seeks to deter contractors from remaining silent.¹⁷¹ Penalty defaults can have an information-forcing effect, because the process of contracting around a default can provide the parties (especially the nondrafter) or third parties (especially the court) with additional information. The information-forcing impetus of these defaults is to avoid the penalty of inaction. Through the lens of this Article, we can see now how penalty defaults should naturally be combined with error-reducing altering rules to assure that attempts to displace the default actually communicate the relevant information.

So if we can have immutable penalties and default penalties, might there not also be a role for altering penalties? The idea here is that there can be a particular social value or harm to particular forms of “contracting around” distinct from the substantive provision sought. Some forms of contracting around will be more effective than other forms at communicating information to the other side of a contract or to third parties. Cass Sunstein has discussed the potential utility of “information-eliciting” rules, which “impose[] on one or another of the parties the obligation to provide the crucial information to the other side.”¹⁷² But Sunstein was considering a specialized use of penalty defaults and altering rules to elicit information. Sunstein was suggesting that one or both contractors might be stuck with a penalty default unless they comply with an altering rule that requires the effective disclosure of information in order to contract around the penalty. Information-forcing

England.” *Data Mgmt., Inc. v. Greene*, 757 P.2d 62, 64 (Alaska 1988) (rejecting the “blue pencil” test).

170. The “might” qualifier is important. There is also a strong tendency of courts at times to merely push the transgressor of an immutable restriction back to the closest legally allowable contract. See Ayres & Gertner, *Strategic Contractual Inefficiency*, *supra* note 3, at 743-44.

171. See, e.g., Ayres & Gertner, *Filling Gaps*, *supra* note 3, at 97.

172. Cass R. Sunstein, *Human Behavior and the Law of Work*, 87 VA. L. REV. 205, 232 (2001).

defaults will often be combined with necessary altering rules that require effective disclosure. Indeed, Sunstein's information-eliciting rules are closely related to what I have referred to as "affirmative choice" defaults, which require contractors to make an affirmative choice or be governed by a penalty.¹⁷³ The default of no incorporation is governed by an affirmative choice rule, in that incorporators have to identify the names and addresses of directors if they want to establish corporate status. In Sunstein's terminology this is another kind of information-eliciting rule.

The law can penalize disfavored means of altering in at least three ways. In the foregoing example, the law penalizes disfavored means by returning parties to a penalty default. Alternatively, the law could penalize particular contractors by returning them to a non-penalty default. For example, a court might refuse to enforce a provision that is insufficiently clear (and hence procedurally unconscionable).¹⁷⁴ The penalty here is that contractors are denied the benefit of the non-default consequences they might have achieved if they had employed the preferred altering method. There is a sense in which any necessary altering rule is an altering penalty. If you need to use the words "for cause" to opt out of an at-will employment default, then the contractors who fail to use the magic words are penalized by not getting their preferred legal treatment.

But it is also possible for the law to impose more severe penalties on parties who attempt to contract around a default in a legally disfavored way. Instead of merely being returned to the default treatment for defective attempts, the law might impose a penalizing, worse-than-default treatment for those who attempt an unapproved means of contracting around a non-penalty default. The penalty here is imposed not because the contemplated contractual ends were substantively impermissible but merely because the means used were legally disfavored.

Contractual "safe harbors" often exemplify the strategy of protecting drafters who use preferred altering methods while simultaneously punishing those drafters who use altering methods that are informationally defective. For example, the statutory safe harbor for forward-looking statements in the Private Securities Litigation Reform Act of 1995¹⁷⁵ is available only for issuers

173. Ian Ayres, Response, *Valuing Modern Contract Scholarship*, 112 YALE L.J. 881, 899 & n.79 (2003).

174. See *supra* Subsection II.F.2 (discussing *Williams v. Walker-Thomas Furniture Co.*, 350 F.2d 445 (D.C. Cir. 1965)).

175. 15 U.S.C. § 78u-5 (2006).

that include the right “magic words” with their periodical or other report.¹⁷⁶ The immunity for using the right altering words is the carrot, and the specter of liability is the stick to drive out disfavored altering means.

A. Ex Post Penalties vs. Ex Ante (Lanham-Inspired) Safe Harbors

Consider for example a state statute that establishes the default rate of interest on consumer loans to be the “average prime offer rate” at the time of lending plus two percentage points.¹⁷⁷ The statute expressly allows parties to contract for any higher rate of interest so long as the interest is “clearly expressed in writing.”¹⁷⁸ At this point, the reader should realize that the quoted language partially specifies the altering rules governing attempts at contracting around. But the hypothetical statute goes further and specifies that if the contract attempts to contract for a higher interest rate but without clearly expressed writing, the interest rate will be reduced to 0%. In this example, the statutory default is not a penalty because it is not intended to induce contracting by penalizing one side or both sides of the contract. And the statute is not penalizing attempts to contract for substantively usurious interest rates. In fact, in this hypothetical, the state allows the parties to agree to virtually any contract—possibly only restricted by unconscionability challenges. The sole purpose of the 0% penalty is to deter lenders from inadequately disclosing the altered interest term. While this statute is a hypothetical, Wisconsin in fact has a consumer lending statute that sets a 5% interest rate default but allows lenders to charge substantially higher rates so long as the higher rate is “clearly expressed in writing.”¹⁷⁹ The Wisconsin statute is best characterized as a penalty default combined with a necessary altering rule—inadequate altering

176. See, e.g., *Slayton v. Am. Express Co.*, 604 F.3d 758, 773 (2d Cir. 2010) (finding that American Express’s Form 10-Q failed to include the requisite words to fall within the safe harbor).

177. The “average prime offer rate” (APOR) is a regulatory input for determining “higher-priced mortgage loans” under Federal Reserve regulations made pursuant to the Home Ownership and Equity Protection Act. See 12 C.F.R. § 226.35(a)(2) (2010); see also Solomon Maman, Note, *New Tools for Combating Unfair, Deceptive and Abusive Mortgage Practices: New Amendments to Regulation Z*, 21 LOY. CONSUMER L. REV. 194, 225-27 (2008) (discussing the operation of APOR regulations).

178. WIS. STAT. § 138.04 (2011).

179. *Id.*; see also *Diversified Mgmt. Servs., Inc. v. Slotten*, 351 N.W.2d 176, 181 (Wis. Ct. App. 1984) (reducing an award giving Diversified Management interest at 12% to the default of 5% because its contract with Slotten did not specify the higher interest level with sufficient clarity); Ayres, *supra* note 4, at 590-91 (discussing the Wisconsin statute as an example of penalty default).

results in the lender earning the penalizing 5% interest.¹⁸⁰ In contrast, the “average prime” hypothetical combines a non-penalty default with an altering penalty for altering attempts that are not sufficiently clear.

A similar result can be found in a “sticky opt-out mortgage system” proposal by Michael S. Barr, Sendhil Mullainathan, and Eldar Shafir.¹⁸¹ Their proposal establishes as defaults certain plain-vanilla lending terms that would exclude prepayment penalties and short-term adjustable rate mortgages with balloon payments.¹⁸² But they couple these defaults with penalizing altering rules, i.e., rules that penalize deviating loan terms that do not adequately inform consumers of the alternative language. Their key innovation is to subject lenders to the risk of additional legal exposure if they contract away from the plain-vanilla defaults:

[U]nder one potential approach to making the opt-out sticky, if default occurs when a borrower opts out, the borrower could raise the lack of reasonable disclosure as a defense to bankruptcy or foreclosure. Using an objective reasonableness standard akin to that used for warranty analysis under the Uniform Commercial Code, if the court determined that the disclosure would not effectively communicate the key terms and risks of the mortgage to the typical borrower, the court could modify or rescind the loan contract.¹⁸³

The authors describe this regime as a sticky default because an important purpose of their proposal is to use the specter of uncertain ex post damages as a goad to encourage (most) lenders to stick to the legally preferred defaults. The tone of their analysis suggests that they would not want to provide any safe-

180. A similar characterization can be given to the *contra proferentem* rule that construes ambiguity against the drafting party. See *Mastrobuono v. Shearson Lehman Hutton, Inc.*, 514 U.S. 52, 63 (1995) (stating that a broker who drafted an ambiguous document on choice of law “cannot now claim the benefit of the doubt”); *Wilner’s, Inc. v Fine*, 266 S.E.2d 278, 280 (Ga. Ct. App. 1980) (“It is also a well established rule that ambiguities in writing are to be construed most strongly against the author or the party for whose benefit the writing was prepared, which, in this case, is the landlord.”); RESTATEMENT (SECOND) OF CONTRACTS § 206 (1981) (“Interpretation Against the Draftsman”). Through the lens of altering theory, we can now see that this rule of interpretation combines both a penalty default and a clear-statement altering rule.

181. Michael S. Barr, Sendhil Mullainathan & Eldar Shafir, *The Case for Behaviorally Informed Regulation*, in NEW PERSPECTIVES ON REGULATION 25, 41-42 (David Moss & John Cisternino eds., 2009), available at http://www.tobinproject.org/sites/tobinproject.org/files/assets/New_Perspectives_Ch2_Barr_Mullainathan_Shafir.pdf.

182. *Id.* at 42-43.

183. *Id.* at 43.

harbor language that could provide deviating lenders with *ex ante* immunity. The stickiness of the default (that is, the use of impeding altering rules) might be justified by pointing to sufficient negative externalities or paternalism. Both such concerns are certainly at play with regard to home mortgages.¹⁸⁴

But an alternative version of their proposal might instead rely on soft paternalism to justify making sure borrowers are meaningfully informed about the non-default terms of their home mortgage, often one of their most consequential lifetime contracts. Indeed, one of the authors' explicit goals is giving lenders "stronger incentives to provide meaningful disclosures to those whom they convince to opt out."¹⁸⁵ A proposal that is legislatively agnostic about the use of non-default terms—so long as those terms are well understood by borrowers—would not need to resort to impeding altering rules but could instead use penalizing altering rules if there was not meaningful disclosure. The difference here is whether the altering rule is trying to impede even fully-informed parties from contracting away from the default or merely using the threat of the penalty to insure that the parties are fully informed. Altering penalties work in tandem with sufficiency rules. Altering penalties impose sanctions for defective altering attempts; sufficiency rules give legal effect to altering attempts that provide the nondrafter with sufficient information. Just as penalty defaults have been labeled as "information-forcing" defaults, the combined effect of altering penalties and sufficiency altering rules would also be "information-forcing."

A soft-paternalism approach to "information-forcing" might be structured to provide an *ex ante* safe harbor without undermining the goal of providing meaningful information. Taking a page from the Lanham Act's deceptive advertising doctrine,¹⁸⁶ the law might ask lenders who use non-default terms to undertake consumer surveys to establish that typical borrowers in real-world contexts understand the non-default terms of the mortgage. While my earlier "train-and-test" altering rule imposes the transaction cost of testing 100% of nondrafters, the Lanham-inspired altering rule would only require testing a

184. See *supra* Subsection II.F.4.

185. Barr et al., *supra* note 181, at 43.

186. 15 U.S.C. § 1125(a) (2006); see, e.g., *Southland Sod Farms v. Stover Seed Co.*, 108 F.3d 1134, 1140 (9th Cir. 1997) ("Reactions of the public are typically tested through the use of consumer surveys."); *Zatarains, Inc. v. Oak Grove Smokehouse, Inc.*, 698 F.2d 786, 795 (5th Cir. 1983) ("[S]urvey evidence is the most direct and persuasive way of establishing secondary meaning."); see also Shari Seidman Diamond, *Reference Guide on Survey Research*, in FED. JUDICIAL CTR., REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 229, 235 (2d ed. 2000), available at [http://www.fjc.gov/public/pdf.nsf/lookup/scimanoo.pdf/\\$file/scimanoo.pdf](http://www.fjc.gov/public/pdf.nsf/lookup/scimanoo.pdf/$file/scimanoo.pdf) (discussing the routine use of survey evidence in Lanham Act cases).

subsample to assure that the disclosure was meaningful for the typical consumer given the totality of the circumstances. Lanham-inspired altering rule requirements accordingly could economize on transaction costs and could provide lenders with more of an ex ante safe harbor without sacrificing the legal goal of actually educating nondrafters through the altering rule.¹⁸⁷

A similar approach might be used to enhance the informed consent of Internet users regarding privacy waivers. Deviations from default privacy protection on websites like Facebook would be immune from potential ex post liability only if the websites established in advance with consumer testing that typical consumers in the study could accurately describe the privacy protection on their account.¹⁸⁸ (Many readers of this Article would not be able to accurately describe the privacy protection on their Facebook accounts.)

B. Competition-Enhancing Altering Rules

Regulating opt-out with regard to non-price terms can indirectly enhance price competition. Impeding altering rules, which in equilibrium induce more standardization among the non-price terms, can promote market competition over price by facilitating comparison shopping. For example, Michael Barr and his coauthors explain the procompetitive effect from creating sticky mortgage terms:

[B]y barring prepayment penalties, we could reduce lock-in to bad mortgages; by barring short-term ARMs and balloon payments, we could reduce refinance pressure; in both cases, more of the cost of the loan would be pushed into interest rates and competition could focus on a consistently stated price in the form of the APR.¹⁸⁹

187. In Lanham Act litigation, advertisers are only required to test consumers ex post—i.e., once the product is already on the market or the ad is already on the air—to demonstrate non-deceptiveness. But an altering rule might provide an ex ante safe harbor for contract drafters who tested in advance of litigation the impact of their disclosures. Phase 3 of the FDA drug review process (safety/effectiveness testing in a broad sample before the product goes on the market) is an example of testing that occurs before a product is marketed. See *The FDA's Drug Review Process: Ensuring Drugs Are Safe and Effective*, U.S. FOOD & DRUG ADMIN., <http://www.fda.gov/drugs/resourcesforyou/consumers/ucm143534.htm> (last updated Nov. 8, 2011).

188. Because consumer surveys of this kind have substantial fixed-cost components, lawmakers might choose to limit the advance-testing requirement to sites with more than a certain number of registered users.

189. Barr et al., *supra* note 181, at 42.

Standardizing non-price terms can thus lead to more competitive price terms, because it can become easier for consumers to make apples-to-apples comparisons and assess the lowest-price offer.¹⁹⁰

But it is possible to use penalty altering rules to induce meaningful disclosure of information related to the competitiveness of the offered price. Normally, penalty altering rules will be framed to better inform contractors about the terms of the contract. Soft paternalism might thus justify penalizing drafters who inadequately inform nondrafters that they are agreeing to prepayment penalties or waiving their privacy rights. But altering penalties at times can also be crafted to provide contractors (usually buyers) with better information about whether the contract has a competitive price. The goal of such regulation will not be to give contractors better information about the price term, but rather information about whether the price term is supra-competitive—that is, whether the same goods or service might be had from another seller at a lower price. As a conceptual matter, altering penalties could be used to induce the production of information wholly unrelated to the contract. One could imagine lenders being able to include a prepayment penalty only if they educated borrowers about the benefits of voter registration or organ donation. But competition-enhancing altering rules have an obvious connection to the contract itself.

Normally, the law puts very few conditions on contractors' freedom to displace the reasonable price default.¹⁹¹ In most markets, the unconscionability law at most sets a theoretical cap on the amount that a seller can charge. But instead of (or in addition to) creating a price ceiling, lawmakers could, consistent with contractual freedom, require that sellers offering a sufficiently high price include information that would allow buyers to better assess whether the price was competitive. A regulation implementing the Home Ownership and Equity Protection Act already implements a version of this enhanced disclosure. High interest rates or high fees trigger a lender

190. However, a plain-vanilla rule might impede market entrants from offering innovative financial products that are differentiated from the incumbents' plain-vanilla offerings. See Joshua D. Wright, *The Antitrust-Consumer Protection Paradox: Two Policies at War with Each Other*, 121 YALE L.J. 2216 (2012); see also BARRY NALEBUFF & IAN AYRES, *WHY NOT?: HOW TO USE EVERYDAY INGENUITY TO SOLVE PROBLEMS BIG AND SMALL* 145 (2006) (discussing three different types of mortgage products that are currently unavailable in the United States).

191. See U.C.C. § 2-305(1) (2003) ("The parties if they so intend can conclude a contract for sale even though the price is not settled. In such a case the price is a reasonable price at the time for delivery"); see also Ayres & Gertner, *Filling Gaps*, *supra* note 3, at 95-97 (discussing the fact that price and quantity defaults are starkly different).

requirement of enhanced disclosure and a three-day cooling-off period.¹⁹² Vermont has gone further by requiring lenders on “high rate” loans to disclose “in a size equal to at least 14 point bold type and otherwise distinguishable from all other text”:

YOU MAY BE ELIGIBLE FOR A LOAN WITH EITHER A LOWER INTEREST RATE, FEWER POINTS, OR BOTH, FROM ANOTHER LENDER.¹⁹³

The lender is even required to inform the borrowers that that “they can obtain a list of other lenders by calling or writing to the Department of Banking, Insurance, Securities and Health Care Administration (the Department), including the Department’s telephone number and mailing address.”¹⁹⁴

Two categories of information are particularly likely to spur price competition: information on markups and information about the price of comparable sales. The first category concerns disclosure of information about a seller’s markup (or related information concerning a seller’s cost or a seller’s expected profit on the contract). In markets where consumers may be imperfectly informed about the competitive price, markup information can partially substitute for information about the broader market price.¹⁹⁵ If you are about to agree to pay \$23,000 to a dealership to buy a car and suddenly learn that the dealership will earn a \$9000 profit, you are more likely to continue to bargain or search at other dealerships than you are if you learn that

192. The enhanced disclosure is triggered for “high-cost” loans if the loan’s annual percentage rate exceeds the rate on Treasury securities with a comparable maturity by eight percentage points or if certain fees on the loan exceed \$400, a figure that is adjusted annually (\$592 for 2011). See 12 C.F.R. §226.32 (2010); Maman, *supra* note 177, at 215-16.

193. B-98-2 VT. CODE R. § 3(A) (1999).

194. B-98-2 VT. CODE R. § 3(C) (1999). This regulatory scheme is an altering rule that has three procompetitive effects:

[I]t alerts borrowers to the fact that their broker might not be offering the best deal; it encourages borrowers to shop around for better loan terms; and it operates as an interest rate “ceiling”, discouraging lenders from offering higher interest loans for fear that the borrower will be driven to other lenders because of the mandatory disclosure requirements.

Raymond H. Brescia, *Trust in the Shadows: Law, Behavior, and Financial Re-Regulation*, 57 BUFF. L. REV. 1361, 1430-33 (2009).

195. Ian Ayres & F. Clayton Miller, “I’ll Sell It to You at Cost”: *Legal Methods To Promote Retail Markup Disclosure*, 84 NW. U. L. REV. 1047 (1990).

the dealer will earn only a \$900 profit.¹⁹⁶ The truth-in-lending requirement that brokered mortgage contracts disclose the “yield spread premium” on a loan is just this kind of price-enhancing altering rule.¹⁹⁷ Borrowers who learn that their broker is about to earn \$14,000 for three hours of work might be more likely to search for better terms than borrowers who learn that their broker is earning \$1200.¹⁹⁸

The second category of competition-enhancing information concerns the price at which comparable goods or services are selling in the market. The potential value of comparable price information to imperfectly informed consumers is manifest in their commonplace use in real estate negotiations or more recently by real estate websites like Zillow, which estimate the value of a residence by comparing it to the recent sale prices of nearby homes.¹⁹⁹ An altering rule could enhance market competition in select settings by penalizing sellers who fail to provide comparable information. The Home Ownership and Equity Protection Act already includes a trigger for enhanced disclosure if the APR sufficiently exceeds the “average prime offer rate” (APOR) of a comparable transaction by 1.5%,²⁰⁰ but it might be worthwhile to supplement the enhanced disclosure on these “higher-priced mortgage loans” with information emphasizing that the loan’s APR is so much higher than the APRs on comparable transactions. Someone who learns that borrowers with similar

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196. Markup information is at best an imperfect proxy. An inefficient seller may have high costs, and thus may offer an above-market price even though it is not making an unusually high profit. Or an unusually efficient seller, who has been able to produce a quality good at a lower price, may offer a competitive price even though it is making an unusually high profit.
197. Under the Real Estate Settlement Procedures Act of 1974, Pub. L. No. 95-533, 88 Stat. 1724, originators have been required to disclose both direct compensation and yield spread premiums paid to mortgage brokers for loan originations. See Howell E. Jackson & Laurie Burlingame, *Kickbacks or Compensation: The Case of Yield Spread Premiums*, 12 STAN. J.L. BUS. & FIN. 289 (2007).
198. However, for such competition-enhancing markup disclosure to be effective, the information must be disclosed in ways that it is actually understood and made salient to the borrower. Regulations promulgated by the Department of Housing and Urban Development provide that the “mortgage broker’s fee must be itemized in the Good Faith Estimate and on the HUD-1 Settlement Statement.” 24 C.F.R. § 3500 app. B, illus. 13 (2010). It is unlikely that the placement of this information in these forms is an effective manner of conveying the information.
199. ZILLOW, <http://www.zillow.com> (last visited Dec. 5, 2011); see also Michael E. Doversberger, *Conveyancing at a Crossroads: The Transition to E-Conveyancing Applications in the U.S. and Abroad*, 20 IND. INT’L & COMP. L. REV. 281, 303-04 (2010) (discussing the impact of websites like Zillow on information-gathering).
200. E.g., 15 U.S.C. § 1639h (2010) (requiring the creditor to obtain an appraisal and make that appraisal available to the borrower of a “higher-risk mortgage”).

credit scores and loan-to-value ratios were able to borrow at substantially lower interest rates might be more likely to continue searching for financing with better terms. Similarly, a state might require dealerships to disclose to a buyer the average DMV sale price on similar cars whenever the dealership is about to sell a car for more than 110% of the average price.²⁰¹ A buyer who was about to pay \$29,000 for a new Dodge Ram pickup might be more inclined to continue bargaining or searching at other dealerships if she learned that the average price in the state's DMV data for the same model with similar features was only \$24,000.

Requiring disclosure of markup or comparable price information is consistent with contractual freedom. Contractors would remain free to contract for any price, but a condition of contracting for presumptively anticompetitive prices would be that the seller would need to provide additional information alerting buyers to this possible anticompetitiveness. This kind of disclosure is a penalty altering rule. Contractors are free to displace the reasonable price default with a high price but will be penalized if they don't adequately provide buyers with the competition-enhancing information.²⁰² The costs of compliance with markup or comparable price disclosure militate against imposing such requirements across the board.²⁰³ But in markets where there are concerns that some consumers are being exploited, a persuasive soft-paternalism case can be made for such altering penalties.

In rare cases, lawmakers might go even further and require not just disclosure of historical comparable prices but disclosure of contemporaneous offers from other sellers. For example, retail foreign exchange providers could be required to disclose the current spot price at which two currencies are trading if the foreign exchange providers are about to deviate by more than a specified percentage. Contemporaneous offer disclosure might even take the form of providing bona fide offers from other sellers. The insurance company Progressive voluntarily discloses this kind of information—and thereby signals the competitiveness of its pricing—by providing the premiums currently

201. See Peter Schuck & Ian Ayres, Op-Ed., *Car Buying, Made Simpler*, N.Y. TIMES, Apr. 13, 1997, at F12.

202. A system mandating representations of certain facts (and the associated implicit promise that the representation is true) might dampen certain types of competition. For example, a seller that must disclose its markup might have reduced incentives to search for cheaper input prices.

203. The cost of compliance in markup disclosure is higher for non-retailers who must develop attribution rules for production. Markup disclosure carries the additional cost that it may retard the incentives of sellers to search for lower price inputs. Ayres & Miller, *supra* note 195, at 1081.

offered by its competitors. Barry Nalebuff and I have proposed a version of this altering rule for credit cards. Our proposed altering rule would require credit card issuers to disclose the results of a “market test” before they unilaterally raise the interest on a user’s credit card:

At the time when the lender proposes a unilateral change, [the credit card issuer] would be required to put the existing account balance up for auction on a LendingTree-like service that would allow other credit card issuers to bid for a chance to issue a new card and take over the existing balance.

Borrowers wouldn’t be forced to switch to the auction winner. They’d just be given the option. When an existing credit card issuer proposes a rate increase, it would be required to pass on the terms of the winning bid and a comparison with its own terms, and the borrower would decide whether he wanted to make the switch.

A market test would distinguish between good and bad interest hikes. Issuers would not be deterred from making interest increases that were driven by increased risk because they would not be concerned that competitors would undercut their offers. But unfavorable changes in interest rates or late fees that were just trying to squeeze out higher profit might be deterred. The issuer would have to worry that a competitor would steal the business.²⁰⁴

Our proposal is another example of an altering penalty, because credit-card issuers who unilaterally raise the preexisting APR would be penalized if they fail to provide information about the price at which alternative sellers are willing to sell. Contemporaneous offer information is not costless to provide (although in the Internet age, the price of automated market testing and disclosure is drastically falling), but it provides the most direct evidence of whether the contract price is competitive.

While penalty altering rules as complements to legally preferred error-reducing altering methods at first may seem like esoteric and interventionist policy tools, they resonate with libertarian notions of informed consent. Instead of limiting freedom of contract with mandatory rules backed up with mandatory penalties or forcing opt-out with penalty defaults, the purpose of altering penalties is simply to make sure that contractors are sufficiently informed. The law is agnostic about whether the contractors displace the

204. Ian Ayres & Barry Nalebuff, *A Market Test for Credit Cards*, FORBES, July 13, 2009, <http://www.forbes.com/forbes/2009/0713/opinions-market-credit-cards-why-not.html>.

default so long as they understand the terms of the contract (and possibly whether those terms are competitive). Properly conceived, altering penalties when used with error-reducing altering rules help assure that contracting creates value. Society can infer value creation (in the absence of negative externalities) from the contractors' "revealed preference" for the benefits and burdens of a contract. But this revealed preference inference is appropriate only if the parties are sufficiently informed of the legal consequences of their consent. While this Section has suggested far-reaching possibilities for improving the quality of contractor consent, the thrust of altering penalties can be seen in very familiar cases. Through the lens of this Article, one could interpret *Williams v. Walker-Thomas Furniture*²⁰⁵ as an altering penalty decision in which the seller was penalized primarily for the opaqueness of the cross-collateralization agreement.²⁰⁶ From this vantage, altering penalties are autonomy-enhancing rules. They, like penalty defaults, are the kind of penalties that even libertarians can love.²⁰⁷

V. DISCRIMINATORY ALTERING RULES

One of the values of theorizing altering rules as a distinct category of law is that it not only allows for the development of better tailored interventions, but it can also make visible legal issues that have as yet gone unnoticed. Framing *existing* legal conflicts in terms of altering categories is not likely to be particularly enlightening. It would be possible to characterize several constitutional disputes concerning the burdening of fundamental rights in altering terms.²⁰⁸ For example, in *Planned Parenthood v. Casey*, the pivotal

205. 350 F.2d 445 (D.C. Cir. 1965).

206. The substance of the agreement is much less problematic because: (a) overcollateralized loans are unproblematically the norm in housing markets; and (b) the value of any excess collateral levied upon beyond the level of indebtedness would need to be disgorged to the borrower. See Douglas G. Baird, *The Boilerplate Puzzle*, 104 MICH. L. REV. 933, 944-45 (2006) ("Walker-Thomas took the security interest in Williams's other household goods because these assets were exempt [from creditor levy]. . . . If Williams is to give up her right to protect exempt property, she should know that she has the right and that she is giving it up.").

207. Altering penalties can also be deployed in support of impeding altering rules to help reduce negative externalities and paternalism concerns. When lawmakers craft impeding altering rules that deviate from transaction cost minimization, the complementary use of altering penalties will often be needed to channel contractors who attempt to opt out into using the higher-cost impeding methods.

208. See Michael C. Dorf, *Incidental Burdens on Fundamental Rights*, 109 HARV. L. REV. 1175 (1996). Similarly, Article IV, Section 1 of the United States Constitution establishes not only

opinion of Justices O'Connor, Kennedy, and Souter found that a statute that has "the purpose or effect of placing a substantial obstacle in the path of a woman seeking an abortion of a nonviable fetus" constitutes an undue (and therefore unconstitutional) burden on a woman's right to decide whether to have an abortion.²⁰⁹ One can consider statutes that mandate that women be given counseling before an abortion as a kind of altering rule. Under this reading, the mandated counseling is a necessary (altering) prerequisite to the woman's ability to opt out of the no abortion default. Under the *Casey* standard, one can ask whether the purpose or effect of the counseling requirement is to impede or merely to assure that abortion consent is fully informed. Through the altering lens, it is easy to see that many of the abortion statutes track the strategies (including cooling-off periods) discussed above. The translation into altering-speak, however, adds little value in determining whether the restrictions are constitutionally infirm.

But in other contexts, reconceptualizing law in terms of altering rules can make visible legal issues that have largely gone unobserved. This Part will give an example of this visualization value by exploring the relationship between tailored rules and discrimination. It has long been understood that the law might tailor defaults to provide different presumptive rules for different classes of contractors.²¹⁰ For example, Michael Barr and his coauthors have suggested in the mortgage context the potential usefulness of "smart defaults":

With a handful of key facts, an optimal default might be offered to an individual borrower. The optimal default would consist of a mortgage or set of mortgages that most closely align with the set of mortgages that the typical borrower with that income, age, and education would

a default (that "Full Faith and Credit shall be given in each State to the public Acts, Records, and judicial Proceedings of every other State") but also an altering rule ("Congress may by general Laws prescribe . . . the Effect thereof."). U.S. CONST. art. IV, § 1. Scholars disagree, however, about whether the Constitution places a mandatory floor on the ability of Congress to restrict States' "Full Faith and Credit" obligations. Compare, e.g., Andrew Koppelman, *Dumb and DOMA: Why the Defense of Marriage Act is Unconstitutional*, 83 IOWA L. REV. 1, 18 (1997) ("No.") with, e.g., Ralph U. Whitten, *The Original Understanding of the Full Faith and Credit Clause and the Defense of Marriage Act*, 32 CREIGHTON L. REV. 255 (1998) ("Yes.").

209. Dorf, *supra* note 208, at 1219 (quoting *Planned Parenthood of Se. Pa. v. Casey*, 505 U.S. 833, 877 (1992) (plurality opinion) (emphasis omitted)).

210. See Ayres, *supra* note 13; Ayres & Gertner, *Filling Gaps*, *supra* note 3; Ayres & Gertner, *Strategic Contractual Inefficiency*, *supra* note 3.

prefer. For example, a borrower with rising income prospects might appropriately be offered a five-year adjustable-rate mortgage.²¹¹

Tailoring the default terms of a contract to different types of parties might be a way of more granularly providing the terms that individual contractors want (or imposing more exquisitely tailored penalties to induce contracting).²¹²

Tailoring is discrimination by another name. To provide different defaults to different contractor types is for the law to discriminate between the two types in the provision of defaults. Tailored defaults treat different contractors disparately by presuming different meanings of their silence. So an initial question is whether discriminatory defaults contingent on traditionally protected characteristics violate our civil rights laws. But we can go further and ask the analogous altering question. The law might also discriminate in the altering rules it has established. Whether or not the law discriminates among contractor classes in a default setting, it might independently establish disparate mechanisms for different contracting types to opt out. Do discriminatory altering rules violate the law? Do non-discriminatory but impeding altering rules (which artificially increase the difficulty of altering) violate the law if they have unjustified disparate impacts or make it more difficult for contractors to avoid the effect of discriminatory defaults? This Section asks these questions by exploring the naming defaults and altering rules that my spouse and I encountered when we married.²¹³

When Jennifer Brown and I married in Missouri in 1993, the state provided both defaults and altering rules that discriminated on the basis of sex. The application for a marriage certificate, which had to be signed by both the husband- and wife-to-be, included a box that had to be checked if the wife-to-be was to retain her premarital name.²¹⁴ If the box was not checked, the wife-to-be's legal last name would automatically be changed at the time of marriage to that of the husband-to-be. There were no naming boxes on the form concerning possible name changes of the husband-to-be.

211. Barr et al., *supra* note 181, at 45.

212. It is useful to distinguish tailoring from setting standards—in part because the law could choose to have defaults that are tailored standards. See Ayres, *supra* note 13. Under a tailored standard regime, the law would provide different default standards to different contractor types.

213. Some of the analysis in this Section is presaged by the penetrating analysis (including the first analysis of name-changing altering rules) in Elizabeth F. Emens, *Changing Name Changing: Framing Rules and the Future of Marital Names*, 74 U. CHI. L. REV. 761 (2007).

214. I speak of the spouses-to-be in gendered terms because at that time (as is sadly true today) my home state of Missouri did not see fit to extend equal marriage rights to same-sex couples.

wished to change his premarital surname to that of his spouse, he would need to separately petition the court to change his legal name.

By now, the reader should be able to see that Missouri provided both discriminatory defaults and discriminatory altering rules. The naming defaults discriminated on the basis of sex, because the man by default retained his premarital name, while the woman's name by default changed to that of the husband-to-be. But more subtly you should see that the naming altering rules also discriminated on the basis of sex. The latter was not a foregone conclusion. A state might establish discriminatory defaults but nondiscriminatory altering rules. Missouri might have added to the same application form a box that if checked would automatically change at marriage the man's last name to that of his wife-to-be. But instead Missouri offered two very different types of altering rules.²¹⁵

At first glance, the altering rule for the wife-to-be seems less burdensome than that of the husband-to-be. She just needs to check a box, while he needs to separately petition the court. But one gains a different perspective if one looks at the signature requirements under the two rules. Both rules require two signatures to opt out—but the law requires different kinds of signatures when opting out of the female default than when opting out of the male default. To contract around the female default so that the wife-to-be will retain her premarital name, the law requires not just that a box be checked on the application, but that the application must be signed by *both* the prospective spouses. In contrast, to contract around the male default so that the husband-to-be will change his name to that of his wife-to-be, the law requires only the signature of the husband-to-be (on the separate petition to change his legal name) and the signature of a judge (granting the petition). The altering rules discriminate on the basis of sex because a husband-to-be by withholding his signature could, by vetoing the marriage, veto his wife's attempt to opt out, while in contrast a wife-to-be cannot block her husband's attempt to opt out.²¹⁶

Stepping back, one can ask whether the state's naming discrimination was unconstitutional. Some courts might resist even framing the issue in these terms. They might view the collection of state practices as not really discriminating because a woman is free to choose either to retain or change her name. Implicit in this kind of conclusion is the thought that default

215. Missouri is not alone in this practice. See Emens, *supra* note 213, at 764 (“[T]hrough both formal and informal means, states make any name change other than her becoming *Mrs. His Name* more difficult.”).

216. This assumes that wives-to-be could not (or not as easily) obtain a name change by independently petitioning a court. See Emens, *supra* note 213, at 765 (describing informal barriers as “desk-clerk law”).

discrimination creates at most *de minimis* harm. Bernie Black famously described corporate law defaults as “trivial” because corporations could so easily opt out that the legal choice of default had in equilibrium no impact on the substantive choices of corporations.²¹⁷ Courts analogously might view the state policies as discriminatory in at most this trivial sense. One could counter that civil rights law at times has been concerned about symbolic harms—for example, where same-sex partners “merely” have to use different words to describe their legal relationship that is substantively equivalent to marriage. We can also see that the state policies discriminate not just in the default married names, but in the altering rules governing opt-out. As a formal matter, the disparate state treatment on account of sex should trigger intermediate scrutiny under the Equal Protection Clause.²¹⁸ The State of Missouri would bear the burden of showing that the discriminatory defaults and altering rules were “substantially related” to an “important” government interest.²¹⁹ Again, making visible the discriminatory altering rules clarifies the nature of the state’s burden. If a court reached the scrutiny issue, the state would need to justify why it imposed different signature requirements on the two forms of opt-out. Indeed, asking the formal intermediate scrutiny question flips the triviality argument and forces the state to explain how differing defaults could further an important government interest.

While I am inclined to think that the state could not meet its constitutional burden, the larger point here is that altering rule analysis has helped in framing the issues. While behavioral economics scholars have come to see the power of defaults, this Missouri marriage example shows that discriminatory altering rules can be more problematic than merely discriminatory defaults. Indeed, if Missouri had discriminatory defaults but nondiscriminatory “check the box” opt-out rules, it would probably be harder to convince the judge to see state discrimination. In contrast, if the state had nondiscriminatory “keep your premarital name” defaults for both husbands- and wives-to-be, but imposed more onerous requirements on women who wanted to switch to their spouses’ names, it would be easier for a court to see the discriminatory altering rule as a potentially unconstitutional burden.

217. Bernard S. Black, *Is Corporate Law Trivial?: A Political and Economic Analysis*, 84 *Nw. U. L. Rev.* 542 (1990).

218. See *United States v. Virginia*, 518 U.S. 515, 533 (1996); *Craig v. Boren*, 429 U.S. 190, 197 (1976).

219. *Craig*, 429 U.S. at 197.

CONCLUSION: ALTERING RULES MATTER

Behavioral economics often points to the power of default settings in changing equilibrium behavior without formally restricting contractual freedom. Want to induce more people to contribute to their 401(k) plan? Change the default from presumed non-contribution to presumed contribution.²²⁰ Want to induce more people to donate their organs for transplantation when they die? Change the default from a presumption of non-consent to presumed consent.²²¹

Too often, however, default theorists (including me) have failed to consider the impact of the mechanism that the law might allow or demand for contracting around defaults. The law need not—and often does not—passively respond to all and any altering attempts by simply providing the interpretation that most likely reflects the parties’ manifested intent. The law can choose to impose exclusive or nonexclusive modes of displacement—adding necessary and sufficient conditions for altering default legal consequences. The law can include altering instructions on a menu of substantive default alternatives or not. To reduce the risk of party error, the law can—and at times does—require conspicuous, specific, unambiguous, or carefully negating altering rules. But the law can go further and require “thought-inducing,” “train-and-test,” or “password” altering rules to further reduce the likelihood of party error (albeit at the cost of increased transaction costs). The law can even impose altering penalties if the attempt at default displacement fails to meet requisite preconditions. When externalities or paternalism concerns are sufficiently great, lawmakers can, instead of imposing mandatory rules, create sticky defaults by using “impeding” altering rules that seek to deter a subset of contractors from opting for an alternative (which, absent the altering rule, they would have preferred).

The proliferation of these adjectival altering categories underscores the richness of the altering toolbox that is available to lawmakers. But this Article has attempted to do more than just catalog a dry descriptive list of possibilities.

220. In 2006, President Bush signed the Pension Protection Act of 2006, Pub. L. No. 109-280, 120 Stat. 780 (codified as amended in scattered sections of 29 U.S.C.), available at <http://www.gpo.gov/fdsys/pkg/PLAW-109publ280/pdf/PLAW-109publ280.pdf>. Pursuant to that Act, the Department of Labor promulgated a regulation facilitating default choices through automatic enrollment in 401(k) retirement plans. See Default Investment Alternatives Under Participant Directed Individual Account Plans, 29 C.F.R. § 2550 (2011); see also U.S. DEP’T OF LABOR, AUTOMATIC ENROLLMENT 401(K) PLANS FOR SMALL BUSINESSES (2010), available at <http://www.dol.gov/ebsa/pdf/automaticenrollment401kplans.pdf>.

221. See BARRY NALEBUFF & IAN AYRES, WHY NOT? HOW TO USE EVERYDAY INGENUITY TO SOLVE PROBLEMS BIG AND SMALL 129-30 (2003).

Part II used a fairly simple model to show when the goal of minimizing altering costs should give way to interest in minimizing party or judicial error. And Part IV showed that externalities or paternalism concerns might at times justify even more costly altering rules which seek not to better educate the parties but to partially restrain opt-out. The larger point is that lawmakers not only have the option of deploying a diverse set of altering rule tools, but that these tools can be *valuable*. The kinds of altering rules described above are more than theoretical set-spanning possibilities, they are tools that should be considered for use in particular contexts.

Finally, the descriptive richness of altering rules places new demands on law students and practitioners who merely want to know the content of the law. To fully understand the mailbox rules, a lawyer must know not only the content of the rule itself and whether it is merely a default, but the necessary and sufficient conditions for contracting around it. One cannot effectively practice as a transactional lawyer or as a litigator or as a judge unless one can identify the likely legal response to particular opt-out attempts. Indeed, as shown in the prior discrimination examples, some issues are easier to identify through a lens that more crisply distinguishes defaults from menus from altering rules.

Like the Molière character who had for years been speaking prose without knowing it,²²² lawmakers have been regulating opt-out for years without having a specific term for this type of regulation. Indeed, many of the examples of altering rules that I have analyzed come from actual practice—including the actual practice of software programmers. A central goal of this Article is to show that explicitly thinking of altering rules as a distinct category of rulemaking can pay large dividends. The setting of an altering rule is too complex for lawmakers to simply say the law should do what the parties say. The optimal setting of altering rules will be made in conjunction with the setting of optimal defaults and both the default and the altering rules will tend to grow out of the problems the lawmaker is trying to solve. A closer understanding of altering rule theory may ultimately strengthen our theories of default choice. This is true in part because any tool that one discovers that has

222. MOLIÈRE, *LE BOURGEOIS GENTILHOMME* act 2, sc. 4 (Jean Serroy ed., Gallimard 1998) (1690), translated in *THE YALE BOOK OF QUOTATIONS* 530 (Fred R. Shapiro ed., 2006):

MAITRE DE PHILOSOPHE: [T]out ce qui n'est point prose est vers; et tout ce qui n'est point vers est prose. (*All that is not prose is verse; and all that is not verse is prose.*)

MONSIEUR JOURDAN: Par ma foi! il y a plus de quarante ans que je dis de la prose sans que j'en susse rien (*Good heavens! For more than forty years I have been speaking prose without knowing it.*).

application to altering questions may also have application to default setting. For example, the idea of intermediate “impeding” costs of contracting around might lead us to ask whether there should ever be intermediate penalty defaults that attempt to induce only a portion of contractors to contract around.

It is time that contract theory tackles the “how to displace” question that attends each and every default that the law creates. While my examples have for the most part focused on traditional contractual settings, a better understanding of “altering” theory has implications for political and corporate governance. Corporations cannot do certain things without altering their charters.²²³ States and the federal government cannot do certain things without altering their constitutions.²²⁴ Through the lens of this Article’s analysis, it is natural to ask whether these altering provisions that make it more arduous to displace a default can be justified as error-minimizing strategies or as impeding altering rules. Error-minimizing arduousness would be based on a type of soft paternalism; while the latter form of arduousness would artificially attempt to impede the actors from changing the rule based on externalities or hard paternalism. Through this lens, one might also ask in different ways whether imposing these extra altering requirements is justifiable.²²⁵

This Article is not the definitive word on altering rules. Instead, I have tried to begin a normative conversation about what the content of altering rules should be. My goal is to have contract theorists and lawmakers think more explicitly about how best to regulate opt-out. Proposing a taxonomy and at least the beginnings of normative analytics is a good place to start.

223. Under Delaware corporate law, the default rule is that directors are liable to shareholders for duty-of-care violations, and the altering rule is that corporations can opt out of director duty-of-care liability through a charter amendment. DEL. CODE ANN. tit. 8, § 102(b)(7)(2011).

224. Under the U.S. Constitution, “[t]he powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people,” U.S. CONST. amend. X, but Article V’s amendment provision establishes an altering rule allowing the states and Congress to change that allocation of authority.

225. Sanford Levinson points out that there are also costs to making those altering rules too arduous. See, e.g., Sanford Levinson, *Still Complacent After All These Years*, 89 B.U. L. REV. 409 (2009); Sanford Levinson, *The Political Implications of Amending Clauses*, 13 CONST. COMMENT. 107 (1996).