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## Misbehavioral Law and Economics

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Jacob Hale Russell\*

*Many legal rules—ranging from common-law contract doctrines to modern consumer protection regulations—are designed to protect individuals from their own mistakes. But scholars have neglected a core difficulty facing such policies: we humans are a motley bunch, and we are defined in part by our idiosyncrasies. As a result, one person’s mistake is another’s ideal choice. Making matters worse, it is hard to observe when a policy response misfires. If cognitive errors and psychological biases are as prevalent as current research suggests, then we have no reliable way of knowing consumers’ true preferences. So are we always faced with a dilemma, where any approach that helps one group of consumers must hurt another?*

*This Article suggests an approach to this impasse. The key is to distinguish two potential sources of individual preferences: subjective tastes and objective circumstances. For example, two day-traders betting in the stock market may differ along either dimension. Each may place a different subjective value on the thrill of gambling (taste), and a stock market loss may have different impacts on each trader’s objective financial health (circumstance). This distinction can guide policy. Consumers likely have better information on their subjective tastes, while third-party interventions can often make better use of objective circumstances in improving choices.*

*This approach underscores some of the limitations of the rising reliance on behavioral economics and psychology in legal scholarship and policy. This Article discusses how discerning tastes from circumstances could guide regulation of pressing issues including payday lending and investor protection.*

### INTRODUCTION

Consider two individuals, each of whom takes out a payday loan with a 400% annual percentage rate (APR),<sup>1</sup> the cheapest form of

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1. A 400% APR is fairly typical of payday loan products. See CONSUMER FIN. PROT. BUREAU, PAYDAY LOANS AND DEPOSIT ADVANCE PRODUCTS 9 (2013), [http://files.consumerfinance.gov/f/201304\\_cfpb\\_payday-dap-whitepaper.pdf](http://files.consumerfinance.gov/f/201304_cfpb_payday-dap-whitepaper.pdf) (“A fee of \$15 per \$100 is quite common for a storefront payday loan, and would yield an APR of 391% on a typical 14-day loan.”).

credit the market offers them. The first consumer uses the loan for short-term consumption, at an interest rate that is likely to trap the borrower into a long-term debt spiral with high fees and refinancing charges. This borrower may not fully understand the choice they have made because of their cognitive limits, such as the widespread inability to understand the effects of compound interest.<sup>2</sup> The second consumer uses that payday loan to finance a car repair or bus ticket necessary to obtain transportation to work—a rational investment that they should be able to repay quickly because its expected value exceeds the cost of the loan. Policy designed to protect the first individual may harm the second.

This Article supplies a missing piece to the puzzle of regulating systematic mistake.<sup>3</sup> “Mistake” in this context means any choice whose expected result would diverge from a consumer’s true underlying preferences—what she “really wants.”<sup>4</sup> Mistakes arise due to behavioral and cognitive biases, information problems, or instability of preferences.<sup>5</sup> Most law-and-economics oriented approaches to policymaking begin with the idea that choices made in the marketplace reveal preferences. But growing evidence suggests that this presumption is often dangerous. In markets with persistent mistakes, such revealed “preferences” do not necessarily equate to the participants’ actual preferences. For instance, half of all payday loans wind up rolled over ten or more times as fees and interest skyrocket, providing the primary source of revenue for payday lenders.<sup>6</sup> For at least some payday borrowers, their initial choices thus corresponded poorly to their actual preferences.

In general, policy should be set to whatever rule is most likely to result in consumer choices that match consumer preferences. In a well-functioning market, that is easy: the free market facilitates such choice. By contrast, regulating markets with mistakes is challenging because mistakes can be hard to distinguish from rational choice, and consumers’ preferences vary. Scholars have often implicitly assumed that there is one policy strategy best suited for this challenge. But they do not agree on what strategy that is; some argue for leaving the market unregulated, while others focus on

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2. Victor Stango & Jonathan Zinman, *Exponential Growth Bias and Household Finance*, 64 J. FIN. 2807 (showing that cognitive biases that make it difficult to understand compound interest rates may explain a variety of widespread financial mistakes).

3. Legal scholarship on cognitive and behavioral mistakes is vast and growing, *see infra* notes 9–13, but its origins are often traced to Christine Jolls, Cass Sunstein & Richard Thaler, *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471 (1998).

4. *See infra* Part I.A.

5. *See infra* Part I.B (discussing why mistakes arise and persist in some markets).

6. Payday, Vehicle Title, and Certain High-Cost Installment Loans, 81 Fed. Reg. 47,864, 47,874 (proposed July 22, 2016) (to be codified at 12 C.F.R. pt. 1041).

improving choice architecture. A one-size-fits-all approach is misguided when consumers are heterogeneous. There is no reason to believe a single regulatory policy should dominate across fields. Sometimes unregulated markets might match well, sometimes not. Likewise, some governmental regulation enhances matching; other times, matching may not be the goal, and regulation may override matching by prohibiting an activity that some people desire.

This Article argues that we must stop dancing around a central problem facing all scholars and policymakers with views on consumer protection, autonomy, and choice. The problem is this: no policy—or decision not to adopt a policy—can be entirely value neutral as to consumers' underlying preferences. Any rule or regulation—or decision to have no rule or regulation—that makes a claim about consumer choices requires a normative judgment about what preferences are relevant in a market. Preferences are a construct and cannot be measured directly, and advances in behavioral economics have helped underscore why all estimates run into problems.

Since such a judgment is inevitable, this Article presents a simple tool to help guide regulation: distinguishing between two factors that influence preferences: subjective tastes and objective preferences.<sup>7</sup> Individuals may vary along both dimensions. For instance, day-traders share one trait in common: they are likely to lose money.<sup>8</sup> But their underlying preferences may differ. Some consumers may have a taste for sensation-seeking and day-trade for its consumption rather than investment value, like many gamblers. Others may day-trade for investment value, in which case they are making a costly mistake. Their circumstances may differ too, such as their relative vulnerability to financial losses from day-trading. Identifying the sources of preferences may help us decide how different areas should be regulated. Both payday borrowing and day-trading lead to costly losses and likely implicate some miscalculation by participants. But they may have different claims on regulation: we can arguably distinguish “good” from “bad” day-traders by their relative tastes for sensation; “good” and “bad” payday borrowers may be distinguished more by circumstances.

This Article tries to suggest a way through the increasingly deadlocked arguments over what policy tools best serves consumer autonomy. The best known of these debates revolves around

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7. This distinction is echoed in various parts of the psychology-and-law literature, but the clearest exposition is found in MARK KELMAN, *THE HEURISTICS DEBATE* (2011).

8. See *infra* Part I.C (reviewing the overwhelming evidence, both theoretical and empirical).

whether “nudging”—setting default rules with the hope of improving consumer choices—improves or violates freedom of choice. Widespread agreement that mistakes sometimes happen has not led to consensus about the appropriate response to this debate. For some, improving choice architecture makes good sense, since choice architecture and cognitive limits will influence decision-making whether or not policymakers intervene.<sup>9</sup> For others, such efforts are likely to misfire because the government may not know which bias affects a particular consumer in a particular choice, as one representative account by Alan Schwartz warns.<sup>10</sup> Schwartz and other like-minded scholars are surely right on that point, but their preferred policy recommendation, a laissez-faire default, does not follow and does not necessarily serve their core goal of preserving autonomy. “Autonomy” is a slippery term. A thin meaning of autonomy may simply be the freedom to blindly make choices without governmental restriction—but real autonomy hardly seems served if consumers routinely make harmful mistakes or are forced to spend excessive time researching choices.<sup>11</sup> A better conception of autonomy requires some correspondence between choices and preferences. Although the advent of behavioral economics has brought increased focus on the issue of consumer mistake,<sup>12</sup> it has not been a panacea.<sup>13</sup>

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9. The earliest and best-known proponents of nudging are RICHARD THALER & CASS SUNSTEIN, *NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WELFARE, AND HAPPINESS* (2008) and Colin Camerer et al., *Regulation for Conservatives: Behavioral Economics and the Case for “Asymmetric Paternalism,”* 151 U. PA. L. REV. 1211 (2003).

10. See, e.g., Richard Epstein, *Behavioral Economics: Human Errors and Market Corrections*, 73 U. CHI. L. REV. 111, 111 (“[P]eople often make serious mistakes in deciding important matters. . . . My task here is not to deny these obvious truths, but to ask about their significance in certain transactional settings.”); Alan Schwartz, *Regulating for Rationality*, 67 STAN. L. REV. 1373 (2015); see also Jeffrey J. Rachlinski, *Cognitive Errors, Individual Differences, and Paternalism*, 73 U. CHI. L. REV. 207 (2006) (advocating that lawmakers take into account individual mistakes among groups when crafting regulation).

11. For instance, consumers may be more satisfied with choices when the initial choice set is limited. Mark Lepper & Sheena Iyengar, *When Choice is Demotivating: Can One Desire Too Much of a Good Thing?*, 79 J. PERSONALITY & SOC. PSYCHOL. 995 (2000). A nuanced account of autonomy by a legal scholar—one that avoids both perils while recognizing the difficulty of defining the term—is CARL E. SCHNEIDER, *THE PRACTICE OF AUTONOMY* (1998), about the complicated role of patient choice in the practice of medicine.

12. See, e.g., Oren Bar-Gill, *The Behavioral Economics of Consumer Contracts*, 92 MINN. L. REV. 749 (2008).

13. Behavioral economics’ predictive power is heavily limited because multiple explanations can be proposed for any given choice. For an early piece on this issue, see Mark Kelman, *Behavioral Economics as Part of a Rhetorical Duet: A Response to Jolls, Sunstein, and Thaler*, 50 STAN. L. REV. 1577 (1998). A more recent critique is Ryan Bubb & Richard Pildes, *How Behavioral Economics Trims Its Sails and Why*, 127 HARV. L. REV. 1593 (2014). For explanations that tie the difficulties back to the underlying psychological literature, see KELMAN, *THE HEURISTICS DEBATE*, *supra* note 7; Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 CAL. L. REV. 1051

Rather than asking what general regulatory technique preserves autonomy, this Article shows that scholars would do better to disaggregate one question into two more tractable ones. First, in a given area of regulation, *what preferences are we trying to match, and do they implicate taste or circumstances?* Once we have identified those, we can ask, *what policy would be best for matching those preferences?* Although even well-informed judgments on preferences are necessarily guesses, identifying the relevant types of underlying preferences informs both the extent and nature of a response. For instance, in some extreme cases, we may realize we do not care about underlying preferences; criminal law, for obvious reasons, is insensitive to a would-be perpetrator's preferences, and the primary goal is reducing other social costs.

If policymakers decide that a domain revolves around tastes, it suggests a core strategy for a policy: policy should elicit consumers to provide more information about their tastes.<sup>14</sup> For example, the ideal nudge—but by no means all real-world nudges—does this. By contrast, if a rule is focused on circumstances, the core strategy is to tailor rules according to proxies.<sup>15</sup> Proxies are observable traits that correlate to relevant underlying circumstances. These two strategies draw on basic intuitions from game theory. Judgments about preferences can be informed by many sources, but eliciting more information is a useful policy goal. When a contracting party faces observational equivalence,<sup>16</sup> it often tries to force the provision of further information and turn a pooling equilibrium into a separating one—essentially, to make an inaccurate signal too costly. Policy can take a similar tack.

This Article proceeds in two parts. Part I discusses the problem of mistakes and the identification of preferences. In Part I.A, I provide a brief description of preferences and cognitive errors and, drawing on recent economics modeling, explain why mistakes are likely to arise and persist in some markets. The remainder of Part I discusses

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(2000); Robert J. MacCoun, *The Relativity of Judgment as a Challenge for Behavioral Law and Economics*, 2 DAITO BUNKA U. L. REV. 29 (2006); Jeffrey Rachlinski, *The Psychological Foundations of Behavioral Law and Economics*, 2011 U. ILL. L. REV. 1675;.

14. See *infra* Part II.A. Of course, there are many reasons to suspect in most domains, getting at tastes may ultimately be impossible. For a thorough discussion of this problem in the context of a medical choice that poses intertemporal tradeoffs, see Mark Kelman, *Hard Choices and Deficient Choosers* (May 2017) (unpublished manuscript) (on file with author).

15. See *infra* Part II.B.

16. Schwartz has used the term “observationally equivalent” to describe the problem facing consumer regulators. Schwartz, *Regulating for Rationality*, *supra* note 10, at 1377. I extend the use of this term, which is drawn from game theory, by noting that game theory has in fact suggested a variety of solutions to this problem, which regulatory strategies could employ.

two illustrative case studies where consumers are heterogeneous, but for different reasons. Part I.B describes mistakes made by payday borrowers, who I argue can be categorized by differences in circumstances. Part I.C describes mistakes made by stock-market day traders, who can be categorized by diverging tastes. In Part II, I discuss what ideal policies result from this analysis. After discussing general rules guiding a policy choice, I focus on examples of each of my two policy strategies: *proxies* to regulate domains with heterogeneous circumstances, like payday borrowing, and *elicitation* to regulate domains with heterogeneous tastes, like day-trading.

## I. IDENTIFYING PREFERENCES, TASTES, AND CIRCUMSTANCES

This section proceeds in three parts. First, I define the basic terms and problems that confront consumer protection policy, including preferences, tastes, and circumstances. Drawing on cutting-edge research in economics, I explain why mistakes might survive in markets, despite strong mechanisms that neoclassical economics typically takes for granted, like marginal consumers and the ability of consumers to learn. In the second sub-part, I discuss pay-day borrowers as an example of a domain where consumers are affected differently depending on their objective circumstances. Finally, the third sub-part discusses stock-market day-trading, an activity that produces nearly certain expected losses, as an example of an area where consumers may differ mainly in tastes.

### A. *What are Preferences and Mistakes, and Why Do Mistakes Sometimes Persist in Markets?*

A consumer's preference is what we might colloquially call their "real," "considered," "normative,"<sup>17</sup> or "underlying" preference.<sup>18</sup>

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17. The term "normative preference" is used in John Beshears et al., *How Are Preferences Revealed?*, 92 J. PUB. ECON. 1787 (2008) (identifying five factors that may cause divergence between revealed and normative preferences: passive choice, complexity, limited personal experience, third-party marketing, and intertemporal choice).

18. Throughout, I will use the term *preferences* to refer to "true" preferences, as compared to *revealed preferences* for those revealed through observed choice. This avoids confusion inherent in other terms that scholars have sometimes used to refer to true preferences, like "normative preferences."

Tomes could be (and have been) written on how tractable or meaningful this concept is.<sup>19</sup> The complexity of preference formation, and change in preferences over time, is surely part of what makes life interesting. The philosopher Harry Frankfurt, for instance, suggested that it might be our second-order volitions—volitions about the kinds of volitions we form, such as an unwilling drug addict who would prefer not to prefer drugs—that make us human.<sup>20</sup> For the purpose of this Article, I make an assumption that seems minimally controversial for utilitarian-minded approaches to policy: that consumers have or could form some preference about a given subject.<sup>21</sup>

Preferences are important because most of us would, all other things held equal, prefer to match people's real-world choices to their actual preferences.<sup>22</sup> Preferences in the real world often loosely and colloquially have two components: taste and circumstance.<sup>23</sup> Tastes and circumstances interact to determine the expected result of a choice. I may have a taste for vanilla ice cream but a circumstance of being diabetic. There are of course line-drawing and endogeneity problems: my taste may change once I discover that I am diabetic, either immediately or gradually, as I spend more time enjoying other foods in my diet.

Preferences cannot, by hypothesis, be measured directly. Many debates have ensued over how to estimate preferences.<sup>24</sup> Revealed

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19. The most important writer on this subject in the economics tradition is probably Amartya Sen. See, e.g., Amartya K. Sen, *Rational Fools: A Critique of the Behavioural Foundations of Economic Theory*, 6 PHIL. & PUB. AFF. 317 (1977).

20. Harry Frankfurt, *Freedom of the Will and the Concept of a Person*, 68 J. PHIL. 5, 5 n.1, 11 n.5 (1971); see also JON ELSTER, ULYSSES AND THE SIRENS: STUDIES IN RATIONALITY AND IRRATIONALITY 36–103 (1979).

21. This assumption may be misleading in certain areas of consumer finance, where consumers may be rationally apathetic or irredeemably uninformed—although those may themselves simply be preferences (preference for having time to do other things over optimizing the right financial answer).

22. See, e.g., Louis Kaplow & Steven Shavell, *Fairness Versus Welfare*, 114 HARV. L. REV. 961, 976–1038 (2001); see also Daniel M. Hausman, *Why Satisfy Preferences?* (Max Planck Inst. of Econ., Working Paper No. 1124, 2012), [ftp://papers.econ.mpg.de/evo/discussionpapers/2011-24.pdf](http://papers.econ.mpg.de/evo/discussionpapers/2011-24.pdf) (critiquing how scholars have conflated preferences and utility).

23. Mark Kelman illustrates the taste-circumstances distinction in the following example:

Tastes are homogenous if all aspirin buyers with children under 5, aware of the actual risk of poisoning if they purchased bottles without child-proofing, would purchase child-proof bottles, even given the disutility that results from the fact that such bottles are more inconvenient to use or more costly. Circumstances would differ, though, if some, but not all, consumers rarely or never had young children in their households.

KELMAN, THE HEURISTICS DEBATE, *supra* note 7, at 155.

24. See Botond Köszegi & Matthew Rabin, *Revealed Mistakes and Revealed Preferences*, in THE FOUNDATIONS OF POSITIVE AND NORMATIVE ECONOMICS: A HANDBOOK 193 (Andrew Caplin & Andrew Schotter eds., 2008) (serving as an example of scholars who have grappled with

“preferences” are the most common means of measuring actual preferences. But they are a potentially dangerously unreliable indicator, at least in part because they may be warped by systematic behavioral and cognitive biases and in part because they may not meaningfully reflect certain aspects of preferences.<sup>25</sup> Revealed preferences are, by definition, a contingent response to a particular situation. Consumers may be observationally equivalent based on revealed preference but not equivalent with respect to preference.<sup>26</sup>

A mistake, in this Article’s usage, refers to a divergence between the expected result of a revealed “preference” (revealed by virtue of a choice) and actual preference.<sup>27</sup> Identifying mistakes in the real world requires a theory of preferences. Many behavioral-law-and-economics scholars have conflated laboratory errors and real-world mistakes, the latter of which require a normative, contingent theory to identify.<sup>28</sup> Clearly not all such mistakes warrant equal regulatory

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how to estimate revealed preferences when mistakes are prevalent). The method requires the researcher to make assumptions about reasonable explanations for particular behavior. *Id.* at 194; *see also* Botton Koszegi & Matthew Rabin, *Mistakes in Choice-Based Welfare Analysis*, 97 AM. ECON. REV. 477, 477 (2007). Other ways this might be done—each of which has problems and cannot be said to be a direct measure of true preferences—include survey evidence, field studies, studies of sellers’ behavior to identify, and examination of choice reversals. *See, e.g.*, Oren Bar-Gill & Franco Ferrari, *Informing Consumers About Themselves*, 3 ERASMUS L. REV. 93 (2010) (studying seller behavior); Jim Hawkins, *Exploiting Advertising*, 80 L. & CONTEMP. PROBS. 43 (2017) (studying seller behavior); Schwartz, *Regulating for Rationality*, *supra* note 10, at 1380–81, 1402–03 (advocating field studies); Jacob Goldin & Daniel H. Reck, *Revealed Preference Analysis with Framing Effects 1 n.1* (unpublished manuscript) (May 31, 2017), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2417709](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2417709) (“By preferences, we mean the relative consistency of the available options with a decision-maker’s objectives, whatever those may be. Preferences are not defined according to a decision-maker’s observed choices; doing so would assume away the question we address by ruling out choice reversals.”).

25. A separate problem is that the data of revealed preferences may be incomplete compared to the domain in which we are trying to predict preferences, leaving us to extrapolate in ways that go beyond the data we have—and in doing so, to use “other sources of knowledge about the kinds of things that our fellow citizens prefer.” Richard Craswell, *Incommensurability, Welfare Economics, and the Law*, 146 U. PA. L. REV. 1419, 1428–29 (1998) (noting that “any attempt to estimate a utility function will have to be based on extrapolations from a comparatively small set of data”). Revealed preferences may also be dangerously unreliable for more philosophical reasons—that choice may not really be a measure of desire. *See, e.g.*, Mark Kelman, *Choice and Utility*, 1979 WISC. L. REV. 769; Amartya K. Sen, *Choice Functions and Revealed Preference*, 38 REV. ECON. STUD. 307 (1971); Sen, *Rational Fools*, *supra* note 19.

26. Schwartz, *Regulating Rationality*, *supra* note 10 (regarding observational equivalence). I discuss the problem in the context of those who opt out of nudges in retirement savings plans, in Jacob Hale Russell, *The Separation of Intelligence and Control*, 6 WM. & MARY BUS. L.J. 35, 65–67, 73 (2015).

27. KELMAN, THE HEURISTICS DEBATE, *supra* note 7, at 155.

28. *See* David C. Funder, *Errors and Mistakes: Evaluating the Accuracy of Social Judgment*, 101 PSYCHOL. BULLETIN 75, 76 (1987) (“An ‘error’ is a judgment of a laboratory stimulus that deviates from a model of how the judgment should be made. . . . A ‘mistake,’ by contrast, is an incorrect judgment in the real world, such as a misjudgment of a real person, and so must be determined by different criteria. Detection of an error implies the existence of a mistake

attention. Imagine a consumer with preference  $p$ , who makes choice (revealed preference)  $p'$ . To make the example more concrete, assume that Adrienne takes out a pay-day loan (revealed preference  $p'$ ). We cannot measure Adrienne's preference ( $p$ ) directly, but we can imagine several reasons why  $p'$  and  $p$  might converge or diverge. For instance, if she uses the loan to repair a car to get to work, without which she would be fired, they may converge: she is able to repay the loan, and it was the best credit she could access at the time. But  $p'$  may also diverge from  $p$ , because of at least one of the following: error and bias, information costs, or *ex post* circumstances.

(1) Cognitive error and psychological biases—non-rational or bounded rational explanations—that arise *ex ante*. Cataloging such effects has been the major project of behavioral economists and their behavioral-law-and-economics progeny, and various effects have been amply cataloged elsewhere in legal scholarship.<sup>29</sup> To give just a few examples, Adrienne may be overly optimistic about her ability to repay the loan, perhaps because of overconfidence in her ability to invest the funds in a project whose expected return exceeds the rate of return. Or she may be overly optimistic because she focuses too much on a salient example of another consumer who was able to repay a similar loan despite the many who have not. Finally, she may have an inherent bias in how she processes and compares interest rates.

(2) Search costs and information costs that arise *ex ante*. These are rational explanations. They certainly encompass misrepresentation, fraud, under-disclosure, or other problems in the inducement of the contract that we normally seek to regulate. But even in markets where we have addressed some of these issues, there may be search costs that prevent choices from reliably revealing actual preferences.<sup>30</sup> For instance, Adrienne may have missed out on a better loan option.<sup>31</sup>

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only when the process that produces the error also produces incorrect judgments in real life.”); see also Kelman, THE HEURISTICS DEBATE, *supra* note 7.

29. See *supra* nn.8, 10 & 13; see also PAUL BREST & LINDA HAMILTON KRIEGER, PROBLEM SOLVING, DECISION MAKING, AND PROFESSIONAL JUDGMENT: A GUIDE FOR LAWYERS AND POLICY-MAKERS (2010).

30. See John W. Pratt et al., *Price Differences in Almost Competitive Markets*, 93 Q.J. ECON. 189 (1979) (discussing price dispersion). For a recent discussion, see Michael D. Grubb, *Failing to Choose the Best Price: Theory, Evidence, and Policy*, 47 REV. INDUS. ORG. 303 (2015).

31. A defender of revealed preferences might say that Adrienne's preferences have been matched: she paid money to avoid other costs from searching further. There are several problems with this argument. For one, it rests on a tautology: we believe this because we believe that revealed “preferences” indicate preferences. Second, cognitive errors may come in: the consumer may be subject to systematic errors that mean she did not systematically calculate the tradeoff. Finally, the presence of search costs means that markets may misprice

(3) *Ex post* circumstances, including external factors or the problem of multiple selves and regret, may cause divergence. Imagine that Adrienne uses the loan for a project that fails (or for pure consumption), and she is unable to repay it. She now regrets the decision and thinks that if she could make the decision with the benefit of hindsight, she would not have taken out the loan. This may produce the least sympathetic case to regulatory relief, especially to the extent that we believe the regret in the fourth case is caused by extrinsic misfortune—in other words, the possibility of bad luck really was part of the risk-return package that Adrienne was buying.<sup>32</sup> But it is a much harder case if she is the victim of multiple selves: an in-the-moment desire to consume that is later regretted. To decide that one version of herself is more deserving of regulatory help than another is a normative, not empirical, question.<sup>33</sup> Scholars have sidestepped that problem when, like Schwartz, they argue that autonomy is served by simply defaulting to an assumption that consumer choices are rational.<sup>34</sup>

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goods. Therefore, to the extent a consumer makes the choice to avoid search costs because she trusts market pricing, her choice is not a good proxy for her preferences. A rational decision must be a bet that the price saved is more than the cost of searching. This may not be true. A great example is provided by index mutual funds, where consumers do not minimize mutual fund fees even when the data is presented in a straightforward way such that is the only possible variable of relevance. See, e.g., James J. Choi et al., *Why Does the Law of One Price Fail? An Experiment on Index Mutual Funds*, 23 REV. FIN. STUD. 1405 (2010); see also Jill E. Fisch & Tess Wilkinson-Ryan, *Why Do Retail Investors Make Costly Mistakes? An Experiment on Mutual Fund Choice*, 162 U. PA. L. REV. 605 (2014)

32. Our views will be influenced by the stories we deem relevant in explaining behavior. Consider a simple question: Should we allow Ralph to purchase scratch lottery tickets, an investment with a negative expected value? Our instincts about the appropriate regulatory response will depend heavily on how we imagine Ralph's mistake. Consider four explanations: First, Ralph genuinely enjoys the act of consumption, even knowing he will not win. Second, Ralph, like most of us, systematically misunderstands probability and thinks winning is more likely than it actually is. Third, Ralph is misled by puffery in marketing, which portrays lottery winners in a way that makes her think winning is likely. Fourth, Jane is outright lied to by the sales clerk, who deliberately misleads him into thinking he'll likely win. Each story may have a glimmer of truth, and even if they represented distinct accounts, a regulator may still be faced with observational equivalence when presented with two specific lottery ticket buyers. Most of us will want to do something about the simple outright fraud, but we likely have different instincts as to whether deeply rooted cognitive errors look more like fraud (i.e., lack of genuine freedom to choose) or more like choice. Instincts on both questions are likely to depend on political, ideological, and moral taste, including the degree to which we want to respect idiosyncratic tastes, or worry that such tastes actually reflect something other than subjective preferences.

33. See generally Mark Kelman, *Hedonic Psychology and the Ambiguities of Welfare*, 33 PHIL. & PUB. AFF. 391 (2005).

34. Schwartz, *supra* note 10. Schwartz claims deferring to revealed preferences is autonomy preserving, coherent, and administrable. *Id.* at 1403–06. It is certainly administrable. But it is only coherent by Schwartz's account with an additional assumption. Schwartz says it is coherent because it is consistent with the government carrying the burden of "the imposition of restrictions on consensual transactions." *Id.* at 1403. That would only be true if we believe,

Not all markets should be expected to see the same prevalence and, more importantly, persistence of mistakes. One critical factor is whether naïve consumers obtain the benefits of sophisticated consumers (similar results), or whether their results diverge.<sup>35</sup> Law and economics scholars have long argued that mistakes are unlikely to persist in competitive markets.<sup>36</sup> Even if there are naïve consumers, so the argument goes, their outcomes will be helped by a small number of sophisticated consumers who push merchants to offer more consumer-friendly contracts.<sup>37</sup>

The rising-tide-lifts-all-boats story is familiar and comforting—especially to regulation-averse scholars—and for many markets, it is true. Consumers who do not read boilerplate contracts may benefit from those who do, when merchants are unable to distinguish the former from the latter and thus have to offer the same contract to both.<sup>38</sup> But this is not the full story. Indeed, in some markets, the sophisticated benefit from the naïve, as some cost savings from naïve overspending are passed onto them through cross-subsidization.<sup>39</sup> In such markets, the sophisticated consumers' rising tide might better be thought of as swamping the boats of the

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for instance, that transactions in an unregulated marketplace where sellers are rational and buyers are irrational are “consensual.” Whether one believes this would seem to beg the question: do those transactions (revealed preferences) reflect preferences, or not?

35. See, e.g., RAN SPIEGLER, *BOUNDED RATIONALITY AND INDUSTRIAL ORGANIZATION* (2011); Mark Armstrong & John Vickers, *Consumer Protection and Contingent Charges*, 50 J. ECON. LIT. 477 (2012); Xavier Gabaix & David Laibson, *Shrouded Attributes, Consumer Myopia, and Information Suppression in Competitive Markets*, 121 Q.J. ECON. 505 (2006). For a useful literature review, see Botond Köszegi, *Behavioral Contract Theory*, 52 J. ECON. LIT. 1075 (2014).

36. E.g., Alan Schwartz, *How Much Irrationality Does the Market Permit?*, 37 J. LEGAL STUD. 131 (2008). An assumption in Schwartz's analysis draws into question whether his analysis applies to the markets discussed here. Schwartz assumes that contracts are independent: a consumer who chooses a sophisticated contract in his analysis cannot benefit from another consumer's choice of a naïve contract. *Id.* at 139–40 n.14. Schwartz claims that “few consumer contracts have been identified . . . that permit [this kind] of cross subsidization . . . .” *Id.* To the extent that claim is wrong, his analysis is not applicable.

37. See generally Marcus Cole, *Rational Consumer Ignorance, When and Why Consumers Should Agree to Form Contracts without Even Reading Them*, 11 J.L. ECON. & POL'Y 413 (2015); Alan Schwartz & Louis Wilde, *Perfect Information in Markets for Contract Terms: The Examples of Warranties and Securities Interests*, 69 VA. L. REV. 1387 (1983).

38. For a psychological and experimental account of the problem of boilerplate, see Tess Wilkinson-Ryan, *A Psychological Account of Consent to Fine Print*, 99 IOWA L. REV. 1745, 1745 (2014) (arguing that the “can't hurt” response by legal scholars to disclosures “leads to overuse of disclosures that do not affect consumer decision-making, but have implicit effects on the moral calculus of transactional harms”). For an argument that boilerplate is problematic on other theoretical grounds, see MARGARET JANE RADIN, *BOILERPLATE: THE FINE PRINT, VANISHING RIGHTS, AND THE RULE OF LAW* (2012).

39. See Armstrong & Vickers, *supra* note 35.

naïve, causing them to sink. Beneficial search externalities are crowded out by welfare-reducing “rip-off externalities.”<sup>40</sup>

For instance, many involve tied contracts: upfront charges followed by contingent fees. These are prevalent in banking services like the free checking accounts that come with a variety of pay-as-you-go fees for services such as additional checks, ATM charges, and overdrafts. Those who believe that rising tides lift all boats commonly assume that if one firm is exploiting consumers’ naiveté, other competing firms will educate those consumers—ultimately making the strategy not profitable. But as Gabaix and Laibson show, this is not always the case.<sup>41</sup> They present the case of a hotel that charges a low rate, followed by high add-on fees for parking, Wi-Fi, and other services. A competitor without such a pricing structure will have no incentive to provide education, because educated consumers who understand the fee structure will simply continue to stay at the cheaper hotel and use fewer of the add-on services. In other words, the benefit redounds to the consumer, not the competitor. Gabaix and Laibson term this the “curse of debiasing,” which suggests that product attributes (add-on prices) may remain shrouded even in equilibrium.

Contingent charges in banking, such as charges for overdraft protection,<sup>42</sup> may be especially problematic because consumers are often unaware of those charges. They may even be unaware of the terms themselves if they did not read the fine print—but even if they are aware, banks usually levy the charges without further consent. (Just look at the Starbucks customer who paid \$34 for a \$4.14 coffee.<sup>43</sup> Overdraft protection does not warn you at the point of sale.) If outcomes to sophisticated and naïve consumers are linked,<sup>44</sup> sophisticated consumers who are aware of such charges will have no incentive to improve terms by switching—because they benefit from the market terms. In other words, the mechanism of

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40. The terms are used in an excellent article that draws in much of the burgeoning literature on modeling divergent results to naïve and sophisticated consumers and implications for consumer protection. Mark Armstrong, *Search Externalities and Ripoff Externalities*, 47 REV. INDUS. ORG. 273 (2015). Note that I do not exclude the possibility that there are other reasons why sophisticated consumers may fail to provide the benefits some assume they will. For a thoughtful analysis of one reason why, see Oren Bar-Gill & Omri Ben-Shahar, *Exit from Contract*, 6 J. LEGAL ANALYSIS 151 (2014).

41. Gabaix & Laibson, *supra* note 35.

42. On the problems with overdraft checking, attempts to improve those problems through nudges, and slippage in the regulatory strategy, see Lauren E. Willis, *When Nudges Fail: Slippery Defaults*, 80 U. CHI. L. REV. 1155 (2013). See also *infra* Part III.B.

43. Ron Lieber & Andrew Martin, *Overspending on Debit Cards is a Boon for Banks*, N.Y. TIMES (Sept. 8, 2009) <http://www.nytimes.com/2009/09/09/your-money/credit-and-debit-cards/09debit.html>. The consumer racked up \$238 in overdraft charges in one day. *Id.*

44. Armstrong and Vickers, *supra* note 35.

the marginal consumer that many scholars rely on simply will not work: the marginal, sophisticated consumer prefers the contract where they pay a lower upfront fee, made possible by the presence of naïve consumers who will pay add-on fees that the diligent, sophisticated consumers avoid.

Fixed rate mortgages provide another striking example. Many consumers fail to refinance fixed rate mortgages, even when mortgages at a lower fixed rate, including the associated fees, are available. The mistake is prevalent: one study found that a quarter of mortgagors were paying more than 2% higher than the market rate.<sup>45</sup> As a result, sophisticated consumers are likely obtaining lower rates than what they would pay in a market where fixed-rate mortgages are automatically refinanced, or in a more sophisticated market where a higher fraction of consumers refinanced their mortgages. It is not clear to what extent the surplus from overpaying naïve consumers flows to sophisticated consumers or simply becomes a gain to mortgage sellers.

Such cross-subsidization may have problematic distributional consequences if sophisticated consumers are systematically less vulnerable (wealthier, better educated) than naïve consumers. There is evidence of this in the mortgage context, where the non-refinancing borrowers of fixed rate mortgages appear to be less educated, poorer, and more likely to be minorities.<sup>46</sup>

Consider another reason why markets may not correct itself: the problem of the “market for quacks”—a market where there are no products worth buying, and so competition does not produce information that is useful to consumers.<sup>47</sup> An example of such a market might include homeopathics, a growing \$363 million market for sugar pills that make bold health claims and are mostly unregulated by the FDA.<sup>48</sup> Normal paradigms based on imperfect information do not make sense in such markets, where there are no high- and low-quality products to distinguish between.<sup>49</sup> If markets for quacks worked correctly, there would be no price competition—rather,

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45. For this statistic and a broader discussion of evidence of consumer financial mistake in mortgages and other domains, given in the context of a presidential address to the American Finance Association, see John Campbell, *Household Finance*, 61 J. FIN. 1553 (2006).

46. *Id.*

47. Ran Spiegler, *The Market for Quacks*, 73 REV. ECON. STUD. 1113 (2006).

48. *Industry at a Glance: Homeopaths*, IBISWORLD US, <http://clients1.ibisworld.com/reports/us/industry/ataglance.aspx?entid=4951> (last visited Jan. 2, 2018). The FDA recently proposed stricter enforcement. FDA, DRUG PRODUCTS LABELED AS HOMEOPATHIC: GUIDANCE FOR FDA STAFF AND INDUSTRY (2017), <https://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM589373.pdf>.

49. SPIEGLER, BOUNDED RATIONALITY AND INDUSTRIAL ORGANIZATION, *supra* note 35, at 190.

there would be no market at all. Typical market interventions like disclosure that are designed to produce better information allow the better products to thrive at the expense of the weaker ones. But that idea relies on a potentially faulty assumption: that there are good products to be had in the first place.<sup>50</sup> This assumption may be also problematic, for example, in mutual funds: to assume information would improve mutual fund choice, we have to assume that some managers can systematically beat the market and offer better products.<sup>51</sup>

### B. *An Example of Heterogeneous Circumstances: Payday Borrowers*

Payday loans provide an especially interesting case study for the core problem facing consumer protection. Aside from their obvious policy significance—not only do twelve million Americans use them each year, but they have been implicated in debt spirals and bankruptcy—payday loans are also the subject of a recent significant rulemaking by the Consumer Financial Protection Bureau.<sup>52</sup> Problematically, any policy intervention—or failure to intervene—seems likely to hurt at least some set of consumers. Payday loans, which are short, high-interest loans collateralized with a blank check to be paid out of a borrower's next salary payment, are often one of the only sources of credit available to both the underbanked and unbanked.<sup>53</sup> In other words, depriving all borrowers of payday loans would prevent some individuals who have no other access to credit from obtaining emergency financing; potentially cause them to turn to shadier sources of financing; or put financial strains on family members or friends who are willing to loan emergency funds. At the same time, for many, payday loans seem to be a costly mistake.

Studies are mixed as to the effect of payday loans, probably because effects differ amongst borrowers. Many borrowers appear to be making a costly mistake. Four out of five borrowers don't repay

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50. See Spiegler, *The Market for Quacks*, *supra* note 47, at 1113.

51. See Spiegler, *BOUNDED RATIONALITY*, *supra* note 35, at 191.

52. Payday, Vehicle Title, and Certain High-Cost Installment Loans, 81 Fed. Reg. 47,864, 47,874 (proposed July 22, 2016) (to be codified at 12 C.F.R. pt. 1041); see also David Silberman, *We've Proposed Rules to Protect Consumers from Payday Debt Traps*, CONSUMER FIN. PROTECTION BUREAU (June 2, 2016), <https://www.consumerfinance.gov/about-us/blog/weve-proposed-rule-protect-consumers-payday-debt-traps/>.

53. See generally JOHN P. CASKEY, *FRINGE BANKING: CHECK-CASHING OUTLETS, PAWNSHOPS, AND THE POOR* 30–35, 56–59 (1994); Michael Barr, *Banking the Poor* 21 *YALE J. ON REG.* 121, 149–64 (2004); John P. Caskey, *Fringe Banking and the Rise of Payday Lending*, in *CREDIT MARKETS FOR THE POOR* 17 (Patrick Bolton & Howard Rosenthal eds., 2005).

their initial loan and are rolled over to another loan within fourteen days; three out of five pay more in fees than they borrow; four out of five total borrows in the payday realm default at least once in a given year.<sup>54</sup> Some borrowers are quite clearly confused as to what they are buying. One lender summarized its 1500% interest rate to customers as “between \$1.00 and \$1.50 a day,” a claim that was equal parts misleading (because breaking payments into daily chunks makes the payments seem less onerous) and inaccurate (because the actual finance charge was closer to \$1,000 a year).<sup>55</sup> Because payday loans typically feature repeat refinancing and high fees, lenders may not care whether the loan is ultimately repaid or whether the consumer goes bankrupt—so long as sufficient fees are paid along the way to bankruptcy or default. Indeed, studies have found that payday loans induce, rather than relieve, financial hardship.<sup>56</sup> Payday loans compete with related loan forms, including pawnshops (collateralized by an object that the borrower loses if the loan is not repaid) and signature loans (higher-interest rate, longer-term loans that are often designed to evade state regulation of payday loans).

At the same time, payday loans may be an important—indeed, the only—source of credit to certain consumers. Payday loans may help some consumers weather financial shocks.<sup>57</sup> When payday loans are banned, studies have found consumers are more likely to bounce checks or to file for Chapter 7.<sup>58</sup> One study found that multiple welfare metrics—including foreclosures, births, and admissions for alcohol and drug treatment—were improved by the availability of payday loans.<sup>59</sup> Payday loans may help borrowers maintain employment.<sup>60</sup> And pawnshops, a high-interest loan with a

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54. CONSUMER FIN. PROTECTION BUREAU, CFPB STUDY OF OVERDRAFT PROGRAMS (2013), [http://files.consumerfinance.gov/f/201306\\_cfpb\\_whitepaper\\_overdraft-practices.pdf](http://files.consumerfinance.gov/f/201306_cfpb_whitepaper_overdraft-practices.pdf); see 81 Fed. Reg. at 87,865–66 n.9 (citing the CFPB study).

55. State *ex rel.* King v. B & B Inv. Grp., Inc., 329 P.3d 658 (N.M. 2014).

56. Brian T. Melzer, *The Real Costs of Credit Access: Evidence from the Payday Lending Market*, 126 Q.J. ECON. 517, 519–20 (2011); Paige Marta Skiba & Jeremy Tobacman, *Do Payday Loans Cause Bankruptcy?* (Vanderbilt Univ. Law Sch., Law & Econ., Working Paper No. 11-13, 2011), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2417709](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2417709).

57. Bart J. Wilson et al., *An Experimental Analysis of the Demand for Payday Loans*, B.E. J. ECON. ANALYSIS & POL'Y 1, 17–18 (2010).

58. DONALD P. MORGAN & MICHAEL R. STRAIN, FED. RESERVE BANK OF N.Y., STAFF REPORT NO. 309, PAYDAY HOLIDAY: HOW HOUSEHOLDS FARE AFTER PAYDAY CREDIT BANS 3–4 (2008).

59. Adair Morse, *Payday Lenders: Heroes or Villains?*, 102 J. FIN. ECON. 28, 28–29 (2011).

60. Dean Karlan & Jonathan Zinman, *Expanding Credit Access: Using Randomized Supply Decisions to Estimate the Impacts*, 23 REV. FIN. STUD. 433, 436 (2009).

very different collateral system, may function as a desirable commitment device for consumers who rationally are aware of their own self-control problems.<sup>61</sup>

Regardless of how one reads the overall empirical evidence, it is certainly the case that payday loans have different impacts on different borrowers. There are better borrowers and worse borrowers—in other words, borrowers with different circumstances. Once again, they may be observationally equivalent both to payday lenders and regulators. We may decide that the costs of payday loans on many consumers, and on the external environment,<sup>62</sup> are so high that a ban (or usury cap) makes sense.<sup>63</sup> In other words, we would accept pooling—but some consumers who rationally desire and accurately assess the costs and benefits of a payday loan would be excluded from the market. Such a decision could, of course, be coupled with a decision to improve access to other forms of credit. But most payday loan bans have not been coupled with improved access to credit, and indeed such access may be politically infeasible given the costs of originating a subprime loan. Bans on payday loans could actually cause additional negative consequences, as consumers may substitute other, potentially worse forms of payday-like lending, including gray-market products.<sup>64</sup>

Why do payday lenders, who presumably do not want defaults fail to discern better and worse borrowers on their own? In the conventional story, this is simply because of typical information asymmetry problems that plague lenders: among underbanked consumers who have little credit history, they cannot distinguish those lenders who are likely to repay from those who are not, so all are charged high rates. If so, we may want to continue leaving payday loans in a dispersed world because lenders are more likely to have access to the relevant information about ability to repay. Improving disclosure

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61. Susan Payne Carter & Paige Marta Skiba, *Pawnshops, Behavioral Economics, and Self-Regulation*, 32 REV. BANKING & FIN. L. 193, 195 (2012). Pawnshops may actually be a better alternative source of credit to payday loans, but I do not explore this possibility in depth here.

62. Again, externalities are an unreliable guide because the boundaries are so amorphous and hard to measure. Payday loans may decrease crime—by providing access to money—or increase it—by creating debt traps that induce crime in order to make repayments.

63. Many states ban or otherwise regulate loans; some have suggested a federal usury cap is necessary. See Nathalie Martin, *1000% Interest—Good While Supplies Last: A Study of Payday Loan Practices and Solutions*, 52 ARIZ. L. REV. 563, 578–79, 619 (2010).

64. The signature loans in the N.M. case were lenders' response to regulation making payday loans difficult to offer. State *ex rel.* King v. B & B Inv. Grp., Inc., 329 P.3d 658, 663 (N.M. 2014). Other studies have found borrowers switch to other high-interest credit, like pawn shops, when payday loans are restricted. Neil Bhutta et al., *Consumer Borrowing After Payday Loan Bans*, 59 J.L. & ECON. 225 (2016).

could then be an adequate remedy. But this seems somewhat unlikely because of the reverse information asymmetry: consumers may have inadequate information in a way that that disclosure, due to all its flaws, is unlikely to resolve. In other words, fees and refinancing are designed to obscure the fact that lenders can withstand high rates of eventual default in payday loans. Lenders can thus exploit cognitive biases, such as consumers' inability to understand the effects of compound interest.

How would we separate payday borrowers along circumstances? One possible way would be to look at broader macroeconomic conditions in deciding whether to allow payday loans. For instance, there is a good reason to believe the empirical evidence that payday loans improve community welfare following a natural disaster.<sup>65</sup> Following a disaster, almost any project invested in will have a high expected return. A circumstance-tailored rule would take advantage of this finding and allow payday loans following natural disasters, while restricting them at other times. A second would be to look at narrower conditions related to the particular borrower. What does the borrower plan to use the money for? If there was a tractable way to draw a consumption-investment line, or an indulgence-emergency line, this could help distinguish borrowers—but might run uncomfortably close to paternalistic taste-tailoring.

### C. *An Example of Heterogeneous Tastes: Stock Market Day Trading*

Stock market day trading by individuals is largely unrestricted, and on average, it causes participants who day-trade serious losses. That day-trading must be a losing gamble makes sense in a world where the stock market is at least somewhat efficient, meaning that traders would not be expected to beat the market on average and over time.<sup>66</sup> Even if the market is somewhat inefficient,<sup>67</sup> *and* we

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65. Morse, *supra* note 59, at 41–42.

66. The best popular expositor of this view is BURTON G. MALKIEL, *A RANDOM WALK DOWN WALL STREET* (1973). For a straightforward finance explanation, see RICHARD BREALEY ET AL., *PRINCIPLES OF CORPORATE FINANCE* 312–40 (10th ed. 2011). For an explanation geared towards legal scholars, see Ronald J. Gilson & Reinier Kraakman, *The Mechanisms of Market Efficiency*, 70 VA. L. REV. 549 (1984). For a good empirical summary of the financial costs of active trading, see Kenneth R. French, *Presidential Address: The Cost of Active Investing*, 63 J. FIN. 1537 (2008).

67. There is growing evidence, theoretical and empirical, of market inefficiency, but this (fascinating) debate does not much affect this Article. For market inefficiency to make day trading a winning strategy, we would have to believe that individuals have systematically *better* ability to exploit such inefficiencies than professional Wall Street firms, given the higher fees paid by individual investors for trading. Since the overwhelming evidence suggests that even most professional firms cannot systematically beat the market, this seems dubious.

assume the unlikely fact that individual investors have above-average abilities to exploit such inefficiencies through day-trading,<sup>68</sup> such gains would be wiped out by high brokerage commissions and spreads. We would expect losses, therefore, to be particularly concentrated in the most active investors, who may be particularly prone to speculation (and therefore especially unlikely to be exploiting true inefficiencies) and who will pay the highest aggregate fees.

Empirical evidence strongly supports this as a real-world problem: individual investors lose money, and day traders lose more money.<sup>69</sup> According to the best empirical estimates, average individual investors underperform the market by 1.5%, and the most active ones (the top quintile by turnover) by 6.5%.<sup>70</sup> Only 1% of day traders in another study carry a profit, and the more active they are, the worse they underperform.<sup>71</sup> Barber and Odeon, the two finance professors who have made the most contributions to the study of day traders, put the results succinctly in one of their titles: “Trading is hazardous to your wealth.”<sup>72</sup>

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For a good overview of theoretical and empirical challenges to market efficiency, and some of the difficulties faced by that work, see ANDRE SHLEIFER, *INEFFICIENT MARKETS* (2000). The bar faced by opponents of EMH as a practical tool is higher than generally recognized. For markets to be *systematically* inefficient, two conditions must be satisfied: biases must cause systematic distortions that don’t cancel each other out, and arbitrage by traders who recognize this must fail or be unavailable (because, for instance, there is not sufficient liquidity available for arbitrage, or because arbitrage is not actually riskless because of the non-substitutability of alternative investments).

68. In fact, day-traders seem to lose money not just on fees, but by trading badly. In principle, this means there is a profitable trading strategy available to them—make the opposite bets. Some of this may have to do with cognitive differences in the way investors approach buy versus sell decisions, but it may also suggest they have information and are systematically misusing it. Terrance Odeon, *Do Investors Trade Too Much?*, 89 AMER. ECON. REV. 1279 (1999)

69. For this Article, I am particularly concerned with individual, independent day-traders, not Wall Street firms or hedge funds that engage in day-trading. It may well be that nobody makes money on average and over time by day trading, but it is certainly the case that professional day-trading firms trade at a much lower cost, making the professional case potentially less concerning. Of course, there are line drawing problems between professional and individual investors.

70. Brad Barber & Terrance Odeon, *The Behavior of Individual Investors*, in 2 HANDBOOK OF THE ECONOMICS OF FINANCE 1535, 1536 (George M. Constantinides et al. eds., 2013); see Brad Barber & Terrance Odeon, *Trading Is Hazardous to Your Wealth: The Common Stock Investment Performance of Individual Investors*, 55 J. FIN. 773, 792–94 (2000); Odeon, *supra* note 68, at 1281, 1284–85.

71. Brad M. Barber et al., *The Cross-section of Speculator Skill: Evidence from Day Trading*, 18 J. FIN. MKTS. 1, 3 (2014).

72. Barber & Odeon, *Trading is Hazardous to Your Wealth*, *supra* note 70.

Losses from individual investing in general may be particularly concentrated among lower-income, poorer, younger, and less educated investors who are less diversified.<sup>73</sup> Indeed, contrary to the image many may have of day-traders as ex-Wall Street mavens, the day-trading population includes the less wealthy. Day-trading seminars and books may disproportionately market to such unsophisticated investors (think of the ubiquitous “earn \$50-100K working from home” ads).

Most finance academics would say that individuals should have most, if not all, of their investments in diversified, passive vehicles like index funds.<sup>74</sup> But even those who disagree and would see room for individual investors to hold individual stocks would be hard-pressed to justify excessively active day-trading. Barber and Odeon observed turnover rates too high to be consistent with any possible alternative explanations, such as investors rebalancing portfolios or selling stock to meet liquidity needs.<sup>75</sup>

Excessive trading behavior is particularly useful as the focus of this Article because it *cannot* be rationally explained by risk appetite. Unlike, say, having a portfolio composed of particularly risky investments, churning has nothing to do with risk appetite or aversion. An investor who is churning their portfolio may not be changing the level of risk in their portfolio: instead, they are simply accruing brokerage fees to trade in and out of stocks at a fixed level of risk.<sup>76</sup> To increase their exposure to risk, investors should choose riskier investment allocations—not cycle between investments more rapidly.

Why, if stock markets are just “costly casinos,”<sup>77</sup> does churning behavior persist? There are two broad categories of explanation: first, inaccurate predictions of the expected returns to day-trading caused by cognitive error and behavioral bias; second, sensation seeking behavior.

In the first category, the day-trader is prone to a series of cognitive errors. These could include overconfidence; the gambler’s

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73. Anders Anderson, *Trading and Under-Diversification*, 17 REV. FIN. 1699, 1699–1704 (2013); Barber & Odeon, *The Behavior of Individual Investors*, *supra* note 70, at 1536, 1563.

74. *See, e.g.*, French, *supra* note 66; *see also* MALKIEL, *supra* note 66, at 201–02 (advocating a diversified portfolio).

75. Barber & Odean, *supra* note 70.

76. Mark Grinblatt & Matti Keloharju, *Sensation Seeking, Overconfidence, and Trading Activity* 6 (Nat’l Bureau of Econ. Research, Working Paper No. 12223, 2006), <http://www.nber.org/papers/w12223>.

77. Lynn Stout, *Are Stock Markets Costly Casinos? Disagreement, Market Failure, and Securities Regulation*, 81 VA. L. REV. 611 (1995). The phrase is Lynn Stout’s in her excellent piece on the subject, but economists from John Keynes to James Tobin have analogized stock market to a casino. *Id.* at 615–16 n. 10.

fallacy, where gamblers attribute winning streaks to skill and losing streaks to luck; or availability, where the most salient examples to would-be day-traders are the few day-traders who have had the luck to make (or pretended to make) money.

In the second category, individuals may day trade for the same reason some gamblers enjoy casinos. They may enjoy the actual act of trading—i.e., it has value as a consumption good rather than an investment. Those who oppose intervention will be particularly inclined to this model. Indeed, this view has two advantages: first, it fits the observable evidence, and second, it is potentially respectful of the right of people to have idiosyncratic preferences in a heterogeneous society. But it has a major downside: it simply does not seem to conform to what most day-traders say about themselves, which is that they want to and will make money.<sup>78</sup> Anti-interventionists often suggest this is an autonomy-preserving assumption.<sup>79</sup> But the account seems to rest on a thin version of autonomy as perceived choice.<sup>80</sup> An equally plausible view of autonomy would have us take the day-trader seriously when he tells us he intends to make money.<sup>81</sup>

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78. This can be reconciled by arguing another preference structure (1) to obtain sensation and thrill, and make money, (2) to obtain sensation and thrill even if he loses money, (3) to make money without sensation and thrill, (4) to lose money without sensation and thrill. That only makes the point that we can always hypothesize ends to fit a rational explanation for even the most ludicrous behavior—even if reasonable people will disagree as to whether *this* instance is one of ludicrous behavior.

79. See, e.g., Schwartz, *Regulating for Rationality*, *supra* note 10.

80. A different article could analyze these issues primarily through the lens of a philosophical commitment to autonomy, although I am not sure it would get us very far. For thicker accounts of this difficulty, and critiques of commitments to thin versions of autonomy, see Gerald Dworkin, *Paternalism, in MORALITY AND THE LAW* 107 (Richard A. Wasserstrom ed., 1971); see also SARAH CONLY, *AGAINST AUTONOMY: JUSTIFYING COERCIVE PATERNALISM* (2013). Dworkin notes the line-drawing issues that come up in deciding whether an intervention is the kind of paternalistic intervention a rational person would accept:

The difficult problem that must be faced is whether one can give sense to the notion of a person irrationally attaching weights to competing values. Consider a person who knows the statistical data on the probability of being injured when not wearing seat belts in an automobile and knows the types of gravity of the various injuries. He also insists that the inconvenience attached to fastening the belt every time he gets in and out of the car outweighs for him the possible risks to himself. I am inclined in this case to think that such a weighing is irrational.

DWORKIN, *supra*, at 121. While interesting and important, I doubt these line-drawing problems can be usefully solved in most interesting public policy problems. As a result, the generic goal of promoting autonomy is likely to remain an inherently incomplete guide to policymaking. For a much better account of this, see SCHNEIDER, *PRACTICE OF AUTONOMY*, *supra* note 11.

81. Of course, we could hypothesize a new preference structure to save the day-trader's apparent desire to make money while pursuing a losing strategy. Perhaps the day-trader prefers (1) to have the right to choose an investing strategy even if in error, and to make money;

Almost certainly, it is some combination of motives that differs from person to person and that are difficult to systematically elicit. (After all, our motives are sometimes mysterious even to ourselves.) But those who would mainly attribute churning to enjoyment, the consumptive value of trading, face two key problems. First, it is not at all how day-traders seem to talk about themselves. Reading message boards where day-traders discuss techniques suggests that day-traders don't see enjoyment as their primary motive. Many, maybe most, sophisticated day-traders want to make money and believe that they are making money<sup>82</sup> or are on the verge of it. "Who 'really' believes this?", one day-trader asks of the "random walk" theory, about as basic of a finance concept as exists.<sup>83</sup> "Quite a few people actually," another responds.<sup>84</sup> "I'm not in that camp myself, mind you, but they're out there to be sure. It's a heavily academically influenced theory, so you can guess where a lot of its supporters come from."<sup>85</sup> Note the apparent denigration of "academically influenced" theories, as opposed to closely held views grounded in real-world anecdotal observation. As one puts it: "I don't agree with this at all since I have seen too many consistent traders (some of them unnaturally so) to believe the markets are random."<sup>86</sup>

At least to academic eyes, the responses seem to have similar structure—and similar quality—to anecdotal evidence dismissing climate change ("It sure was cool this summer, so global warming can't exist") or evolution. To be sure, that does not mean we should prevent people from having mistaken views any more than we

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(2) to have the right to choose even if in error, and to lose money; (3) to have no right to make a choice in error.

82. It is possible some believe they are "making money" because they are evaluating gains and losses against the wrong frame—e.g., they may conclude they have made money when their portfolio rises \$1 on a day the market portfolio rises \$2, by evaluating their performance against a \$0 baseline instead of the opportunity cost of not participating in the market. Cab drivers, for example, appear to engage in daily targeting, quitting driving once they've reached a certain income for the day—rather than engaging in the most "rational" behavior of working longer hours on high-wage days (i.e., busy days) than low-wage days. See Colin Camerer et al., *Labor Supply of New York City Cab Drivers: One Day at a Time*, 112 Q.J. ECON. 407, 407 (1997).

83. Theroguetrader, Post to *Random Walk Theory*, TRADE2WIN FORUMS (Feb. 6, 2008, 1:38 AM), <http://www.trade2win.com/boards/general-trading-chat/28912-random-walk-theory.html>.

84. Rhody Trader, Post to *Random Walk Theory*, TRADE2WIN FORUMS (Feb. 6, 2008, 1:59 AM), <http://www.trade2win.com/boards/general-trading-chat/28912-random-walk-theory-2.html>.

85. *Id.*

86. Trader\_Dante, Post to *I Want to Believe This is Not Random, but This Argues Against Me*, TRADE2WIN FORUMS, (Oct. 6, 2009, 8:46 PM), <http://www.trade2win.com/boards/general-trading-chat/75862-i-want-believe-not-random-but-argues-against-me.html>.

should prevent people from disbelieving evolution. But it does not mean that those acting on those views are any less mistaken (and potentially subject to regulation if there are policy-relevant reasons) than a teacher who teaches non-evolution based theories in their classroom. In addition, those who worry about the day-trader's factually errant views may also be particularly concerned that he holds them because of third-party manipulation: fraud perpetrated by broker-dealers, online trading platforms, or hacks hawking their investment get-rich-quick how-to guides.

Second, at least *part* of the enjoyment seems likely to be the thrill of beating the market. Ask yourself if a gambler would enjoy going to a casino where, instead of the gamblers as a whole losing systematically over time (with gains and losses distributed somewhat randomly), the rule was that all gamblers lost on each bet. This might be the "same" casino in an economic sense—i.e., provide exactly the same expected rate of return—but it's hard to imagine sensation-seekers enjoying this casino in the same way as they enjoy Vegas. In other words, at least part of the sensation must come from the seeming plausibility of the (*de facto*) delusion that one can make money through skill.

If we think the relevant line is taste, we would want to preserve day trading for the sensation-seekers—they have chosen a different, perhaps idiosyncratic end (lose money but have fun while doing so)—while eliminating it among mis-calculators—they have simply chosen a bad means to their end (make money). Of course, this distinction itself could be challenged. Perhaps over-confidence is, in some conception, an end: certainly, we can imagine that many over-confident people value their image of themselves as an expert and would have their overall welfare decreased by being overridden by a requirement that they invest in index funds, even as their bank balance grew larger. On the flip side, perhaps sensation seeking is not much of a valuable end or, at least, not an end that policymakers should respect because of other social costs.

In any given market, we may decide there is no policy-relevant heterogeneity of tastes. Consumers who do not refinance a fixed-rate mortgage when rates drop (net of fees to refinance) are probably not expressing a taste; more likely, they are oblivious to the refinancing opportunities or overestimate the difficulty involved in refinancing. Or, they may differ with respect to circumstances such as the length of time they plan to retain the mortgage. The answer to this is highly relevant to policymakers, who could either require

mortgages to automatically refinance<sup>87</sup> or try to refocus the decision on objective circumstances with respect to mortgage duration.

Other factors may complicate analysis of taste in a particular market. For instance, taste may be endogenous to the external environment—e.g., if taste is shaped by misleading marketing. One brokerage firm popular among day-traders, Interactive Brokers, has developed an ad campaign that appears to be targeted directly at children. In the spot, a kid named Skippy is seen trading on the platform's fantasy trading page. He is teased by a bully, who asks him "What's the point if it isn't real?" A girl steps in front and rebukes the bully: "With all that practice, in ten years he'll have lots of money. Do you want to walk me home, Skippy? You can show me how to do that simulated trading."<sup>88</sup> The ad would be more amusing if the evidence of financial losses caused by individual trading was less convincing.

Likewise, tricky questions arise in deciding whether a particular characteristic is a taste or a preference. For instance, an individual with a retirement portfolio may not be able to meaningfully state their own risk tolerance; they may lack the knowledge, time, and inclination to assess it. There are ways of observing risk tolerance, but evidence suggests that risk tolerance can be highly domain-specific and very sensitive to measurement method.<sup>89</sup> One could also debate whether risk more closely resembles a taste or is highly dictated by circumstance (e.g., prior endowments that affect one's sense of security and willingness to engage in risk). Despite the complexity of the taste-circumstance line, judging the relevant constituent tastes and circumstances of consumer preferences provides a starting point for policy analysis; the next Part shows how policy responses could be shaped after such a distinction is made.

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87. See BARRY NALEBUFF & IAN AYRES, *WHY NOT? HOW TO USE EVERYDAY INGENUITY TO SOLVE PROBLEMS BIG AND SMALL* 49–51 (2003). To be clear, this could cause average mortgage rates to rise. It is likely that in the current system, sophisticated consumers (who do refinance) are cross-subsidized by naïve consumers (who don't); while a boon to sophisticated consumers, this is not a policy-relevant separation. Indeed, it may be the opposite, as sophisticated consumers may be systematically wealthier than naïve consumers. See Campbell, *supra* note 45 at 1555.

88. Interactive Brokers, *Interactive Brokers—Paper Trading Account*, <https://www.youtube.com/watch?v=U5QJatRI23o>.

89. See, for example, the balloon experiments conducted by some behavioral economists. As just one example of how some economists have proposed to measure risk preferences, consider the 'balloon test.' A balloon is inflated as the experiment participant is offered increasing sums of money, but with a higher risk that the balloon will pop and eliminate their accumulated rewards. See Gary Charness, Uri Gneezy & Alex Imas, *Experimental Methods: Eliciting Risk Preferences*, 87 J. ECON. BEHAVIOR & ORG. 43, 43–44 (2013).

## II. CHOOSING A POLICY TO SATISFY PREFERENCES

This Part discusses how to align policy responses to our diagnoses of the underlying tastes and circumstances in a particular market. I assume that policy aims to satisfy preferences. There are reasons, not part of this Article, that we often choose not to satisfy preferences—most notably externalities. This Part proceeds in three sections. In Part II.A, I discuss general factors that might guide policy selection. Parts II.B and C analyze two specific strategies: proxies (like tailored rules) that could be useful when circumstances matter, and elicitation strategies (such as ideal-type nudges) that could be useful for distinguishing consumers based on tastes.

### A. *Factors Affecting the Choice of Legal Regime*

The distinction between tastes and circumstances provides a criterion for the choice of a distributing versus concentrating policy. By definition, tastes are subjectively held and thus are hard for outsiders to directly observe. By contrast, circumstances are more easily measurable. As a result, third parties may be very good at addressing informational mistakes, including an individual's own misunderstandings about their circumstances. For instance, an investment advisor would have little claim to know a client's taste for riskiness more than the client herself would, but an investment advisor could certainly have better knowledge of how a given investment strategy would affect risk in an individual's portfolio based on more readily observable knowledge about the client's age, other investments, occupation, and similar characteristics. By contrast, to the extent individuals make mistakes because of time inconsistency, incomplete tastes, or cognitive errors, third parties may have little ability to address mistakes—or, if they do address them, may not do so in a way that respects tastes.

Tastes are varied and heterogeneous, and idiosyncratic tastes may be deeply held.<sup>90</sup> By contrast, individuals may have inadequate information on their own circumstances. Issuers of credit cards, for instance, know more about how buyers use credit cards than buyers do—and those issuers may have incentives to withhold that use-pattern information.<sup>91</sup> Put differently, tastes may more closely resemble higher-order ends, while circumstances resemble

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90. See, for example, a similar problem in the *cy pres* doctrine, where we attempt to rewrite wills to match a testator's intent when express instructions are frustrated, *see* MARK KELMAN, A GUIDE TO CRITICAL LEGAL STUDIES 99–101 (1987).

91. *See generally* Bar-Gill & Ferrari, *supra* note 24.

means—which resembles one account of why we use fiduciaries to choose means that match a principal’s ends.<sup>92</sup>

One effect of policy is to decide *where* decisions are made: to distribute decision-making out to individual consumers, or to concentrate it in the hands of third parties. Third parties could be regulators, fiduciaries, intermediaries, or sellers regulated such that they do the bidding of regulators.<sup>93</sup>

In making that decision, a critical factor is the distribution of information asymmetry in a given market. In consumer finance markets in general, information asymmetries will often run in competing directions.<sup>94</sup> For instance, consumers in the payday loan market will have private information about their ability to repay. Lenders in that market may have private information about the loan terms, statistical likelihood of repayment for particular classes of borrowers, collection practices, and so on. Clearly, we can (and do) remedy that asymmetry partly through disclosure,<sup>95</sup> but because

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92. See Arthur Laby, *The Fiduciary Obligation as the Adoption of Ends*, 56 BUFF. L. REV. 99, 130, 103–04 (2008). Fiduciaries are common in domains where we believe the likelihood of mistake is high and costly. The purpose of a fiduciary, in its essence, is to identify what an agent “really wants” and choose appropriate means to that end. In theory, a fiduciary system perfectly aligns knowledge and expertise with incentives—by giving incentives to an informed principal to stand in (or near) the shoes of her clients. This, for instance, is the basis of the commonplace idea in legal ethics that clients are in charge of selecting ends while lawyers choose the means. Law presents a complicated environment for clients—an area where informational costs are high, and the likelihood of cognitive error potentially high—for which an agent (the attorney) serves as an essential guide to making normative preference-matching choices. In turn, fiduciary law, by imposing on those entrusted with such decisions, attempts to meaningfully constrain agency costs—the likelihood of agents to act in their own interest rather than their principals’. Of course, fiduciary systems are expensive, in at least two senses. For one, fiduciaries do not serve their role for free. And the higher the constraints on agency costs—for example, the greater the likelihood of liability for violating a fiduciary duty—the more expensive will be a fiduciary’s service. Second, no monitoring system perfectly solves the problem of agency costs. We will always be skeptical that lawyers are really acting in their clients’ best interest, as opposed to making problems more complicated than they need to be, extracting excessive fees, or substituting collateral personal interests for those of their clients.

93. Performance-based regulation is an example of a thoughtful proposal of sellers regulated to do regulators’ bidding—regulators set the ends (e.g., a particular rate of literacy by buyers) and sellers set the means. See Lauren E. Willis, *Performance-Based Consumer Law*, 82 U. CHI. L. REV. 1309 (2015).

94. Several scholars have noted that firms sometimes collect and process information about individual consumers that suggests they know the consumers better than the consumers know themselves. See, e.g., Oren Bar-Gill & Oliver Board, *Product Use Information and the Limits of Voluntary Disclosure*, 14 AM. L. & ECON. REV. 235 (2014); Emir Kamenica, Sendhil Mullainathan & Richard Thaler, *Helping Consumers Know Themselves*, 101 AM. ECON. REV. 417 (2011).

95. At least some will also be remedied by voluntary self-disclosure, but it is debatable how much. For the canonical works on why firms will voluntarily self-disclose, see, for example, Sanford Grossman, *The Informational Role of Warranties and Private Disclosure about Product Quality*, 24 J.L. & ECON. 461 (1981).

lenders are more sophisticated at processing information, even full disclosure is unlikely to fully remedy the asymmetry running in that direction. Although a debtor may well have better access to producing information about her ability and likelihood to repay in a formal sense, in practice she may not be able to produce and process that information.<sup>96</sup>

To the extent that we believe these markets may suffer more from consumers having private information, we may leave more of the locus of decision-making with the individual consumer. By contrast, to the extent we believe businesses have private information that consumers do not process, we may move more towards delegated regulations.<sup>97</sup> This is essentially the basis of much of fiduciary law. Lawyers, for example, exist in large part because we believe the thicket of information required to operate effectively in the courtroom is too hard to absorb—even if it is technically available and transparent—for the average individual.

Another key criterion is the degree of repeat choices in a market. Repeat choices may provide for useful learning and thus may be better retained by the consumer than delegated. This flows naturally from the idea of delegation as a response to the relative information advantages held by various parties. For instance, retirement savers make portfolio allocation choices rarely (if ever), while people make nutrition choices three or many more times per day.<sup>98</sup> This simple fact, even more than indeterminate views about which area involves either more complicated or more intimately personal choices, may influence the decision to delegate versus concentrate. Otherwise, policymakers are stuck answering difficult, subjective questions: Is nutrition more or less complicated than finance? Are you defined more by what you eat, or more by what you spend money on?

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96. One possible remedy is providing disclosure to the consumer based on similarly situated consumers, as advocated by Bar-Gill & Ferrari, *supra* note 24.

97. One might think the latter move—towards delegation—could also be suggested by situations in which a third party, not related to the transaction, is better at producing information than the consumer. For instance, let's say the government has information that would help consumers understand their likelihood of default. However, such situations do not clearly militate against a distributed system—with the obvious proof being the usefulness of disclosure in at least *some* instances (a distributed system, albeit less distributed than a system with no disclosure).

For example, it may be that Yelp or Zagat's is far superior (cheaper, more thorough, etc.) at producing information on restaurants than either a would-be diner or a prospective restaurant. That would not in turn suggest to any but the most indecisive among us that we should delegate the choice of all restaurant selections to Yelp or Zagat's.

98. Russell, *supra* note 26, at 72.

### B. Responding to Heterogeneous Circumstances: Tailoring Rules

If we believe payday borrowers primarily differ based on circumstances (as I argue in Part I.B), how would we design a regulation that separates payday borrowers along circumstances? One possible way would be to look at broader macroeconomic conditions in deciding whether to allow payday loans. For instance, there is good reason to believe empirical evidence that payday loans improve community welfare following a natural disaster: after a disaster, almost any project invested in will have a high expected return.<sup>99</sup> A circumstance-tailored rule would take advantage of this finding and allow payday loans following natural disasters, while restricting them at other times. A second would be to look at narrower conditions related to the particular borrower. What does the borrower plan to use the money for? If there was a tractable way to draw a consumption-investment line or an indulgence-emergency line, this could help distinguish borrowers—but might run uncomfortably close to paternalistic taste-tailoring.

This is just one example of a generalizable policy: tailored strategies. Tailoring rules have generally not been explicitly identified as an option by legal scholars.<sup>100</sup> A tailored strategy is anything that is personalized at the individual or group level. Tailoring can be applied to almost any imaginable type of policy—a nudge, disclosure, mandate, ban, or direct regulation. Most obviously, we can try to tailor rules around objective circumstances. Hypothetically, we can also try to tailor rules around taste—but there are reasons to suspect such systems would not truly respect tastes. Indeed, big data theoretically could make taste-based tailoring more possible: Netflix, for instance, provides movie suggestions based on taste-based inferences.

One of the few current regulations of day-trading is arguably tailored around circumstances. Under FINRA regulations concerning pattern day traders, traders must maintain at least \$25,000 equity in a margin account.<sup>101</sup> Pattern day traders include any investor who

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99. Morse, *supra* note 59.

100. Ariel Porat & Lior Jacob Strahilevitz, *Personalizing Default Rules and Disclosure with Big Data*, 112 MICH. L. REV. 1417, 1418, 1421 (2014) (“No scholars have previously offered a comprehensive theory of personalized default rules, nor has anyone explored in detail the feasibility of such an approach.”); Cass R. Sunstein, *Deciding by Default*, 162 U. PA. L. REV. 1, 48–56 (2013) (“The key advantage of such [personalized] rules is that they are likely to be more fine-grained and thus beneficial than ‘mass’ default rules.”).

101. FINRA RULE § 4210(f)(8)(B)(iv)a, FIN. INDUSTRY REG. AUTHORITY (2016), <https://www.finra.org/sites/default/files/Industry/p122203.pdf> [<https://web.archive.org/web/20180121182149/https://www.finra.org/sites/default/files/Industry/p122203.pdf>] (margin requirements for “Minimum Equity Requirement for Pattern Day Traders”).

executes four or more intraday trades (buying and selling the same security on the same trading day) in five business days. This serves as a very weak tailored test of investors' ability to withstand losses.<sup>102</sup> However, the pattern day trading rules are extremely weak and highly subject to evasion—with instructions no more than a quick Google search away for a trader who wants to avoid them. (The rule applies per account, not per individual.) More sophisticated means include options trading or registering with a prop trading firm.

Circumstance-based regulation could be improved: the pattern day trading rules could be tightened so they become harder to evade, and/or so they require a greater level of cushioning for an investor who is likely to lose money. Again, circumstance-based regulation may do little to improve separating along preferences: low-wealth sensation-seekers will be left out of the market, while high-wealth mistake-makers may be left in the market. However, circumstance-based regulations have the advantage of being tractable, familiar, and less disquieting than taste-based regulations.

As suggested by the Netflix example earlier, in principle, one could tailor around taste.<sup>103</sup> Taste-based regulations would include any approach that attempts to identify consumers' taste (for sensation versus for making money) and provide different policies for each (unrestricted trading for sensation-seekers, a ban for money-seekers). If we wanted to tailor the regulatory regime around taste for sensation, we would look for proxies that reveal taste. A clever study has suggested that there is evidence that both overconfidence and sensation-seeking exists among day-traders, by correlating day-trading activity in Finland, where brokerage data is public, with psychological measures of each: psychological tests administered to all

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102. Compare this with exemptions from securities registration for private placements, where investor wealth and income are also used as an (admittedly over- and under-inclusive) proxy for investor sophistication. Assuming the rules are meant to test an investor's ability to "fend for themselves," the private placement rule appears to be circumstance-tailoring, but on a different basis (not protection from loss, but protection from proclivity to error).

103. Note that tailored regulation, whether tailored around circumstance or taste, does not have to be applied on the demand side; it could also focus on the supply side as a fiduciary duty (or other heightened duty) on brokers or other firms that provide services to day-traders. Brokers could be required to monitor and justify account activity—even when fully customer-initiated (currently they must do so for broker-initiated trading, which cannot violate churning rules)—that involves a certain volume or pattern of trading activity. For instance, the justification could include some form of evidence that a client understood that day-traders fail to make money and chose to do so for sensation-seeking reasons. Such a rule could have the effect of driving day-trading out of the market, because brokers might not be willing to assume the potential liability. Alternatively, it might function as a performance-based regulation that let the market lead in solving the problem. In order to continue capturing valuable trading commissions and fees, brokers might develop innovative ways to sort clients into sensation-seekers and mistake-makers.

men by the Finnish Army and speeding tickets, which in Finland are tied to income.<sup>104</sup> A hypothetical—and perhaps fanciful, moral-hazard-inducing—rule could allow only those with a certain number of speeding tickets to day-trade. That rule should suggest both the plausibility of taste-tailoring as well as its limitations. As big data improves, we can imagine that there will be increasingly sophisticated proxies for sensation-seeking or other salient tastes. As another example, day-traders involved in the activity for thrill-seeking, rather than money-producing behavior, might be expected to trade more frequently but smaller amounts.<sup>105</sup>

Those scholars who have discussed tailoring have not distinguished between taste and circumstance tailoring. For example, Oren Bar-Gill has convincingly argued that a tailored disclosure for a credit card might give customers use-pattern information, customized on a customer-by-customer basis, that helped them better estimate their own individualized likelihood of default or of incurring certain fees.<sup>106</sup> Such disclosure would be circumstance-tailoring and might not be able to help with an additional part of the decision about credit cards—consumers' understanding of their taste for risk.

Elsewhere, Ariel Porat and Lior Strahilevitz have argued that big data can help us tailor more default rules and disclosure.<sup>107</sup> In particular, they note that data mining can accurately predict a number of aspects of personality type and that personalized strategies eliminate many of the downsides of disclosure.<sup>108</sup> Although they do not draw the taste-circumstance distinction directly, Porat and Strahilevitz's examples generally seem more like circumstance-based factors, despite the reference to personality type. For instance, the credit-scoring agency FICO has produced data that accurately predicts the likelihood an individual will regularly take a prescribed medication,<sup>109</sup> which could be used to tailor disclosures about the risks of medical interactions. Such tailoring, by reducing

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104. Grinblatt & Keloharju, *supra* note 76.

105. This has been suggested as a potential way of distinguishing between gamblers. SUSHIL BIKHCHANDANI, JACK HIRSHLEIFER & JOHN G. RILEY, *THE ANALYTICS OF UNCERTAINTY AND INFORMATION* 30–31 (2d ed. 2013).

106. Bar-Gill & Ferrari, *supra* note 24; *see also* Kamenica, Mullainathan & Thaler, *supra* note 94 (another proposal to require firms to inform consumers about their usage of products).

107. Porat & Strahilevitz, *supra* note 100.

108. *Id.* at 1450–53.

109. *See FICO Medication Adherence Score*, FICO, <http://www.fico.com/en/products/fico-medication-adherence-score> [<https://web.archive.org/web/20171206175255/http://www.fico.com/en/products/fico-medication-adherence-score>] (last visited Jan. 21, 2018).

the volume of unnecessary or irrelevant disclosures, could help improve “the signal-to-noise ratio of disclosures concerning products and services.”<sup>110</sup> For instance, we likely have fairly homogenous tastes for not wanting pharmaceutical contraindications that kill us, but variable circumstances that subject us to variable risks of such contraindications.

However, at times their proposals stray more towards taste-based tailoring. For instance, they note that default rules about unionization could be based on increasingly well-established data about correspondence between personality types and union membership: for instance, we could have unionization by default in workplaces with high numbers of extraverted and neurotic people.<sup>111</sup> Although he also does not draw the circumstance-taste distinction, Sunstein also seems to directly recognize the idea of tailoring around taste: “The general idea is that your default rules would track what would be best for ‘people like you.’”<sup>112</sup>

Taste-based tailoring raises troubling questions of big-data-as-destiny: You are what the statistical average of people like you are. This is frighteningly true in many ways (witness the accuracy of Netflix movie predictions) but false in others (witness its often amusing misfires). In addition, as my choice of the word “destiny” suggests, taste-based tailoring promotes a troubling sense that one cannot or should not change over time.<sup>113</sup> At the same time, taste-based tailoring offers more possibility of separating, because it recognizes and embraces the heterogeneity of preferences in a way that other approaches do not. The tradeoffs in tailoring—between improving matching, and the democratic concerns raised by directing people towards outcomes—raise complicated normative issues. Porat and Strahilevitz accept that there are reasons to be cautious but note that we already do this: “any default rule, impersonal or personalized, is statistical in nature because it assigns rights and duties to

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110. Porat & Strahilevitz, *supra* note 100, at 1422, 1444–47.

111. *Id.* at 1448–50.

112. Sunstein, *Deciding by Default*, *supra* note 100, at 55. Again, this is ambiguous depending on what “best for” means—an issue of indeterminacy in libertarian paternalism in general, that is best addressed by Russell Korobkin, *Libertarian Welfareism*, 97 CAL. L. REV. 1651 (2009).

113. Strahilevitz and Porat seem surprisingly untroubled by this: “We think that most choices about default rules are driven by personality characteristics and values, which longitudinal research shows to be rather stable once people reach adulthood.” Porat & Strahilevitz, *supra* note 100, at 1469. As an empirical claim for particular evaluative mechanisms over many domains, they may well be right, although the claim may still be uncomfortable for some. To be sure, they advocate that any such system be optional. More troubling, preference endogeneity means that it is possible that personality characteristics would become even stickier in a world with many such rules.

individuals according to averaged preferences of an entire population or a subset of people.”<sup>114</sup> If we are doing it anyway, so the argument goes, we might as well do it more accurately more of the time. Of course, it should be noted that—as the framework of this Article underscores—we do not always write societal rules around “averaged preferences.” Indeed, policies may function in ways other than pure majoritarian preference-satisfaction, including any penalty defaults and instances where we design rules around consumers at the tail end of a spectrum. Also, we may worry that certain types of parties are more likely to opt out of taste-based tailoring rules.

By contrast, circumstance-based tailoring raises fewer gut concerns. Many consumers would probably agree that, while their personal tastes ought to be left to them alone, outside authorities may have comparatively more expertise when it comes to circumstances. This may be particularly true for decisions that are made infrequently and that involve complicated decision calculus. For instance, a retirement planning tool can consider a variety of circumstances that would affect rational asset allocation decisions, such as the allocation of other assets owned by the consumer, or actuarial data about life and career trajectory. Such a service will have a harder time neutrally assessing a consumer’s personal taste for risk. However, circumstance-based approaches by definition do not account for taste and thus are limited in the amount of separation that they can provide. For instance, accredited-investor rules, that (roughly) prevent individuals with a net worth of less than \$1,000,000 or an annual income of less than \$200,000 from participating in private offerings, deter neither risk-averse wealthy investors who misperceive risks of private offerings nor risk-seeking poorer investors who understand and accept the risks of such offerings.<sup>115</sup>

The contract-law doctrine of unconscionability can theoretically serve as a circumstance-tailored approach. To be sure, successful unconscionability cases are rare, perhaps for good reason. But in theory, a court analyzing the procedural unconscionability prong might attempt to tailor the outcome to the consumer’s situation.<sup>116</sup> For instance, consumers who have an unusually high susceptibility

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114. *Id.* at 1461–2.

115. For an argument that we should rethink these rules, see Abe Cable, *Mad Money: Rethinking Private Placements*, 71 WASH. & LEE L. REV. 2253, 2280–81 (2014).

116. Of course, many question whether the procedural and substantive prongs of the unconscionability doctrine are in fact analytically different in the practice of most courts. See, e.g., 8 SAMUEL WILLISTON & RICHARD A. LORD, A TREATISE ON THE LAW OF CONTRACTS § 18.10 (4th ed. 2010) (“The distinction between procedural and substantive abuses, however, may become quite blurred.”).

to cognitive errors may be more likely to experience an “absence of meaningful choice.”<sup>117</sup> A recent (outlier) New Mexico case declared certain high-interest signature loans procedurally and substantively unconscionable,<sup>118</sup> stating directly that the 1,100% and up interest rates of these loans violated contract law, even though they did not violate the state’s usury cap.<sup>119</sup> The court’s reasoning—if not its outcome—suggests that consumers who understand and genuinely want a high interest loan might be stuck to it, while those who do not can escape on unconscionability grounds. Indeed, the court actually cited cognitive error—and the particular susceptibility of the low-income, low-credit plaintiffs to such error—in its reasoning.<sup>120</sup>

### C. Responding to Heterogeneous Tastes: Elicitation

Elicitation attempts to get consumers to provide more information about their tastes. Certain nudges—but not all nudges—can serve this role. Nudging is the latest darling of the academy. Nudges have a seductive appeal. As the term “libertarian paternalism” suggests, the solution that has something for everyone; it both regulates the market and lets the market decide. However, much of the discontent about nudging can be explained by nudgers’ failure to make the distinction between taste and circumstance.

Nudgers have not been clear about their purpose. Originally, Sunstein suggested that nudges were meant to allow individual consumers to dictate their ends and simply to improve the means by which they reach those ends.<sup>121</sup> At least two other conceptions of nudging are possible. One, which is not relevant to this Article, is a *realpolitik* conception: nudging may simply be a clever way of marketing slightly progressive policy interventions in a political climate where those interventions can otherwise not gain traction. A second

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117. *Williams v. Walker-Thomas Furniture Co.*, 350 F.2d 445, 450 (D.C. Cir. 1965).

118. *State ex rel. King v. B & B Inv. Grp., Inc.*, 329 P.3d 658, 676 (N.M. 2014). Consistent with the field of unconscionability caselaw generally, the few other courts that have discussed unconscionability in the context of payday loans have typically done so not with respect to interest rates, but with respect to mandatory arbitration provisions.

119. *Id.*

120. *Id.* at 667–68 & 673. Schwartz argues that in unconscionability inquiries, courts, like regulators, should default to an assumption that consumers are acting rationally. Schwartz, *Regulating for Rationality*, *supra* note 10, at 1410.

121. Sunstein has suggested that “[t]hough paternalists might have any number of views about what would make people’s lives go well, recall that I am interested in defending paternalists who respect choosers’ own views about their ends, and who seek to increase the likelihood that their decisions will promote those ends.” CASS R. SUNSTEIN, *WHY NUDGE?* 75 (2014).

conception is based on a broader view of welfarism—the policymaker as paternalist selects a nudge, on behalf of society at large, designed to maximize overall welfare, as opposed to an individual’s chosen view of her own welfare. Sunstein and others have been explicit that they do not mean this by “nudging,” though Russell Korobkin has intelligently argued that a welfarist conception provides the only viable, tractable approach.<sup>122</sup>

By nudging-as-elicitation, I mean something more like the ideal-type nudge than many of the real-world nudges that have actually been enacted. “Ideal nudges,” as I call them, work by changing the choice environment to force individuals to reveal more information about their tastes. Imagine that we move the fudge to the end of the cafeteria line, an approach which has been shown to reduce the intake of sugary foods.<sup>123</sup> Without restricting individuals’ ability to consume fudge, by making it slightly more difficult to obtain the fudge, we have asked consumers to tell us more about how badly they want fudge: we have elicited information on the intensity of their taste. Before implementing a nudge like hiding the fudge at the end of the cafeteria line or installing an alarm that dings for an unbuckled seatbelt, some portion of excessive-fudge-eaters and seatbelt-less drivers were simply lazy or misinformed as to the relevant risks, meaning that their observed signals (eating fudge and not buckling up) were unreliable indicators of their preferences. After the nudge, we can be more confident that the observed behavior corresponds to an underlying preference—innate seatbelt-liking types are better separated in their actions from seatbelt-disliking types, who are willing to deal with the bell.

But not all nudges operate in the same way. Some nudges simply attempt to overcome inertia: they recognize that all defaults are “sticky”—enough consumers will not change whatever choice is given them by default—and take advantage of this. When procrastination or other decision-avoidant behaviors are at work in a particular domain, changing the choice architecture may be highly effective. For instance, to the extent we think retirement savers simply do not pay attention to retirement plan related forms when they begin employment but would in fact want to save money if confronted with a choice, we can change framing to overcome inertia.

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122. See Korobkin, *supra* note 112. That approach can also better explain some of the nudges recently developed in the retirement savings context, which is a fundamentally paternalistic system by dint of it being based on tax incentives to get individuals to save money they otherwise would not. See Russell, *supra* note 26 at 43.

123. See, e.g., Paul Rozin et al., *Nudge to Nobesity I: Minor Changes in Accessibility Decrease Food Intake*, 6 JUDGMENT & DECISION MAKING 323 (2011) <http://www.sas.upenn.edu/~baron/journal/11/11213/jdm11213.pdf>.

Indeed, strong increases in savings have been obtained by switching from an opt-in to an opt-out regime for employees' decisions to contribute to their 401(k) retirement plans.<sup>124</sup> "Active choosing" is perhaps the purest example of an inertia-overcoming nudge: a regime that forces the individual to make a choice and allows no default option. For instance, rather than an opt-in or opt-out regime an employer could require you to make an affirmative decision—yes or no—on retirement savings on your first day of work.<sup>125</sup>

By contrast, as I have argued elsewhere, other nudges have less of a connection to overcoming inertia, and function more as an attempt to shape substantive outcomes.<sup>126</sup> These nudges may be particularly subject to criticism because they are especially susceptible to counter-nudging, and bear little or no connection to the cognitive flaws they seek to remedy. For instance, nudges that direct those retirement dollars into target-date funds by default function as a weak substantive mandate, rather than directly grappling with the cognitive challenges (if any) that savers face in allocating those funds.<sup>127</sup>

Nudges may be quite sticky—perhaps too sticky. As some have argued, a sticky nudge at some level functions as a mandate that destroys information about taste,<sup>128</sup> even if in formal appearance it maintains the right of choice. Problematically for nudgers, we often can only evaluate the effectiveness of nudging by *assuming* a particular goal and measuring how many consumers get to that post-nudge goal. (Even the term nudging refers to a spectrum. As an absurd illustration, criminal penalties are in some sense a "nudge," in that

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124. See Russell, *supra* note 26, at 50–53; see, e.g., Brigitte Madrian & Dennis Shea, *The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior*, 116 Q.J. ECON. 1149 (2001) (providing a representative study). Compare Bubb & Pildes, *supra* note 13, 1621–23 (providing a contrary perspective by noting that effects are not evenly distributed: those who previously saved at a percentage higher than the new default rate may actually save at a lower rate, as a result of the stickiness of defaults) with Russell, *supra* note 26, at 52 (raising questions about the evidence, as well as the possibility that this may be an acceptable tradeoff depending on the distributional requirements of policymakers).

125. Gabriel Carroll et al., *Optimal Defaults and Active Decisions*, 124 Q.J. ECON. 1639, 1639 (2009).

126. This, of course, relates to a core problem in applying behavioral economics research to law: much of the research, and almost all of the policy analysis, depends on knowing the "right" result. See generally Kelman, *Behavioral Economics as Part of a Rhetorical Duet*, *supra* note 13; MacCoun, *supra* note 13. Because of this, policymakers will often want to keep nudging until our nudge resembles a near-mandate.

127. Russell, *supra* note 26, at 71–73 (arguing that many nudges substitute a weak means of favoring a substantive preference, which creates a gap limiting the likelihood of the particular nudging venture to succeed).

128. See, e.g., Omri Ben-Shahar & John A.E. Pottow, *On the Stickiness of Default Rules*, 33 FLA. ST. U. L. REV. 651, 670 (2006); Willis, *When Nudges Fail*, *supra* note 42, at 1157–59.

they preserve at least some conception of choice: you can commit the crime as long as you are willing to do the time or pay the fine.) Sticky nudges may also endogenously reshape preferences. For instance, is the large-type mileage data on new-car pricing stickers simply aiding consumers by disclosing a data point they previously wanted (whether because of its impact on annual fuel costs or because of personal preferences about reducing environmental externalities) and had trouble locating, or is the disclosures' high salience instead functioning to convince some consumers that they *should* care about mileage?

By contrast, nudges may also be too slippery.<sup>129</sup> Most troublingly, the failure of know-thyself interventions through slippage may be systematically concentrated among those for whom the interventions are most important. Domains with conflicts of interest may result in counter-nudges by sellers, and those counter-nudges may work best on the most vulnerable consumers. There is some evidence that this is happening in retirement portfolios.<sup>130</sup> Evidence strongly suggests that such a counter-nudge effectively put the worst debit card over-drafters—those who spent the most fees on these high-interest loans—back into the overdraft system.<sup>131</sup>

Slippery and sticky nudges may work best on the consumer who holds median preferences but have perverse effects on the tail-end consumer—someone with idiosyncratic tastes. Law is often directed towards averages for good reasons—leaving some people behind may be inevitable. And under some criteria of efficiency, it may be the preferable substantive outcome if treating extreme cases produces inefficiency overall. But law at other times chooses to focus on being protective of the more vulnerable—consider the eggshell plaintiff rule, strict products liability, or product regulation that has a very low threshold for high-risk, low-probability events (e.g., child toys)—even though these doctrines may sacrifice certain metrics of efficiency.

Day-trading provides a clear example. Throughout, I take as a given that day-trading is not a financially winning strategy<sup>132</sup> but

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129. See Willis, *When Nudges Fail*, *supra* note 42.

130. Russell, *supra* note 26, at 62–65.

131. Willis, *When Nudges Fail*, *supra* note 42, at 1185–1200 (describing the tools that make policy default slippery).

132. See *supra* Part I.C. A different article could consider the role of uncertainty in policymaking decisions. Some advocates of nudges count this as an argument for nudging; nudges involve a certain degree of humility by policy-makers. But all policymaking proceeds with some degree of uncertainty. Here, the degree of certainty here seems fairly high, given the limits of the claim (commissions and fees will swamp any plausible gains over-active trading at some level of activity) and the strength of the theoretical and empirical evidence in support of it.

that we still want to preserve the option for some rather than ban it outright.<sup>133</sup> I also assume that externalities are not a major issue in day-trading,<sup>134</sup> And that learning is not sufficient to help this market.<sup>135</sup>

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133. An alternative policy would simply ban day-trading by individual investors (which would have line drawing problems). This option flies in the face of the general notion that securities laws are based on disclosure and anti-fraud provisions, not direct investor regulation. That idea has increasingly come under fire as scholars and regulators worry that those approaches may do little for the average unsophisticated investor. *See, e.g.*, Tom C.W. Lin, *Reasonable Investor(s)*, 95 B.U. L. REV. 461, 469–73 (2015). Moreover, day-trading presents a particularly compelling case for more wholesale regulation because market forces provide little protection—in fact, market forces exacerbate the problem (because of the incentives on third parties to drive up fees). By contrast, in regular stock selection contexts, to the extent the market is efficient, individual investors only bear non-diversification risk.

Another option in this category would be caps on commissions—lowering the fees that are directly responsible for most of the net loss to individual investors. This might drive many brokers out of the market of providing such a service. Alternatively, it might have negative effects overall: it might increase the prevalence of wealth-decreasing day-trading, while perhaps lowering the quality of trade execution, which is hard for investors to observe and may lead to further wealth decreasing effects. Moreover, in general, price caps may be counter-productive as consumer protection devices, because they reduce consumer incentives to acquire information about pricing. *See* Armstrong, *supra* note 40, at 273–80.

A third option would be increasing commissions, perhaps with a tax on financial transactions. Such a Tobin tax been proposed by U.S. legislators several times, most recently in 2013 and has had support from economists including Keynes, James Tobin, Joseph Stiglitz, and Lawrence Summers. S. 410, 113th Cong. (2013); H.R. 880, 113th Cong. (2013); LEANARD E. BERMAN ET AL., TAX POLICY CTR., FINANCIAL TRANSACTION TAXES IN THEORY AND PRACTICE 2 (2015). The United Kingdom currently has such a tax, called the stamp tax. Stamp Duty Reserve Tax Regulations 1986, SI 1986/1711 (Eng.).

134. On externalities, factors cut both ways. On the one hand, the day-trader is potentially creating negative externalities: he is depleting the resources that are available to feed his family, or he is putting himself at higher risk for mental health conditions or even suicide, which imposes costs on society. But he's also creating positive externalities: providing fools for institutional investors to profit off of, which helps increase market efficiency by providing rewards to those who induce efficiency. For an early exploration of the role of uninformed traders in providing market efficiency, see Sanford J. Grossman & Joseph E. Stiglitz, *Information and Competitive Price Systems*, 66 AM. ECON. REV. 246 (1976). These are all plausible accounts, but they are so indeterminate that they cannot dictate a single avenue of policymaking. An advantage, however, is that this assessment may be more deterministic than trying to get at people's true preferences. *See generally* Korobkin, *supra* note 112.

135. Why would leaving the market alone, allowing day traders to learn, not be sufficient? For one, learning may be costly. The evidence in day-trading suggests that losing traders simply seem not to learn. Brad M. Barber et al., *Do Day Traders Rationally Learn About Their Ability?* 2 (Oct. 2017) (unpublished manuscript), <https://faculty.haas.berkeley.edu/odean/papers/Day%20Traders/Day%20Trading%20and%20Learning%20110217.pdf> (“We document that the aggregate performance of day traders is negative, that the vast majority of day traders are unprofitable, and many persist despite an extensive experience of losses.”). Of course, that might be evidence for a sensation-based theory of why people trade. Or it might suggest there is nothing to learn, and learning requires a desirable trait worth learning about—for instance, if some people were skilled at day-trading while others were lousy at it. However, individual day-trading is so costly, and flies so in the face of almost any reasonable theory of financial markets, that there may be simply nothing to learn. Compare day-trading to homeopaths: there may be nothing to learn about homeopathic quality, because the market is simply a market for quackery to begin with.

Is it plausible that disclosure will improve day-trading decisions? Currently, the SEC and FINRA engage in some limited investor education, warning day-traders on their web site that day-trading is “highly risky” and not appropriate for most investors. Some individual brokers provide warnings.<sup>136</sup> For instance, the online broker Interactive Brokers writes in its disclosures:

Day trading can be extremely risky. Day trading generally is not appropriate for someone of limited resources and limited investment or trading experience and low risk tolerance. You should be prepared to lose all of the funds that you use for day trading. In particular, you should not fund day-trading activities with retirement savings, student loans, second mortgages, emergency funds, funds set aside for purposes such as education or home ownership, or funds required to meet your living expenses. Further, certain evidence indicates that an investment of less than \$50,000 will significantly impair the ability of a day trader to make a profit. Of course, an investment of \$50,000 or more will in no way guarantee success.<sup>137</sup>

If we believe that day-traders are heterogeneous with respect to their tastes, such an intervention (1) may do very little and more importantly, (2) may fail in a way with problematic distributional consequences, in that the failure may be especially concentrated among those who need regulation the most. The problems with disclosure as a practical strategy are widely known, as are the responses.<sup>138</sup> The empirical evidence on disclosure in many markets

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136. *Your Dollars at Risk*, SEC. & EXCHANGE COMMISSION (Apr. 20, 2005) <http://www.sec.gov/investor/pubs/daytips.htm>.

137. INTERACTIVE BROKERS, DAY TRADING RISK DISCLOSURE STATEMENT I (2009), [https://gdcdyn.interactivebrokers.com/Universal/servlet/Registration\\_v2.formSampleView?ad=day\\_trading\\_risk\\_disclosure.jsp](https://gdcdyn.interactivebrokers.com/Universal/servlet/Registration_v2.formSampleView?ad=day_trading_risk_disclosure.jsp).

138. See OMRI BEN-SHAHAR & CARL E. SCHNEIDER, MORE THAN YOU WANTED TO KNOW: THE FAILURE OF MANDATED DISCLOSURE (2014) (the definitive source on this subject); see also Wilkinson-Ryan, *supra* note 38. For responses, see M. Ryan Calo, *Against Notice Skepticism in Privacy (and Elsewhere)*, 87 NOTRE DAME L. REV. 1027, 1047 (2012); Cole, *supra* note 37; Schwartz, *How Much Irrationality Does the Market Permit?*, *supra* note 36; Schwartz & Wilde, *supra* note 37.

A thoughtful earlier account is Howard Beales, Richard Craswell & Steven Salop, *The Efficient Regulation of Consumer Information*, 24 J.L. & ECON. 491, 528–30 (1981) (noting the second-order problems of how consumers and the market respond to disclosure requirements).

Consider the “name-and-shame” disclosure requirements in securities laws, such as the conflict minerals rule. 15 U.S.C. § 78m(p)(1)(A) (2012). In reality, the disclosures may not function effectively. Jeff Schwartz, *The Conflict Minerals Experiment*, 6 HARV. BUS. L. REV. 129, 132 (2016).

is not good.<sup>139</sup> Truth-in-lending, for instance, has resulted in ballooning disclosures that few consumers read or understand; as one author put it, TILA “succeeded in making consumers increasingly aware, but it has not managed to explain to them what it is they have been made increasingly aware of.”<sup>140</sup> Likewise, there is little evidence that financial literacy education helps improve consumer decision making.<sup>141</sup> Such education may not only be ineffective, but also normatively undesirable because of the burdens it imposes on individuals.<sup>142</sup>

This may be because disclosure does nothing to help individuals with idiosyncratic tastes separate themselves from others in their choices. For instance, if day traders suffer from systematic overconfidence, as empirical evidence suggests,<sup>143</sup> they seem unlikely to heed warnings on the assumption that they are smarter than the people to whom the warnings apply. But that is the group we wanted to eliminate from day-trading, leaving only the sensation-seekers. In addition, the Interactive Brokers warning strongly suggests there *is* money to be made for the right people—if an investment less than \$50,000 will impair traders from making profits, does that not suggest an investment more than \$50,000 will lead to profits? Indeed, the final two sentences of Interactive Brokers’ warning could, despite the disclaimer, be seen as an argument for putting *more*, rather than fewer, funds at risk. In this sense, the warnings seem to conflate risk, which carries reward, with uncertainty, which does not (or, more precisely, carries the certainty of high brokerage fees).<sup>144</sup>

Moreover, to the extent we do not substantially regulate entities that attempt to sell day-trading services, there are strong incentives for counter-nudges and marketing campaigns that overwhelm any individual warnings. Brokerage firms earn lucrative commissions

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139. For a comprehensive literature review of empirical evidence on disclosure, see Omri Ben-Shahar & Carl E. Schneider, *The Failure of Mandated Disclosure*, 159 U. PA. L. REV. 647, 665–79 (2011). For a useful response, arguing that we judge disclosure on the wrong basis, see Richard Craswell, *Static Versus Dynamic Disclosures and How Not to Judge Their Success or Failure*, 88 WASH. L. REV. 333 (2013).

140. Edward L. Rubin, *Legislative Methodology: Some Lessons from the Truth-in-Lending Act*, 80 GEO. L.J. 233, 236 (1991); see also Ben-Shahar & Schneider, *supra* note 139, at 666 & n.101 (citing Rubin, *supra*).

141. Lauren E. Willis, *Against Financial-Literacy Education*, 94 IOWA L. REV. 197, 228 (2008).

142. See Lauren E. Willis, *The Financial Education Fallacy*, 101 AM. ECON. REV. 429 (2011) (describing the negative effects of financial education).

143. See, e.g., Brad M. Barber & Terrance Odeon, *Boys Will Be Boys: Gender, Overconfidence, and Common Stock Investment*, 116 Q.J. ECON. 261, 262–64 (2001); Grinblatt & Keloharju, *supra* note 76, at 1.

144. See FRANK KNIGHT, *RISK, UNCERTAINTY, AND PROFIT* 19–20 (1921) (making the preeminent argument for the risk/uncertainty distinction).

from day-traders and, so long as day-traders are making the choices themselves, are perfectly allowed to profit off such commissions with no warnings.<sup>145</sup> Brokers are subject to anti-churning rules to the extent they advise clients on the use of funds in their account,<sup>146</sup> in which case their recommendations they are held to FINRA's suitability standard.<sup>147</sup> Many others make money marketing seminars, educational websites, and newsletters to day-traders. Still others make money by operating prop trading floors that allow day-traders to independently make their own trades. A simple Google query provides a representative example of how firms try to trick people into thinking that day-trading is a get-rich strategy; a recent query for "daytrading" on Google produced an ad that reads "Strategies for Beginners: +\$222,244.91 in 1 Year Day Trading. Our Students Are Profitable. Ready To Step Up The Plate?"<sup>148</sup> More problematically, many of these ads seem to target lower-income consumers—i.e., not a population of retired Wall Street moguls.

#### CONCLUSION

Policy debates over consumer corrective legislation have become mired in unproductive discussions of how best to promote an unspecified, vague notion of autonomy. This Article has argued that it is more productive to focus first on judgments about the relevant preferences in a market and whether those preferences diverge between individuals more because of policy-relevant tastes or policy-relevant preferences. If they are taste-based, policy should elicit more information from consumers about their tastes. If they are circumstance-based, policy should tailor itself around those circumstances.

The difficulty of precisely distinguishing between the taste and circumstance line suggests the need for further research on the sources of preferences. It also reminds us that preference satisfaction is always a problematic goal. It is not the only possible goal for

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145. Despite calls for reforms, brokers remain subject to lax standards. See, e.g., Ben Edwards & Christine Lazaro, *The Fragmented Regulation of Investment Advice: A Call to Harmonization*, 4 MICH. BUS. & ENTREPRENEURIAL L. REV. 47 (2014).

146. 17 C.F.R. § 240.15c1-7(a) (2017) (defining as manipulative, deceptive or fraudulent behavior by a broker which results in transaction that "are excessive in . . . frequency in view of the financial resources and character of such account").

147. The suitability standard is a lower standard than fiduciary duties, which many have advocated changing. Edwards & Lazaro, *supra* note 145, at 66–67. However, it is not relevant to self-directed day-trading.

148. "Daytrading" Search Results, GOOGLE, <https://www.google.com> (search results from May 26, 2017) (screenshot on file with author).

policy; policy could be primarily based on other judgments about what is good for society. But if satisfying preferences remains our goal, scholars cannot afford to continue dodging the ambiguities of preferences.